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' SURVEYORS NEED FOR PROGRESS IN THE TWENTY-FIRST CENTURY '

**CADASTRAL SURVEYING IN PNG:
AN OUTSIDER'S PERSPECTIVE**

By

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Abstract

The Advisory Support Facility Project is an AusAID initiative designed to respond to requests for assistance from agencies in specific, targeted areas of need. Its function is to support the Government in its drive to improve the managerial and technical skills of public sector agencies.

The Terms of Reference for this project was to assist the Office of the Surveyor General (OSG) define their role and responsibilities and enhance their management skills.

During the course of the project, a number of key issues emerged. The implications go beyond the OSG and affect the surveying profession as a whole. These issues include:

- ◆ how to speed up the process and reduce the cost of cadastral surveying for the purposes of title registration;
- ◆ the impact of changing technology, such as GPS, on surveying and land registration;
- ◆ the extent (if any) to which surveying needs to be regulated and by whom (e.g. by the Government or by the profession);
- ◆ whether the legislation relating to surveying is obsolete and should be repealed or replaced.

This paper discusses these and related issues and proposes the formation of a review committee, which it suggests needs to be wholeheartedly supported by the profession.

Introduction

I feel privileged to be able present this paper to Congress and I thank you most sincerely for inviting me to do so.

Please allow me to give you a little bit of background about myself before we start. After obtaining a Degree in Estate Management – what today we would call Land Economics – I qualified as a Chartered Surveyor (General Practice Division) more years ago than I care to remember. In due course I obtained my Fellowship of the Royal Institution of Chartered Surveyors (RICS) in the UK.

My career has taken me from property development in England through the administration of Crown land in Hong Kong to senior government positions in Australia and now as an AusAID Adviser here in PNG. While always maintaining a link with my core discipline of property, I have spent the last 15 years or so in more general management roles, focusing particularly on the management of change.

Currently, I am coming to the end of a twelve-month assignment as Management Adviser in the Office of the Surveyor General (OSG) under the auspices of the PNG Advisory Support Facility Project.

The PNG Advisory Support Facility Project (ASF)

The ASF is an AusAID initiative designed to respond to requests for assistance from agencies in specific, targeted areas of need. Its function is to support the Government of PNG in its drive to improve the managerial and technical skills of public sector agencies.

The governing body for the ASF is the Facilities Management Group (FMG). This is a joint Australia-PNG decision-making body, which:

- sets the priorities and guidelines for the placement of advisers (which must fall within the Australia-PNG Co-operation Agreement);
- selects the projects which will receive ASF assistance;
- approves the Terms of Reference that define what the adviser will do; and
- monitors the progress of advisers who are placed in agencies.

Adviser placements are designed to improve the performance of Agencies by concentrating on areas that need improvement.

The program goal is to facilitate improvements to the quality of governance and service delivery provided by the government of PNG and its agencies by:

- enabling agencies to request assistance when they believe they need it;
 - identifying the nature of the technical specialisation required;
 - recognising the skills and development programs required by staff; and
 - managing the timeframes for improvement.
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My Terms of Reference

My current assignment arose out of recognition that, as a consequence of the severe downsizing of the OSG in 1998-99, it needed assistance to review its functions and determine its capacity to conduct its mandate given the level of resources and staffing now available. Furthermore, as its responsibilities had changed management and staff required training to assist them adjust to the changes caused by the downsizing.

The principal objectives of the project have thus been to assist the OSG to define the scope of its role and responsibilities and enhance its management skills. Specifically, this has involved:

- assisting management and staff to:
 - analyse the functions of the OSG as defined by the Acts and Regulations.
 - explore options to enable the OSG to achieve maximum performance from present resources and staffing;
 - recommend appropriate changes in policy and procedures to deliver the required services; and
- advising on modern management techniques to achieve the agreed objectives.

The results of our joint efforts have been articulated in the OSG's Corporate Plan for 2002, which the Surveyor General (SG) will be outlining to you in a separate paper. The purpose of this Plan is to define the role and responsibilities of the OSG, establish objectives and targets and allocate resources. It contains both strategic and business planning components and includes an action plan together with a budget.

Role of the OSG

Whereas in the past the OSG carried out land surveys on behalf of the State, these have been now been totally outsourced to private sector consultant surveyors.

This has allowed the OSG to concentrate on the functions prescribed for it in the *Survey Act (Chapter 95) 1969*. These are:

- general supervision of surveys of boundaries for the determination of titles to land and of other surveys authorised by the SG;
- administration of the PNG Surveyors Board;
- registration of Surveyors and Certified Measurers;
- regulation of the practice of Land Surveying in PNG; and
- the definition and maintenance of survey marks.

From this the role of the OSG has been defined as being:

“to facilitate land registration and support the indefeasibility of land titles by ensuring the integrity of cadastral surveying services and the maintenance of appropriate survey standards.”

I don't want to steal the SG's thunder, but it can be seen that the emphasis has moved from control and regulation to “facilitation”. The challenge for the OSG is to ensure that

proper standards are maintained without allowing them to become an impediment to efficient dealing in land.

The Key Issues

This is really the starting point for the comments that, with your indulgence, I would like to make about surveying in PNG as I see it from an "outsider's" perspective. Inevitably with this background, my focus is on cadastral surveying and I recognise that this is only part of the business of surveying.

I believe there are four key issues facing the surveying profession in PNG today:

1. How can land registration be made quicker and cheaper?
2. What is the impact of changing technology on surveying?
3. Should surveying be deregulated?
4. What changes to legislation are needed?

Let's take a look at each of these issues.

Issue 1: The Land Registration Process

I always like to start with the picture. It is worth reminding ourselves that land is a basic resource on which economic and social relationships are based, as well as being one of three factors of economic production (along with labour and capital).

The ability to deal efficiently in land is fundamental to PNG's economic development. The role of Government, through the Department of Lands and Physical Planning (DL&PP), of which the OSG is part, is to ensure that property rights are guaranteed and that an orderly process exists for transactions in land to occur. Guaranteeing the integrity of surveying, mapping and valuation support the primary land management role.

It follows that cadastral surveying is a means to an end – that end ultimately being economic development. The landowner is concerned primarily with his ability to deal with his land and to generate revenue or gain some other benefit from it. Land registration and the processes to achieve it, including survey, are a necessary evil, something he has to endure in order to ensure that he has an indefeasible title. He naturally will want to achieve that as quickly and as cheaply as possible.

Unfortunately, at present it can take months, even years, to register a parcel of land and, particularly in rural areas, the cost can be disproportionate to the value of the land.

For State land, planning and other approvals have to be obtained before a survey is required and these are normally beyond the control of the surveyor. I hope that the DL&PP may review these processes in the near future but they are outside the scope of the present discussion.

Meanwhile, the processing of a survey plan for registration is in the hands of the OSG and I am sure the SG will be talking to you about the steps he has taken to streamline the process. The target is to have all plans registered within 28 days of lodgement, and with

a program of continuous improvement I am confident that this time can be reduced even further.

However, much also depends on the surveyor who is lodging the plan. The reduced processing time means that the OSG has less time to spend on examining the survey record and the survey plan and has to place greater reliance on the professionalism of the surveyor concerned. The OSG will endeavour to clarify the standards it expects. If surveyors consistently comply with these standards, there will be fewer rejections and requisitions. In fact, the target is none. This will speed up the process for the client and hopefully help the consultant surveyor get his fee quicker.

The question for you to ponder is what else can be done to make the process simpler, quicker and cheaper?

One of the areas to be considered may be the accuracy to which the survey needs to be carried out, the amount of detail that needs to be provided and how the survey plan is presented. I have already said that the OSG will clarify the standards it expects but I venture to suggest that it should not be left just to them and that these standards need to be developed in close consultation with the profession.

Allied to this is the use of technology, such as the global positioning system (GPS). The profession needs to consider how this can be used to simplify the process of survey and reduce costs. Similarly, the electronic lodgement of plans has been the subject of discussion for some time; this needs to be progressed.

There is always a temptation to leave these things to the OSG but I believe that there needs to be more of a partnership approach. The profession (as represented by the Association and practitioners) and the Government (as represented by the DL&PP and the OSG) need to discuss such matters freely and openly to arrive at mutually beneficial arrangements.

The aim should be continuous improvement in the way land is surveyed for the purposes of title registration for the benefit of the landowners on whose behalf it is being done. The biggest gains should be in the reduction of time needed but there should also be cost savings and surveyors should pass these on to their clients.

Surveyors (like everyone else) should be appropriately remunerated for the work they do, but they also have a responsibility to operate as efficiently as possible in order to keep costs down. The Association has a leadership role to play and should continually keep its fee scales under review to ensure that they are based on best practice and are fair to both client and surveyor.

Issue 2: The Impact of Changing Technology

I have mentioned how changing technology may affect the process of survey for land registration but the impact goes much deeper. Let me quote, if I may, from the paper that Grahame Lindsay presented at 35th ASPNG Congress in July 2001:

“Then technology has exerted quite a profound influence. Electronic distance measuring equipment replaced the chain and the total station replaced the

theodolite. Satellite technology eventually led to the global positioning system. Computers replaced hand calculators and the development of desktop computers, CAD/CAM systems, automated field data recorders and a range of other quite sophisticated equipment has revolutionised the processing and manipulation of data. Paper maps are giving way to structured data sets that can be manipulated and enhanced as GIS. Older surveyors of the 1950's would hardly believe the dramatic change in survey offices were they to step inside one today".

Between 1994 and 1998 a FIG working group looked at trends and developing visions for cadastral systems in 20 years' time. The results were presented at the FIG-Congress in 1998 under the title "Cadastre 2014".

The working group summarised the trends it had identified as follows:

"In the technical domain, ...the most obvious trend is the automation of the systems and the digitisation of data. Networking and setting up databases are basics for the same trend towards the digital age.

The trends from a legal point of view are also dominated by the move towards the digital age by setting up multipurpose cadastres, often called Land Information Systems (LIS). Defining new legislation and new financing models are further trends in legal respects.

The trends from an organisational point of view indicate that the integration of different administrations dealing with land or land data might be undertaken. This is confirmed by another trend that says that the cadastral systems might be linked with environmental data and resources monitoring.

The age of New Public Management is somehow confirmed by the trends toward deregulation of rigid public structures, and more involvement of the private sector. Other trends such as reduction of personnel and better cost recovery support this statement."

The vision was articulated as follows:

"Cadastre 2014 is a methodically arranged public inventory of data concerning all legal land objects in a certain country or district, based on a survey of their boundaries. Such legal land objects are systematically identified by means of some separate designation. They are defined either by private or by public law. The outlines of the property, the identifier together with descriptive data, may show for each separate land object the nature, size, value and legal rights or restrictions associated with the land object.

In addition to this descriptive information defining the land objects, Cadastre 2014 contains the official records of rights on the legal land objects.

Cadastre 2014 can give the answers to the questions of where and how much and who and how."

To what extent is this vision applicable to PNG?

I would be the first to argue that PNG should find PNG solutions and not blindly follow the rest of the world. However, PNG is not immune from what is happening elsewhere, the use of computer technology and the digitisation of data being the obvious example.

Some of these matters, for instance the integration of different administrations dealing with land, are a matter for the Government. Nevertheless, I would like to think that the profession has a contribution to make by formulating its own views and discussing them with the OSG and other appropriate agencies.

It is also highly relevant to all the professions concerned with land as it raises questions about how they relate to each other. Are Surveying, Cartography and Valuation separate professions or are they in reality just different aspects of the same profession? They all fall within the FIG definition of a "surveyor" and in the U.K., where I started my career, they all come under a single body, the RICS. The implications in PNG, not least on education and qualification requirements, are beyond the scope of this paper but they should be rigorously debated by those most closely concerned and every made to reach a consensus. (For a more in depth consideration, refer to the paper presented to Congress last year by Bob Curley).

For the profession it goes to the heart of who is a surveyor and who should be allowed to carry out and sign-off surveys. Is there still a need for cadastral surveyors or can technicians using GPS technology replace them? This is obviously a sensitive issue, but one that needs to be thoroughly and maturely debated. It is also at the core of the issue of whether surveying should be deregulated.

Issue 3: Regulation or Deregulation

In Australia the move towards deregulation has been driven by the National Competition Policy, the stated aim of which is to promote free and open competition where this is in the public benefit, which in turn increases efficiency and productivity throughout the economy. I understand that comparable legislation has been passed in PNG although it has yet to be implemented. In the meantime, I have mentioned the need to bring down the cost of land registration by reducing the cost of survey.

Under the current legislation in PNG, surveying is heavily regulated. The *Survey Act* provides for the administration of the PNG Surveyors Board (which is chaired by the SG), the registration of Surveyors and Certified Measurers and the regulation of the practice of Land Surveying.

In 1998-99 a review of the *Survey Act* was undertaken by the OSG with technical assistance provided by the Australian Contribution to the Land Mobilisation Program and some input from the profession.

The review proposed a series of amendments aimed at establishing a self-managed, self-funded Surveyors' Board representative of all surveyors. Attention was also given to increasing the ability of surveyors to operate within companies, ensuring that all surveyors offering services to the public carried appropriate insurance cover and improving client service through freeing up the plan registration process.

Two years later, the Functional and Expenditure Review of the DL&PP, which reported in June 2001, examined the option of transferring professional registration of surveyors (and valuers) entirely to an independent board. It concluded that, on balance, it would be appropriate for the current involvement of the Department to continue, at least for the time being. (Its main recommendations with regards to surveying related to abolition of the position of Surveyor-General and its replacement by a non-statutory position of Director of Surveying Services with delegated authority from the Secretary of the DL&PP who would have the statutory powers and responsibilities).

Neither of these reviews considered the case for deregulation and they both failed to address the critical question: To what extent (if any) does surveying need to be regulated and by whom? This question therefore needs to be posed again and approached afresh with a totally open mind. The issues need to be thoroughly researched and then debated by the government, the profession and other stakeholders to arrive at the best solution for PNG.

It is not the purpose of this paper to discuss the merits of the various models for deregulation. (For further insight into some of the issues surrounding deregulation, it is worth reading a paper entitled "Competition and the Professional Surveyor: There Are Two Sides to Every Boundary!" presented to the 39th Australian Surveyors Congress Launceston in 1998 by Christopher Rowe the Surveyor General of Tasmania.)

I would, however, just like to comment on responsibility for standards and ethics, which will be part of the debate. It may be helpful if I explain what I mean by these terms.

Standards may be defined as a particular grade or level of excellence or achievement. Technical standards may take the form of a specification of requirements (for example the accuracy of the close for a particular class of survey).

Ethics are the recognised rules of conduct or principles by which the "rightness or wrongness" of actions may be judged. (To quote Dr Albert Schweitzer: "In a general sense, ethics is the name we give to our concern for good behaviour. We feel an obligation to consider not only our own personal well-being but also that of others and of human society as a whole.")

Although they are two separate concepts, they are closely related. (Indeed, another definition of ethics might be "the upholding of standards".) For present purposes, the fundamental question is the same for both – who should be responsible?

In discussing the Land Registration Process, I suggested that standards should be clarified by the OSG. I was alluding here to technical standards relating to cadastral surveys and the resultant survey plans submitted for registration. However, I should point out that, based on my definition, such standards should stipulate *what* is required, not *how* it should be achieved.

For this reason, I find the Survey Directions superfluous. They are in the nature of a manual describing how to carry out surveys. This is surely covered in the educational curriculum of a surveyor, not something that should be stipulated by directions from the SG. Furthermore the Survey Directions are out of date anyway having been written well

over ten years ago and they do not reflect modern technology and techniques. I suggest that it should not be left to the SG continually to update them and that keeping abreast of current best practice is the responsibility of the individual surveyor. Encouragement to do so (and possibly sanctions for failing to) should come from the Association through the promotion of continuing professional development (CPD).

Similarly, ethics are difficult to legislate because they are concerned with moral rather than legal issues. Again, the responsibility lies fairly and squarely with the individual surveyor, although he may need some guidance from the Association in the form of a Code of Conduct and Ethics.

The Association already has such a Code. However, further consideration may need to be given to whether it adequately covers the role and responsibilities of the surveyor in the execution of authorised surveys and the nature and extent of surveyors' fundamental obligations to their clients, adjoining landowners and the general community.

Ensuring compliance with the Code and sanctioning any transgressions is, I suggest, a matter for the Association and not for Government, which is a strong argument in favour of deregulation of the profession.

Issue 4: Legislation

From my comments on the preceding issues, I think it will be readily apparent that when solutions have been proposed, after rigorous debate, they will not be supported by the present legislation. Much of that legislation is now over thirty years old and well and truly out of date. Even when first enacted, its relevance to PNG was debatable.

For instance, the *Survey Act* appears to have been modelled predominately on the Australian Capital Territories Surveyors Act of 1967 and in large sections is a verbatim copy. The *Survey Act* was amended in 1972 and again in 1987 but there have been significant changes in survey practice and theory since then.

The Legislative Review undertaken in 1998-99 was limited in its scope. Part of the reason for this is that during the course of the review the Government implemented major staff cuts in the public service that drastically reduced the ability of the DL&PP to support the Surveyors' Board or implement the proposed amendments. This served to highlight the difficulties the DL&PP was facing and focussed the review on the need for change in the management of the profession.

It also prevented a review of the *Survey Co-ordination Act* and increased confusion surrounding the management of geographic information in PNG as the organisations responsible, the National Mapping Bureau and the Office of National Planning, did not have the capacity to support the review. There was also low public interest, which resulted in this portion of the review process being aborted.

Since then, it has been recognised that the terms of reference for that review were too narrow. Firstly, they were confined to the *Survey Act* and the *Survey Co-ordination Act* (and, in the event, this latter act was not considered because the review was curtailed) and

did not embrace other relevant legislation. Secondly, the review did not address the strategic issues that I have outlined above. Thirdly, it is apparent with hindsight that not enough emphasis was given to the need for consultation with the profession and other stakeholders.

In any new review some of the questions that should be addressed include:

- *Is the Survey Act necessary?*
This Act deals primarily with the registration and regulation of Surveyors and Certified Measurers. If the profession were to become self-regulating, the Act would appear to be unnecessary and could possibly be repealed.
- *Is the Survey Co-ordination Act necessary?*
This Act is also outdated and ultimately may be rendered obsolete by default (if it is not already) by technological advances.
- *Is there a need for a Geographic Information Management Act?*
While the 1998-99 Legislative Review briefly canvassed the need for such an act, it was not explored. What such an act would achieve and whether it is necessary needs to be debated. For instance, matters such as position and data format probably do not need to be legislated while issues surrounding data protection are not confined to geographic information and may well be covered (or should be covered) by other more generic legislation.
- *What other acts need amendment?*
Any review of the legislation relating to surveying needs to be holistic covering all the relevant acts, not just those mentioned above. The *Land Act* is perhaps the most obvious but there are others. As well as considering what is in those acts at present, the review should also look at what is *not* in them but should be. If it is recommended that the *Survey Act* and/or the *Survey Co-ordination Act* be repealed, some matters will almost certainly need to be picked up by amendments to other acts.

However, let's keep the horse before the cart here. It is important *first* to resolve the strategic issues discussed in this paper and to arrive at solutions that are applicable to PNG, not imported wholesale from somewhere else. Then, *and only then*, should changes to legislation be proposed.

The Way Forward

None of the issues I have discussed above are new. You have only to look at the two the papers presented at last year's Congress (ASPNG 35th Survey Congress: "From Mastamak to Spatial Data Professional") that I have referred to elsewhere in this paper.

Bob Cutley in his paper "The PNG Surveyor on the New Millennium" suggested, "the surveying profession in PNG is burdened by imported legislation and ideology from the 19th century that is inappropriate to the current needs of this nation". Yet if we go back to the Legislative Review of 1998-99 we read that:

“...despite the effort made by the Surveyor General to elicit input the response was disappointing and much of what was received demonstrated a lack of awareness, particularly within the surveying profession, as to the purpose and content of the existing legislation.”

Bob discusses some of the changes in the property profession taking place elsewhere in the world and considers if they are appropriate to PNG. In doing so, he covers most of the strategic issues I have mentioned, particularly with regards to possible future directions for the profession.

Similarly, in his paper “Looking Backwards to the Future”, Grahame Lindsay discusses where we’ve come from, where we are now and global trends before making some practical suggestions about how to develop what he calls a “*preferred* future”.

I strongly support his view that we should define our own future, the “we” in this case being the land professionals (valuers and cartographers as well as surveyors). With this in mind, let me ask you one final question - if the issues referred to in this paper have been raised before, what have you done about them?

May I suggest that the way forward may be to form a Review Committee to consider the issues and make recommendations? The DL&PP has indicated that it is willing to take the leadership by commissioning such a review. For it to be successful it will need three essential ingredients, viz.:

- a small but strong steering committee supported by a full time executive officer;
- comprehensive research of the issues and options; and
- extensive and thorough consultation with all stakeholders.

I have attached as an appendix to this paper some suggested Terms of Reference, which incorporate these ingredients.

However, more than anything else the review will require the full and unequivocal support of the profession. The 1998-99 Legislative Review pointed out that the old expatriate surveyors have now left PNG taking their knowledge and experience with them. The nationals must take over the leadership role they used to provide and the younger generation must be at the forefront of defining the “preferred future”. After all, we are talking about *their* future.

Conclusion

There is an old adage that a management consultant is someone who borrows your watch to tell you the time. To which I have to reply, guilty as charged! As Management Adviser to the OSG my role has been to ask the awkward questions – but the answers came from them.

Similarly, on the broader strategic issues discussed in this paper, the answers have to come from you, the professionals and practitioners here in PNG.

It's your profession and it's your future that is at stake.

References

The Laws of PNG: Survey Act (Chapter 95) 1969 and Survey Co-ordination Act (Chapter 203) 1967

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Report of Legislative Review of the Survey Act (Chapter 95) and the Survey Co-ordination Act (Chapter 203) Undated

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Curley R. "The PNG Surveyor on the New Millennium" ASPNG 35th Survey Congress Port Moresby, 2001.

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**SUGGESTED TERMS OF REFERENCE FOR A
REVIEW OF THE POLICY AND PRACTICE OF CADASTRAL SURVEYING IN PNG.**

MANDATE

It is suggested that the Department of Lands and Physical Planning appoint a Committee to review the policy and practice of cadastral surveying in PNG and to make recommendations in accordance with these Terms of Reference.

REVIEW COMMITTEE

Membership of the Review Committee would need to be determined but could include:

- an independent Chairperson
- representative from the Association of Surveyors of PNG (probably the President)
- representative from Academia (probably from Unitech)
- representative(s) from the real estate industry and/or the legal profession
- representative from a consumer affairs organisation
- the Registrar of Titles
- the Surveyor General

This Review Committee would need the services of a full time Executive Officer, the Job Description for which is attached.

TERMS OF REFERENCE

Without limiting the scope of the review, the Review Committee should address the following issues:

- simplification and speeding up of the process of survey so that registration of title can be made quicker and cheaper;
 - the impact of changing technology, such as GPS, on surveying and land registration;
 - the future of the PNG cadastre (including the possibility of converting the whole cadastral archive to a co-ordinated boundary system using PNG94 datum);
 - the role and responsibilities of the surveyor in the execution of authorised surveys and the nature and extent of the surveyor's fundamental obligations to his client, adjoining land owners and the general community;
 - the need (if any) to control standards of practice and how this can best be achieved;
 - the extent (if any) to which surveying needs to be regulated and by whom (e.g. by the Government or by the profession);
 - the impact (if any) of the Review Committee's recommendations on the statutory role and responsibilities of the Surveyor General and the PNG Surveyors' Board;
 - whether the Survey Act and/or the Survey Co-ordination Act and the subordinate Regulations and Survey Directions are obsolete and should be repealed or replaced;
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- changes to legislation needed to give effect to the Review Committee's recommendations; and
- the need (if any) to introduce new legislation to control the management of geographic information.

The Review Committee should take into account other broad policy considerations of the PNG Government including, but not limited to, the Organic Law and the Government's Structural Reform Agenda.

The Review Committee should undertake research into how the process of surveying and land registration is managed in other jurisdictions including the Australian States and Territories, New Zealand and other appropriate countries.

The Review Committee should consult as necessary with international organisations, such as FIG, and undertake such other research, as it considers appropriate. However, while analysis of the findings from this research should guide the Review Committee's recommendations, it is stressed that what is proposed must be suitable for the particular circumstances of PNG and respect its traditional culture and attitudes towards land.

It should be mandatory for the Review Committee to undertake public consultation. Without limiting the process, the Review Committee should:

- prepare a Discussion Paper which details the scope of the review, provides the necessary background including the findings from the research carried out, and fairly articulates the issues and possible solutions;
- make the Discussion Paper freely available without charge to all interested parties;
- place advertisements within the National press, and such other media as the Review Committee considers appropriate, to invite submissions from interested parties;
- allow adequate time for interested parties to consider the issues and prepare and submit their responses;
- hold at least one public forum in Port Moresby for discussion of the issues after due notification of the date and place has been given in the National press and by such other means as the Review Committee considers appropriate.

In the light of its findings, the Review Committee should review the Survey Act (Chapter 95) 1969, the Survey Co-ordination Act (Chapter 203) and all subordinate legislation under those Acts to determine what changes are necessary to give effect to its recommendations.

The Review Committee should consider the provisions of any other acts that are relevant to surveying, including but not limited to:

- Land Act No 45 of 1996
- Lands Acquisition (Development Purposes) Act
- Land Dispute Settlement Act
- Land (Ownership of Freeholds) Act
- Land Tenure Conversion Act
- National Land Registration Act.

- Mining Act (Chapter 195)
- Place Names Act (Chapter 318)
- Street Closure Act

The Review Committee should also consider whether any new legislation is required.

REPORTING REQUIREMENTS

The Review Committee should produce a final review report, which should contain:

- an outline of the review process;
- an analysis of the findings from the research undertaken;
- the outcomes of the public consultation;
- an outline of the issues and possible solutions, including an evaluation of options;
- clear recommendations on the possible actions that can be taken by Government;
- an outline of any transitional arrangements which may be required under the recommended course of action and the rationale for these arrangements;
- clear recommendations for the retention, amendment, repeal or enactment of legislation;
- drafting instructions for the amendment of existing legislation and/or the enactment of new legislation proposed by the Review Committee;

TIMEFRAME

The Review Committee should be required to submit its report and recommendations within 12 months from the date of its establishment.

Attachment**JOB DESCRIPTION****Executive Officer, Cadastral Surveying Review Committee****1. PURPOSE OF THE JOB**

To provide administrative support and assistance to the Cadastral Surveying Review Committee.

2. ACCOUNTABILITIES

Accountable to the Chair of the Cadastral Surveying Review Committee.

3. DUTIES

1. Assist the Chair of the Cadastral Surveying Review Committee, in particular by convening and minuting meetings of the Committee on his behalf.
 2. On behalf of the Review Committee and in accordance with its directions:
 - undertake research into how the process of surveying and land registration is managed in other jurisdictions including the Australian States and Territories, New Zealand and other appropriate countries;
 - consult as necessary with international organisations, such as FIG;
 - undertake such other research as the Review Committee considers appropriate;
 - analyse the findings from this research and present to the Review Committee.
 3. On behalf of the Review Committee and in accordance with its directions, prepare a Discussion Paper which details the scope of the review, provides the necessary background including the findings from the research carried out, and fairly articulates the issues and possible solutions.
 4. Assist the Review Committee with the process of public consultation by:
 - arranging for the Discussion Paper to be made available to interested parties;
 - placing advertisements to invite submissions from interested parties; and
 - organising public forums for discussion of the issues.
 5. On behalf of the Review Committee and in accordance with its directions, arrange for the preparation of drafting instructions for the amendment of existing legislation and/or the enactment of new legislation proposed by the Review Committee.
 6. Assist the Review Committee with the production of its final review report.
 7. Provide the Review Committee with such other support and assistance as may be required.
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