

NATIONAL AUDIT OF THE INFORMAL ECONOMY



Acknowledgements

The fieldwork for this project was carried out by an extensive team mobilised by the Department for Community Development and Religion (DFCDR) working with the Consultative Implementation and Monitoring Council (CIMC) during March-October 2018. The project received additional support from UN Women which contracted FOCUS Pty Ltd to oversee development of the audit methodology and analysis of results, and which also commissioned Digicel to undertake a phone survey that would validate key findings. Additional funding support was provided by the European Union.

This has been a complex project, involving huge personal and corporate commitments as well as impressive interagency teamwork. It reflects a combined commitment to ensure that the findings of the audit accurately incorporate the collective voices of the workers themselves. We trust that the results of this work will be useful to the Government of Papua New Guinea in developing its policy response, and that it will ultimately benefit the informal economy workers (around 8,000 of them) who participated in the audit, as well as all of those individuals and families who are working in Papua New Guinea's informal economy.

Dr Jane Stanley, Director
FOCUS Pty Ltd



CONTENTS

1. Summary of Findings	4
2. The Global Context	11
3. The National Context	17
4. Research Methodology	22
5. How big is the informal economy?	25
6. What are the component activities?	28
7. Who is involved in these activities?	36
8. What resources do these activities rely on?	41
9. What are the outcomes for households and communities?.....	42
10. What are the barriers to improved productivity and wellbeing?	47
11. How can the productivity of the informal economy be improved?	49
12. What representative structures exist and how could these be more effective?	50
13. What are the factors affecting transition into the formal economy?.....	51
14. Reporting the findings against the Sustainable Development Goals.....	53
15. Policy implications for the Medium Term Development Plan (MTDP III)	57
16. Bibliography	63
Endnotes	82
Annexe 1: Fieldwork Manual.....	67
Annexe 2: Phone Survey Methodology.....	79

LIST OF FIGURES

Figure 1: Proportion of interviewees in each survey locality	23
Figure 2: Female employment in the informal economy (phone survey).....	27
Figure 3: Male employment in the informal economy (phone survey).....	27
Figure 4: Women's primary work activities in the informal economy (phone survey)	30
Figure 5: Men's primary work activities in the informal economy (phone survey)	30
Figure 6: Main items sold by female workers in the informal economy (phone survey)	34
Figure 7: Main items sold by male workers in the informal economy (phone survey)	34
Figure 8: Age range of female and male workers in the informal economy (all localities)	37
Figure 9: Education levels of female workers (phone survey)	38
Figure 10: Education levels of male workers (phone survey)	38
Figure 11: Locality distribution of all people identified with a disability	39
Figure 12: Typical weekly spending pattern for female and male workers (PNGK)	44
Figure 13: Workers in the informal economy who save money regularly (phone survey)	45
Figure 14: Places where workers save their money (phone survey).....	45
Figure 15: Proportion of workers in the informal economy who have previously asked for help (phone survey)	50
Figure 16: Workers who are interested in making a transition into the formal economy	52

1. SUMMARY OF FINDINGS

Background to the audit

Global understanding of the informal economy has undergone some shifts over the past few decades, particularly in recent years. The New Urban Agenda launched by UN Habitat in 2017 provides additional impetus for new thinking, particularly urging governments to work with rather than against the participants in the informal economy, and the Sustainable Development Goals provide a framework for monitoring the effectiveness of government action. Together these initiatives are now identified as Agenda 2030 with a key development goal that "No-one is left behind". Papua New Guinea is in a unique position to show leadership in this regard, as its constitution, legal and policy framework already provide the foundation for transformative approaches to social and economic development, and its Medium Term Development Plan III uses the Sustainable Development Goals as a tool for setting targets and measuring achievements.

Building on this foundation, there is much to be done in gaining a fuller understanding of the informal economy: who are the participants, what activities are they involved in, what resources do they use, what goods and services do they produce, what are the outcomes for the wellbeing of their families and communities, what is their contribution to local and regional economies, what are the barriers to formalisation of informal enterprises, as well as whether the current bureaucratic and regulatory frameworks for the formal economy are appropriate at all in a developing economy.

In the first instance, and for the purposes of this audit, the focus is only on the cash economy. This is concentrated in urban areas as well as localities that have an urban-rural interface, including business activity nodes such as mining areas and commercial plantations.



The audit has two major components.

- The first is based on face to face interviews carried out with informal economy workers in six provincial regions which are considered representative of the country as a whole. Within each survey locality there have been randomised surveys conducted in a sample of major workplaces (markets, highways, around offices and institutions, mining camps, plantations) as well as house to house surveys within selected samples of residential streets.
- The second component is a randomised phone survey of workers across three of the sample regions (NCD, Morobe and Gulf provinces). The main purpose of the phone survey has been to validate that key findings from the more detailed field survey are representative of the broader population.

The research has involved 1,801 face to face interviews with informal economy workers in the six sample survey localities as well as 6,106 phone interviews. These workers were identified through collecting data on 2,247 individuals through the fieldwork, some of whom were additional workers in the informal economy, and 6,750 individuals through the phone survey. Information was also collected on around 3,500 unpaid helpers to workers in the informal economy. Taking this into account, it is estimated that the audit provides data on around 3% of all those involved in the informal economy across the nation.

Audit results

How big is the informal economy?

This can be looked at in a number of ways. Looking at the average turnover and the number of enterprises involved, it seems likely that the informal economy is currently worth around PNGK 12 billion per year, around 20% of Gross National Development Product (GNDP). However if the mining sector is taken out of the calculations it is closer to 30%. Then if the agricultural produce that is currently excluded from the cash economy is added, the informal economy is worth about 60% of non-resource GNDP.

It is also possible to measure the size of the informal economy in terms of the number of workers. Based on the audit findings it seems that over 80% of working adults are employed in the informal economy. However the audit shows that even those who have wage employment in the formal sector are heavily involved in the informal economy after hours, so it likely that the informal economy provides around 90% of incomes to local households.

The informal economy is also vitally important to local communities as it provides affordable and accessible services. Its role in affordable food distribution is critical, and it provides local communities with food security.

Some of the detailed financial analysis carried out among market vendors has shown how trading converts agricultural produce into cash, and then circulates this through the community, as a building block for local economies. Often the local fresh produce markets are the biggest businesses in town, in terms of their annual turnover.

What are the component activities?

The vast majority of workers are vendors. Some vendors are also primary producers, though more and more they are involved in re-selling goods that they buy from producers or wholesalers. This represents a much greater concentration of activity around production and distribution of food than that seen in many other countries. It is likely that Papua New Guinea's impressive 10,000 year agricultural heritage has produced this focus.

While this concentration limits the way the economy currently operates, it also presents great opportunities for future economic growth through diversification.

It is notable that a large proportion of vendors sell betel nut, sometimes in combination with other goods. Betel nut presents a management challenge within PNG's urban areas, arising from dental health as well as broader environmental health considerations. However removal of this form of trade would obviously create great economic hardship. Similar comments may be made about the common sale of cigarettes and tobacco, often as a secondary item on vendors' stalls. Diversifying work activities to reduce reliance on sale of betel nut and tobacco products could promote better environmental and personal health.

Many workers in the informal or formal economy have more than one source of income, and apart from trade there is involvement in backyard food production as well as letting out rooms. A surprising finding from the research to date is the extent of informal money lending carried out by informal economy workers, involving up to 23% of workers (in Port Moresby) as a main or secondary activity. This involves some lending to formal sector workers in between pay days. The interest rates are very high - commonly 50% per fortnight - but there are also huge risks that debts will not be repaid.

Those in the informal economy work long hours, commonly more than 45 hours per week.

Who is involved?

The biggest change seen since 2001 is that many more men are getting involved. The informal economy used to be heavily dominated by women, for example they accounted for around 85% of vendors in markets in previous years. It seems that men have observed how women have managed to make a living this way and have decided to join in, particularly in the more urbanised localities. Another emerging trend is that much of the business activity seems to be increasingly extended to family groups rather than single workers, with each enterprise involving 1-2 unpaid “helpers” on average.

The audit findings about the age of workers in the informal economy shows a much older cohort than that identified in the 2001 baseline study, with over half of men and women being over the age of 35. The proportion of young people (under 25) was around 15%, compared to 25% in 2001. The missing cohort amongst workers in 2018 tends to be young people, though some may be involved as unpaid helpers. The high proportion of unemployed young men was reported as a problem in most of the survey localities. This presents a number of challenges as well as future opportunities for the informal economy.

The audit reveals that workers in the informal economy tend to be much better educated than was the case in 2001, and compared with the population average. The proportion of workers with no education was less than 25% compared with 32% in 2001. The exception was in Jiwaka/Western Highland where 36% of men and women reported having no school education. The proportion of workers with post primary education (ie beyond Grade 6) was over 30% compared with 24% in 2001. Male workers appear to have received slightly more education than women in most of the survey locations.

The informal economy accommodates many vulnerable people including women with young children, elderly people and disabled people, all of whom may be excluded from the formal economy and who need some flexibility about where they work and their working hours. However the downsides are often poor working conditions. The audit identified a surprisingly high proportion of workers over the age of 65, particularly outside the main urban areas, and with a particularly high cohort in East Sepik (over 10%). This may result from out-migration of younger people from these localities. The proportion of workers reported as having a disability varied considerably between the surveyed localities, but was indicated as 20% in the larger phone sample. The rate of disability was shockingly high (27%) amongst both female and male workers in the Highlands and amongst some of the Highlanders who had migrated to other localities. This appears to reflect a very high level of domestic violence affecting women, and violent conflict between men, with injuries leading to disability, and sometimes motivating migration out of the areas of conflict.

The ethnic composition of workers in the informal economy is mixed in Port Moresby, apparently as a result of past migration movements as well as much more recent migration from the Highlands into the larger urban centres, arising from the recent earthquakes as well as tribal fighting. Ethnic migration is also evident into areas of commercial plantation agriculture.

Over 20% of workers in the informal economy have previously worked in the formal economy. The movement from the formal into the informal economy seems to be largely a matter of choice, with the attraction being better potential earnings as well as more regular (daily) earnings. The phone survey indicates that many workers in the formal economy also work in the informal economy to earn additional income.

When workers are asked what had led them to undertake their present type of work activity, most indicate that they see it as the best way to make money and help their families survive. Some workers, particularly women, are motivated by the need to raise money for their children’s education. Others note that they are working in their chosen field because it “ran in the family”.

What resources are used?

Another surprising result is that a major part of informal economy activity takes place in residential areas: within the house or the backyard, on in the street. The exception is in East New Britain where local regulations restrict this activity, and where coincidentally recorded incomes are lowest. The economic activity that takes place within residential areas is important for economic survival and has implications for settlement planning as well as regulation.

Policy makers have often assumed that markets, which present the most visible face of the informal economy, are the dominant workplace. The audit findings suggest that markets only account for around 10% of workers in the major urban areas, though they are more dominant in most other localities. Comments suggest that more vendors would like to work in markets, where they consider they could earn more, but many markets are already crowded beyond capacity. This is limiting their economic performance as well as the wellbeing of the workers.

Setting up in business has required workers to invest around PNGK 150-300 on average, but some types of enterprise require a much greater investment, particularly trade stores and live poultry businesses. Men are more likely to be involved in the enterprises with large start-up capital. Most workers appear to save up the necessary capital to start or expand their businesses rather than taking out loans – in fact they are more often lenders of money within their communities rather than borrowers.

The cost of doing business seems to be increasing over time as transport and fuel costs rise and higher fees are charged for some workspaces. Access to wholesale goods is also becoming increasingly chaotic in the larger urban centres, with resulting instability as well as escalation in pricing.



What are the outcomes for households?

Net profits appear to be in the region of PNGK 300-500 per week which is more than double the minimum wage in the formal sector. However while the earnings from individual enterprises appear to have increased, the involvement of “unpaid helpers” means that these incomes are spread over a number of people. Men working in markets appear to earn more than women, but this does not apply to workers in residential areas.

Prior studies from 2010 indicated that women and men had quite different spending patterns but the new audit data suggests little difference. Less than half of net earnings are spent by men and women on essentials such as food and household goods, around PNGK 100-150 per week. The data suggest that female and male workers have an increasing amount of discretionary income compared with the 2010 surveys.

Both men and women spend regular amounts on their children’s education. They spend minimal amounts on clothing, and even less on gambling. Men spend more than women on “entertainment”. Mobile phones appear to be a major expense for many workers, and around 10% of earnings is typically given to relatives. Other funds can sometimes be applied to commercial money lending.

A majority of female and male workers make regular savings, often to provide for unforeseen emergencies (a “rainy day”) or customary obligations (for example funerals, bride price). More women than men put funds aside for their children’s education. More men than women save towards making business investments. Money is generally saved in the home rather than in a bank, which may leave workers open to demands from family or vulnerable to theft. This practice also removes these funds from productive use, as no interest is earned.

What are the barriers to improved productivity and wellbeing

Workers were asked about the difficulties they face in the workplace. The dominant issues are identified as follows, in their order of importance.

- *Managing credit:* money lenders are worried that they might not be repaid. In addition it appears that many vendors feel obliged to sell goods on credit, with similar difficulties. This issue causes much tension and sometimes violence between individuals, families and ethnic groups.
- *Business competition:* the heavy concentration of workers within a limited range of work activity limits their earning ability, as they compete for a finite number of customers. It should be noted that a large proportion of customers are themselves workers in the informal economy.
- *Physical infrastructure:* the priorities are shelter, more space, protection from flooding, storage, security fencing, water and sanitation. However it is clear that in some areas where such improvements have been made, the physical improvements have been accompanied by a management regime that restricts economic productivity, leaving workers worse off than before.
- *Law and order:* damage and disturbance by men who are drunk, often young men and also men with a management role, is a matter of great concern. Other law and order issues include theft and inter-ethnic fighting. In some localities there are also reports of aggression, financial extortion and destruction of property by police or others with regulatory enforcement roles.
- *Transport infrastructure:* there are concerns about the condition of transport infrastructure, transport costs, the safety and cost of transport services, as well as a lack of transport services in some areas. This extends to land and water transport. Lack of transport leads to a situation where some workers have to walk for several hours at a time carrying heavy loads.
- *Financial and person pressures:* lack of access to financial services is a constraint on business expansion. Meeting social and customary obligations can be a drain on workers’ resources, and women are particularly vulnerable to demands being made for them to part with their earnings. Some women workers bemoan a lack of support from family members, and an unfair workload associated with care of children.



The other dominant issues are chaotic and exploitive wholesaling arrangements, particularly in larger urban centres, as well as the need for better information and training services.

How can the productivity of the informal economy be improved?

The issues that workers want to see addressed are as follows.

- *Marketing infrastructure:* workers would like more space and better facilities.
- *Provision of financial and other support:* there are requests that the Government do more for workers in the informal economy, recognising the economic contribution they make, and some workers want better access to financial services.
- *Improved law and order:* improving the relationship between workers in the informal economy and those responsible for enforcing laws and regulations is a priority, so that there is mutual respect, producing a more helpful response to the needs of workers.
- *Transport infrastructure:* roads and bridges as well as facilities for water craft need to be improved and maintained to enable transport of goods and materials, and there is a need for safe and affordable transport services that can be used by workers.

Some workers also see a need for training, easing the process for business registration, access to land for business use, regulatory control over the supply chain for some products, protection of the authenticity of craft production, better access to housing, and improved mobile phone services.

What representative structures exist and how can they become more effective?

Very few workers belong to a representative association that can advocate for them in relation to workplace problems. The main sources of help are friends and relatives or community leaders, but it is apparent that such assistance is rarely sought, perhaps because of perceptions that this would in any case be ineffective.

What are the factors affecting the transition into the formal economy?

There is a surprisingly high level of interest in becoming a registered small business, involving a majority of workers. It seems that this is motivated by potential access to financial services as well as community recognition and respect. However some workers who have tried to register have found the process impossible, and even if they had succeeded it is likely that they would not have been able to comply with regulatory requirements. Until workers can provide documentary evidence about the money they spend in doing business, the earnings they receive from customers, and the number of people contributing to these earnings, any encouragement of formalisation would appear to be setting workers up for failure.

Key policy challenges

PNG’s Medium Term Development Plan (MTDP III) enables the findings from the audit to be assessed against the global Sustainable Development Goals, and provides a policy and implementation framework for responding to these findings.

The appropriate strategic response can be summarised as:

- creating a supportive environment that increases business confidence
- building economic capacity through skills and diversification
- establishing systems and pathways that enable business growth.

How can a supportive environment that increases business confidence be created?

There is a need to establish governance structures within which informal economy workers have a voice, and are supported in working with local and provincial governments to build local economies. This should be seen as a joint venture within which both parties will benefit.

It is also important to review some of the conventional processes for investing in local communities.

Some of the recent physical improvements made to markets appear to have resulted in management regimes which restrict how vendors make their money, and there has been a lack of alignment with transport planning to the detriment of trade activity and vendor earnings.

Implementation of "slum upgrading programs" in urban centres needs to be pursued with caution, ensuring that economic activity can be accommodated in the new and improved residential environment. If this does not happen there is a real risk of worsening urban poverty.

How can economic capacity be built through skills and diversification?

There are available tools for working with grassroots communities to assess what goods and services are in demand, and what the potential is for developing local enterprises to meet this demand. There are also established models for capacity building within family groups for financial and business skills. Targeted investment might include start-up funding to assist in filling the gaps in local economies. This could provide work for young men who currently lack employment, and it may provide an alternative occupation for those currently involved in the betel nut trade in the event that this is subject to increasing regulation.

How can systems and pathways be established that enable business growth?

If a transition into the formal economy is desirable, then it is necessary to reform the processes for business registration, as well as the financial structures that enable businesses to comply with registration requirements. It should be possible to do this in a way that then enables workers to expand their businesses.

Providing better access to financial services could also unlock much potential for economic growth. Wealth is created by circulating money through the economy, and at present there are real blockages. An appropriately designed insurance system might relieve the pressure on savings so that workers can make more investment into their businesses. Providing safer and cheaper access to credit could drive increased spending, and providing ways for savings to earn interest could increase equity or working capital.

There is a pressing need for these various interventions to be applied in a way that changes the extent to which money is currently held tightly within local economies, increases both the velocity of its circulation and its multiplier in terms of economic production. There are advances in phone technology that may be helpful, with phone based money transfers and insurance schemes for example. A more radical solution could be introduction of a form of crypto currency within local communities on a trial basis. However if these interventions are to make a significant contribution they need to be well co-ordinated, affordable and transparent.

The audit results clearly indicate an informal economy that is at the crossroads. It has performed well over recent decades, increasing the benefits it provides for local communities. However it has reached a stage where stagnation is a possibility, arising from the way financial services are structured and the limited range of activities pursued. The potential strategies identified in this report would create an alternative pathway, enabling further economic growth through diversification and resource mobilisation. This pathway is an essential means of fulfilling the overall objective of PNG's newly launched Medium Term Development Plan (MTDP III) to promote "inclusive sustainable economic growth".

2. THE GLOBAL CONTEXT

What we know about the informal economy

The concept of an "informal sector" (now termed the "informal economy") within developing economies was first identified by researchers in West Africa and other parts of Sub-Saharan Africa in the 1970s¹. The accumulated research led to much deliberation about the significance of the informal economy within developing economies. There was initially a common assumption by governments that informal economy workers chose to exclude themselves from the formal economy as a way of evading regulatory compliance and payment of tax. It was also broadly assumed that there was an appropriate development model in which informal enterprises would eventually become formalised, and morph into more easily recognised registered and regulated businesses.²

It has become evident that these assumptions were ill founded. Instead of a steady progression of informal activities into formal businesses, the following features have become apparent.

- The size of the informal economy is much larger than was originally assumed, contributing more to developing economies than does the formal economy in many countries, and it is also growing faster than the formal economy in many areas.
- The informal economy is not homogenous, and can only be understood if it is disaggregated into different component activities with quite different characteristics.
- The significant barriers to moving into the formal economy run much deeper than was originally assumed, and arise primarily because the bureaucratic and regulatory system is a poor fit with local culture, values and practices.
- Women are particularly active in the informal economy, and this is likely to continue as they require workplace flexibility that is not usually available in the formal economy, and as there are particular barriers that exclude them. However their reliance on the informal economy makes them vulnerable in a situation where there is significant imbalance of power between men and women, and a lack of legal protection.



Until quite recently it was assumed that the informal economy had marginal influence within the total economy of developing countries. Detailed examination of the informal economy has now challenged this view. Rather than being a drag on economies, it is clear that there is significant productivity which is vital to the standard of living of entire communities. At the global level, the informal economy is estimated to be worth around 13% of Gross Domestic Product (GDP) or US\$10 Trillion, and a higher proportion of Gross Development Product GDP is evident in many developing countries. In most developing countries it employs more than half the workforce³.

Some informal activities take place within the cash economy, but others operate outside this, reliant on barter arrangements, subsistence production or unpaid work. The non-cash activities include:

- subsistence food production
- cleaning, decorating and maintaining the family home
- cleaning, servicing and repair of household durables
- preparing and serving household meals
- caring for, training and instructing children
- caring for sick and infirm people
- transport of household members and their goods.⁴

The informal economy is proving to be persistent despite the early assumptions that it was a transitory phenomenon on the pathway to development through growth⁵. Its persistence demands that we reconsider the view of the informal economy as a problem, and recognise that it is actually a key driver of economic growth. The World Bank's *World Development Report*⁶ reflected the changing view that "*the informal is normal*" and that it could by itself be transformative in terms of local development.

There is debate about the extent to which those in the informal economy could move into the formal economy. In Sub Saharan Africa it has been suggested that if inappropriate barriers were removed, 25-30% of informal businesses would move into the formal economy⁷. However it is likely that the actual results will vary with local operating environments.

Regulatory systems have largely been designed without the poor in mind, they are often in conflict with "*the practices, knowledge and values that grow out of local and community circumstances*"⁸, and they are often based on overseas models. The informal economy is essentially community based, with its own set of rules and forms of organisation and hierarchies, which may not fit with regulatory models. Where creative approaches have been taken to formalisation, to fit with community values and practices, there have been very positive outcomes – for example regulation of waste pickers in South America and India⁹, which have advanced the social standing of the workers and improved the level of services they provide.

Formalisation provides benefits for entrepreneurs not only in terms of official recognition, but also in terms of access to credit, insurance, property rights, bankruptcy laws, enforceable contracts and other commercial protections which can contribute to the accumulation of wealth. However if the expense of formalisation outweighs the benefits, or if wealth accumulation is only a secondary objective, then this may limit the prospects for transition into the formal economy¹⁰.



Women in the informal economy

While there is considerable variation in the relative proportions of men and women involved in the informal economy, women form the majority in most jurisdictions, and they are the overwhelming majority in the Pacific Region¹¹. They are predominantly small scale traders, occupying street stalls and markets.

Some of the most detailed research into the working conditions of women in the informal economy has been conducted through UNIFEM/UN Women in relation to markets throughout Melanesia¹². Based on the research into over 50 markets, it appears that women make up over 80% of vendors, with some gender differentiation in terms of the products sold by men and women. There is also some gender differentiation amongst customers, with men often forming the majority of customers for cooked foods, kava (in Fiji and Vanuatu) and betel nut (in the Solomon Islands and PNG) and women dominating as customers for fresh produce.

Markets that have become heavily congested present particular danger for women, as crowded conditions provide cover for physical assault as well as theft, and make it difficult to identify and/or chase perpetrators. Other hazards include physical harassment and sexual assault associated with transport arrangements and overnight sleeping arrangements, financial exploitation and theft, and environmental hazards. These are summarised as follows.

- **Transport arrangements**

Transporting goods into markets can present significant dangers. Women travelling in the back of trucks with their goods may be subject to unreliability and delays, harsh physical conditions, poor weather, financial exploitation and theft, as well as sexual harassment or assault. There were reports that those travelling by boat may be required to pay for their passage with sexual favours. Women may arrive in town after many hours or even days on the road or on boats, travelling in great discomfort and without sleep. Their own stress may be exacerbated if they are also caring for tired and distressed children.

- **Overnight accommodation**

For those staying overnight in town, there is sometimes the possibility of lodging with relations, but this option may not always be available. Staying with others incurs obligations and indebtedness, monetary or in kind. There is also the problem of how to ensure that unsold goods are not stolen, which is a prevalent risk even in those markets which are closed at night. For this reason, many women and their children opt for sleeping in the market overnight. Markets are not well equipped to act as places of accommodation, with limited ablution facilities as well as lack of comfortable or safe sleeping spaces. There are also dangers presented by men who may harass or prey on vulnerable women – this danger may arise from men prowling around at night, sometimes drunk. However even in closed and patrolled markets there were reports of women being afraid of security guards. Recent market improvements have included provision of overnight accommodation for vendors bringing produce into town, and in PNG such a facility has been recently established at the new Koki Market.

- **Financial exploitation and theft**

Women are also vulnerable within the daytime operations of the market. They may be overcharged for their stall space (or denied the best spaces in favour of men), and they may be subject to unreasonable financial demands to pay for services such as use of toilets, and for unloading goods. Even if they receive fair treatment from market managers and their employees, they may be vulnerable to bullying and theft from men who deliberately cause trouble in crowded markets. At the end of each day, women with cash from the day's trading are at further risk. Generally there are no banking facilities in or close to market places, so that women (sometimes with children) may have to walk some distance to a bank, or otherwise keep their cash with them for some time. They are prey not only to potential thieves engaging in street mugging, but also to demands for cash from family members, especially husbands or sons.

- **Environmental hazards**

The problem of a social environment that is hostile to women is compounded by a physical environment that offers poor comfort, health and safety for women and their children. Lack of shelter from sun, wind and rain presents considerable hardship for women as well as potential damage to the goods they sell. Dust from unsealed surfaces in the smaller markets, or from other sources, can provoke ill health. Lack of access to clean toilets and washing facilities creates particular health dangers, with typhoid risks being identified within some of the markets surveyed. Poor drainage and inadequate waste management practices provide breeding grounds for insects and vermin, with rats being a major problem in the larger markets. These present risks to children as well as their mothers. Roadside markets and those on the edge of traffic routes are subject to additional physical dangers: as markets become congested, vendors and their customers may be pushed further into the danger zone. In addition to the physical danger, there are also health hazards from fumes, fuel and oil spills.

The fact that the management of most markets has been traditionally dominated by men, and that investment decisions have largely been made by men, has meant low priority for the investment in making women's working environments safe, enabling and crime free. The lack of a women-friendly environment also has adverse impacts on female customers. A few markets have seen physical improvements made with this in mind, as well as governance arrangements that are more responsive to women's requests or complaints.

Even when the working conditions are poor, the economic contribution of women vendors, and the impact on their families and communities, is vitally important, but the extent of their contribution is poorly recognised. The financial analyses carried out by UNIFEM in 2010-11¹³ illustrate just how many people are supported financially through the work of women market vendors. For example, in Honiara the earnings of vendors in the main market were likely to directly support around 20% of the city's population, and indirectly support an additional 10% of the population.

Additional findings were as follows.

- In smaller centres, market vending was often carried out by women from families which produce the goods on sale (farmers and fishermen) on a periodic basis, whereas in larger centres there was increasing specialisation with market vending becoming the dominant activity.
- Despite the modest earnings of individual vendors, the cumulative turnover of markets was very significant, often larger than any other local businesses. In 2010, the turnover in Gordons Market alone was estimated at around PNGK 70M per annum, with vendor earnings (net profits) around PNGK 30M.
- The average earnings of vendors (women and men) were often well in excess of average formal sector wages, and for this reason some women had deliberately left formal sector work to trade in markets. This included professional women, such as teachers. However this should not detract from the fact that many vendors earned very little, and were unable to raise their families out of poverty.
- Across the board it was not uncommon for market vendors to pay the market owners (usually local government) around 10% of their earnings in market fees. Vendors' fees can be a significant component of local government incomes, and are often used to subsidise other local government functions rather than being reinvested in market infrastructure. This can be seen as a type of taxation.

- The spending pattern of women vendors indicated a strong priority on providing for the wellbeing of their families, by way of purchasing food and household goods, paying school fees, and saving for building materials to improve the family home. There was also a strong community commitment, with contributions for local cultural and religious activities and facilities.

The Melanesian research found that women vendors in markets generally lacked access to formal financial services, and this was a major impediment to their wellbeing and productivity. In the absence of formal banking and microfinance services, a range of informal financial services (lending, saving, investing) have come into existence, many of which are exploitive and insecure. In some jurisdictions, the introduction of micro-lending services has been particularly helpful for women in the informal economy, as is well illustrated by the success of the Grameen Bank in Bangladesh, though there are mixed outcomes in some other jurisdictions such as the Philippines¹⁴. Micro insurance is a further initiative that has been introduced to offer protection to women in the informal economy, with some success¹⁵.

Women in Informal Employment Globalising and Organising (WEIGO) launched a report¹⁶ highlighting the opportunities for participatory governance to improve the wellbeing of women in the informal economy. India's 2014 *Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act* was cited as one of few national regulatory frameworks for street vending. This requires establishment of Town Vending Committees with at least 40% vendor membership. This followed an extended period of unionisation of vendors, providing them with significant negotiating power at the local and national level. Formation of strong trader organisations has occurred in other countries, notably Senegal in West Africa, Tanzania in East Africa, and Peru in South America. While some vendor associations have been formed in Melanesia, the development of strong collaborative governance has yet to be realised.

Disability in the informal economy

There is limited information on the extent to which people with a disability participate within the informal economy. Some international research indicates that people with a disability earn less than fully abled people within both the formal and informal economies. However they may be represented disproportionately within the informal economy, particularly within developing economies. This may be partly because there is more flexibility for workers to be involved in work activities that fit within their personal limitations. This applies to the hours worked as well as the physical demands of the work¹⁷.

Relatively few countries in the Asia Pacific region provide data on the employment rate of people with a disability. However, research in India has shown that 87% of all workers with a disability are involved in the informal economy. Higher levels of employment in the formal economy are achieved in countries which apply a quota for employment of disabled people within the public or the private sector¹⁸.

Within the informal economy, workers with a disability face particular discrimination apart from those imposed by their work capacity. They may find it even more difficult than other informal workers to obtain finance to build their businesses, as they may be perceived as an exceptionally high risk. They face barriers in gaining access to training and information that might support their work activities.

Lack of adequate protection for the health and safety of workers in the informal economy can lead to a disproportionate level of injury, which may be a cause of temporary or permanent disability. Thus the level of workers with a disability within the informal economy could be a combination of previously disabled people lacking alternative work opportunities, and workers becoming disabled through their informal work activities.

Youth in the informal economy

The International Labour Organisation (ILO) estimates that around 85% of all new employment opportunities are created in the informal economy, and this part of the economy offers the greatest opportunities for young people to find work¹⁹. However this requires that the informal economy is structured in a way that is accessible to young people.

ILO data suggests that globally 76.7% of working youth are employed in the informal economy compared with 57.9% of working adults. However many young people are left out of both the formal and informal economies. Globally an estimated 21.8% of young people are neither in paid work nor in education or training, and this proportion is much higher for young men. This represents a considerable challenge for social as well as economic wellbeing, all the more so as young men (particularly) excluded from paid work may feel frustration that results in civil unrest and violence.



3. THE NATIONAL CONTEXT

Key features of Papua New Guinea's informal economy

While much has been written about PNG's informal economy, some of this has been speculative rather than evidence based²⁰. There are suggestions that the informal economy is growing faster than the formal economy, though there is a lack of reliable data to support this while the calculation of GDP focuses on the formal cash economy. Much of national production involves subsistence farming, for which there are conflicting estimates of economic output.

It is apparent that the range of enterprises operating within PNG's informal economy may not be as wide as that observed in some parts of the world²¹. This can be attributed to the fact that PNG has strong traditions as a primarily agrarian society, by contrast with societies that have a much stronger urban heritage with patterns of urban entrepreneurship that have become well established over many centuries. Currently the informal economy in PNG is heavily focused on agricultural production as well as trade in agricultural products, rather than on manufacturing or service provision.

PNG's informal economy is heavily dominated by women, even more so than that of most other global regions, but with similar characteristics to the informal economies of other Melanesian countries²². Observers have asserted that only a very small minority of these women-led enterprises can be expected to become formalised businesses over time, given the demands of home and family as well as marginalisation from systems of authority. However there is some debate about their potential to grow in terms of scale, productivity, diversification or specialisation.

In part, enterprise growth may be constrained by socio-cultural value systems which do not see business success in terms of profit maximisation²³. There are important reciprocal relationships involved within families and local communities within which informal enterprises operate, which may take priority over commercial aims. The prime objective of women undertaking informal activity could be to sustain their families and contribute to local communities, rather than to accumulate wealth. Growing enterprises might involve trade-offs that compete with this objective. On the other hand a more significant constraint may be the way in which these women workers are perceived within families and communities that are subject to entrenched male power structures.

Land tenure is a factor that constrains many informal work activities. Around 95% of land within PNG remains in customary ownership, with disputes about control of these lands a common problem. Land is highly valued as a cultural as well as an economic resource, but the systems for enabling use of these lands by individuals are sometimes ambiguous. This is particularly problematic in urban areas, as migrants seek access to land for housing, food production, trading and other activities, and as new market sites are required to provide for food distribution. De Soto²⁴ describes customary land as an example of "dead capital" that cannot be used to mobilise economic resources for investment in enterprises or public services, unless there are creative ways of unlocking this economic resource which do not detract from its cultural value.

Control of land can provide a source of informal income for the customary owners when leases or use rights can be established, but without formal structures these rights are not secure, and the governance arrangements are haphazard. Disputes over land access are not limited to the informal economy, as there are significant controversies about the use of rural land for mining or plantations (for example with regard to payments for this use in Hela Province²⁵) and claims of expropriation of land by major businesses in urban areas (eg Wewak, Kundiawa, Port Moresby²⁶). Traditional methods of reallocating customary land in a peaceful manner are being disrupted by increasing individualism, changing power structures and challenges to tradition. Land reform in Papua New Guinea initially focused on moving to western models of freehold tenure, but it is increasingly recognised that developing a formalised tenure system that better reflects local cultural values may have better prospects for success. Urban land tenure is a particularly complex issue which adds to insecurity around informal economy activities, particularly within migrant settlements²⁷.



Some forms of informal activity are especially problematic for regulatory authorities. Trading in betel nut is an example, because of the impact of its use on health and hygiene. Such trade can be profitable, but regulations prohibiting it or removing it from prime locations place the relevant vendors at risk of fines or other punishment. Regulation of the betel nut trade appears to have sometimes been heavy handed, not recognising the large number of families that are supported by it, and the need to divert rather than ban this activity as a source of income.

Some other informal activities involve breaking the law with severely adverse consequences: smuggling and trading in guns or drugs for example, as well as theft. Coerced prostitution is also illegal but this has some grey areas, such as trading sex for transport, which is a widespread consequence of a transport industry which provides unaffordable access and exploitive conditions for women²⁸.

A vital function of the informal economy is the distribution of food resources from producers to consumers, within different geographical catchments. Some work has been carried out by the Fresh Produce Development Agency to look at these produce flows in Port Moresby and Central Province²⁹, and this found a heavy reliance on local produce, and a need to improve its distribution through local markets. Supply chain analysis in the Western Highlands suggested that improved infrastructure such as transport, cooling systems and communications could improve the efficiency and timeliness of distribution³⁰. This needs to be accompanied by an efficient wholesaling system in the major urban centres³¹. Better infrastructure for long distance trade would potentially increase the range of foodstuffs available in the major urban centres, as there are many highly valued vegetable and fruit varieties grown in the Highlands which do not reach these markets. Some of these might have export potential as well as offering opportunities for import replacement.

Establishing new or improved market infrastructure can have some impacts not only for vendors but also on the farming households that supply produce. It is reported that the redevelopment of Mount Hagen Market resulted in an increased range of produce supplied, with some subsequent specialisation of crops grown in different localities³².

There are some localities where the absence of established market infrastructure is a clear impediment to informal economy work. This is evident in the relatively new Jiwaka Province for example, as well as the major growth suburb of Nine Mile in Port Moresby (where the previous market was removed to make way for a new road). The semi-autonomous region of Bougainville may also have a special need for new marketing infrastructure, given its emergence from years of economic disruption.

Outside the production of food, the informal economy is involved in commercial agriculture by way of subcontracting. This is particularly evident in the oil palm industry, where individual households are contracted to produce palm nuts, which are collected at the farm gate³³.

The mining industry has created nodes of economic activity which have produced opportunities for informal economy participants. Where payment for land use have been passed on to the customary owners, it is likely that some of these funds have stimulated informal economy enterprise, and in any case the spending capacity of workers may create opportunities for providing goods and services. The tourism industry can also stimulate establishment of hubs of informal economy interaction, though Papua New Guinea's tourism industry has yet to realise its economic potential.

Within urban areas, the relationships between informal economy participants and governments has often been confrontational, sometimes with violent repercussions. Conflict between resident groups (often of different ethnicities) has also been an impediment to a stable and prosperous informal economy, particularly demonstrated by instances where market infrastructure has been vandalised and sometimes completely destroyed (eg privately owned informal markets in Jiwaka Province, Boroko market in Port Moresby). Lack of secure land tenure has also been an impediment, with some instances of land being expropriated for private use, displacing informal economy workers (eg Wewak, possibly Gordons in Port Moresby). Lack of secure and safe work space is a clear impediment to productivity and wellbeing, including informal business growth.

The policy framework

A definition of what activities take place within the informal economy is provided by the Informal Sector Development & Control Act 2004. It defines informal business as "a business carried on by citizens comprising no more than five (5) persons, and which is characterized by the following:

- a) It is a very small-scale unit –
 - producing goods; or
 - distributing goods; or
 - producing and distributing goods; or
 - selling goods; or
 - providing services; or
- b) It operates with no or very little capital; or
- c) It utilizes low levels of skills or technology; or
- d) It does not engage in activities which constitute an offence under –
 - The Criminal Code
 - The Summary Offences Act
 - The Gaming Act
 - The Gaming Machine Act
 - The Liquor Licensing Act
 - The Distillation Act
 - The Bookmakers Act
 - The Exercise (Beer) Act
 - The Inflammable Liquid Act
 - Any provincial law relating to the sale of alcohol; or
- e) It operates at a low level of productivity, and includes a mobile trader, but does not include a business which –
 - provides professional services; or
 - acts as an agent of a business which is not an informal business; or
 - is liable to pay tax under the law.

This is a complex definition which varies from that commonly understood in some other jurisdictions. For example in many developed and developing countries some informal economy activities take place within large enterprises, and some may be illegal, so that sometimes the definition is simplified to include those types of work which lack legal and social protection³⁴. The PNG definition also leaves some activities in an ambiguous situation: for example vendors in markets are generally regarded as working in the informal economy despite the fact that they are in most cases subject to regulation, and pay fees which constitute a form of tax.

Despite the difficulties of definition, the legislative and policy framework of Papua New Guinea demonstrates a very enlightened perspective on the positive contribution made by the informal economy to the wellbeing of the country's citizens. This contrasts with most other countries where such frameworks have lagged behind, even where positive initiatives are being taken on the ground. In PNG it has been the reverse: there is an exemplary legislative and policy framework which has not achieved its potential because of lack of investment in awareness and implementation at the local and provincial levels.

The Constitution is a visionary document that calls for active participation of all citizens in the development process, and for decentralised development to "take place through the use of Papua New Guinea forms of social and political organisation". Rights are conferred on all citizens to pursue "creativity and enterprise", and equalised distribution of the benefits of development to all citizens is encouraged. The constitution also urges that economic development should draw on PNG's own skills and resources, including small scale business activity, rather than relying on those from overseas.

These objectives are reflected in the national Government's various strategies, including the policies developed by different departments and the whole of government. However the implementation of this vision has relied on the governance structure at the provincial and local levels. The *Organic Law on Provincial and Local Level Government* and associated legislation fails to reflect the national vision for the informal economy. Provincial and local level governments are largely unaware of the stated objectives for the informal economy, and there is a lack of appropriate models for driving appropriate reform. It should be recognised that this situation is exacerbated by the fact that many urban government authorities are overwhelmed by in-migration and a proliferation of unregulated informal activity which they lack the resources to address³⁵.

In 2001, the Consultative Implementation and Monitoring Council (CIMC) and the Institute of National Affairs (INA) carried out research into the informal sector, describing its characteristics and identifying needs, and this led to a new legislative framework³⁶. The *Informal Sector Development and Control Act 2004* was designed to promote a safe and healthy environment for informal work activities. It overruled other legislation to enable a broad range of activities to be pursued anywhere at any time, and it has been criticised for not paying sufficient regard to health and safety regulation.



PNG's subsequent *National Policy for the Informal Economy 2011-15* used the term "informal economy" quite deliberately to imply that it is an integral part of the whole economic system, with a positive role to play in economic development³⁷. It recognised that the informal economy provides a large part of the population with opportunities to earn a living, and to gain access to affordable goods and services. The policy supports participation in the informal economy for both rural and urban citizens, supported by financial inclusion (financial literacy and access to financial services) and establishment of a favourable working environment (shelter, infrastructure, safety, governance).

Some modelling of appropriate engagement strategies has been carried out in Port Moresby's markets through UN Women's Safe City Markets project, with formation of vendor groups and regular dialogue with the NCDC Markets Division. This has led to improved delivery of financial services, and reform of market bylaws, as well as improved working conditions in some of Port Moresby's markets. Elsewhere there are some fledgling vendors' associations amongst specialist groups of vendors (especially second hand clothes vendors, with associations in Port Moresby and Kundiawa for example) but these have not been successful in constructively engaging with relevant government agencies.



While the aims of the Act and the Policy are well founded, the weakness of implementation models at the local and provincial level has severely limited their achievements. The Act and the Policy are currently being reviewed and updated, to clarify implementation responsibilities. In particular the review has found a need for a stronger focus on a "wealth distribution mechanisms" from big projects, and way of channelling these earnings to foster entrepreneurship and innovation in the informal economy³⁸. A further impetus to strengthening the informal economy has been the launch of PNG's third Medium Term Development Plan in late 2018 with the overall objective of promoting "inclusive sustainable economic growth". This is a framework document intended to drive planning and implementation by all PNG government agencies at all levels, as well as other stakeholder agencies.

The current audit has been framed in a way that contributes to policy formation and Implementation in the context of the Medium Term Development Plan (MTDP III). It is clear from previous work that the informal economy is a major contributor to Papua New Guinea's economy and the wellbeing of its citizens. It is also recognised in existing policy that these contributions could be greater if informal workers received greater support, and if the barriers to their productivity were removed. However the development of a more effective policy framework and its practical implementation requires improved information about the scale, characteristics and operational conditions of informal economy workers. The current audit provides a basis for this understanding.

4. RESEARCH METHODOLOGY

The present project involves an audit of the informal economy throughout Papua New Guinea, to improve understanding about the scale and characteristics of this part of the national economy, and the way it provides livelihoods as well as access to goods and services for local communities. This and other initiatives are being supported by an Informal Economy Sectoral Committee, involving government, the private sector, civil society and various development partners.

There is some prior work that has been used in the current audit, indicating how conditions in the informal economy may have changed over time, and providing specific locality based information, as well as suggesting the research questions to be pursued in the current audit. This work includes the following.

- **2001 Baseline Research**

This survey was carried out by the Institute of National Affairs (INA) and the Consultative Implementation and Monitoring Council (CIMC). It involved interviewing informal economy workers within markets as well as other defined informal work activity areas. The localities surveyed were Port Moresby, Lae, Mt Hagen, Rabaul/Kokopo and Madang. It was carried out to provide a baseline for subsequent research into the informal economy.

- **2010 Market Surveys**

This work was an adjunct to the *Partners Improving Markets* program funded by UNIFEM (before its transition into UN Women). It involved surveying vendors in Nine Mile and Gordons Market in Port Moresby, and three different markets in Kundiawa, Simbu Province. It focused on the economic productivity of individual workers as well as the markets as a whole.



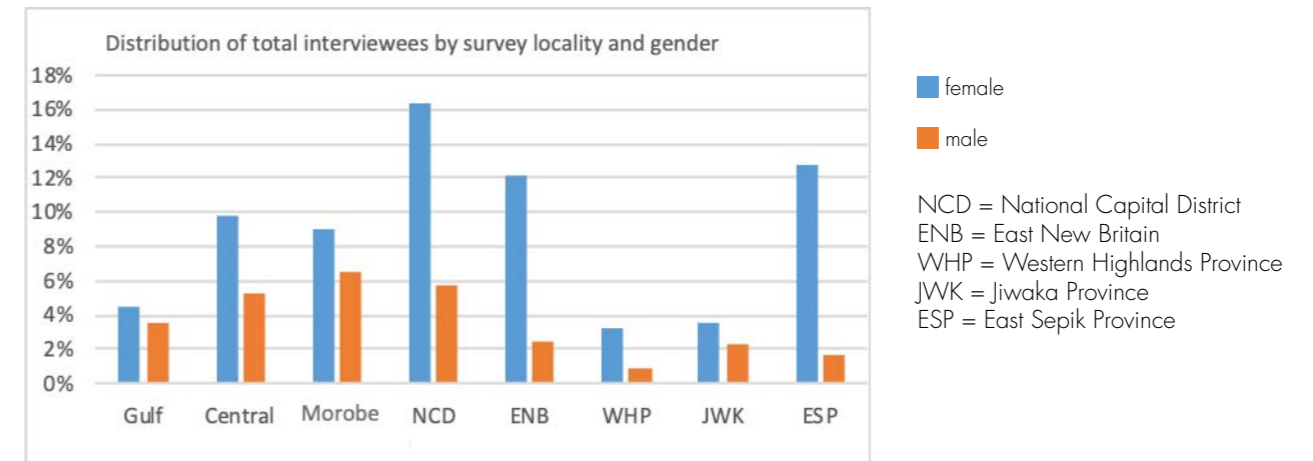
The present audit has extended this work through surveys of residential areas as well as workplace nodes, broadly targeting the same selection of regions as the 2001 baseline survey: NCD, Morobe Province, East New Britain and Western Highlands, with the addition of a survey in parts of Central and Gulf Provinces as well as East Sepik Province. The initial locational grouping was confirmed as a statistically valid selection of localities for the purposes of the 2009-10 Household Income and Expenditure Survey. The field survey involved collecting data on 2,247 individuals, and face to face interviews with 1,801 workers in the informal economy. Information was also collected on around 3,500 unpaid helpers to workers in the informal economy.

Further validation was provided by a randomised phone survey of over 6,750 mobile phone users and detailed interviews with 6,171 of these people who were identified as workers in the informal economy. This survey was carried out across three of these survey localities: the National Capital District (NCD), Morobe and Central/Gulf Provinces. This was considered statistically useful given the high level of mobile phone usage in urban areas (estimated as 85%³⁹). It collected some key data to enable validation of the field survey results from the first three survey localities, so that the rest of the audit could proceed with confidence.

Taking all the data collection into account, it is estimated that the audit provides information on around 3% of all those involved in the informal economy across the nation.

The proportion of face to face interviews conducted in each survey locality is illustrated as follows.

Figure 1: Proportion of interviewees in each survey locality



Both the fieldwork and the phone survey were carried out in the second half of 2018.

The fieldwork was piloted by a survey of street vendors around government offices in Port Moresby, and a residential area within the peripheral migrant settlement of Nine Mile. The structured survey then involved:

- Selection of a range of work activity nodes within in each region, including markets, highway frontages, and informal economy workers around plantations and mining sites: within each of these a structured randomised sample of workers was interviewed.
- Selection of sample residential streets that appeared to be representative of the locality: within these residential areas all workers in households or street locations were asked to participate.

Within each selected survey locality, a preliminary visit was made to discuss the project with local authorities and community leaders, to scope the local environment and to select the sample of locations for survey. A team of local residents was then recruited for the data collection. A national advertisement encouraged expressions of interest, and a week-long training program was delivered to a shortlist of candidates. From those who performed best, male-female interviewing pairs were selected (one to interview, one to record, with these tasks rotating around the gender of the interviewee), with some additional candidates acting as backup. The data collection then took place over a period of a week, with interviews taking an average of one hour. Interviewers were encouraged to take their time, particularly over such issues as earnings and spending patterns where discussion might require assessment of the money that was earned or spent the previous day, then working back over the previous week. Quality assurance measures included the interviewing pair comparing their understanding and validating the record of the interview, and checking of all records by a field supervisor. Coding was centralised, carried out by officers of the DFCDR and the CIMC.

The budget for the project did not extend to paying interviewees for their participation, and in most cases there was no demand for incentives such as payment.

Structured questions focussed on identifying the demographic characteristics of who worked within the informal economy, the activities they pursued, their earnings and spending patterns. Open ended questions explored the difficulties that people faced in carrying out their work, and the opportunities for improving their productivity and wellbeing.

The analysis of results has largely been carried out within each of the survey localities, as there would be no valid statistical value in analysing the combined results. For example, around half of PNG's informal economy workers are likely to be located in Port Moresby, given that this city contains around half of the urban population, so the results from that survey locality would be significantly distorted by combining the survey results with those of other localities with much smaller populations. However there is some analysis of gender differences across the whole sample where the results do not appear to be distorted by local variations. The phone survey results have also been used to present gender differences as this data set is based on a randomised selection of interviewees.

The methodology applied is explained in full in Annexes 1 and 2, which include the Training Manual issued to the field survey teams. The questionnaires used for the field survey and the phone survey are also provided.

The audit has focussed on collecting information that will assist in appropriate policy and action, filling critical gaps in what is already known, and assessing the likely consequences of operational change. The following are the research questions that drove the research activity.

- How big is the informal economy?
- What are the component activities?
- Who is involved in these activities?
- What resources and markets do these activities rely on?
- What are the outcomes for households and communities?
- What are the barriers to improved productivity and/or household and community wellbeing?
- What services and structures could improve the productivity of the informal economy?
- What representative/advocacy structures exist and how could representation/advocacy be more effective?
- What are the factors (including barriers, advantages and disadvantages) affecting transition into the formal economy?

The research findings are presented as follows, with reference made to the findings from the earlier research and apparent changes over time as well as geographical variation.



5. HOW BIG IS THE INFORMAL ECONOMY?

In developing policies and practices that impact on the informal economy, it is important to recognise how important it is within the whole of the national economy, as well as within local economies. This can be measured in a number of ways.

Contribution to GDP

Gross Domestic Product (GDP) is an assessment of cash turnover within all sections of the economy. Assuming a 2018 urban population of 500,000 and extrapolating from findings to date about incomes and business costs, the informal economy may reflect a turnover of around PNGK 12 billion, or around 20% of estimated current cash GDP⁴⁰.

Comparing with the results of more limited informal worker surveys in 2001 and 2010, it appears that while total economic productivity has grown, the proportion of total cash GDP has fallen. This is largely because of the increased GDP contribution made by the resource sector. Extrapolating from the limited baseline and intermediate surveys, it appears that cash turnover⁴¹ within the informal economy has increased from around PNGK 3 billion in 2001, which represented around 40% of contemporary GDP, to PNGK 7 billion in 2010 representing 30% of contemporary GDP. Growth in turnover represents around 4% per annum, keeping pace with the average inflation rate.⁴²

Despite the evidence of its growing importance, there are also indicators that the productivity of the informal economy may have plateaued in recent years. This is due to two main factors, which are explained in more detail in the following chapters:

- workers in the informal economy are concentrated within a very narrow range of activities which have limited markets, so that any future expansion will require diversification to find new markets, and
- the circulation of money through the informal economy is becoming increasingly stuck, due to factors which discourage reinvestment of earnings or other productive use of savings, as well as barriers to borrowing funds for business start-up or expansion.

If these limiting factors can be addressed, there is every likelihood that the informal economy can continue to expand and increase its contribution to national productivity.

Contribution to non-resource GDP

The economic productivity of the resource sector can distort analysis of the health of the national economy as much of PNG's resource wealth is exported for the benefit of multi-national companies, and this sector has grown significantly over the past ten years. In 2016 it is estimated that extractive industries accounted for over 90% of export earnings⁴³, but that reliance on foreign corporations and imported skilled labour meant that the economic returns to the national economy were very limited.

Some economists are choosing to look at the "non-resource economy" as an economic indicator of domestic wellbeing instead⁴⁴. The 2018 non-resource GDP is estimated at around PNGK 40 billion, with the informal economy contributing around 30% currently, similar to the situation in 2010. Analysis of trends in non-resource per capita GDP has suggested some recent reduction in overall economic productivity. If this is so, the current data suggests that while formal sector GDP per capita has fallen, informal economy GDP per capita has grown.

Economic cash and non-cash productivity of the informal economy

While it is difficult to assess some components of the non-cash economy in terms of their contribution to GDP (eg child care, housework, home improvements), it can be argued that the subsistence agriculture of rural farmers should be taken into account as it can be readily valued in monetary terms. The work undertaken by subsistence

farmers results in production of food crops that would otherwise need to be obtained by other means. Taking account of average household size (7 persons⁴⁵) and previously estimated subsistence productivity⁴⁶, it seems likely that subsistence agriculture increases productivity by at least PNGK 10 billion per annum. This enlarges the contribution of the informal economy to non-resource GDP to more than 50%. There is additional contribution made by smallholding farmers who produce commercial crops for major processing corporations (eg coffee, palm oil, sugar). Commercial agriculture accounts for around PNGK 10 billion⁴⁷ and it seems likely that at least PNGK 3 billion represents outsourced production involving rural families. If so, this would bring the contribution made by the informal economy towards non-resource GDP to around 60%.



Contribution to national employment and livelihoods

The net incomes from informal economy workers appear to have been significantly greater than the PNG minimum wage throughout the past twenty years. The average net earnings recorded from the current audit are around three times greater than the 2018 minimum wage of PNGK 140 per week. However it is also recorded that the majority of workers (around 55% in the phone survey) have unpaid “helpers”, often family members, so that each income by the main entrepreneur reflects the economic productivity of 2-3 workers. Taking this into account, the average individual earnings for all participants in the informal economy may be closer to the minimum wage (though many of the “unpaid helpers” may be working part time).

The surveys of residential areas suggest that only around 10% of workers are employed in the formal sector. The phone survey indicated a higher proportion, around 15%, but this may indicate a slightly higher rate of mobile phone access amongst wage employees.

Figure 2: Female employment in the informal economy (phone survey)

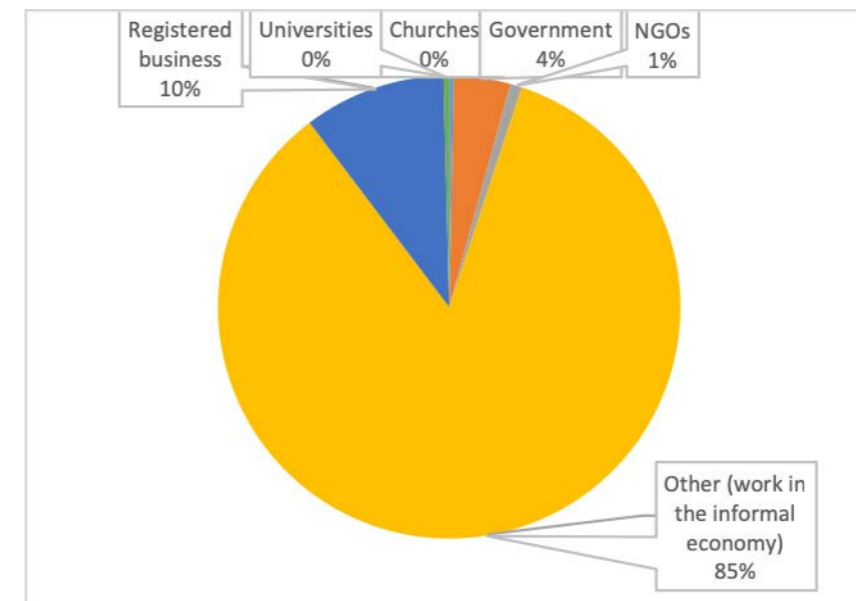
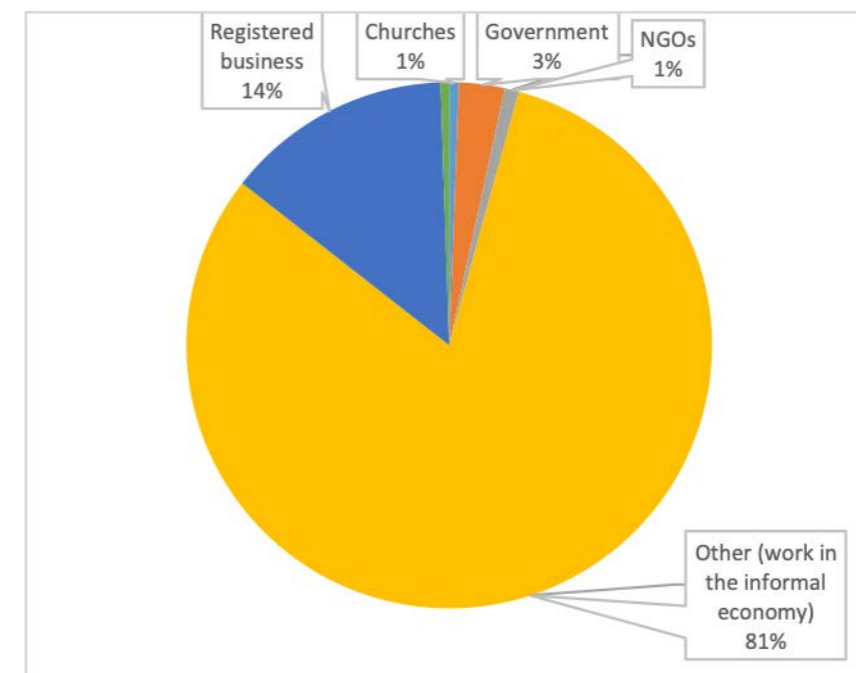


Figure 3: Male employment in the informal economy (phone survey)



However the phone survey and residential surveys both indicate that many workers in the formal economy also derive some supplementary income from working in the informal economy. Taken together, this suggests that the informal sector may involve around 90% of all workers.

Contribution to local economies

Earlier work⁴⁸ has identified how fresh produce markets can be drivers of local economies, converting primary produce into cash and then recirculating the earnings to create employment and earnings. This also applies to the informal economy operating within residential areas. Much of the local earnings from trading in primary produce are then spent locally on other goods and services, building local economies through the multiplier effect, and providing affordable access to local goods and services. This wealth-building function of the informal economy can be contrasted with a much reduced multiplier effect of the resource economy and large scale commercial operations. However as explained in more detail later, the multiplier benefits from local trade are being limited by a slowing “velocity” of the money in circulation.

While larger cities have a well developed formal sector, with large corporations generating local wealth, in regional centres the situation is quite different. The 2010 studies conducted in Kundiawa⁴⁹ calculated the turnover within the town markets, and suggested that these markets were by far the largest contributors to the local economy, exceeding the contributions of other businesses including commercial coffee production. The current audit suggests that the markets operating in regional centres may have similar economic dominance at the local level, if they are regarded as business entities in their own right. The informal economy therefore comprises a wide range of business sizes, from single person enterprises to large markets involving several thousand vendors turning over millions of kina each year.⁵⁰ The scale of these operations demands that their economic contribution be better recognised and supported.

6. WHAT ARE THE COMPONENT ACTIVITIES?

The 2001 baseline study found that 82% of workers in the informal economy were involved in trade. The current audit found a similar focus on trade, though since 2001 there appears to have been two significant shifts.

- Growth of urban trade has seen a decrease in the number of farmers who sell their goods in markets, and the emergence of market vendors who buy their goods from farmers or wholesalers. It has been suggested that each market or street vendor of agricultural produce might be involved in trading the surplus goods produced by 5-6 adults involved in farming (UN Women, 2017).
- There appears to have been an increase in food production from urban backyards and infill lands, offsetting the increasing transport costs and logistical difficulties of transporting produce from rural areas. While growing crops on vacant land in urban areas has been intensifying over time, urban food production now includes much backyard raising of pigs and chickens. Many workers (men and women) aspire to become involved in raising chickens, which is seen as a particularly lucrative activity, though it involves significant initial investment.

The 2001 baseline survey did not include residential areas, and therefore excluded many workers close to home who might be involved in activities other than trade. However the audit findings confirm trade as the dominant activity even when residential areas are included, with over two thirds of all informal economy workers (women and men) involved in trade. The results for the different survey localities range from 65% (Jiwaka/Western Highlands) to 76% (East Sepik). The phone survey indicated an even higher concentration on trade (see Figures 4 and 5 below).

In the previous research, there has been a relative lack of data about informal economy activities apart from trade. The surveys of residential areas conducted for this audit give a much clearer picture of the component activities within the informal economy.

The next most frequent activities are concerned with food production: growing crops and raising livestock (pigs and chickens). The proportion of workers involved in food production range from 2% in the NCD to 23% in East New Britain, and these activities generally involve more women than men. Taken together with trade, this cluster of activities accounts for over three quarters of the activities in the informal economy, ranging from 75% in the NCD to around 88% (Gulf/Central and Jiwaka/Western Highlands to 91% in the other localities (Morobe, East New Britain, East Sepik).

Very small numbers of workers were involved in the following activities as their primary work activity (listed in alphabetical order):

- Brewing alcohol
- Caring for others
- Catering
- Crafts
- Entertaining
- Handyman services
- IT
- Labouring
- Laundry services
- Lending money
- Making clothes
- Metal manufacture
- Mining
- Other manufacture
- Other repairs
- Renting accommodation
- Security services
- Timber manufacture
- Training
- Transport
- Vehicle repairs.



The lack of participation in some of these areas is surprising, given the likely high local demand for some of these services or goods. Within the surveyed localities there are no identified workers involved in building trades or cleaning services, which is also a surprising finding. These findings are validated by the phone survey, which provides the following results.

Figure 4: Women's primary work activities in the informal economy (phone survey)

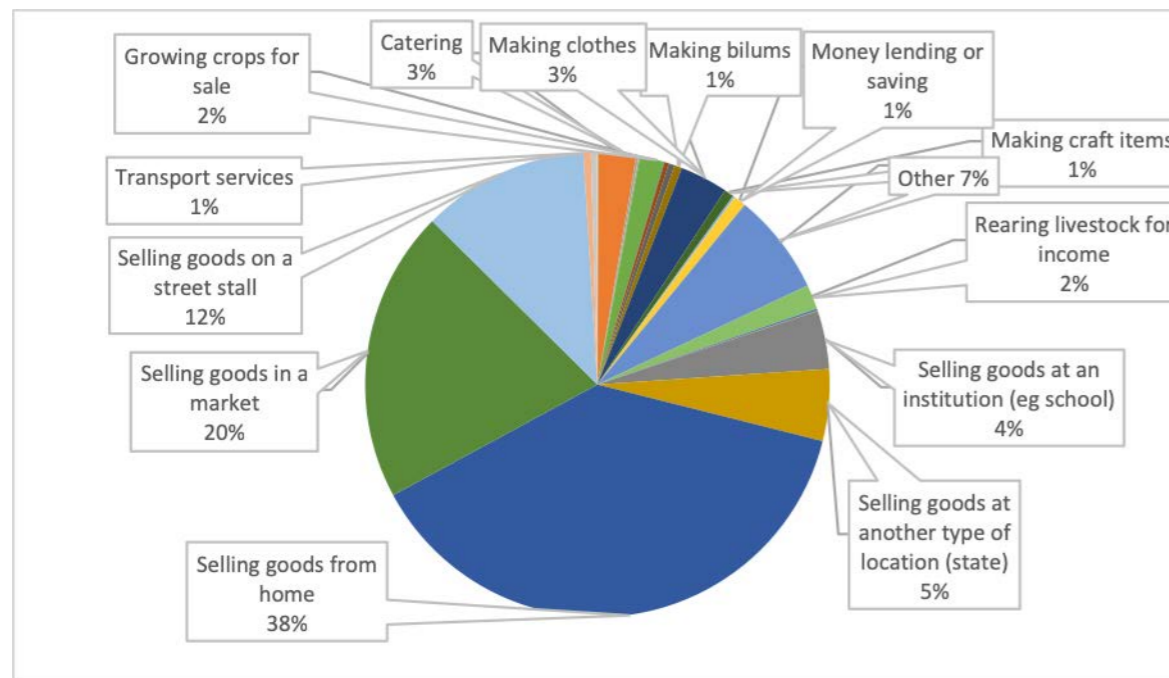
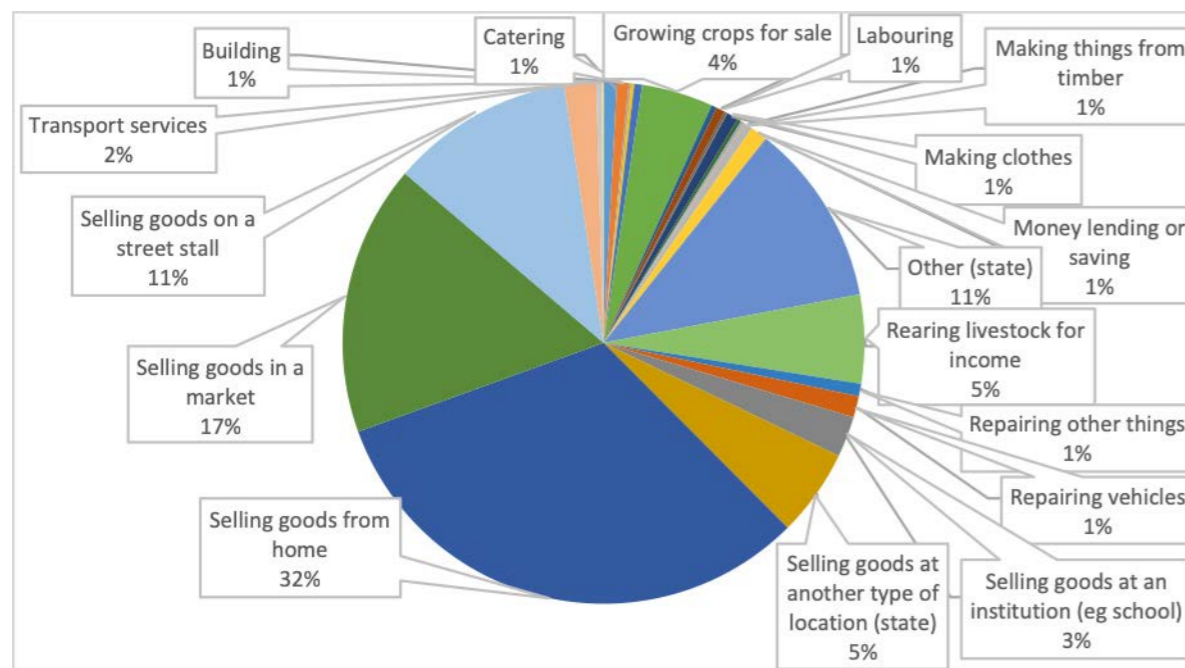


Figure 5: Men's primary work activities in the informal economy (phone survey)



In summary, Papua New Guinea's informal economy seems to retain its large focus on production of food and trade, with much scope for the sort of diversification seen in other developing countries. Diversification would provide new opportunities for making a living, and would also broaden access to affordable goods and services for consumers.

While involvement in trade is the primary work activity for the vast majority of workers, many have secondary sources of income. The proportion of workers claiming a secondary source of income ranged from 16% in the Gulf/Central survey to 35% in East New Britain and 57% in Jiwaka/Western Highlands, but around 20% in the other locations. Again, growing crops and raising livestock are most important as the secondary activities. However two further sources of secondary income emerge as important.

- Lending money to others, with high rates of interest is pursued by many workers in the informal economy as a secondary work activity. The incidence appears to be highest in Port Moresby (NCD), where 22% of workers listed lending money as a secondary source of income in addition to 1% as a primary activity. It was lower but varying from 2% to 13% in the other survey localities. It is evident from those trading around CBD offices that money is often being lent to public sector workers, meeting a cash flow deficit felt by workers who receive their wages in fortnightly instalments. The potential high returns (50% per fortnight) are offset by a high risk that debts will not be repaid. Workers who lend money on a commercial basis often stress that they are doing this to meet a need that is not being met by formal financial institutions.
- Renting accommodation is an option for those owning their own houses, and for tenants with subletting opportunities. In the residential areas surveyed, the vast majority of households are owner occupied, but only a few recorded receiving rental income. This was listed as a secondary income source by 19% of informal economy workers in Jiwaka/Western Highlands, but the incidence was much lower (1% - 4%) in other localities. However this may represent under-reporting, as other financial data suggests significant supplementary incomes, and anecdotal information suggests that renting rooms is a common source of income. In Port Moresby rents of over 120 kina per week per room are typical, so for households able to rent out several rooms this can be a very useful income stream.

There is a wide range of goods being sold, with many vendors selling a range of different goods. The items on sale across all the localities surveyed are listed as follows (in alphabetical order).

- Beer
- Betel nut (including lime and mustard)
- Cleaning goods
- Clothes
- Cocoa
- Coffee
- Cold drinks
- Cooked foods
- Cooking oil
- Cooking utensils
- Crafts
- Eggs
- Electrical goods
- Firewood
- Fish (fresh fish, salt fish, other seafood)
- Flowers
- Fruit and vegetables
- Fuel
- Gold



- Hot drinks and snacks
- Ice
- Live chickens
- Meat
- Meri blaus
- Phone cards
- Pigs
- Plastic bags
- Rice
- Sago
- Shell money
- Store goods
- Sweets
- Tobacco products
- Traditional items (brooms, mats)
- Traditional medicine
- Vanilla
- Water



The types and volumes of the various goods on sale are partly determined by regional availability, and they are also affected by local regulations applying to both residential areas and markets. However there is considerable consistency in the main type of goods that are most frequently sold.

Fruit and vegetables are sold by around a third of vendors in the southern surveyed localities, but by around half of all vendors in the northern surveyed localities, and around three quarters of all vendors in East New Britain. The latter results are influenced by market regulations in the new markets which restrict the sale of goods other than fruit and vegetables. These goods are sold by a higher proportion of women than male vendors, at a ratio of about 2:1.

Betel nuts (with or without lime and mustard) are sold by an even higher proportion of vendors, but often as a secondary item together with other goods. Around half of all vendors are involved in this trade, varying from 62% in Port Moresby to 34% in Jiwaka/Western Highlands. While both women and men are involved, the proportion of men participating was higher than women in all surveyed localities except East Sepik. However it appears that while women dominate the betel nut trade there, men are more involved in transporting and wholesaling of betel nut in East Sepik Province⁵¹.

Remarkable results from the phone survey are that around 80% of formal sector workers with secondary incomes (both men and women) report that selling betel nut and/or cigarettes is a secondary occupation.

Tobacco products (including cigarettes) are sold by the next highest proportion of vendors, but most often as a secondary item to other goods. The proportion of vendors selling tobacco products varied between 25 and 32%, with a higher proportion of men involved.

Cooked foods are sold by around 20% of vendors, ranging from 16% in the Gulf/Central survey to a high 29% in East Sepik. More women than men are involved, but it is not an exclusively female activity. It should be noted that some markets do not permit the cooking of food on site, so there may be unmet demand in some localities.

Cold drinks are often sold as a secondary item, though many vendors specialise in these goods. The proportion of vendors involved varies from 11% in Port Moresby (with 7% selling cold drinks as their primary goods) to 29% in East Sepik. This involves men and women.

Store goods encompass a ranged of packaged goods and non-food items, with the enterprises varying from mobile hawkers to "mini-markets" and fully fledged trade stores. This involves around 20% of vendors, with a high 29% in East Sepik. This type of trade is pursued by more men than women, and men are more likely to control the big stores. It is a clear aspiration of many vendors (men and women) to eventually establish and run a trade store, as this is seen as a very lucrative business.

There is variation between the localities surveyed in some of the other types of goods sold.

Fish and other seafood is a minor component of sales activity in most localities, but the exceptions are in the Gulf/Central survey locality where 17% of vendors sell fish or other seafood, and East Sepik where 25% of interviewed vendors sell fish (including both fresh fish and salt fish from trawler bycatch). Most of these vendors are women, but some of them may sell fish that has been caught by their male relatives as part of a family enterprise.

Clothing is sold by around 12% of vendors in East New Britain (largely involving the traditional women's meri blaus), and by 14% of vendors in Jiwaka/Western Highlands (largely second hand clothes). More women than men are involved in this trade, but even selling the meri blaus is not an exclusively women's activity.

Sago is a foodstuff that is particularly popular with people from the East Sepik Province, and 9% of interviewed vendors sell this in that survey locality, all of them women. Sago is also sold in a part of the Morobe survey locality which has been settled by migrants from the East Sepik.

There are some differences in the patterns of trade within residential areas as compared with markets, with more cooked food on sale and less fresh food. Also more vendors in residential areas sell a mix of products.

The range of goods on sale reflects market demand but is also affected by availability of goods, regulatory restrictions, and the familiarity of vendors with the supply networks. It can be seen that although the distribution of fruit and vegetables is an important contribution to nutrition, some other goods are likely to have an adverse impact on health (betel nut, cigarettes, canned soft drinks) especially given that these items may also suppress appetite for more nutritious foods.

There is very limited availability of protein foods (meat and fish) in most localities, partly because of regulations that restrict the trade in these goods. Regulations in some localities also restrict the availability of cooked foods that might be a source of animal protein. While the informal economy serves a very important function in terms of food security, there may be a case for incentivising better distribution of protein foods and diverting activities away from trade in less healthy goods.

The following compilation of results from the phone survey indicate the proportion of workers selling different types of goods as their primary activity.

Figure 6: Main items sold by female workers in the informal economy (phone survey)

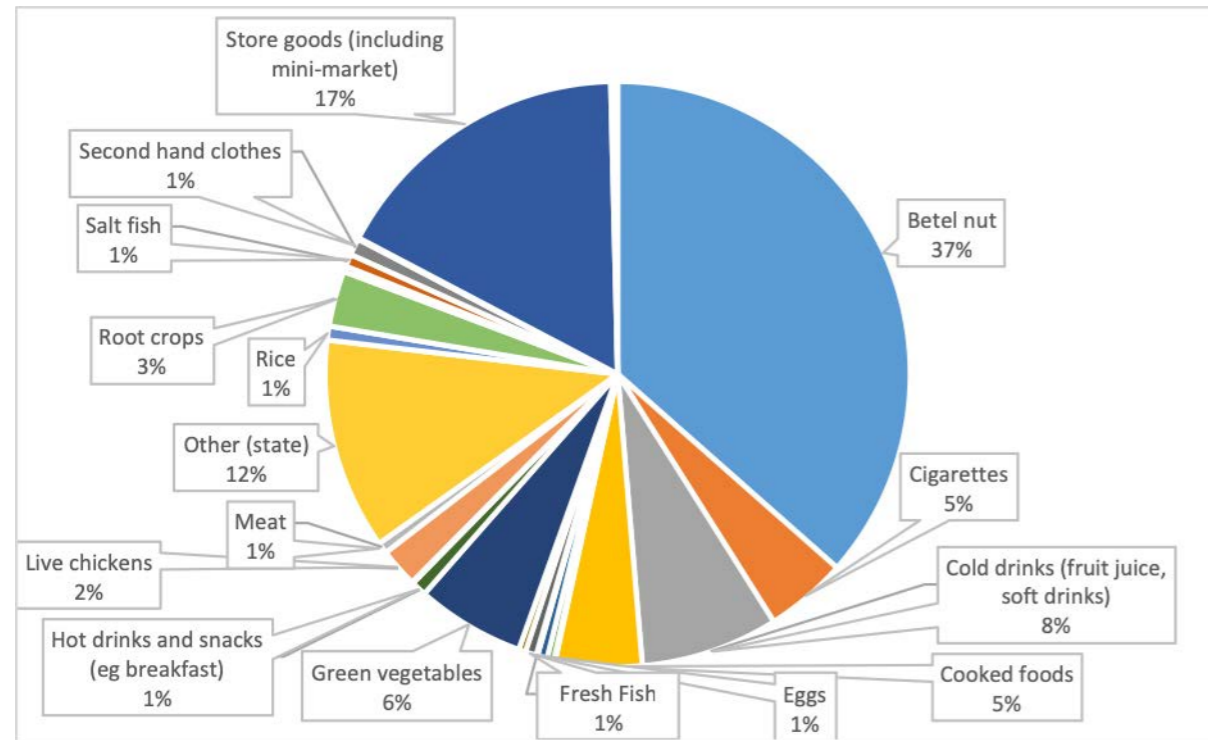
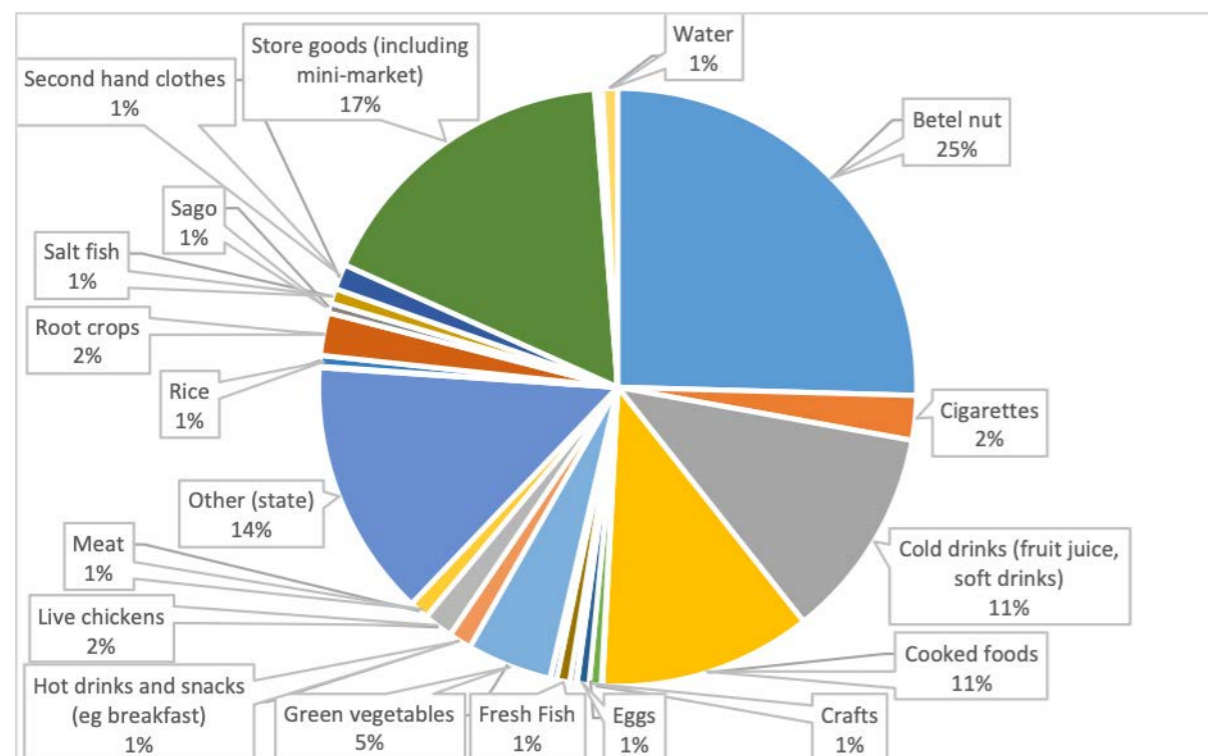


Figure 7: Main items sold by male workers in the informal economy (phone survey)



Within markets it is apparent that the range of goods on sale is being increasingly restricted, and this is having an adverse impact on all vendors. Common restrictions are being applied not only to the sale of betel nut, but also to the sale of fresh meat and fish as well as cooked foods, and this makes markets less attractive to customers, reducing their value as a one stop shop for purchasing household needs. Banning of betel nut sales has displaced betel nut sales to other areas, which then act as a magnet to take potential customers away from the market. Removal of certain activities from markets also impacts on the wellbeing of vendors, as many work long hours in the market, and rely on the market produce for their own and their children's nutrition.

The average working week is around 35 hours in the markets of East New Britain and East Sepik (restricted by opening hours) but exceeds 40 hours in other locations. In Gulf/Central markets where vendors take goods to market for only a few days per week, the average working week is around 45 hours as each working day is long. It is highest in residential areas (around 60 hours), although the link between work and home may lead to intermittent work over a 6-7 day period rather than a continuous working week. Based on the interim findings and comparing with the 2001 and 2010 findings, there does not seem to be a marked increase in the number of hours worked per week, despite the increased earnings over the past 17 years.



7. WHO IS INVOLVED IN THESE ACTIVITIES?

The 2011 PNG census indicated that a third of women in urban areas were involved in trade, and this is cross validated by some of the research undertaken by UN Women in 2010. The 2010 data suggests that relatively few men were involved in informal trade by comparison. Throughout the rest of Melanesia it has been estimated that around 10% of women in the informal economy were market vendors, with another 50% of women involved in agriculture or trading goods or services from street stalls or their own houses (research pre 2014 collated by UN Women, 2017).

The audit confirms that women remain the majority amongst vendors within residential and commercial areas, including markets. However it is clear from the audit results that there is an emerging trend for more men to be involved in this activity in more urbanised localities. Male workers comprise 40% of all informal economy workers in the Morobe and Gulf/Central survey localities, 32% of workers in Jiwaka/Western Highlands, 17% in East New Britain and 11% in East Sepik. Within Port Moresby, men comprise 26% of the total survey sample, but there was a marked difference between the newly settled areas and the more established settlements, with a higher proportion of male workers in the new settlements. The overall picture is that women outnumber men 3:1, but that in the newer more urbanised areas this ratio is closer to 2:1. Comments from vendors suggest that men have observed that women can earn good money in the informal economy, and this has encouraged some of them to follow suit.

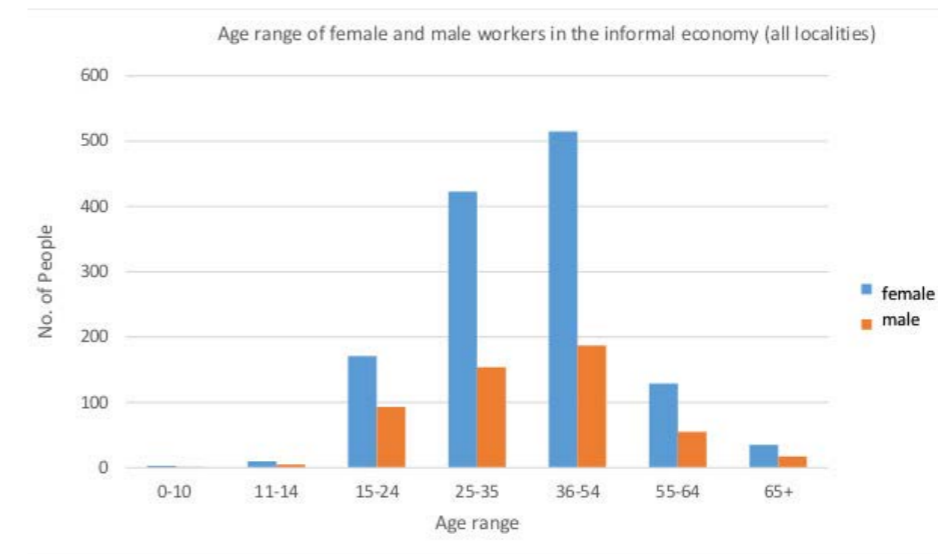
The gender balance of unpaid helpers to the main workers demonstrates a higher proportion of male participation. Such unpaid help might be part time, and sometimes involves male helpers assisting in carrying heavy loads, or providing security. In most of the survey localities there are more male than female helpers identified, with the exceptions being East Sepik (twice as many female compared with male helpers) and East New Britain (25% fewer male than female helpers). By contrast, relatively few children were identified as helpers, ranging from 12% of helpers in Jiwaka/Western Highlands to 25% in Morobe. The typical number of helpers for each informal economy workers was 1-2.

The 2001 survey indicated that a majority of vendors at that time were younger people, with around 70% of workers being less than 36 years of age. This age profile appears to have shifted over time, so that the majority of informal economy workers interviewed in 2018 are over the age of 35, and the age profiles are remarkably similar for men and women. However it may be that a younger age group is involved in helping the older workers, as no age data was collected for the helpers.

The proportion of workers under 25 years of age is highest in Morobe (29%) and lowest in East Sepik (4%), but more typically around 15% (validated by the phone survey). This compares with over 25% in the 2001 baseline survey. Given that 58% of PNG's population is under 25⁵², and allowing for 1/3 of this group to be of working age, it appears that this age group is now considerably under-represented in all the survey localities apart from Morobe.

Generally the cohort of female and male workers is considerably older, including many people over the age of 65. There are fewer of these elderly people involved in the larger urban areas in NCD and Morobe (around 3% of all workers), with other survey localities reporting 6-10% of workers in this age group. East Sepik contains the oldest cohort of workers, with 46% of all workers over the age of 55. This appears to be influenced by a high rate of out migration from this province by young people seeking formal employment or other work. By contrast the relatively younger profile of the larger urban areas may indicate the impact of in-migration.

Figure 8: Age range of female and male workers in the informal economy (all localities)



In looking at who is involved in the informal economy as well as data on formal sector employment, it is important to consider who is not involved. The above data suggest that the missing cohort may be younger people, and that this may contribute to social dysfunction if they are unemployed or under-employed. Some of the comments made by vendors about problems they experienced indicated that social disturbance caused by unemployed male youth, often combined with substance abuse, is a significant concern.

The 2001 baseline data indicated relatively low levels of education amongst informal economy workers, with 32% having no formal education. There is some indication of rising education levels in the 2018 audit, which may indicate an increasing level of education in the population as a whole. The exception is in Jiwaka/Western Highlands, where 36% of men and women report no schooling. In some localities, female workers have achieved a similar level of education to that of male workers (eg East New Britain, where only 17% of women and 18% of men report having no formal education). In other localities the proportion of women with no schooling is around double that of male workers, ranging from 16% (East Sepik) to 25% (NCD) for women workers. At the other end of the scale the proportion of workers who have post-primary (ie beyond Grade 6) education ranges from 30% to 42%, similar for men and women except for the Gulf/Central survey location where 30% of women and 43% of men have post-primary education. This compared with just 24% identified in the 2001 baseline survey.

Rising educational levels are validated by the findings of a 2017 survey of market vendors in Port Moresby where higher levels of education were reported⁵³. The phone survey indicates an even higher level of education amongst workers in the informal economy, with half the proportion of workers with no schooling compared with the field survey results, and double the proportion with post-primary education, but there may be a slight bias towards better educated people amongst mobile phone users. Overall, the phone survey results indicate that a majority of male workers, and slightly less than half of all female workers, have had post-primary education.

Figure 9: Education levels of female workers (phone survey)

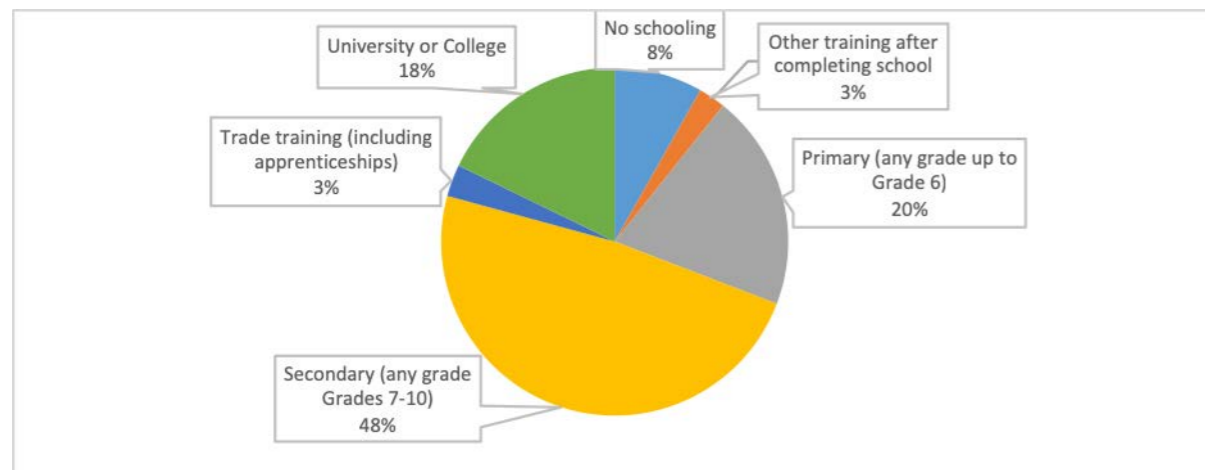
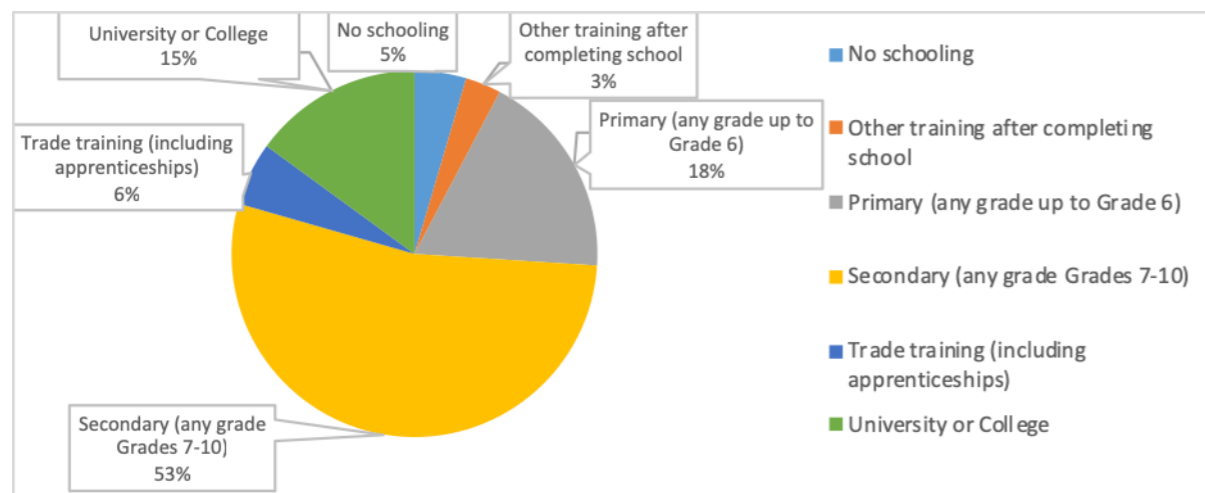


Figure 10: Education levels of male workers (phone survey)

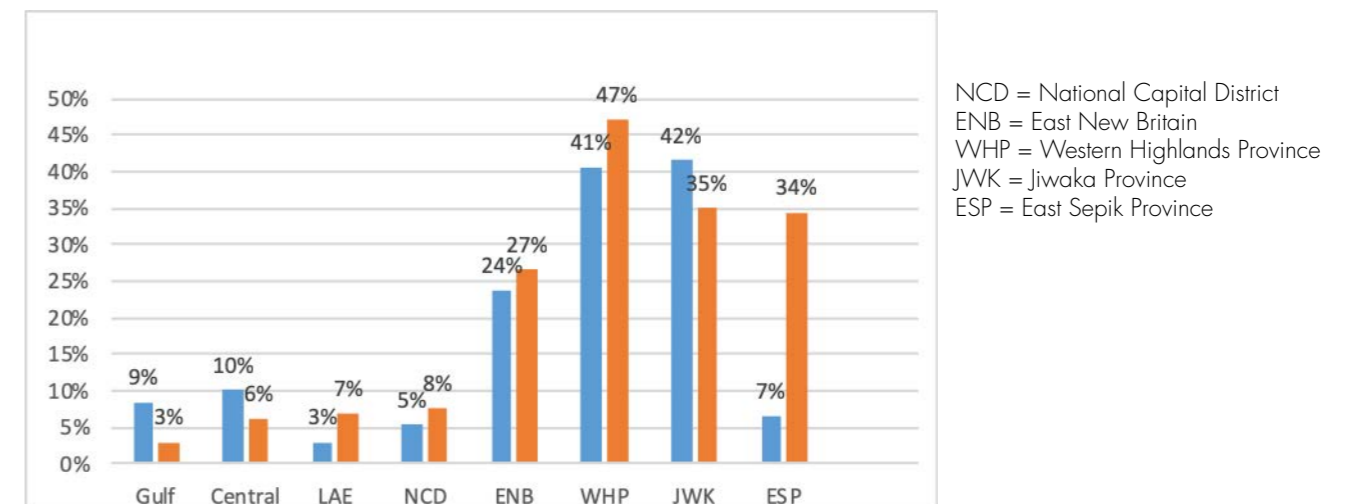


Current primary school enrolments across PNG are assessed as 54%, falling from 72% prior to 2015. Current secondary enrolments are assessed as 12.4%⁵⁴. The average number of years of schooling for adults in PNG is 2.9, with a literacy rate of around 59% for women and 66% for the whole population⁵⁵. On this basis, it is clear that the educational achievements of informal economy workers are commonly much better than those that might be expected of the average worker.

The audit findings about workers with a disability were mixed. While the flexibility of working hours and workspace could make informal work more accessible for disabled people, the long hours and physical exertion involved in trade may work against this. The reported incidence of disability is lowest (5-10%) in the NCD, Morobe, Gulf/Central and East Sepik survey localities, but much higher in East New Britain and Jiwaka (both at 27%, around the same for women and men). The phone survey indicates a medium range around 17% for the localities surveyed. Interviewers took time in explaining the different types of disability that might be of interest (consistent with census definitions) but the face to face environment may have discouraged accurate reporting in some cases. However it may be that the high incidence of domestic and other violence occurring in the Highlands regions⁵⁶, which appears to be partly responsible for a migration of Highlanders to coastal urban centres, could account for some of the higher rates of disability reported in the audit. It is noted that the cohort of interviewees in East New Britain includes a very high proportion of workers who had migrated from the Highlands.

The high incidence of disability amongst Highlanders is even more evident when all the data on individual collected in the field survey is collated (extending beyond the interviewed workers to other household members). It should be noted that a high proportion of people described in the East New Britain survey are migrants from the Highlands.

Figure 11: Locality distribution of all people identified with a disability



Analysis of the ethnic composition of workers located in residential areas was carried out. It is apparent that the results are heavily influenced by the residential localities selected, as there appear to be distinct ethnic enclaves even within migrant settlement areas. For instance, the selection of a sample migrant settlement area in Port Moresby unintentionally resulted in over-representation of migrants from Central Province, rather than the expected Highlands migrants. However some general observations can be made.

The greatest ethnic mix is seen in Port Moresby, with people from most provinces represented. Household interviews in both Morobe and Port Moresby indicate a very recent migrant influx from parts of the Highlands impacted by earthquakes and/or tribal fighting. However, it is evident from the Morobe survey that in-migration of Highlanders is not necessarily reflected in a dominance of trade. Around two thirds of vendors surveyed there are from Morobe Province, and the next largest group is from East Sepik (reflecting past in-migration in association with the timber and gold mining industries). In East New Britain there is a notable high incidence (66%) of workers who originated in the Highlands regions and only 18% of interviewed workers are from East New Britain. This clearly indicates out-migration from the Highlands, possibly motivated originally by work opportunities in plantation agriculture.

There is less ethnic mix in the other survey localities. In the Gulf/Central survey over 90% of workers are from the Gulf or Central Provinces. In Jiwaka 85% of workers are from Jiwaka or Western Highlands Provinces, with a further 14% from other Highlands provinces. In East Sepik 86% of workers surveyed are from the East Sepik Province, where it appears that there has been significant migration of people from the Highlands, but Highlanders are not necessarily working in markets and they were not captured in the residential areas surveyed.

A substantial proportion of informal economy workers have previous experience in formal employment. The incidence varies between women and men in some survey localities, with more women workers (27%) than men (21%) in the NCD having previous experience of formal work. It may be that the larger urban economy of Port Moresby is better able to retain male wage employment. However the reverse is seen in Morobe, where 25% of male workers and 16% of female workers have prior formal employment experience. In other survey localities there is little gender difference, and the levels of prior formal economy experience ranged from 18% in the Gulf/Central surveyed locality (the same for both men and women) to 31% in East Sepik, 35% in Jiwaka/Western Highlands and 46% in East New Britain.

The phone survey indicates that many workers in the formal economy also work in the informal economy to earn additional income.

It is often assumed that the desirable pathway is from the informal into the formal economy, but movement the other way sometimes arises from the attraction of larger earnings or more flexible work patterns, particularly for women with children. Comments from vendors indicate that some formal employment within private businesses is substantially underpaid, so people would prefer to work for themselves on this basis. There is also an attraction of earning money daily rather than having to wait a fortnight for a pay cheque. It could also be that some movement into the informal economy is prompted by job losses, though this was not reported. Clearly some workers keep a foot in both sectors of the economy.

The 2018 audit explored the reasons for workers being engaged in their chosen work activities. While this is a difficult topic to address in a broad survey, it is clear that most workers have chosen their careers for economic reasons, in the first place to enable their families to survive and where possible to make money to improve their wellbeing. The other reasons that are given for undertaking informal work vary between survey localities. Some workers in the NCD (30%) and Gulf/Central (39%) indicate that their work choice was influenced by the fact that it "ran in the family", but this appears to be a negligible factor in other survey localities. This highlights that in larger urban areas, informal enterprises are often family businesses, with family members employed as helpers, and established entrepreneurs helping their younger relatives to set up in business. It also indicates that workers are often attracted to work in enterprises that they are familiar with, rather than in enterprises that offer the best opportunity for making a profit.

In other survey localities many workers are motivated by having to raise money to pay school fees: this is evident in Morobe (12%), East New Britain (13%), Jiwaka/Western Highlands (18%), and East Sepik (22%). In East New Britain and Jiwaka/Western Highlands this is a particular motivation for women becoming involved in the informal economy.



8. WHAT RESOURCES DO THESE ACTIVITIES RELY ON?

Workers in the informal economy need space for their work activities. Some people work close to their homes, enabling some combination of home activities with work. Their work takes place inside their dwellings, in the backyard, or on the adjacent street. Others pursue their work in commercial spaces including urban activity nodes and highway locations. Some workers combine the two, working from home on some days and travelling to other workspaces intermittently.

Based on interviews carried out in residential areas, the audit results indicate that the majority of informal workers carry out their work in the immediate residential area. The audit indicates that the vast majority of workers in the NCD (85%) work in their residential areas and this is validated by the phone survey. It seems likely that the much larger urban population in Port Moresby creates an economy that can support more people working within their neighbourhoods. The proportion is lower in the other survey localities: 65% in Gulf/Central, 58% in Morobe, 54% in Jiwaka/Western Highlands, 48% in East New Britain and a much lower 33% in East Sepik.

This has significance for planning, as it suggests that new residential areas, including those subject to the UN slum upgrading program, should accommodate work activities within the houses, backyards and street space, so as to maintain residents' economic livelihoods. Not to do so could have a significant adverse impact in increasing poverty.

For those pursuing work activities outside their residential areas the main type of workplace is a central market or a highway location. The interim audit results suggest that in the more urbanised survey localities (NCD and Morobe) around 10% of workers in the informal economy work within markets or along highways, and the rest work in a range of other locations (eg around offices and institutions). This runs counter to previous assumptions that markets are the main activity nodes, arising from their greater visibility. In other survey localities there is a larger proportion of workers who are based in markets: 14% in Jiwaka/Western Highlands, 15% in Gulf/Central, 43% in East Sepik and a high 46% in East New Britain. The relatively low proportion of market workers in Jiwaka/Western Province may be partly explained by a lack of public market infrastructure in the survey localities. On the other hand in East New Britain the high proportion of workers based in markets can be partly explained by a local regulatory regime that discourages work activities within residential areas.

Comments from vendors indicate that more workers would like to work in markets, and there is some belief that market vendors made more money through their greater access to customers (depending on the market rules in operation), but the lack of space within existing markets is often a constraint. It is also apparent that the poor conditions found in some markets, and the way they are managed, is a factor that limits earnings as well as wellbeing.

For comparison, earlier 2010 data suggested that the regional town of Kundiawa with a population of 15,000 had 1,200 female market vendors, with many more female workers trading in residential streets and along roadside. Assuming 30% of the population are women of working age, and 80% of these employed in the informal economy, it would seem that those trading in markets represented around 30% of all women workers in the informal economy of that regional centre. Data from Port Moresby at that time suggested a female working age population of around 135,000 and around 20,000 women market vendors, suggesting that market vendors might have made up 15% of all women workers in the informal economy based in the city at that time.

Even if they are not the dominant venue for trade, markets are likely to be the primary nodes for distribution of goods from points of production into residential areas, so their economic importance in driving the informal economy, and the economy as a whole, should not be underestimated. However the physical and social conditions within markets have a major impact on productivity, so that the nature of the workspace resource is of critical importance. Similarly highway locations offer commercial opportunities but also physical and social risks unless these workspaces are carefully managed. The audit findings are mixed: markets generally remain as economic powerhouses, but in some areas their productivity is limited by poor working conditions, and in other areas the markets may have physical improvements but the new market rules may be creating unintended adverse impacts for their economic productivity and the earnings of individual vendors.

The other main resource for the informal sector is the supply system for the goods being traded or processed. As the audit results are extended it may be possible to identify key resources and supply chains that contribute to the informal economy. Betel nut supply chains have been previously documented⁵⁷ and this resource appears to have great economic significance, despite the restrictions placed on this trade. The supply chain for green vegetables and root crops around major urban areas has also been previously explored⁵⁸, with the finding that there is increasing reliance on production near to or within urban centres.

The audit results include data about the start-up costs that workers in the informal economy have incurred, as well as the cost of sales (purchase or production of goods, transport, fuel, fees etc). The economic resources used to establish informal enterprises are widely ranging, with common investments by men at around PNGK 200-300, and by women around PNGK 150-200. However there are some very large investments made largely by men, some in establishing trade stores but others in a range of other trading categories. A small number of these exceeded PNGK 20,000. Discussions with vendors suggest that operating trade stores and raising live chickens are enterprises that require larger than normal investments, and some workers (men and women) are saving the capital to make a transition into these businesses. The fact that more men have succeeded in making these large investments may reflect greater power of men to control allocation of money within the household, or possibly accumulated savings from prior involvement in the formal economy.

Very few women or men report having outstanding loans, and this reinforced the finding that workers in the informal economy are lenders rather than borrowers. This is discussed in further detail in the following chapters.

9. WHAT ARE THE OUTCOMES FOR HOUSEHOLDS AND COMMUNITIES?

Calculating the weekly earnings of workers in the informal economy presents some difficulties. Workers earnings vary on a daily basis, and the actual calculation of net profits after all costs is an exercise that is not familiar. Considerable time was spent by interviewers in developing an estimate of takings and costs on a daily basis over the past seven days, to establish an overall approximation of earnings. The end results were compared with the calculated total expenditure on various items over the previous week, including cost of sales (travel costs, payment to workers, wholesale purchases, market fees etc) as well as personal or household expenditures.

The observations that can be made about the level of weekly earnings are as follows.

- Net incomes of PNGK 300-500 are typical across all localities except for East New Britain, where earnings are substantially lower, typically in the range PNGK 150-250.
- These average earnings are distorted by some larger enterprises, so it should be noted that many workers earn much less.
- In East New Britain, male workers report slightly higher earnings than women.
- Elsewhere, men working outside residential areas (eg in markets and other activity nodes) report higher earnings than women, but this does not apply to men working in residential areas.
- Women working outside residential areas report a similar level of earnings to women who work closer to home.

The situation in East New Britain is remarkable as this survey locality includes some of the “best” markets in the country in terms of design and physical amenity. However the low level of earnings appears to be influenced by a highly restrictive regulatory regime which limits hours and types of trade in markets, and which discourages any informal work activities within residential areas.

There is some variation between the survey localities in terms of spending on food and essential household goods. The lowest level of expenditure is in East New Britain, probably influenced by the relatively low level of incomes. Weekly spending of around PNGK 28 per week on food and an additional PNGK 8 on household goods is typical in that locality. Jiwaka/Western Highlands sees the next lowest levels of essential spending, with food costs of PNGK 45 per week and PNGK 3 for other essentials being typical. It can be anticipated that the very low level of food purchases in these survey localities (especially) may be supplemented by home grown food crops.

Elsewhere, essential spending in the region of PNGK 100-150 per week is typical for both women and men. This level of spending does not appear to increase with the level of earnings. There is virtually no additional expenditure on renting accommodation, with the vast majority of workers being owner-occupiers of their housing, and more workers being landlords rather than tenants.

Meeting the cost of children’s education is the next highest category of weekly expenditure. It might be expected that this would vary over the course of the year, with some lumpy payments at particular times (eg when school fees are required). Weekly expenditure of around PNGK 20 is typical, but with much larger amounts spent in many cases. There is little consistency between the survey localities except that there is no apparent difference in the levels of regular expenditure on children’s education by women and men. This contrasts with the situation regarding savings, where women appear to be much more motivated to put money aside for their children’s education than men.

Expenditure on clothing is minimal, generally in the range PNGK 20-30 per week, but more than double this amount in the Gulf/Central survey localities.

Workers report very little expenditure on gambling. Of the few workers who do report that they gamble, the amounts are small, and both men and women are involved. The exceptions include one man who makes his living from gambling.

Men typically spend more than women on “entertainment”, with the lowest level of this spending being in East New Britain (unsurprising, given the low incomes involved). Women typically spend PNGK 10-20 on activities they classified as entertainment, compared with typical spending by men of PNGK 20-50 per week. The services or activities that workers include in this category are not evident, but it may be that this includes drinking alcohol as part of socialising, as one example.

A category of spending which was not systematically included in the survey was mobile phone costs, This was an unfortunate oversight as it became apparent during the course of the audit that workers spend a considerable amount on phone communications. This is seen as essential not only for business but also for maintaining social relationships, which has a very high priority in Melanesian culture. Some workers indicated that mobile phone costs of PNGK50 per week are quite common, and some workers report spending much more than this. The high costs of mobile phone use in PNG relative to other countries is an apparent drain on workers’ resources. This is a relevant consideration when assessing future options for mobile phones to contribute to financial services and accounting practices within the informal economy, as is discussed later.

Having spent money on these various types of goods and services, most workers are left with a considerable proportion of their income (typically over 50%) over which they have some discretion. However many workers, especially women, complain that the demands made by relatives, and the social obligations imposed on them, removes some of the control they might otherwise have.

The use of “discretionary funds” can be summarised as follows.

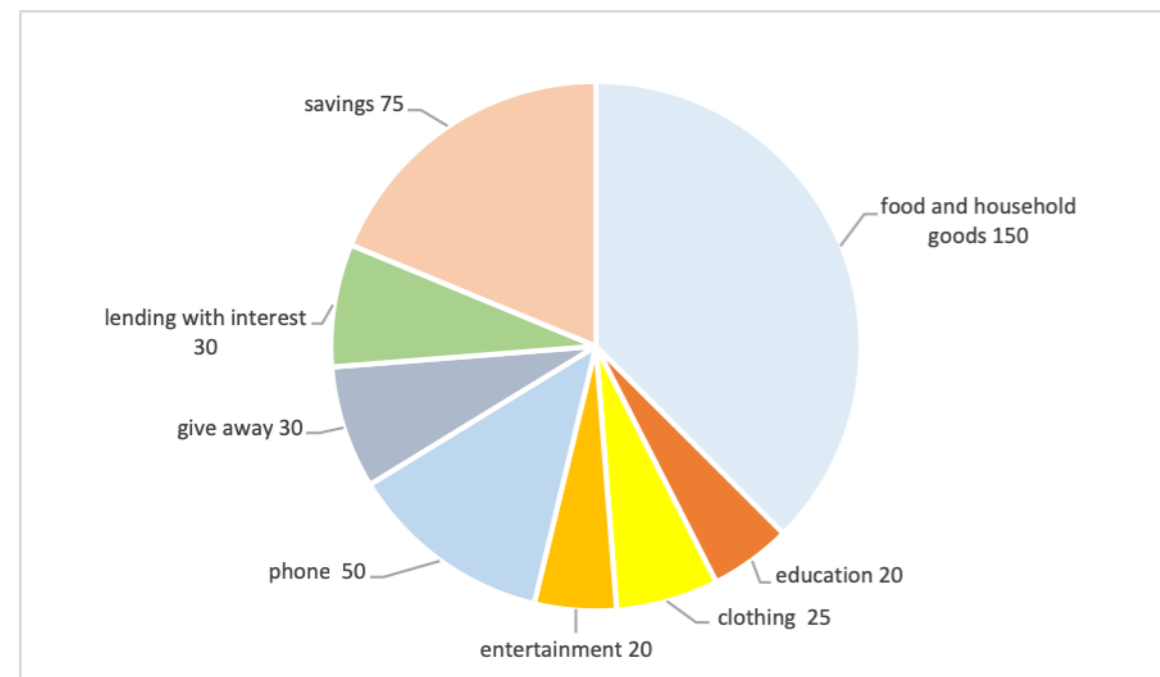
A typical 10% of earnings is “given” to relatives. In East New Britain and Jiwaka/Western Highlands there is also some lending of money without interest, but in the other survey localities this is negligible. There is no notable differences between women and men in this regard.

Many workers lend money to others on a more commercial basis, charging them interest. This is a means of putting their savings to work, and it can be very profitable with the prevalent rates of interest around 50% per fortnight. However the benefits are offset by common difficulties in securing repayments. In most localities there is no notable difference in the amounts lent with interest by men and women, but in the NCD women appear to be the main lenders.

A negligible amount is involved in repaying loans, and workers also report virtually no borrowed funds to supplement their earnings the previous week.

A substantial portion of weekly income is allocated to “savings”, discussed below.

Figure 12: Typical weekly spending pattern for female and male workers (PNGK)



The field survey results indicate that most of the informal workers make regular and substantial savings. The phone survey indicates that around two thirds of female and male workers make regular savings. Field research indicates the lowest proportion of workers making regular savings was in Morobe (46%) and the highest was in East Sepik (88%) but around two thirds of workers elsewhere report regular savings, with little difference between men and women. This is validated by the phone survey results.

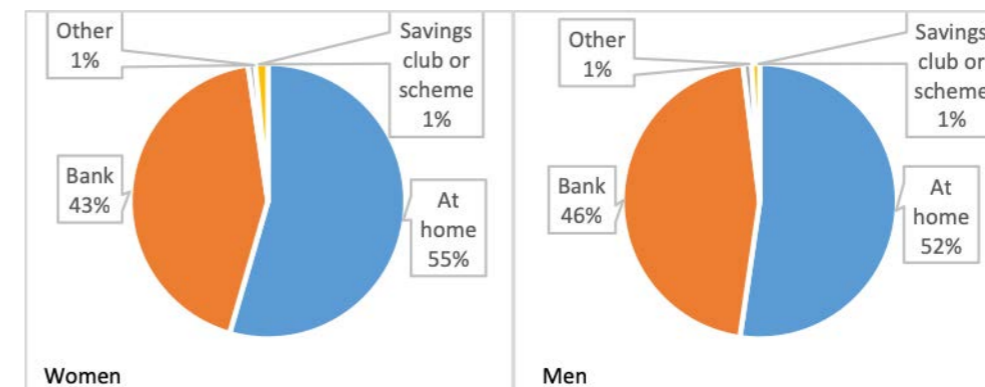
Figure 13: Workers in the informal economy who save money regularly (phone survey)



The amounts reported as weekly savings are considerable but with great variation. Sometimes workers reported that they saved more than they earned from the previous week’s activities, and this could be a result of over-reporting or unreported secondary sources of income. A few very large income earners also distort the results in some of the survey localities. There are no consistent gender differences in the amounts saved or the proportion of earnings saved. However across all of the survey localities both male and female workers report that they save at least 25% of their net earnings for the previous week on average.

The phone survey indicates a small difference in the way that workers keep their savings, with slightly more men than women saving in a bank.

Figure 14: Places where workers save their money (phone survey)



This pattern is also evident from the field survey, with the greatest gender gap in Jiwaka/Western Highland where just 17% of women but 33% of men save their money in a bank account.

For the most part, those who don’t use a bank save their money at home. Very few use a savings club or microfinance facility. It is notable that in Jiwaka/Western Highlands (but nowhere else) some workers report that they keep their savings on their person – this applies to 3% of women and 4% of men. This indicates that although workers in the informal economy make regular and substantial savings, their money is not kept in a secure place, and it is not saved in a way that earns interest. This represents a considerable loss of the potential reinvestments that could build wealth within the informal economy.

The audit survey asked about the reasons that workers saved money. The main reason given by women and men was often described as “rainy day” saving, ie putting money aside for unforeseen circumstances or emergencies. These might include accidents or illhealth producing extra costs or reducing a worker’s earnings, or customary obligations to pay for family members’ weddings (including feast as well as “bride price”) or funerals (including headstones). Workers in the NCD put the largest proportion of their savings aside for this reason: 64% of women

and 40% of men. Overall this is the main reason for saving for around a third of all workers, with women giving this more importance in Gulf/Central and men giving it greater importance in the other survey localities.

Putting money aside for education, particularly children's school fees, tends to be a greater motivation for women than men, though this is not consistent across all survey localities. It is a major motivation in Morobe, where 58% report this as the main reason for saving. More women (31%) than men (23%) save primarily for education in Gulf/Central, and the proportions are similar for men and women in Jiwaka/Western Highlands (just over 50% for both). However in the NCD this applies to 18% of women and 21% of men, and in East New Britain there is an even greater gender bias towards men saving for education (47% compared with 30% of women).

For others, the main reason for saving is to invest in ways that would increase earnings or equity: buildings, vehicles or business expansion. More men than women report this as the main reason for saving, and there are more men with a level of earnings that enables this sort of investment. In the NCD 13% of women and 22% of men save with this in mind. In Morobe and Gulf Central this applies to around 25% of women savers and over 30% of men, and the gender difference is even more evident in East Sepik applying to 21% of women and 42% of men (though the number of men is small in this survey sample). The situation is reversed in Jiwaka/Western Highlands, with more women (32%) than men (27%) saving for investment, and a similar gender reversal applies in East New Britain (22% of women and 15% of men).

These data suggest a considerable capacity for workers in the informal economy to invest in their local communities, increasing community wellbeing and also expanding their businesses. This capacity would be even greater if:

- (a) they were able to save in a way that was secure and which earned interest
- (b) they could access low interest loans for which most workers have a capacity to repay
- (c) if their considerable "rainy day" savings were replaced by an appropriate insurance mechanism.

10. WHAT ARE THE BARRIERS TO IMPROVED PRODUCTIVITY AND WELLBEING?

Workers were asked about the problems they faced in the workplace. Multiple answers were recorded, and the issues are described below. There was much in common between the different survey localities, but some differences in the priority given to different problems.

Managing credit: this arises from money being lent to others or goods provided on credit, but repayments failing to be made. It emerged as the most important concern that workers in the informal economy have within NCD and Morobe, reflecting a higher incidence of commercial lending amongst workers in these localities. Apart from those lending money on a commercial basis, it is apparent that many workers provide credit to customers buying their goods and services. It is socially awkward to collect money from friends and relatives, but at the same time there are also problems in collecting from strangers as they might be difficult to track down. The problems of credit create particular tensions (including inter-ethnic tensions) and can lead to violence as workers seek help from friends and relatives in collecting unpaid debts. Clearly this is very much on the minds of workers who have put their money to productive use in this way, in the absence of other means of productively investing their savings.

Business competition: many workers complain that there are "not enough customers" and "too many workers doing the same thing", which are obviously interrelated observations. It is clear from the data that work activities are heavily concentrated in a few occupation types, rather than being spread over provision of all of the goods and services that are needed to meet customer needs. The previous finding that many workers fall into what they are doing because it "runs in the family" provides a partial explanation. However workers are also likely to gravitate to activities they are familiar with, in the absence of information about other options. Many workers comment that the situation is worsening as more people become involved in the informal economy without a commensurate increase in the customer base. The scale of the informal economy suggests that the vast majority of customers are likely to be other workers in the informal economy, with only a small proportion of money in circulation coming from formal sector workers and their families. This issue is in the top two of concerns reported in the NCD, Gulf/Central, Jiwaka/Western Highlands and East Sepik.

Physical infrastructure: this is a major concern reported with varying levels of priority in different survey localities. Many workers place priority on improved shelter and more workspace as the main issues to be addressed. There is concern about damage of goods from weather, and vulnerability to flooding in some areas. Lack of sufficient space for workers is a problem particularly for vendors in crowded markets. Lack of storage leads to wastage of goods that are unsold at the end of a trading day. Secure fencing is often raised as an essential requirement for worker safety, discouraging market access by people other than vendors, management and customers. Many workers also point to the lack of basic services such as access to water and sanitation, and in some locations there appears to be a need for lighting and reliable power.

However it is evident that making improvements to physical infrastructure without regard to economic dynamics can be a misguided investment, resulting in reduced earnings for vendors and reduced wellbeing for their families. In addition to the East New Britain survey locality this appears to have occurred in some of the new markets in Port Moresby (eg Koki and Gerehu) as transport arrangements (bus stops, road reconfiguration) have not been aligned with bringing people into these markets, and as regulations separating different types of products and services (eg betel nut, cooked foods, meat and fish) have discouraged customers from coming.

Within the other audit survey localities, the physical conditions in markets owned and managed by landowner groups rather than by local authorities appear to be particularly problematic, with little investment in improving the conditions for workers despite the income from the market fees they pay. There are also a range of other problems arising from poor management of these markets. It is noted that plantation companies appear to have failed to invest in the sort of physical infrastructure that could assist their workers in the survey localities.

Law and order: there are several issues relating to law and order, with the most common being damage and disturbance caused by people who are drunk. This seems to particularly relate to unemployed youth, and it is in the top four reported problems in the NCD, Morobe, Jiwaka/Western Highlands (where it is the number one issue) and East New Britain. While restricting access to alcohol might appear to be the solution, it should be pointed out that producing and selling homebrew is an economic activity for a few workers. A particular problem is commonly reported by workers in landowner-managed markets, where members of the landowner group use the fees they collect to buy alcohol, and then seek to collect even more money when they are drunk under threat of violence.

Other law and order issues affecting workers are theft of their goods, and inter-ethnic fighting. In some survey localities (particularly the NCD and Gulf/Central) increasing police presence is seen as a problem in its own right, with some reports of aggression from police or the ancillary city rangers, extending in some cases to financial extortion and destruction of property. Problems arising from such aggressive behaviour are most apparent for betel nut vendors, arising from their ambiguous legal status. It should be noted that a very large proportion of vendors are involved in this trade as a primary or secondary work activity.

Transport infrastructure: this is a significant problem for many workers, in terms of transport cost, the time and effort involved, safety issues and complete lack of transport. Road and water transport problems are evident in different localities, including facilities for docking water-borne craft and unloading goods (such as fish and other seafood). Lack of transport in more remote localities creates a situation where some workers have to walk from their homes to their workplace over several hours carrying heavy loads. Where transport services are available, there are concerns about the safety of services for women using them, as well as the high cost. In situations where transport is unreliable, for example reliance on roads that are frequently flooded, workers may be subject to catastrophic disruptions to their work activities and incomes.

Financial and personal pressures: these are listed in the top five difficulties faced by workers in all the survey locations and they take several forms. Financial pressure arise because many workers feel they do not earn enough money to make ends meet, and this clearly relates to the issue of business competition. Others make enough to meet basic needs but not enough to invest in building their businesses, so they feel trapped. Lack of access to financial services to meet short and long term needs is seen as a particular difficulty.

Social and customary obligations are often seen as a drain on family finances. Customary obligations include raising money for weddings and funerals, and it has already been noted that many workers seek to keep money aside for these purposes. However there are other perceived customary obligations to share incomes with family members in need, and workers may feel obliged to meet the demands of relatives making requests for money. Women may be particularly pressured in this regard, through physical and social intimidation.

Many workers bemoan the lack of family members to help in the business, claiming that an unfair burden of financial responsibility has fallen on them. Some women workers feel that their productivity is impaired by having to care for children in the workplace, and some feel that the financial burden of bringing up children holds them back. There are several complaints from workers feeling they have too many children to look after.

The difficulties described above rate highly in all the survey localities. There are other problems which have prominence in some but not all of the survey localities, noted as follows.

- **Supply chains:** some workers are concerned about chaotic and exploitive wholesaling arrangements, as well as a lack of secure supplies and stable prices of goods to be on-sold. This was raised as a problem in all the survey localities but appears to be most of a problem in the NCD and Morobe, perhaps indicating an emerging issue for more urbanised areas.
- **Capacity building:** relatively few workers commented on a need for training, and when it was raised as an issue it focused on development of vocational skills rather than training in financial literacy. There is also a call for more information, including advice about the process for business registration which is seen as confusing.

11. HOW CAN THE PRODUCTIVITY OF THE INFORMAL ECONOMY BE IMPROVED?

When workers were asked for suggestions as to how their working conditions could be improved, most were willing to make constructive proposals. Again, the questionnaires provided for multiple responses, and the analysis has been made on that basis.

Marketing infrastructure: the most common suggestion is for physical improvements to be made to markets, including relocation of markets in some instances, so that they can provide safe and comfortable workplaces with basic services. This is the main suggestion made by around a quarter of the respondents, and it is the most highly rated suggestion in all of the survey locations except for Morobe, where it also rates highly. The high response rate amongst workers who do not work in market places suggests that more workers would move into markets if there was space available, because of the greater exposure to potential customers.

It should be noted that previous work conducted by UNIFEM and UN Women includes guidelines on how markets should be improved to provide comfortable and safe working environments⁵⁹. However the need to combine support for economic productivity with any physical improvement programs has been highlighted earlier, so that markets are not unintentionally “killed through kindness”. It will be important that this lesson is learnt before the opening of the new Gordon’s Market, currently under construction in Port Moresby and expected to be the largest market in the Pacific Region.

Provision of financial and other support: many respondents consider that they would benefit from financial support, either to establish their businesses or to expand and diversify. Some feel that the national and provincial governments need to show more support, investing in services that can assist workers, and removing regulatory obstacles to their productivity. Additional suggestions are for financial services to become more accessible, including the facility to open bank accounts as well as other financial services such as microfinance. It appears from this that although most workers are not currently borrowers (and in fact are more likely to be lenders) they are not necessarily averse to borrowing if the appropriate financial services can be made available.

Improved law and order: this is a very high priority for workers in all the survey localities, with a particular need to control drunk and disorderly behaviour which may not be seen as a priority by local police. Improving the relationship between workers in the informal economy and those responsible for enforcing laws and regulations is also a priority, so that there is more mutual respect, and producing better response to the needs of workers. Law and order issues are seen as affecting workers’ safety and security, with clear implications for their wellbeing as well as their productivity.

Transport infrastructure: this is a high priority for many respondents in all survey locations, with suggestions that roads and bridges need to be improved and maintained to enable transport of goods and materials. Within the Gulf/Central and East Sepik survey localities there is a call for provision of better facilities for water-borne transport such as canoes and fishing boats. There are also concerns that safe driving on roads needs to be promoted within the transport industry, including controls on drink driving, to improve the safety of passengers. Within the NCD, the importance of road infrastructure was identified in relation to the new Gerehu Market in Port Moresby, where a bus station has been relocated away from the market, and a privately owned business has closed a road that previously gave access to the market, both resulting in a reduction in market trade.

These are the most common suggestions across all the survey localities. Other suggestions raised are:

- capacity building through training, also easing the process for business registration
- a need for access to land for expanded business activities
- regulatory control over the supply chain and pricing of some goods
- protection of the authenticity of craft production (in the face of foreign forgery)
- better access to housing and better mobile phone services (East Sepik only)

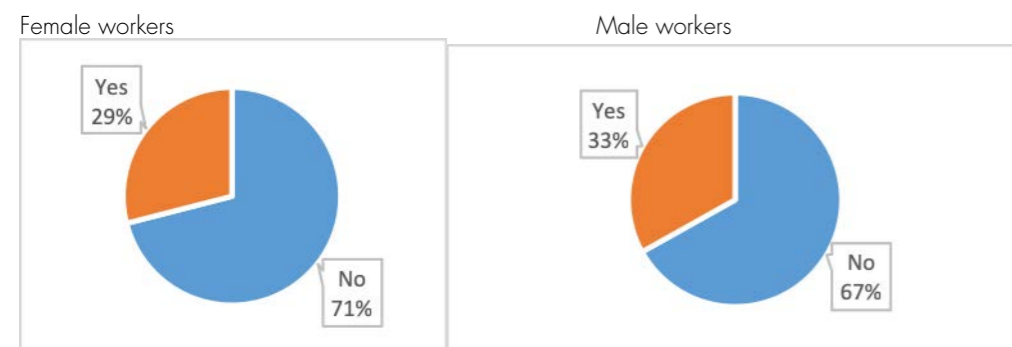
12. WHAT REPRESENTATIVE STRUCTURES EXIST AND HOW CAN THEY BECOME MORE EFFECTIVE?

The audit involved asking workers in the informal economy about whether they belonged to any worker representative organisations, which could advocate for their interests on a collective basis. Only a very small proportion have such membership, with a tendency for men to belong to a union or trade organisation, and women to belong to a vendors' association. Many other respondents misunderstood the question and it emerged that there is a greater level of membership of social groups including church groups, women's and men's groups, youth groups, sports groups, school groups and others. Thus the lack of membership of worker representative organisations is not due to any aversion to joining an association. It is most likely due to the fact that there are no such organisations to join.

In the more urbanised localities of NCD and Morobe only 2% of workers were identified as belonging to a worker representative organisation, and in East New Britain there was no such membership at all. By contrast in Jiwaka 13% of workers (mainly women) belonged to such an organisation, and in East Sepik the membership rate was 7%, all women. In the Gulf/Central survey locality 8% of workers belonged to a worker representative organisation, split equally between unions (mostly men) and vendors' associations (mainly women).

Workers were asked if they had ever asked for help with a work related problem. This produced a limited response from less than a third of workers, and the phone survey validated that fewer than one third of workers report requesting such help in the past.

Figure 15: Proportion of workers in the informal economy who have previously asked for help (phone survey)



The survey localities indicating the lowest level of requesting help are East New Britain (15%) and Gulf/Central (19%), and the highest level is Jiwaka/Western Highlands (41%). It appears that the level of requesting help is greatest in the locality with the highest level of membership of organisation and vice versa, perhaps because such membership raised awareness about workers' rights. However the results are mixed with 20% of workers in Morobe having made requests for help, 27% in East Sepik and 30% in the NCD.

While the numbers are small, it is apparent that women are more likely to seek help from friends or relatives, while men are more likely to approach community leaders. These are the main sources of help, with others less frequently approached being church groups, politicians, community organisations, police and magistrates. The question was open-ended and it is notable that worker representative organisations were not listed as sources of help, perhaps indicating their limited influence.

Workers were asked what problems caused them to seek help from others, and again this produced a low level of response. The most common problems are financial, personal or relating to health and safety issues including workplace accidents. Health and safety issues account for the highest proportion (25%) of requests for help in the NCD survey localities. Law and order issues account for 39% of requests for help in Morobe, but do not figure prominently in the results from other survey localities. It should be noted that these categories of help requests may not necessarily reflect the incidence of problems as it may be influenced by expectations of help being available. It appears likely that the low level of requests for help can largely be attributed to a lack of effective advocacy channels as well as a lack of means of resolving problems.

The extent of workplace problems is evidenced by the many workplace challenges that workers described, as noted earlier. This suggests that appropriate advocacy structures could provide mechanisms for these problems as well as suggested solutions to be raised with the appropriate agencies, given the right institutional framework.

It should be noted that there is some experience from formation of vendors' associations including cross-ethnic associations in Port Moresby's Safe City Project since 2011, and lessons can be learnt on managing communications and expectations from these associations. The broader learnings from UN Women's Markets for Change program operating elsewhere in Melanesia are also relevant⁶⁰.

13. WHAT ARE THE FACTORS AFFECTING TRANSITION INTO THE FORMAL ECONOMY?

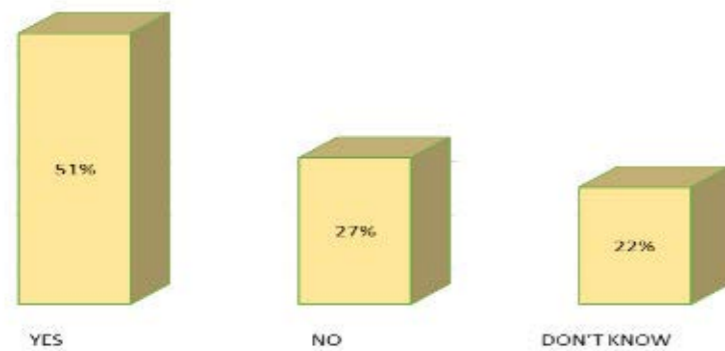
The pilot study outside the government offices indicates a strong relationship between areas where workers are employed in the formal economy, and informal workers who provide goods and services to these people. Employees in the formal economy buy from workers in the informal economy and also borrow money from these workers. Many of the informal economy workers are related to the formal employees who are their customers.

It may be that the wages of formal workers enable investment in informal businesses. However it is also evident from the audit data that some formal workers choose to undertake informal work to supplement their wages. The phone survey provides further evidence of the strong connection between different parts of the economy.

It is clear that there is some movement of workers between the two sectors. Movement into the informal economy may be encouraged by the fact that many informal economy workers earn more than those in formal employment at the lower end of the pay scale.

However the audit indicates a surprisingly high level of interest in making a transition from the informal into the formal economy. In most of the surveyed localities a majority of workers indicate they would be interested in formalising their businesses, ranging from 43% in the Gulf/Central to the 63% in Morobe. In addition between 12% and 24% reported that they are uncertain. There is a gender difference in some but not all of the survey localities, with a similar proportion of women workers compared with men showing interest in formalisation in Morobe, East New Britain, Jiwaka/Western Highlands and East Sepik, but around 20% lower proportion of women compared with men interested in the NCD and Gulf/Central survey localities.

Figure 16: Workers who are interested in making a transition into the formal economy (all survey localities)



The phone survey indicates an even higher proportion of interested workers, 71% of women workers and 77% of men, with more women (17%) than men (14%) being undecided.

Discussions around this issue revealed that some workers have previously sought information about how to become registered as a small business, but had found the process impossible to follow (for example being told that the first step was to produce a “business profile” with no guidance on how to do this).

A key advantage in making this transition would be gaining access to financial services through banking or other financial institutions. This would be a strong selling point if the Government wanted to promote this transition, but it would need to be linked to strategies that ensured that these services would actually be provided in a customer-friendly manner, that the process of business registration was made easy, and that people were well informed about the legal and financial obligations of formal businesses.

14. REPORTING THE FINDINGS AGAINST THE SUSTAINABLE DEVELOPMENT GOALS

The key findings from this audit can be aligned with the global Sustainable Development Goals (SDGs) as follows. This provides a framework for subsequent monitoring of changes as a result of policy interventions or other factors.

SDG1 No Poverty

“End poverty in all its forms everywhere”

Around 40% of the total population of Papua New Guinea are assessed as living below the National Poverty Line. This is a very high proportion compared with other parts of Melanesia (Fiji 28%, Vanuatu and Solomon Islands 12.7%⁶¹). The assessment dates from 2009, and refers to the proportion of the population living on less than US\$1.9 per day (ie around PNGK 6 at that time). The assessment is clearly complicated by those living outside the cash economy in rural areas, and the assessment of the urban poverty rate is around 29%⁶². Without decisive intervention the poverty rate is likely to increase, partly because of population growth (estimated at 3.1% pa⁶³) but with the urban poverty rate potentially being exacerbated by urbanisation (an additional 2.42% per annum increase⁶⁴). As PNG’s urban population is currently far less than those of most countries at 13.1%, and given the differential between the rural and urban poverty rates, it can be expected that the urban population will grow rapidly for some time to come.

The vast majority of people living below the poverty line rely on the informal economy for their livelihood as well as for access to the goods and services they need for survival. Strategies which increase the wellbeing and productivity of workers in the informal economy may be the most effective way of addressing this SDG.

SDG2 Zero Hunger

“End hunger, achieve food security and improved nutrition and promote sustainable agriculture”

A majority of workers in the informal economy are involved in the affordable distribution of food to local communities, and some are also involved in production of food (growing crops and raising livestock). The informal food distribution network is essential for food security, and it is quickly re-established after natural disasters or other events that can disrupt formal distribution services. It is largely based around distribution of locally grown foodstuffs, which provide a higher level of nutrition than imported processed foods. However some vendors also promote consumption of products which may suppress hunger but which have adverse health impacts (betel nut and tobacco products).

Regulation of the informal economy appears to be producing some perverse impacts, particularly limiting access to protein foods by restricting sales of meat and fish in markets, including cooked foods. It is important that regulation has regard for the need to increase access to nutritious food, impacting on the health of adults and children. Current national reporting on hunger impacts is largely limited to measurement of stunting in children (40%) and wasting (16%), and this may need to be broadened so that nutritional factors can be captured (for example protein intake as well as overall food quantum).

SDG 3 Good Health and Well-Being

“Ensure healthy lives and promote wellbeing for all at all ages”

The audit has confirmed the previous observations by others that the working conditions for workers in the informal economy often have an adverse impact on their wellbeing. The work itself can be arduous (carrying heavy items for long distances, workplaces exposed to the weather), as well as hazardous (unsafe workplaces, unsafe travelling arrangements, exposure to violence and crime). The potential to earn an income can be restricted by a management regime that does not value the contribution of the informal economy (inappropriate trading hours, restricting the type of activities) and by exploitation (unjustifiable charges, corrupt extortion).

Given that the majority of working age people in Papua New Guinea work in the informal economy, improving their working conditions will be essential in meeting this SDG.

SDG4 Quality Education

“Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all”

The results from the audit show that workers in the informal economy tend to have more than average levels of education, exceeding the national benchmark of 12.4% enrolling in secondary education⁶⁵. However there are few who have had access to specialist vocational education, and more effective delivery of this form of training could do much to assist diversification within the informal economy. There is a notable lack of people involved in service industries as well as manufacturing and trades, and a concentration of workers in selling goods. Better vocational education would expand opportunities for earning an income, and could also increase the range of affordable services for the community as a whole. The spending patterns of workers in the informal economy indicate that they place a high value on education.

SDG5 Gender Equality

“Achieve gender equality and empower all women and girls”

While there appears to be an increasing proportion of men involved in the informal economy compared with the situation in previous decades, women still account for around two thirds of workers. By contrast, men account for around two thirds of workers in the formal economy. Within the informal economy, it appears that men are often able to invest more than women in establishing their businesses, and that their earnings are higher. Previous qualitative research has indicated that women’s earnings are often expropriated by male relatives, leaving less for them to spend on themselves and their children. However women tend to assume more responsibility for paying for their children’s education, and potentially for other family expenses.

There is also a strong inequity in terms of women’s access to financial services. While those workers who had a bank account were in the minority, fewer women workers than male workers were able to use formal banking. This has implications for their capacity to borrow money or to safely make savings.

Both women and men in the informal economy express a desire to make a transition into the formal economy, possibly to improve their access to financial services. However it is evident that women have particular difficulty in making this transition, with only 8% of registered small to medium enterprises being owned by women⁶⁶.

Strategies for improving the productivity of workers in the informal economy are likely to benefit women, but there needs to be regard for ways in which gender inequities can be unintentionally perpetuated unless women’s access to services are given priority, if this SDG is to be met.

SDG6 Clean Water and Sanitation

“Ensure availability and sustainable management of water and sanitation for all”

Lack of access to clean water supply and sanitation in their places of work is a significant impediment to the wellbeing and productivity of workers in the informal economy. In addition the lack of public toilets within markets can place women workers and their children at risk if they have to relieve themselves in locations where they are vulnerable to assault. Improving water supply and sanitation to places that are used by workers in the informal economy will do much to address this SDG.

SDG 7 Affordable and Clean Energy

“Ensure access to affordable, reliable, sustainable and modern energy for all”

Lighting of streets and market places is a concern for some workers in the informal economy. Any diversification of the informal economy into manufacturing or other services could depend on the availability of affordable and reliable power.

SDG8 Decent Work and Economic Growth

“Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”

The informal economy provides a means of survival for the vast majority of the population, though many men and women are involved as “helpers” with minimal personal earnings. The working conditions are often far from “decent” through no fault of the workers themselves.

The overall unemployment rate is reported as a very low 2.6%⁶⁷. However there is a notable lack of participation by young people, with a reported youth unemployment rate around 60%. Most of the current youth employment that does exist is likely to take place within the informal economy.

There is a capacity for more productivity within the informal economy if working conditions are improved. However growth of earnings may be limited by the current narrow range of activities pursued (ie mainly trade, and involving a limited range of products). There are considerable opportunities for expansion of the informal economy through diversification, and incentivising this can be part of the strategy for meeting this SDG.

SDG9 Industry, Innovation and Infrastructure

“Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation”

Papua New Guinea’s current economy is characterised by a large proportion of foreigners employed in export industries, and a high level of foreign ownership of local businesses. Extractive industries account for 90% of export income but with much of the benefit being lost to the local economy⁶⁸.

The formal and informal economies operate in parallel with limited strategic integration, and it is recognised that this needs to change.

There is much scope for growth and innovation within the informal economy, as well as for transitions into the formal economy. However this requires a change of development strategies so that the economic contribution made by workers in the informal economy is better respected as well as supported, and that innovation is incentivised.

SDG10 Reduced Inequalities

“Reduced inequality within and among countries”

While Papua New Guinea has significant gender inequalities to address, there are additional concerns about inequities between different parts of the country, with more remote provinces and local areas receiving relatively poor levels of investment and services. There is also concern about the needs of “vulnerable and disadvantaged groups” which include children (orphaned, adopted and fostered children), widows and widowers, elderly people, people living with disabilities, refugees and victims of gender based violence. It is estimated that more than half the population falls within this category⁶⁹. While such vulnerable people have traditionally been cared for within extended family units, the traditional systems are placed under pressure by urbanisation, and where working adults do not earn enough to support these people as dependants.

The audit provides information about the levels of participation in the informal economy by members of these vulnerable and disadvantaged groups, with specific information about disabled and elderly participants. There is also information about locality differences in the levels of earnings. It is clear that the informal economy provides an economic safety net for many elderly and disabled people who might not otherwise have means of survival. In meeting this SDG it may be particularly important to protect the interests of these people, who are often working in arduous and hazardous conditions.

SDG11 Sustainable Cities and Communities

“Make cities and human settlements inclusive, safe, resilient and sustainable”

The emerging urban form in Papua New Guinea and elsewhere incorporates many unplanned residential areas that accommodate informal businesses operating from homes, backyards or residential streets. In most of the locations it appears that most of the informal economy operates from these residential areas. It is a challenge for urban planners, policy makers and administrators to pursue urban development in a way that promotes rather than constrains this entrepreneurship. Not to do so would increase urban poverty, working against this SDG.

Apart from providing and improving the workplaces for the informal economy, the wellbeing of workers needs to be protected by reducing crime. This particularly applies to youth crime, which accounts for around 30% of all crime in the country⁷⁰. The audit results show that much of the criminal activity affecting workers in the informal economy arises from drunken behaviour. It appears that police often give low priority to addressing this behaviour, despite the adverse impacts on workers (extortion, theft, destruction of property and assault). Creating an environment that promotes lawful behaviour is essential in meeting this SDG.

SDG12 Responsible Consumption and Production

“Ensure sustainable consumption and production patterns”

Papua New Guinea has a proud agricultural heritage, and its population has impressive skills in food production. Producers often rely on the informal economy to distribute food resources to consumers. There are limitations on the effectiveness of these distribution networks arising from transport infrastructure as well as haphazard wholesaling arrangements, so that some types of food do not reach their potential markets. Interventions to improve efficiencies in food distribution could increase food production, enhance the earnings of producers as well as vendors, and encourage import substitution. This would assist in meeting this SDG.

SDG13 Climate Action

“Take urgent action to combat climate change and its impacts”

The audit reveals that there is concern about frequent flooding of markets and other workplaces in some parts of the country, with adverse consequences for economic productivity as well as worker safety. Interventions to relocate workplaces such as markets which are vulnerable to the impacts of climate change would be consistent with meeting this SDG.

SDG14 Life Below Water

“Conserve and sustainably use the oceans, seas and marine resources for sustainable development”

Marine foods are an essential part of the diet of many Papua New Guinea communities. Workers in the informal economy are involved in harvesting, selling and cooking these foods. Protection of local fisheries from over-exploitation by foreign commercial trawlers is appropriate in meeting this SDG.

SDG15 Life on Land

“Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss”

Much of Papua New Guinea's subsistence farming is highly sustainable, based on rotation of crops and relying on highly fertile soils. However urbanisation and population growth is creating new risks of land degradation which could impact on food production. Plantation agriculture and forest clearing also creates risks of land degradation in the long term. Workers in the informal economy are well placed to contribute to more sustainable land management practices, if provided with the appropriate skills and information.

SDG16 Peace, Justice and Strong Institutions

“Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels”

Current systems of governance tend to exclude workers in the informal economy. Their contribution to local economies and community wellbeing is often dismissed, and decision makers often disregard the impacts of their decisions on these workers. There is a lack of institutional structures that can advocate for them or protect their interests. There is a need for governance reform in the way institutions engage with the informal economy if this SDG is to be met.

SDG17 Partnerships for the Goals

“Strengthen the means of implementation and revitalise the global partnership for sustainable development”

The issues raised by the audit require a policy response that involves partnerships between a wide range of stakeholders.

1.5. POLICY IMPLICATIONS FOR THE MEDIUM TERM DEVELOPMENT PLAN (MTDP III)

Papua New Guinea's third Medium Term Development Plan (MTDP III) was launched in late 2018 with the overall objective to promote “inclusive sustainable economic growth” following on from the foundation goals established in the previous *Alotau Accord*. Implementation of the Plan will rely on investments in policy implementation (Economic Stimulus Packages) drawing on government resources and encouraging the aligned contribution of donors. It is recognised that implementation needs to ensure that appropriate policy implementation and investment reaches the district level throughout the country rather than being concentrated within the major urban centres.

The policy challenges arising from the audit findings can be summarised as:

- (i) Build economic capacity through skills and diversification**
- (ii) Establish systems and pathways that enable business growth**
- (iii) Create a supportive environment that strengthens business confidence.**

These policy challenges can be aligned with the Key Result Areas of the MTDP III as follows. While many of the policy implications fall within the scope of KRA 1, there are also implications for KRAs 2-8 which have been listed so that an appropriate response can be developed, implemented and monitored within the MTDP III framework.

KRA 1 Increased Revenue and Wealth Creation

This relates to SDGs 1, 2, 5, 8 & 10.

1.3 Create more employment and economic opportunities for youth and build the capacity of a productive workforce.

While Papua New Guinea has a large informal economy with many productive workers, this is heavily focused on trade. The incomes of individual vendors are limited by the numbers of customers available. Those planning to expand their businesses often have similar aspirations, so that if they were all successful in their ambitions they would put one another out of business. There would be much to gain if some of the workers could be encouraged

to diversify their activities and expand the range of goods and services that the informal economy provides. This may only occur if there is a targeted and supportive governance framework (Wenogo and Conroy 2015).

There are tools that have been used in developing countries for assisting local communities to identify the goods and services that local people need, and to identify the gaps in what local people provide (often as import substitution). These opportunities may vary from one community to the next, and a grassroots assessment can establish priorities for encouraging new businesses. Providing training and business support can focus on family groups rather than individuals, given the family-based nature of many enterprises. This could be achieved through the proposed Community Learning and Development Centres which are supported by MTDP III, and which are addressed in more detail in the Integrated Community Development Policy.

Grants and low cost loans may be effective in stimulating economic diversification once the priorities have been established at the local community level.

A particular gap is in the area of manufacturing and repairs, requiring development of trade skills. Opportunities for trade training might be particularly attractive for young men (though such opportunities should also be available to young women) given that this cohort is the most marginalised from both the formal sector and the informal economy. The consequences of this disengagement include disruptive behaviour that compromised the activities of other workers. Encouraging trade training by way of apprenticeships in the formal sector may be appropriate, with some vocational training pathways being developed out of the school system. This could be complemented by incentivisation of trade-based youth-based enterprises using grants or low interest loans. It is noted that MTDP III includes a proposal for establishing Business Incubation Centres, including two new Youth Business Incubation Centres to be fully operational by 2020. The audit findings suggest that this investment might focus on trades training and business start-up for youth in the major urban centres of Port Moresby and Lae, where there is a particular unmet demand for trade-based services in construction, repairs and maintenance.

1.6 Create wealth by promoting SME growth and attracting direct investments.

While much of government policy is targeted to encouraging a transition into the formal sector, and many workers would like to make this transition, the current requirements for registration and compliance are such that this is not practicable for most workers. It would be foolhardy to encourage workers to register their businesses if this would mean setting them up for failure. It would also be inappropriate for workers to pursue registration in the belief that this will provide access to financial and other services if the current configuration of services would not, in fact, provide such accessibility. What is required is an alignment of reforms in terms of business registration, financial services, insurance services and taxation requirements, with parallel capacity building amongst workers. This can be addressed in the context of a revised SME⁷¹ Policy.

A major problem facing workers and their customers is management of credit and savings. In the absence of formal credit services, people rely on informal money lending at very high rates of interest, which result in difficulties of repayment that impact adversely on lenders and borrowers. In the absence of accessible formal savings services, workers are keeping their money at home where it is insecure and there is no capacity for growing investments through interest or otherwise putting capital to work. Even with some redesign, banking services will be inaccessible to time-poor workers if they have to travel to banks and queue for services. Some workers are putting money aside for purposes that could be more efficiently met through insurance, if appropriate insurance policies were accessible and well understood. All of these deficiencies result in capital being locked up in ways that prevent the free circulation of money through local economies, which is essential for building wealth. Strategies are needed for speeding up the velocity of money being circulated through local economies, overcoming the current blockages.

Some of the reforms could be assisted by introduction of cashless systems for managing money using mobile phones. In addition to increasing safety and security, this would also provide a means of recording transactions that is necessary for registration and taxation compliance. This could be steadily increased by introducing such systems in parallel with the opening of Gordons Market, for example, with vendors adopting the new system

and offering discounts to customers who also use phone based cashless systems. This would need to be further extended to wholesaling in due course. However some reform of phone charges may be required to ensure that such a system is affordable by all users.

A further intervention to free up circulation and build wealth would be the introduction of some form of blockchain/ crypto currency system within selected local communities. This would need careful design and administration, but it may be of interest to some development partners with appropriate skills and experience. There are examples of these systems having a very positive economic impact in some overseas communities.

There is no quick fix for these various problems, as they are all interrelated. Different agencies (public and private sectors, donor agencies as well as government entities) need to work together on a new platform of service provision, administrative systems, compliance requirements and capacity building, which can be implemented over a program of 2-3 years. The proposed new Credit Guarantee Corporation could play a role in this, assisting in access to start-up loan finance.

1.7 Women's economic empowerment

Women are already over-represented within the informal economy, but the benefits they derive from their work are limited by gender inequalities in access to financial resources and the distribution of economic returns.

Strategies for diversification of the informal economy need to ensure that women are not excluded from any opportunities promoted, including financial incentivisation. It is important that trades training opportunities are made available to young women as well as young men. In addition there should be consideration to diversification in areas which may offer an attraction to women, such as value adding to food and beverages, textiles and clothing, and creative industries.

The MTDP III cites the National Reserve Business Policy which will promote women's access to financial services and the evolution of women's informal businesses to become registered small businesses. The audit has demonstrated considerable potential for this to occur, given the aspirations of most women workers to expand their businesses. However there is a danger that current gender inequalities will be perpetuated unless strategies for support of the informal economy are specifically designed to be accessible to women.

Addressing the social, physical and political environment in which women work in the informal sector will be essential if women's economic empowerment is to be achieved. Strategies for improving women's working conditions are described below.

KRA2 Quality infrastructure and utilities

This relates to SDG9.

There is an urgent need for physical improvements to be made to the working environment, particularly in the main activity nodes such as markets and highway frontages. Basic requirements are shelter from the elements, water and sanitation, protection from traffic hazards, and location on land that is free from inundation. Additional requirements in some locations may be overnight storage, security fencing and good lighting. UN Women has produced guidelines for making these and other improvements that will enhance the safety and wellbeing of workers, and thereby also increase their economic productivity. The apparent failings of privately owned markets to provide decent working conditions suggests that markets need to be included as essential public infrastructure as part of any urban development, with appropriate financial investment. There is a good business case for this, given the potential returns to the local economy.

However, arising from the audit results, there is concern about the way that physical improvements are being made to markets with funding support from various agencies, while parallel efforts to safeguard the economic performance of the markets post-improvement are lacking. In particular, market managers are sometimes seeking to maintain a clean and tidy environment by removing activities that could create management difficulties, such as the selling of betel nuts, cooked foods, meat and fish. Markets will only be economically successful if they can attract customers through offering a diverse range of goods, effectively establishing a one-stop shop for all individual and household needs. Market vendors, particularly women, are often time poor and depend on markets for meeting the needs of themselves, their helpers and accompanying young children. Removal of access to fresh meat and fish as well as cooked foods could reduce the protein content of diets amongst workers and their customers. In addition there is evidence from the audit to suggest that vendors in some of the improved markets are earning less than before, because of a reduction in the numbers of customers. In some cases this has been exacerbated by a lack of alignment between market improvements and transport planning, so that it has become more difficult for customers to reach the markets.

Bearing this in mind, it would be highly desirable for a post-occupancy survey of vendors to be carried out six months after an "improved" market has been reoccupied, to ensure that unintended adverse impacts are mitigated. All agencies who have invested in making physical improvements would have an interest in this, to ensure that their investments provided good value for the market users.

KRA 3 Sustainable social development

This relates to SDGs 10 & 11.

A potentially adverse unintended consequence of development programs would be the physical improvement of settlements under the Slum Upgrading Program without making provision for the informal economy. Economic activity in residential areas is somewhat hidden from the view of policy makers and program managers, so that the extent of the activity, and its importance in maintaining livelihoods, may not be recognised. Nonetheless the audit has found that a major part of the informal economy is likely to take place within residential areas – inside dwellings or backyards, and in residential streets. There are already challenges in reconfiguring densely packed residential areas to accommodate traffic circulation and physical infrastructure, and overlaying considerations of economic impact introduce further complication. However not to do this could considerably increase urban poverty, and adversely affect the whole economy.

KRA 4 Improved law and justice and national security

This relates to SDG 16.

The MTDP III recognises the importance of promoting law and order to improve the wellbeing of the whole community, as well as business productivity. With this in mind there are proposals to increase police presence.

The results of the audit suggest that lawlessness affecting workers in the informal economy may not be addressed simply by increasing police recruitment and deployment. This needs to be combined with a cultural shift towards better respecting and protecting informal economy workers, particularly women. In addition, there is a need for reprioritisation of enforcement activities to control behaviours that may previously have been regarded as "petty" such as drunk and disorderly behaviour. It is clear from the audit results that such behaviour has a significant social and economic impact, with women workers and children being most vulnerable. Enforcement is important on both public and private lands, in most markets and sometimes within residential areas.

KRA 5 improved service delivery

This relates to SDGs 3 & 4.

The productivity of the informal economy is severely constrained by a working environment that lacks security and safety, as well as comfortable conditions. Workers in the informal economy are often treated with a lack of respect for the economic contribution they make, and regulatory regimes often cause hardship and confusion. There is a

need for complementary action by a range of agencies in all of these areas if the informal economy is to retain its productivity and its contribution to the broader community.

One of the areas of service delivery that is of particular importance to workers in the informal economy, particularly women as well as elderly and disabled people, is transport. The condition of roads that provide key links from areas of production to areas of trade is critical for economic productivity, and it is apparent that some workers have to walk many hours each day as a result of poor road infrastructure. Road transport services often rely on informal transport businesses which sometimes result in unsafe or exploitive practices. Disruptions to transport caused by weather events can have significant adverse social and economic impacts. River and sea transport is undertaken by workers in some localities, and this requires similar oversight as a duty of care. Lack of boating facilities and water-borne transport services creates a loss of economic productivity in these areas.

Investment priorities in relation to transport infrastructure need to take account of trading networks and catchments, with a view to maximising opportunities for safely conveying goods and workers between places of production and places of consumption. Regulation of transport services needs to reduce risks to users, particularly vulnerable people.

KRA6 Improved governance

This relates to SDG 17.

Despite the existing policy framework, local level and provincial governments generally lack awareness about the ways in which they could and should support the informal economy, and those they appoint to manage the working environment often adopt practices that are detrimental to the wellbeing and productivity of the workers. In the absence of representative organisations and/or engagement mechanisms with governments, workers are unable to air their grievances or to suggest positive ways in which they could be better assisted.

Support for the informal economy should be a joint venture between the workers and their local authorities, with the aim of both parties achieving economic benefits. This requires building the capacity of workers to combine their interests within effective representative and advocacy organisations, and in parallel building the capacity of local level and provincial governments to work collaboratively with such bodies. The Department for Community Development and Religion (DFCDR) and the Consultative Implementation and Monitoring Council (CIMC) have developed a program for achieving this type of collaborative environment, and it is intended that this will be piloted during the first half of 2019, with a view to then launching a national strategy. This is seen as a highly appropriate response to the audit findings.

It is noted that in future all provincial and district development plans will need to be aligned to MTDP III. This will then provide a clear framework for engaging with development partners (including international donors and the private sector) over investments that are required for implementing these plans through the PNG Development Co-operation Policy. It is also noted that the MTDP III aims to increase the proportion of aid with a focus on economic infrastructure to increase from 5% to 50% over the next five years, and this may encourage a significant shift of investment to supporting the productivity of the informal economy.

KRA7 Responsible sustainable development

This relates to SDGs 6, 7, 11, 12, 13, 14 & 15.

Sustainable use of natural resources is essential for the continued productivity and future growth of PNG's informal economy. While the main threats to sustainability often appear to come from large formal businesses, investments in the informal economy also need to have regard to the impact on sustainability in the medium and long term.

A particularly relevant issue is solid waste disposal arising from activities in the informal economy. There are significant opportunities for processing organic wastes from food trade and processing, which could provide a positive return on investment as well as preventing environmental deterioration. The National Capital District Commission (NCDC) has explored some useful options in this regard.

KRA 8 Sustainable population

This relates to all SDGs, but particularly SDG 1.

Population growth including urban growth could result in increased poverty unless it is supported by a strong informal economy. The opportunities for achieving this can be summarised as providing better support to informal economy workers as well as incentivising diversification of their activities.

Monitoring and evaluating MTDP III outcomes

As policy initiatives are introduced, it will be important to measure their effectiveness in terms of the changing nature of the informal economy, assessing the wellbeing of workers and their economic productivity. Some of the research questions used in the design of the audit are relevant for this purpose, with the following key indicators being applied. It may be possible to integrate some of these indicators within the periodic data collection for the Census or the Household Income and Expenditure Survey, and then reported against the Key Result Areas in the MTDP III.

How big is the informal economy?	Average turnover and average earnings (multiplied up from the previous week's experience) Number of enterprises and number of workers Comparison with the formal sector Participation of formal sector workers Movement of formal sector workers into the informal economy
What are the component activities?	Primary producers, vendors, repair services, other service providers, manufacturers, others
Who is involved in these activities?	Gender, age and disability of main workers and helpers
What resources and markets do these activities rely on?	Types of raw materials being used Types of goods being traded Associated set-up and operating costs
What are the outcomes for households and communities?	Net earnings (multiplying up from the previous week's earnings) Discretionary expenditure and savings (ditto)
What are the barriers to improved productivity and/or household and community wellbeing?	Regulatory obstacles Accessibility of financial services Representative/advocacy structures

16. BIBLIOGRAPHY

- Anderson, T (2008) *Women roadside sellers in Madang*, Pacific Economic Bulletin 23 pp 59-73
- Asia Development Bank (undated) *Policy Brief: Informal Sector Growth and Employment in the Pacific*
- Australian Aid (2017) *Pacific Women Shaping Pacific Development: Papua New Guinea performance report 2016-17*
- Bamberger, M et al (2018) *Evaluating the Sustainable Development Goals: with a "No-one left behind" lens through equity-focused and gender-responsive evaluations*, for UN Women and Partners, New York
- Bateman, M (2015) *How microcredit has hurt the poor and destroyed informal business*, The Conversation December 28
- Bertulfo, L (undated) *Women and the Informal Economy: a thinkpiece*, AusAID post
- Bonney, L, M Worinu and P Muscat (2012) *A feasibility study for a new wholesale fresh produce market in Port Moresby*, NZ Aid
- Bradle, C (2010) *Women and the Economy in the Pacific: an annotated bibliography of electronically available information*, UN Women, Suva
- Brady, D and L Burton (2016) *Informality is a legal construct*, in F Bonney and S Venkatesh editors (2016) *Poverty and informal economies*, Oxford Handbook of the Social Sciences
- Brown, D and G McGranahan (2016) *The urban informal economy, local inclusion and achieving a global green transformation*, Habitat International vol 53, April pp97-105
- Chana, T and M Morrison (1975) *Nairobi's Informal Economic Sector*, Ekistics vol 41 no 245 pp192-2001
- Chang, C and B Mullen (2013) *Longer term sustainability of impacts of the Mt Hagen market and market management: a social research paper*, Uniquist for the PNG Incentive Fund, AusAID
- CIMC and INA (2001) *Review of Constraints to Informal Sector Development*
- Conroy, J (2010) *A national policy for the informal economy in Papua New Guinea*, Pacific Economic Bulletin 15(1) pp 189-204
- Conroy, J (2015) *Submarines and Survivors: issues in the taxation of informal enterprises*, Foundation for Development Cooperation blog
- Cox, E (2017) *Mrs Rika's Story*, unpublished
- Curry, G (1999) *Markets, social embeddedness and precapitalist societies: the case of village trade stores in Papua New Guinea*, Geoforum 30(3) pp 285-289
- Dademo, E and T Anderson, *Papua New Guinea's Real Economy*, Act Now blog on 19.5.17
- Davies, R (1979) *Informal sector or subordinate mode of production: a model*, in R Bromley and C Gerry (eds) *Casual Work and Poverty in Third World Cities*, John Wiley, Chichester

- Development Asia (2014) *Informal Sector Growth and Employment in the Pacific*, online resource
- De Soto, H (1997) *Dead Capital and the Poor in Egypt*, Egyptian Centre for Economic Studies, Cairo
- ESCAP (2012) *Disability, Livelihood and Poverty in Asia and the Pacific*, report of research findings
- Eugenio, O (2001) *PNG informal sector study report: review of constraints on formal sector development*, INA Discussion Paper no 85, Port Moresby
- Eves, R., G. Kouro, S. Simiha & I. Subalik (2018) *Do No Harm Research: Papua New Guinea*, ANU, Canberra
- Farrell, D (2004) *The hidden dangers of the informal sector*, McKinsey Quarterly July
- Godfrey, R (2014) *Informality and market governance in wood and charcoal value chains*, IIED Working Paper
- Green Globe (2016) *Informality and Inclusive Green Growth*, slideshare 25 February 2016
- Hart, K (1969) *Entrepreneurs and Migrants: a study of modernisation among the Frafras of Ghana*, PhD thesis, University of Cambridge
- Hart, K (1970) *Small Scale Entrepreneurs in Ghana and Development Planning*, in R Apthorpe, *People, Planning and Development Studies: some reflections on social planning*, Frank Glass, London
- Hart, K (1975) *Swindler or Public Benefactor: the entrepreneur in his community*, in J Goddy (ed) *Changing Social Structure of Ghana: essays in the comparative sociology of the new state and an old tradition*, International African Institute, London
- ILO (2014) *Transitioning from the Informal to the Formal Economy*, Geneva
- ILO (2017) reported as *95% Youth in Developing Nations Work in Informal Economy*, in the Hindi Business Line, November 21
- Jackson, T (2016) *Don't underestimate the power of Africa's informal sector in a global economy*, Middlesex University blog, January
- Jackson, T (2016) *Why the voice of Africa's informal economy should be heard*, The Conversation January 21
- Jellinek, L (1977 and 1979) *The Life of a Jakarta Street Trader*, and *The life of a Jakarta Street Trade : two years later*, Centre of South East Asian Studies Working Paper nos. 9 and 13, Monash University, Australia
- Jubilee Australia Research Institute (2018) *On Shaky Ground: PNG LNG and the consequences of development failure*
- Keen, M (2015) *Why we need to rethink the informal economy*, International Monetary Fund, June
- Koczberski, G Numbasa and G Curry (2005) *Making a living: land pressures and changing livelihood strategies among oil palm settlers in Papua New Guinea*, *Agricultural Systems* 85(3) pp 324-339
- Koczberski, G Numbasa, E Germis and G Curry, *Informal land markets in Papua New Guinea*, in McDonnell, S., M. Allen & C. Files editors (2017) *Kastom, Property and Ideology: land transformation in Melanesia*, ANU Press, Canberra
- Kopel, E (2017) *The Informal Economy in Papua New Guinea: scoping review of literature and areas for further research*, National Research Institute of PNG Issues Paper 25
- Kusakabe, K (2006) *On the Borders of Legality: a review of studies on street vending. Informal economy poverty and employment*, ILO Cambodia Series No 4, Bangkok
- Mael, J T (2011) *Vanuatu Domestic Market Study: the potential impact of tourist numbers on the domestic market for selected fresh vegetable produce*, ACP Agricultural Commodities Programme
- Main, M (2017) *Papua New Guinea Gets a Dose of the Resource Curse as ExxonMobil's Natural Gas Project Forments Unrest*, The Conversation
- Mbaye, A A (2015) *The importance of the informal sector in West Africa*, World Economic forum paper, March
- Mullen, B and C Hui-Shung, J Anjen and L Be'Soer (2013) *Long term socio-economic evaluation of the Mt Hagen market redevelopment*, Urban Development Paper
- Natawidjaja, R with E Rahayu and J Sutrisno (2015) *Inclusive governance of informal markets: the street vendors of Surakarta*, ILEN Briefing Paper
- Nelson, N (1979) *How Women and Men Get By: the sexual division of labour in the informal sector of a Nairobi squatter settlement*, in R Bromley and G Gerry op cit.
- Neuwirth, R (2011) *Stealth of Nations: the global rise of the informal economy*, Random House, New York
- Omit, N with J Spriggs and H Chang (2010) *Long distance marketing of sweet potato from the Highlands of Papua New Guinea*, paper presented at the AAARES National Conference, Adelaide, February 10-12
- Peil, M (1984) *African Urban Society: social development in the Third World*, John Wiley and Sons, London
- Ruis-Perez, S (1979) *Begging as an occupation in San Christobal las Casas, Mexico*, in R Bromley and C Gerry op cit
- Rusque-Alcaino, J and R Bromley (1979) *The Bottle Buyer: an occupational autobiography*, in R Bromley and C Gerry op cit
- Sharp, T (2012) *Following Buai: the Highlands betel nut trade, Papua New Guinea*, PH D thesis ANU Canberra
- Sowei, J with M Vatnabar and W Lahari (2010) *The Rural Informal Sector in Papua New Guinea: an analysis of development in select communities*, NRI Special Publication No. 48, Port Moresby
- Stanley, J (2002) *Review of microfinance programs in metro Manila*, for AusAID
- Stanley, J (2017) *The marketplace as a catalyst for change*, consolidated report for UN Women, Suva
- Stanley, J (1973 and 1980) *Survival in the Zongo and Migrant Settlement in West Africa*, Ph D thesis and associated publications, University of Science and Technology, Kumasi and Glasgow University
- Sullivan, J (2017), *What does the informal sector mean for global economic growth*, The World Post, Berggruen Institute, and other commentary via Huffington Post, undated
- Sum, Dek J (2018) *Low Demand for Microcredit in Papua New Guinea*, DevPolicy Blog
- UN Habitat (2007) *The State of the World's Cities 2006-2007: Facts on Youth*

UN Women (2017) *Consolidated Report*, summary of findings from work carried out in Fiji, Vanuatu and the Solomon Islands 2008-14, as a foundation for the Markets for Change Program, Pacific Office

UN Women (2017:2) *Survey Report on Financial Literacy Training: delivered to market vendors in Port Moresby*, PNG Office

Underhill, Y et al (2014) *Changing Market Culture in the Pacific: assembling a conceptual framework from diverse knowledge and experience*

UNIFEM (2010) *Partners Improving Markets PNG Phase II Report*, FOCUS

Vinning, G (2008) *Feeding Port Moresby*, Fresh Produce Development Agency, Port Moresby

Walta, M (2017) *Transition to Modernity: migrant settlements and customary land tenure in Port Moresby*, in *Urban Development in the Pacific*, Development Bulletin 78, ANU, Canberra

Wang Y (2014) *Women's market participation and potential for business advancement: a case study of women traders in Papua New Guinea*, Port Moresby, National Research Institute Discussion Paper no. 141

Waring, Marilyn (2016) *Counting for nothing*, public address at Melbourne Town Hall 26 November

Wenogo, B J (2015) *Getting PNG's informal economy right*, Devpolicy blog December 5

Wenogo, B J (2016) *Who looks after the markets?*, PNG Informal Economist blog, March 13

Wenogo, B J (2017) *Planning the Unplanned: reflections on the PNG Government's interventions in the informal economy*, Devpolicy blog, November 14

Wenogo, B J and Conroy, J (2015) *A Tough Nut to Crack: legislating for Papua New Guinea's informal economy*, Devpolicy bog May 26

WIEGO (2016) *Enhancing productivity in the urban informal economy*, UN Habitat, Nairobi

World Health Organization (WHO) and The World Bank, *World Report on Disability*, World Health Organization (2011), available at http://www.who.int/disabilities/world_report/2011/en/index.html

ANNEXE A: FIELDWORK MANUAL

Why is this project important?

You are involved in a very exciting project. The Government is conducting a national audit of the informal economy, because:

- it is recognised that the informal economy is very important in providing livelihoods for a majority of Papua New Guinea families
- not enough is known about how to support workers in the informal economy so they can become more productive, and to make the transition into the formal economy.

This sort of national audit seems to be a world first – we don't think has been done in any other country. A report on the project findings will be made to the Asia Pacific Economic Cooperation (APEC) forum to be held in Port Moresby in November 2018 to promote Papua New Guinea's leadership in understanding the significance of the informal economy to the country's development.

Who is included in the informal economy?

We are interested in people who work for themselves or others in businesses that are outside government or registered organisations. For the purposes of this project we are going to focus on workers who earn money (rather than subsistence farming or housework, for example).

Previous research into the informal economy has shown that workers do not identify themselves as working in the informal economy. It may be necessary to ask a few questions about this to get the right answer.

What do we want to find out?

1. How big is the informal economy as a proportion of the whole economy?
2. Who is involved?
3. What sort of work do they do?
4. What resources and customers do they need?
5. How does their work benefit their families and communities
6. How can they be supported in growing their businesses?

Where will the research be carried out?

A sample of locations has been selected which will give a representative picture of how the informal economy operates in different environments. Some of the research will be carried out in markets, where virtually everyone is an informal economy worker. However other surveys will involve residential areas, to find out about people who work from home, who are involved in street trade, or who work informally in other parts of the economy. Some other areas where informal economy workers are active have also been selected.

Who will carry out the research?

The interviews will be carried out by enumerators working in pairs, each pair involving one woman and one man. If a woman is interviewed the woman enumerator will generally ask the questions and the man will record the answers, and vice versa.

In each locality there will be field supervisors responsible for organising the enumerators and checking the quality of their results. The supervisor will also meet with all the local enumerators periodically to talk through the survey results and record general observations.

The completed questionnaires will be sent to a coder located in Port Moresby who will enter the results into a spreadsheet that can be used to produce statistical information. The statistical results as well as the general observations will be provided to a researcher who will provide the analysis in the form of a research report.

What preparation will be done in advance?

Preparatory work to be carried out by supervisors will include:

- Design and printing of posters and leaflets to inform potential participants (see example of content at Appendix F)
- Research into the local area
- Meeting local leaders and relevant landowners to inform them about the project and obtain their agreement
- Record observations about the local work environment including photographs and diagrams.

Protocols for the fieldwork

It is important that the fieldwork leads to positive relationships with the community. The following guidelines for enumerators and supervisors will help achieve this.

1. Identification of enumerators

Interviewers should be clearly identifiable by carrying ID and showing it as required, and if possible by identifiable clothing (ie project T-shirts).

2. Privacy of information

Interviewers will be asking highly personal questions, and the respondents need to be assured in advance that this information will be kept confidential. However it is necessary to note the identity and/or location of the respondent on the interview record in case there is a need to go back and check information that appears to be recorded incorrectly. Respondents can be assured that after the information has been fully recorded, the identities will be erased from the records.

There will be circumstances where a respondent does not want to answer certain questions for privacy reasons, and their right to refuse to answer must be respected. More difficult is a situation where a respondent gives a misleading answer rather than providing the real information. If the interviewers feel this is the case they should record the difficulty rather than pressuring for information the respondent does not want to give. Clearly the more that is done in advance to build trust, the more likely it is that the respondents will provide accurate information.

If the interview results in people crowding around the respondent and listening to the confidential discussion, it may be necessary to relocate the interview to a place that provide better privacy. This should be determined by the respondent's preference.

3. Respect

The best results will be obtained from the survey if a climate of mutual respect can be created between the field survey teams and the intended respondents. The enumerators must avoid any behaviour that suggests their social superiority, or their disapproval of others.

Survey teams must demonstrate non-discriminatory behaviour, including avoiding any implied judgment about the value or legitimacy of the work activities being examined. This must include avoidance of any implied favouritism for particular ethnic groups, age groups or gender.

4. Gender sensitivity

Some women will have a history of negative interactions with men, and will have been influenced by previous power imbalance within the family, community and workplace. For this project in particular, it is important that women are empowered to speak out truthfully, because the vast majority of informal economy workers are women. Field researchers should also be alert to the presence of men near to women being interviewed (relatives, market staff and others) with any potential for intimidation. In this case the interview might be relocated or timed for a different occasion.

The burden of earning a living for the household and assuming most household responsibilities may mean that many women are pushed for time, stressed and/or tired. Field researchers should try to accommodate the respondents' needs in relation to the timing and conduct of the interviews, so as to make these as stress free as possible.

5. Informed consent

In some environments it will be necessary and useful to obtain the consent of a leader, land owner or site manager for the conducting of the research. In relation to conducting household or worker interviews, the respondents will also be requested to give consent. Advance publicity and introductory remarks should make it clear what the nature of the consent is, in relation to the potential use of the survey information and protection of private information.

6. Language

Interviews should be conducted in the language most familiar to the respondent wherever possible, to create a comfortable environment for the interview and to encourage provision of accurate information. However it would be most efficient if the field research teams are capable of recording interview responses in English. This recording can then be cross-checked by the field research team after the interview so there is agreement about the accuracy of the translated responses.

7. Safety and security

The safety and security of field researchers and respondents is of paramount importance. As part of the introductory work for the field survey, advice should be sought from local authorities including police and UN staff about local security issues and best means of ensuring personal safety. Normal precautions should be taken to protect personal possessions and field equipment, but protection of personal safety has even greater importance.

If a situation arises where either the respondents or the field researchers feel unsafe, the research should be deferred to another time, and potentially to another place.

If it appears that respondents are involved in activities that have questionable legality, but they are prepared to talk frankly about this (under conditions of privacy) then collection of information can proceed without any judgment being made about the legal status of the activities. However if the respondents or others become concerned that they should not provide further information the information collection should cease. The survey results should be recorded and submitted even though they are incomplete, with an explanation.

As part of the survey, field researchers will be asked to record issues of workplace health and safety. If these hazards threaten the safety of individuals, the hazards should be immediately reported to the responsible authorities without disclosing any individuals who identified these hazards.

8. Incentives for participation

Incentives for participation in the audit may need to be considered. It is suggested that this should not apply when household members are being interviewed in their dwellings or workers are being interviewed at their places of work. However giving materials that promote the project, such as caps or T-shirts, might be considered. If busy working people are taken away from their work and asked to attend group discussions, some compensation for loss of earnings may be appropriate. If this can be by way of providing food for the event, providing child care at the event, or direct reimbursement of travel costs, rather than payment for time spent this would be preferable. Otherwise the situation could create a precedent that would be an impediment to future research or consultations, raising unrealistic expectations about payment.

Using the Questionnaire

Supervisors and enumerators should take the time to understand the questionnaire and the information that is being collected, and to record the information in a way that makes it useful. This will take some practice. It will then be appropriate to see how the information is coded, so that the results can be presented statistically. Coding is necessary as there will be hundreds of questionnaires being filled out all over the country, and you need to make sure that your records are capable of being accurately coded.

There are two types of questionnaire being used. One is for interviewing informal economy workers in their workplace, which will often be a street stall or a market for example. The other questionnaire will be for interviewing informal economy workers living in residential areas, who might work from home or in other locations. The objective is the same – to identify informal economy workers and to find out about their work activities.

The questionnaires in Appendix C and Appendix D have been annotated to give some guidelines about how the interviews should be conducted.

Some of the questions at the end of the questionnaire are open-ended, that is they require that you record the answer in full rather than coding it. These responses will be discussed separately, either with the local group of enumerators or with a focus group of workers. The supervisor will facilitate these discussions and provide a written report on the general findings.

Role of Supervisors

Supervisors will be responsible for overseeing the fieldwork, including preparatory work before the interviews are conducted, and quality control to make sure the questionnaires have been properly completed and recorded. They will also be on hand during the fieldwork to answer questions (from enumerators or others) and to troubleshoot.

Supervisors will be responsible for telling enumerators who should be interviewed.

For household interviews there will be a selection of residential streets within which it is hoped that all households as well as obvious street workers will be interviewed.

For interviews conducted in workplaces such as markets, there will be a process for selecting a sample of workers to be interviewed. Supervisors will be informed about how many interviews should be targeted, and will decide on a statistical sample on that basis. For example, if a market has 500 vendors, and 100 interviewees are targeted, the selection of stallholders might be made by counting 1 in 5 stallholders sequentially throughout the market. If a selected vendor refuses to participate, then the next vendor should be approached. Enumerators should not allow themselves to be enticed to interview vendors who want to be interviewed unless they have been selected, or to avoid vendors who seem less approachable, as this would damage the validity of the survey results.

After the conclusion of local fieldwork the supervisors will facilitate a group discussion of the open-ended answers at the end of the questionnaire, involving the local enumerators and/or a focus group of informal economy workers. The supervisor will then provide a written report on:

- difficulties faced by workers
- opportunities for expansion and/or formalisation of informal economy enterprises
- surprising findings from the local survey which are not well captured by the coding.

Quality Control (by enumerators and supervisors)

It is very important to check that the questionnaires have been completed accurately, and in a way that can easily be coded. The quality control process should be as follows:

1. Enumerators should note on the survey form their identity as well as sufficient information to identify the people being interviewed. This is important so that if there are major queries arising from the recorded survey, the results can be checked.
2. On completion of each questionnaire, the enumerating pair should go through the record of the interview and make sure it is accurate and complete.
3. When the enumerating pair is satisfied with the interview record, the records should be handed to the supervisor for checking. This could be done at the end of each day, but more often if there are errors detected. If there are gaps or confusing documentation (including poor handwriting), the supervisor should refer the documentation back to the enumerating pair for correction.

When the documentation is finally provided to the coder, it is possible that some further gaps or errors will be found. This might require some discussion with the relevant supervisors or enumerators to resolve. However it is important that steps are taken to keep this to a minimum. If the enumerators and supervisors become familiar with the coding process, they are less likely to allow mistakes to be made.

HOUSEHOLD QUESTIONNAIRE

Enumerator Initials **Household Identifier**

NB this notation is just so that any errors in the recording of the interview can be followed up later.

We are conducting research on how people throughout Papua New Guinea make a living. The information from the audit will help the government to develop policies that provide better working conditions for workers outside the formal economy. Please be assured that the information collected from individuals and households will be treated in strictest confidence.

We would like to ask you about who is earning an income in this household, particularly people who work in the informal economy.

Questions	Answers
<p>1 How many people live in this house? Enter number of people</p> <p>Are there more than one family/household living in this house? If so, how many families share this house? Enter number of households if more than one. A household is one or more people who share living expenses, cooking meals etc.</p>	<p>enter number</p> <input type="text"/> <p>enter number</p> <input type="text"/>
<p>2 For your family only What province do you come from? Code the province that the respondent identifies with most:</p> <p>01 Bougainville 02 Central 03 Simbu 04 Eastern Highlands 05 East New Britain 06 East Sepik 07 Enga 08 Gulf 09 Hela</p> <p>10 Jiwaka 11 Madang 12 Manus 13 Milne Bay 14 Morobe 15 NCDC 16 New Ireland 17 Oro 18 Southern Highlands 19 Western 20 Western Highlands 21 West New Britain 22 Sandaun</p>	<p>enter code</p> <input type="text"/>
<p>3 Who owns this house? Do they live in the house? Who owns this land? Do any of the occupants pay rent? Who to? Deduce code from the answers to these questions. Code: 1. Completely owner occupied 2. Some private rental arrangements (paying rent to a landlord or renting rooms within the house) 3. Institutional/government ownership 4. Other</p>	<p>enter code</p> <input type="text"/>
<p>4 How many people in this household (or this family within the household) work to earn money? If none, terminate the interview</p>	<p>enter number</p> <input type="text"/>

5	<p>Do any of them work for any of the following types of employer? Code: 01 Government 02 Churches 03 NGOs 04 Universities 05 Registered business Do these people do any other sort of work? Circle the answer If No to the above, terminate the interview</p>	<p>If Yes enter number</p> <input type="text"/>
		<p>Yes No</p>

For other people in this household who work to earn money, or who work outside their main job to earn extra money, I would like to ask more about the work they do.

Then, for each person proceed with the worker interview at Appendix B. If possible, ask the worker in person but otherwise rely on information from someone else in the household and record answers where they can be given (leaving other answers blank if necessary).

WORKER QUESTIONNAIRE

Enumerator Initials **Household Identifier**

NB this notation is just so that any errors in the recording of the interview can followed up later.

Introduction: We are conducting research on how people throughout Papua New Guinea make a living. The information from the audit will help the government to develop policies that provide better working conditions for workers outside the formal economy. Please be assured that the information collected from individuals and households will be treated in strictest confidence

1	How old are you? enter code for age ranges below and also note gender Code for age range: 1 0-10 4. 25-35 2 11-14 5. 36-54 3. 15-24 6. 55-64 3 25-54 7. 65+	M enter code <input type="text"/>	F enter code <input type="text"/>
2	Do you have a disability that limits the work you can do? Circle Yes or No Note particularly if there is a disability that prevents taking other employment.	Yes	No
3	What level of education do you have? Enter code number below Code: 1 No schooling 2 Primary (up to Grade 6) 3 Secondary (up to Grade 10) 4 Trade training (including apprenticeships) 5 University or College 6 Other training after completing school	enter code <input type="text"/>	
4	In relation to the informal work you do, is this for yourself (1) or do you work for someone else? (2) Circle 1 or 2	1	2
5	(If you work for yourself) Does anyone else help you in your work? How many? Enter 0 or number of workers according to gender	M <input type="text"/>	F <input type="text"/>
	How many of these workers are family members? Enter 0 or number of workers who are family members according to gender	M <input type="text"/>	F <input type="text"/>
	Are any of these workers under 16? Enter 0 or number of underage workers according to gender	M <input type="text"/>	F <input type="text"/>
6	What is the main sort of work you do? Code: 01 Selling goods 02 Rearing livestock for income 03 Growing crops for sale 04 Making craft items 05 Making things from timber 06 Making things from metal 07 Making clothes 08 Making bilums 09 Making other things (state) 10 Repairing vehicles 11 Repairing other things 12 General handyman 13 Building 14 Labouring 15 Cleaning 16 Catering 17 Looking after children, old people or sick people for money 18 Tutoring, training 19 Transport services 20 Entertaining 21 Money lending or saving 22 Informal security services 23 Waste recycling 24 Other (state)	enter code <input type="text"/> State other work type	

7	(For vendors only) What is the main sort of goods you sell? If you sell other types of goods (on the same stall or at different times) please indicate the second and third most important categories. List these using the code numbers below. For vendors with a mix of goods code up to three main types of goods in order of importance. Code: 01 Green vegetables 02 Root crops 03 Fruit 04 Sago 05 Fresh Fish 06 Salt fish 07 Meat 08 Rice 09 Cooked foods 10 Betel nut 11 Cigarettes 12 Flowers 13 Traditional medicine 14 Cold Drinks 15 Hot drinks and snacks (eg breakfast) 16 Home brew 17 Store goods (including mini-market) 18 Second hand clothes 19 Firewood 20 Water 21 Plastic bags 22 Cooking utensils 23 Household cleaning goods 24 Crafts 25 Traditional items (eg mats, brooms) 26 Eggs 27 Live chickens 28 Coffins 29 Other (state)	enter code for main type of good sold <input type="text"/>	
		enter code for second type of good sold <input type="text"/>	
		enter code for third type of good sold <input type="text"/>	
		State others not coded	
8	Do you have any other sources of income? Code: 1 Lending money and charging interest 2 Renting accommodation 3 Raising pigs for occasional sale 4 Other (state)	enter code <input type="text"/> State other not coded	
9	Have you ever worked previously in the formal economy – for government, an NGO, or a big business etc for wages? Circle answer	Yes	No
10	What is the main reason you do this type of work or sell these types of goods? Code: 1 I can obtain goods or materials cheaply (eg from relatives) 2 Local customers want what I sell or produce 3 I can make more money this way 4 I have friends or relatives to help me 5 It runs in the family 6 A friend or relative taught me 7 Other reasons (state)	enter code <input type="text"/>	
		state other response	
11	For workers interviewed in their homes Where do you work? Code: 1 From inside the home 2 In the backyard 3 In a street stall outside my home 4 In a street stall near offices where relatives work 5 In a market 6 Next to an institution 7 In a workshop somewhere else 8 Other (state)	enter code <input type="text"/>	
		state other response	
12	How many hours did you work in the last 7 days, including your travel time? Ask about yesterday as an example, and then work back to find out if every day is the same and how many days in a week are worked	enter number <input type="text"/>	

13	How much money did you spend travelling to and from work in the last 7 days? <i>Total up the amount from daily expenditure</i>	enter kina <input type="text"/>
14	How much money did you make as profit last week? <i>Ask about total takings and then deduct travel cost, cost of materials, fees and other costs to calculate net earnings.</i>	enter kina <input type="text"/>
15	How much money did you invest in initially setting up your business? <i>Include shelter, tools, tables and any other capital investments</i>	enter kina <input type="text"/>
16	From the money you earned last week, how much did you spend on the following items? Food for the family <i>Again, this might mean adding up daily expenditure on food</i>	enter kina <input type="text"/>
	Household goods	enter kina <input type="text"/>
	Education (eg school fees)	enter kina <input type="text"/>
	Clothing	enter kina <input type="text"/>
	Playing cards or other gambling	enter kina <input type="text"/>
	Personal entertainment	enter kina <input type="text"/>
	Given to friends or relatives	enter kina <input type="text"/>
	Paid to helpers in the business	enter kina <input type="text"/>
	Lent to anyone without interest <i>eg friends or relatives on a mutual obligation basis</i>	enter kina <input type="text"/>
	Lent to anyone with interest being charged <i>eg on a commercial basis to make a profit</i>	enter kina <input type="text"/>
	Repaying previous debts (to banks, people etc)	enter kina <input type="text"/>
17	Last week how much (if any) money did you save and what is the main way you saved it? Code: 1 In a bank account 2 With a saving club 3 At home 4 Other (state)	enter kina <input type="text"/> enter code for saving type <input type="text"/>

18	What is the main thing you are saving for? Code: 1 Building up the business 2 Building a house 3 A vehicle 4 Education 5 Emergency (rainy day) 6 Retirement 7 Other (state)	enter kina <input type="text"/> enter code for purpose <input type="text"/> state other type of saving
19	Did you borrow money last week? How much? Where from? Code: 1 From a bank 2 From a microcredit agency 3 From a money lender 4 From a friend or relative 5 Other (state)	enter kina <input type="text"/> enter code for lender type <input type="text"/>
20	Do you have any type of insurance? If so what types? <i>Code types they have</i> Code: 1 Car 2 Sickness 3 Property 4 Retirement 5 Life 6 Other (state)	enter code for insurance type <input type="text"/> state other type of insurance
21	If insurance was available and affordable, what sort of insurance would be most important for you? <i>(use codes above)</i>	enter code for insurance type <input type="text"/>
22	Are you a member of an organisation that represents their fellow workers? <i>Circle Yes or No and if Yes enter code for type of organisation</i> Code: 1 Union 2 Vendors association 3 Trade organisation 4 Other (state)	Yes No enter code for organisation type <input type="text"/> state other type of organisation
23	Have you ever asked an agency or individual to help you solve a work related problem? <i>Circle Yes or No and if Yes enter code for type of organisation</i> Code: 1 Church organisation 2 Other NGO 3 Politician 4 Community leader 5 Friend or relative 6 Other (state)	Yes No enter code <input type="text"/> State other

24	If Yes, what sort of issue was this about? Code: 1 Accident 2 Health or safety issue 3 Financial 4 Regulation 5 Personal dispute 6 Other (state)	enter code <input type="text"/>
		State other
25	(For people who work for themselves) Would you be interested in becoming registered as a small businesses in future? Circle one Why did you answer that way? State these in full for group discussion later	Yes No
		Don't Know
26	What are the main difficulties that you face in trying to make a living? State these in full for group discussion later	
27	Can you suggest any changes that would make it easier for the informal economy workers to earn more or to have more satisfactory work? State these in full for group discussion later	

Thank you for your participation.

ANNEXE B: PHONE SURVEY QUESTIONNAIRE

Introduction: We are conducting research on how people throughout Papua New Guinea make a living. The information from the audit will help the government to develop policies that provide better working conditions for workers outside the formal economy. Please be assured that the information collected from individuals and households will be treated in strictest confidence

	Questions	Answers	
		Yes	No
1	First, do you do any work to earn money? (If no, terminate the interview)		
2	Do you work for any of the following types of employer? 01 Government 02 Churches 03 NGOs 04 Universities 05 Registered business Do you do any other sort of work? (If No to the above, terminate the interview)	Yes code type of employment <input type="text"/>	
		No	

I would like to ask you more about the work you do. If you participate you will receive a Kxx credit to your phone account. Can we proceed with the interview?

3	In relation to the informal work you do, is this for yourself (1) or do you work for someone else? (2)	1	2
4	(If you work for yourself) Does anyone else help you in your work? How many? (0 or number)	<input type="text"/>	
5	What is the main sort of work you do? 01 Selling goods in a market 02 Selling goods on a street stall 03 Selling goods at an institution (eg school) 04 Selling goods at another type of location (state) 05 Selling goods from home 06 Rearing livestock for income 07 Growing crops for sale 08 Making craft items 09 Making things from timber 10 Making things from metal 11 Making clothes 12 Making bilums 13 Making other things (state) 14 Repairing vehicles 15 Repairing other things 16 General handyman 17 Building 18 Labouring 19 Cleaning 20 Catering 21 Looking after children, old people or sick people for money 22 Tutoring, training 23 Transport services 24 Entertaining 25 Money lending or saving 26 Informal security services 27 Waste recycling 27 Other (state)	<input type="text"/>	
		State others	

6	(For vendors only) What is the main sort of goods you sell? 01 Green vegetables 02 Root crops 03 Fruit 04 Sago 05 Fresh Fish 06 Salt fish 07 Meat 08 Rice 09 Cooked foods 10 Betel nut 11 Cigarettes 12 Flowers 13 Traditional medicine 14 Cold drinks (fruit juice, soft drinks) 15 Hot drinks and snacks (eg breakfast) 16 Home brew 17 Store goods (including mini-market) 18 Second hand clothes 19 Firewood 20 Water 21 Plastic bags 22 Cooking utensils 23 Household cleaning goods 24 Crafts 25 Traditional materials (mats, brooms) 26 Eggs 27 live chickens 28 Coffins 29 Other (state)	<input type="text"/>	
		State others	
7	Do you have any other sources of income? 1 Lending money and charging interest 2 Renting accommodation 3 Raising pigs for occasional sale 4 Other (state)	<input type="text"/>	
8	What is your gender and how old are you? 1 0-10 4 25-35 2 11-14 5 36-54 3 15-24 6 55-64 7 65+	M <input type="checkbox"/>	F <input type="checkbox"/>
9	Do you have a disability that limits the work you can do? Yes/No	Yes	No
10	What level of education do you have? 1 No schooling 2 Primary (any grade up to Grade 6) 3 Secondary (any grade Grades 7-10) 4 Trade training (including apprenticeships) 5 University or College 6 Other training after completing school	<input type="text"/>	

11	Do you save money regularly, and if so how do you save it? 1 = Bank; 2 = Savings club or scheme; 3 = at home; 4 = other	<input type="text"/>	
12	Are you a member of an organisation that represents their fellow workers?	Yes	No
13	Have you ever asked an agency or individual to help you solve a work related problem?	Yes	No
14	(For people who work for themselves) Would you be interested in becoming registered as a small businesses in future?	Yes	No
		Don't know	

Thank you for your participation

Endnotes

- 1 Hart, 1969, 1970, 1975; Stanley 1979
- 2 ILO, 2014
- 3 Green Globe, 2016
- 4 Waring, 2016
- 5 IMF, 2015
- 6 World Bank, 2013
- 7 Sullivan, 2017
- 8 Jackson, 2016
- 9 WIEGO, 2016
- 10 Brady et al 2016
- 11 Bradle, 2010
- 12 UN Women, 2017
- 13 UNIFEM, 2010 and UN Women, 2017
- 14 Stanley, 2002, Bateman 2015
- 15 Bertulfo, undated
- 16 WEIGO, 2016
- 17 WHO and World Bank, 2011
- 18 ESCAP, 2012
- 19 ILO, 2017
- 20 Kopel (2017) quotes various sources estimating that the informal economy supports more than 80% of PNG's population. Joku (2004) put the figure higher, at 85%, with most participants living in rural areas.
- 21 eg Stanley, 1979, Green Globe 2016
- 22 UN Women, 2017
- 23 Curry, 1999 and others
- 24 de Soto, 1997
- 25 Main, 2017; Jubilee Australia Research Institute, 2018
- 26 pers. com.
- 27 Walta, 2017
- 28 UN Women, 2017
- 29 Vinning, 2008
- 30 Worinu, 2007
- 31 UN Women 2010; Bonney and others, 2014
- 32 Chang and Mullen, 2013
- 33 Koczberski et al, 2005
- 34 Neuwirth, 2011; Brady et al, 2016
- 35 Wenogo, 2017
- 36 CIMC et al, 2001
- 37 Conroy, 2010
- 38 Wenogo 2015
- 39 Advised by major carrier Digicel. The MTDP states that 54% of the total urban and rural population had access to phones in 2017.
- 40 This is based on applying average turnover from the field survey under the assumption that most informal economy workers within the cash economy are based in urban areas, that PNG's urban population of working age is around 600,000, and that 80% of these people are employed within the informal economy, with a ratio of 2:1 in terms of unpaid helpers and main earners as identified in the current audit.

- 41 NB this is turnover, with net incomes around half of that. Turnover draws on cash payments to rural producers and therefore is reflective of GDP extending beyond urban economic productivity. However if adjusted for groups of workers within each enterprise, turnover would be less.
- 42 Inflation has varied from 1% to over 10% from 2001 to 2018, with the current rate around 4.5%.
- 43 MTDP III
- 44 Eg Paul Flagan, DevPolicy Blogs and PNG Blogs
- 45 2011 Census
- 46 Dademo and Anderson, 2017
- 47 Projected forward from Wilson, 2012
- 48 UNIFEM 2008-2012, UNIFEM since 2012
- 49 UNIFEM 2010
- 50 Before it was temporarily closed for rebuilding, the large Gordons Market in Port Moresby was probably turning over around PNGK 1 million per week.
- 51 Pers.com HELP Resources
- 52 MTDP III
- 53 UN Women, 2017:2
- 54 MTDP III
- 55 UNESCO data quoted in www.nationmaster.com/country-info/profiles/Papua-New-Guinea/Education
- 56 Pers. com. HELP Resources
- 57 Sharp, 2012
- 58 Vinning, 2008
- 59 collated in UN Women, 2017
- 60 UN Women 2017
- 61 ADB website www.adb.org/countries/papua-new-guinea/poverty
- 62 Knoema Corporation atlas quoting World Bank data).
- 63 MTDP III
- 64 CIA World Factbook
- 65 MTDP III
- 66 MTDP III
- 67 MTDP III
- 68 MTDP III
- 69 MTDP III
- 70 MTDP III
- 71 Small and Medium Enterprise (SME)



