

# CADASTRAL REFORM FOR SUSTAINABLE LAND REDISTRIBUTION - CASE OF ZIMBABWE

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## ABSTRACT

*"Cadastral reform in a rapidly changing environment is inevitable and essential, not optional. If reform is not initiated, there are risks of a degraded cadastre, inefficient practices, overpriced surveys and an inability to fully utilise new technologies" (Smith, 1990)*

Sustainable land reform is linked closely to organisations that deal with land rights adjudication, boundary demarcation, land use planning and valuation control. When these functions are spread across different institutions with different business cultures and management styles, delivery of key processes and affordability of the final cadastral products is put to the test.

The cadastral system in Zimbabwe is dominated by subdivision and consolidation related transactions. Over 95 % of requests lodged into the system fall under the two categories. The way these processes are conducted is therefore very important especially now because of the land reform programme currently underway. It is almost certain that at some stage, property rights within the resettlement areas will have to be adjudicated in order to reduce boundary dispute related problems and promote investment in land.

This paper addresses sustainable land reform in Zimbabwe as a process, which is intimately linked to a co-ordinated and integrated cadastral system. Based on an initial benchmark of the subdivision process, *a cadastral reform for sustainable land reform* approach is proposed. The current subdivision process is analysed in order to identify loopholes. A discussion of these problem areas is presented and alternative remedy options elaborated.

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## **1. INTRODUCTION**

Williamson (1990) defined cadastral reform as that process concerned with improving the operation, efficiency, effectiveness and performance of a cadastral system in a state or jurisdiction. The definition challenges the quality of service delivered by institutions that form part of the cadastral product value chain. The Bogor declaration (1996) reiterates the need for efficiency, security and affordability of land rights adjudication, land transfer and mutation processes for the overall success of cadastral systems. Thus cadastral reform initiatives must be part of any system if it is to be spared from degradation. Otherwise modern society will challenge the practise if customer expectations are not met.

The delivery of key cadastral processes in Zimbabwe has been severely eroded (Chimhamhiwa & Lemmen, 2001). This scenario is heavily attributed to the overall lack of reform of the cadastral system over the years. Twenty first century customers do not understand why they have to drop in by innumerable government offices before they can go ahead, for example with a parcel subdivision. They are increasingly demanding one stop shopping, integrated and quality service from the cadastral system. Cadastral operations must therefore prepare to deliver such service to both internal and external customers at affordable cost, quality and within reasonable time limits. This new paradigm requires a new business culture within cadastral institutions. Institutional integration and creation of wider virtual enterprises will almost be inevitable.

Thus, as governments review operations of the public sector, the cadastral industry is challenged as traditional techniques and funding formulae face reform (Grant et al, 1998). The need to reform the cadastral system therefore becomes critical.

## **2. KEY CADASTRAL PROCESSES IN ZIMBABWE**

Four key cadastral processes support the cadastral system in Zimbabwe. These are subdivisions, consolidations, sectional title surveys and whole parcel transfers. These are shown on Fig 1.1. Planners, Local Planning Authorities (LPA), Land Surveyors, Department of the Surveyor General (DSG), Notaries and Registry of Deeds (RD) are identified as the key institutions in the execution of the processes.

Figure 1.1 The existing cadastral processes in Zimbabwe.

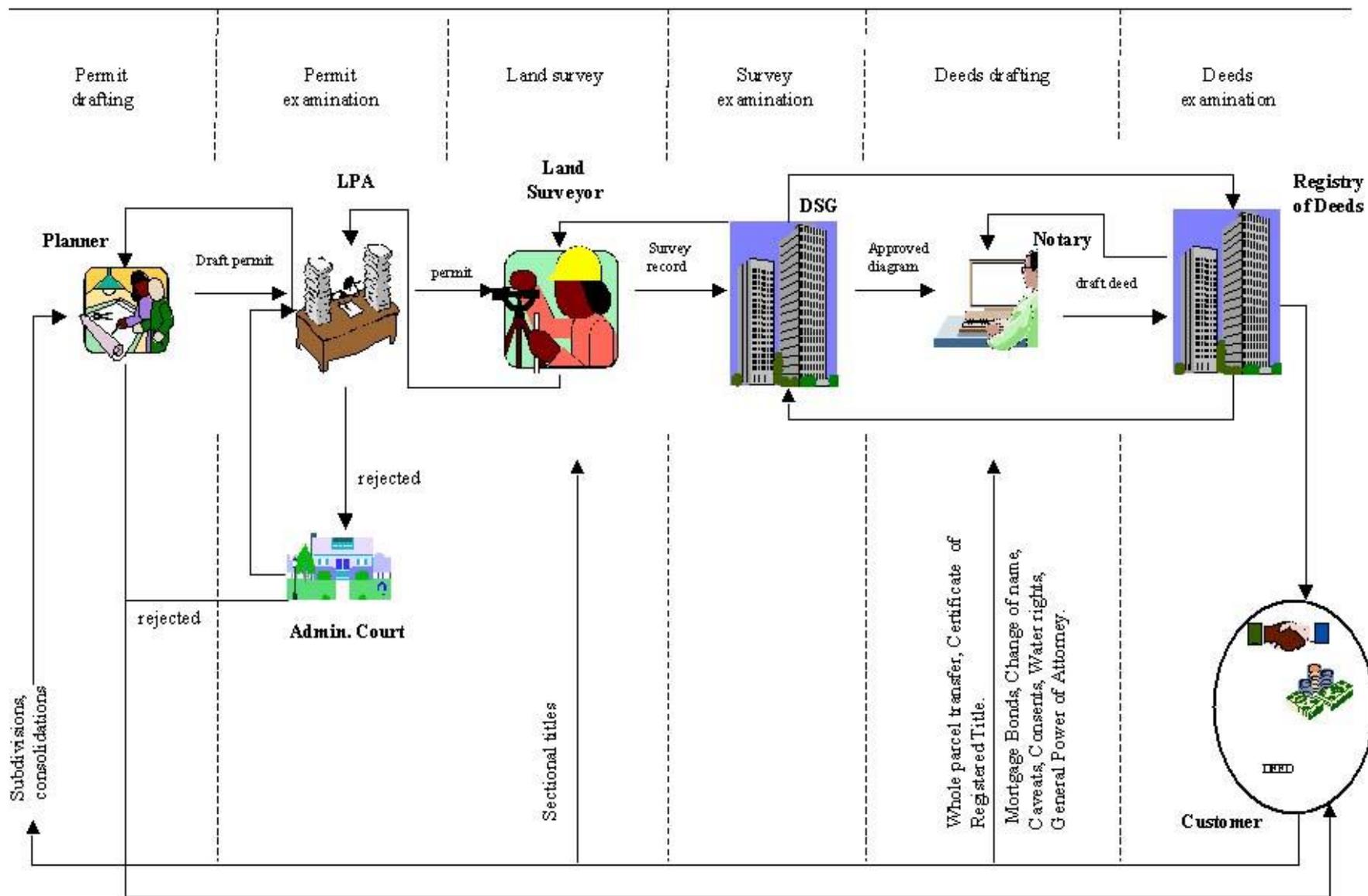


FIG Commission 7, Symposium Land Redistribution in Southern Africa, Burgers Park Hotel, Pretoria, 6 - 7 November 2002

Additionally, the Department of Lands and the Ministry of Lands and Agriculture (MOLA) have emerged as important institutions under the "fast track" land reform programme. With the exception of Planners, Land surveyors and Notaries, all other institutions fall under the public sector. Chimhamhiwa (2001) identified subdivisions and consolidations as two major processes in need of immediate attention. As illustrated on figure 1.1, a request falling under either is submitted through a Planner who drafts a permit and submits it to a LPA for approval. On approval, a permit is issued by the LPA. The approved permit is forwarded to a Land Surveyor who undertakes the new boundary demarcation. A survey record, compiled by the Surveyor, is lodged with the DSG for examination and approval. An approved diagram is forwarded to a Notary for deed drafting. The draft deed is then submitted to the RD for examination and approval. Once approved ownership is transferred and the new deed handed over to the new owner.

Sectional titles are handled through the Land Surveyor, with subsequent sub processes being executed as shown on figure 1.1. Whole parcel transfers and related transactions are lodged directly with the office of the RD and have been identified as a non-critical group (Chimhamhiwa & Lemmen, 2001).

### **3. HISTORY OF CADASTRAL ACTIVITIES**

Cadastral activities in Zimbabwe can be examined under three different epochs; *prior to independence*, *post independence* and *post land reform*. Before Zimbabwe's independence in 1980, cadastral processes adequately coped with the volume of transactions lodged due to the small number of transactions. Only 1% of the population could transact over property. The institutions and resources then were adequate for the existing demand. As a result, delivery of key processes was satisfactory.

During post independence (1980 - 2000), the volume of transactions increased significantly as individuals, private sector and government embarked on major property development programmes. The number of participants on the property market increased drastically directly placing significant pressure on the same pre independence institutions and processes. As a result signs of backlog started to reflect in field survey from 1984 - 1986. As a remedy to this problem, the Department of Surveying (now Geoinformatics and Surveying) was commissioned at the University

of Zimbabwe in 1987 to alleviate the desperate shortage of Land Surveyors. By mid 1990s, the backlog problem shifted from field survey to survey examination as illustrated on figure 1.2. The explanation for the shift is that more surveyors were supplying work to the DSG, a situation that resulted in increased workload. Unfortunately, survey examiners were not increased accordingly hence the backlog in survey examination. By 1996 survey examination backlog almost approached 2 000 records. As a quick remedy, personnel from South Africa were brought in to assist.

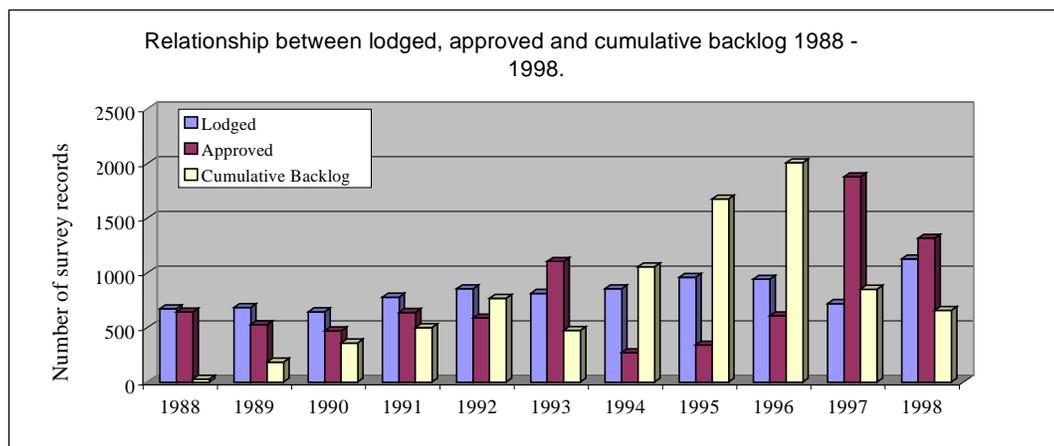


Figure 1.2: Relationship between lodged, approved and cumulative backlog 1988 - 1998 (Source Department of the Surveyor General)

A *post land reform period* (2000 onwards) is likely to result in a major "land transactions boom". Official estimates (MOLA, 2002) predict that 300 000 *plus* mutations will be created. This situation will compound pressure on existing cadastral institutions since they will have to deal with their normal plus additional workload. It is therefore critical to review the whole cadastral system so as to avert a crisis. Through reforms, regulations governing property transacting, cadastral procedures, institutional arrangements and mandates are re-examined, re aligned and harmonized to create an effective and efficient system.

#### 4. "KNOW WHAT IS BROKEN BEFORE TRYING TO FIX THE PROBLEM"

**Where does one start with cadastral reform?** This is not an easy question! A possible beginning could be by first identifying problem areas before attempting to fix anything. This paper identified 3 weakness areas namely: -

1. *that subdivisions and consolidations form a critical part of the cadastral processes in Zimbabwe and are likely to be used to parcel out land under the current land reform programme. However, current processes and procedures need urgent attention.*
2. *the post land reform era will be characterised by a high volume of subdivision related transactions, a situation which will likely further congest the process.*
3. *existing institutions are weakly linked thereby delaying process cross over.*

This paper went further to examine closely one of these critical processes - subdivision. Process modelling, performance modelling and benchmarking approaches were used to conceptualise, analyse and establish the current process situation for requests with a maximum of two property units.

The cross-organisational subdivision process was modelled into activity steps. The resultant process map is shown on figure 1.3. Performance was evaluated based on time and cost metrics. Professional estimates of time and costs were derived and used to test sampled data.

#### 4.1 COST BENEFIT ANALYSIS

Organisation	Ratio of Cost to Benefit
Planner	0.93
Municipality	180.71
Land Surveyor	0.75
Department of the Surveyor General	122.00
Notary	0.94
Registry of Deeds	50.46

Table 1: Cost/ benefit analysis of subdivision processes

It was established that a single subdivision request costs Z\$4.83 to benefit Z\$1 and that public sector institutions consume Z\$120 to make Z\$ 1 while their private sector counterparts consume Z\$0.83 in order to make Z\$1. It is also clear from the table 1 that Municipality and DSG sub processes experience serious financial loses.

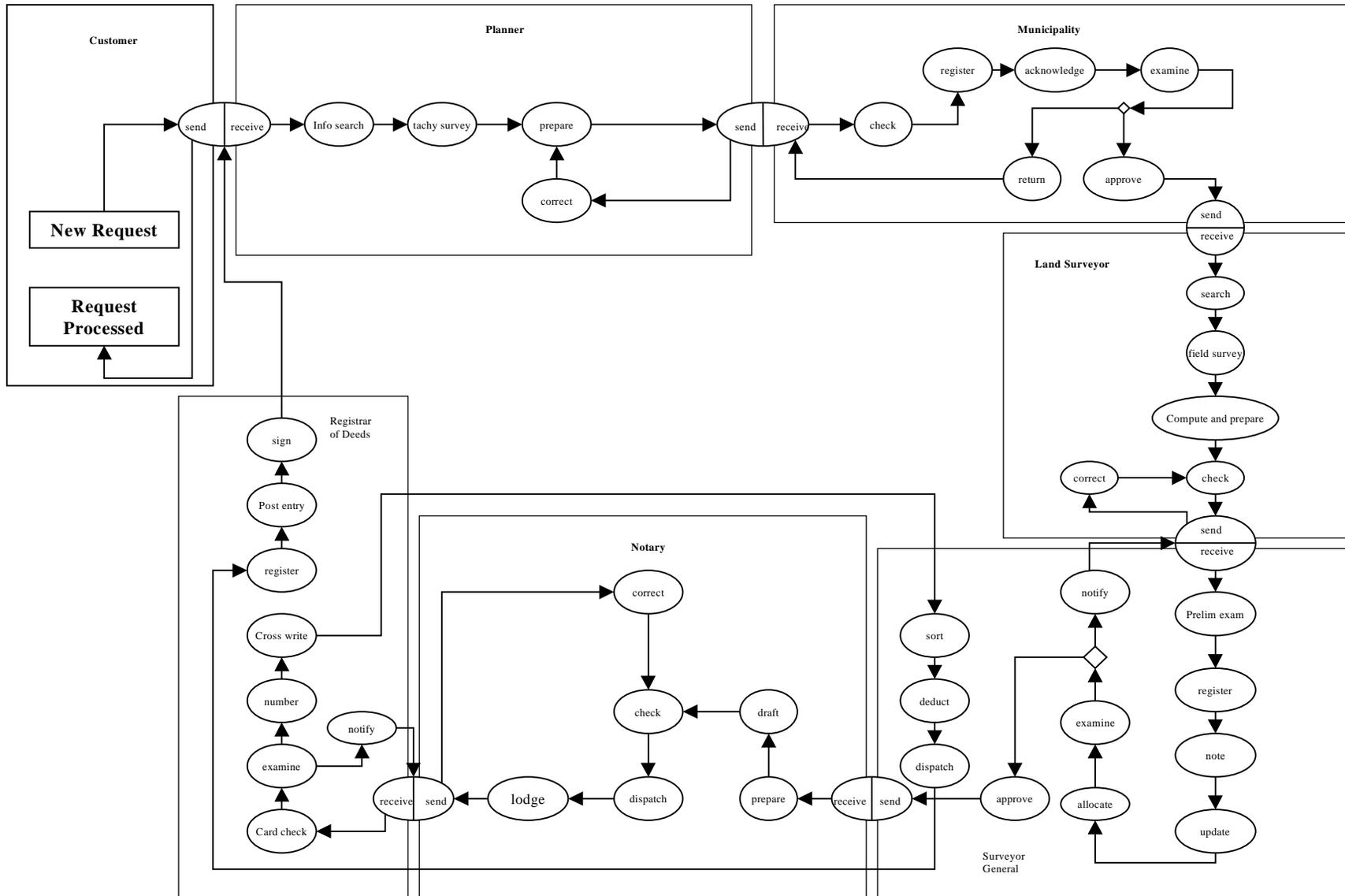


Figure 1.3: The subdivision process map

## 4.2 PROCESS INTEGRATION ANALYSIS

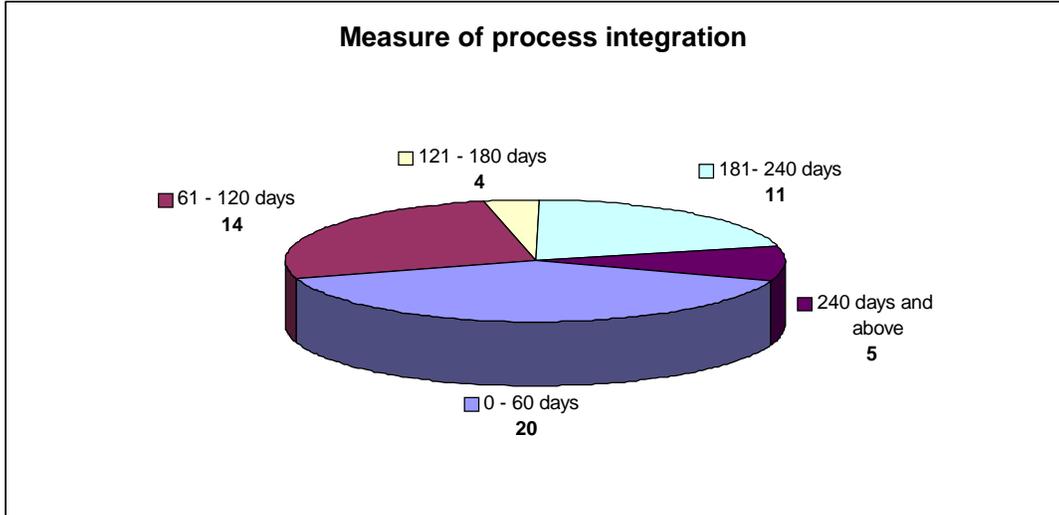


Fig 1.4: Process integration measure – Permit examination *permit send* to Land survey *permit receive*

Since subdivision is cross organisational, integration of sub processes is very important. Sample data was used to check time lapses between consecutive process steps done at different institutions namely: - *permit send* within Municipality and *permit receive* done by the Land Surveyor. Figure 1.4 show that out of 54 records 34 records took 61 – 240 days to cross from one sub process to another. Five requests had to apply for permit extension. The results clearly reflect the disjointed nature of the sub processes - a rather undesirable situation. It is necessary therefore to design alternatives that reduce or eliminate altogether such gaps.

## 5. OTHER BROKEN COMPONENTS

### 5.1 STAFF SHORTAGES

The DSG and RD have serious staff shortages, a situation that hampers their capacities to deliver. An example is the *approve* step within the DSG which is severely constrained since only qualified Land Surveyors can perform this activity. The fact that such Surveyors are scarce within the DSG means that records pile up significantly before approval. Additionally, Land Surveyors have other administrative

duties. Therefore, if the land reform programme adopts the current subdivision procedures (as is), problems will be imminent at record approval stage.

## 5.2 LACK OF AN INTEGRATED APPROACH

There is generally lack of an integrated approach in land administration activities in Zimbabwe (FIG, 1995). Institutions involved have not done much to establish collaborative platforms. While most institutions have a closer link with their predecessors and successors in the chain, the link is generally not viewed beyond. Although computerisation of documents has been done in most key institutions (e.g. RD and the DSG), linking up of the different databases poses big challenges due to the isolated conceptualisation, different operating systems and different software.

## 5.2 QUALITY MANAGEMENT

Management of quality was viewed as a major hurdle in the current set up. The myth that *"documents must be perfect before approval"* seems to be the de facto quality principle. Although theoretically "the state is not liable for the quality of work submitted by private practitioners", the checking syndrome remains fairly evident. As a result, responsibility to check work submitted has shifted from practitioners to recipient institutions, a rather undesirable situation. This paper went on to analyse the impact of current quality procedures at the survey approve checkpoint. Out of 54 records, 44 (81%) were returned at least once for amendments after quality failure. Table 2 below, shows the time taken by surveyors to return the 44 records to the "processing line".

Time range	Less than 2 weeks	2 – 4 weeks	4 – 8 weeks	Above 8 weeks
Number of requests	24	10	5	5

Table 2: Time taken to return records after first return

Of the 44, 25 records were rejected for the second time and subsequently sent to land surveyors for amendments. The time taken to return these 25 records varied according to table 3.

Time range	Less than 2 weeks	2 – 4 weeks	4 – 8 weeks	Above 8 weeks
Number of requests	2	3	6	14

Table .3: Time taken to return records after second return

It is clear from table 3 that only 2 records were returned within two weeks and that half of the records were returned after more than a month. Out of the 25 rejected, 8 were further returned to land surveyors for the third time. None of them came back within the first month.

The above analysis clearly shows that records continue to loop around due to quality related procedures. It is also clear that the higher the number of times a request is rejected, the more time it is likely to take before it is relodged. Since there is no legislation or arrangement that compels land surveyors to return records to the DSG by a certain date/time - a clear loophole in the system is exposed.

### 5.3 PROFESSIONAL RESPONSIBILITY

It is high time professionals take full responsibility for work submitted by them.

The institutions involved must champion the awareness and reorientation initiative. Professionals must be pro active enough to initiate change by proposing new approaches and technologies. They must deal with the risk element in a positive way to avoid heavy quality costs. A possible option may include taking up insurance against work done. Accreditation of practising professionals can be used to separate the "professional guys" from the non-professional. Such an arrangement will give the correct impression instead of the current *'all surveyors are equally good'*.

### 5.4 LEGISLATIVE CONSTRAINTS

Certain legislations have emerged as impediments to process improvement initiatives. One such legislation is section 40 of the Regional Town and Country Planning Act, which state, " *there shall be no subdivision ...consolidation... or agreement for a lease without a permit*". Although the rational of the clause is sound, in practise this introduces serious bureaucratic problems. The current Land Survey Act only

prescribes only the use of conventional survey equipment. Adoption of new technology such as GPS is not covered. Such legislation must be revised in line with the changes within the profession.

## 6 "FIXING THE PROBLEMS"- SOME OPTIONS

### 6.1 ADOPT AN INTEGRATED APPROACH

After identifying attention areas this paper proposes a framework for reforming the cadastral system in Zimbabwe. First, all players – the operations and stakeholders – must be brought together as shown on figure 1.6 below. A co-ordinating Board that will map out a clear and holistic strategic plan for the whole system must be formed. The Board could be placed under the office of the Planning Commissioner and should complement government 's initiative to streamline bureaucracy in public institutions.

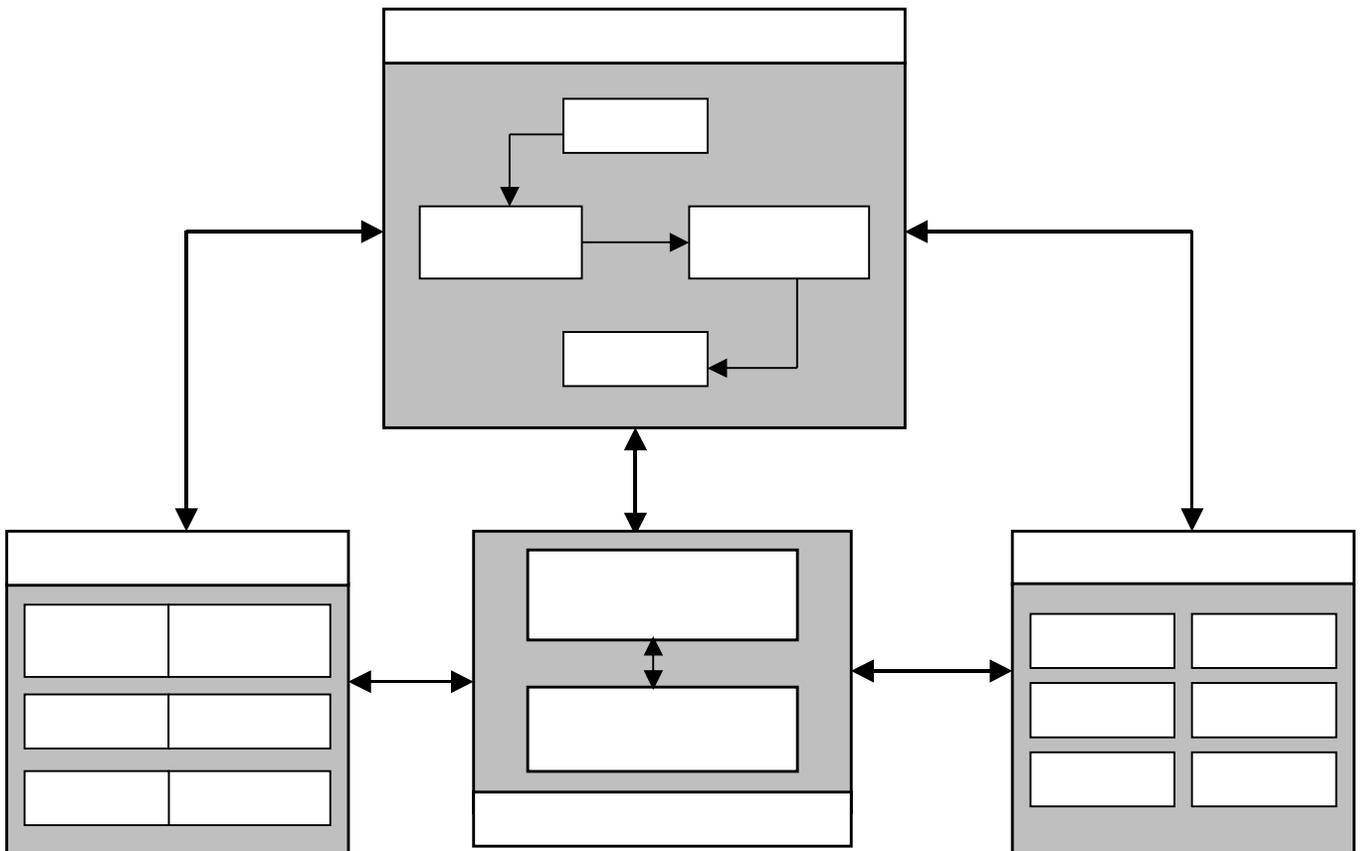


Figure 1.5: Linking up strategy with operations and stakeholders

The reform, which should be an ongoing programme must address a variety of organisational issues inline with the overall process improvement agenda. Such issues include: -

- ◆ Possibilities to integrate operations and/or select a lead agency. This is important particularly for the DSG and RD, which are both public institutions. A strategic alliance with the Municipalities is strongly recommended.
- ◆ Degree of centralisation and decentralisation of existing and proposed operations.
- ◆ Outsourcing and partnerships between the public and private sectors (Notaries, Land Surveyors and Planners, IT support etc)
- ◆ Structuring land administration along business lines - from cost recovery initiatives to making profits.
- ◆ Setting strategic performance targets for different measurement areas. Such targets must be continuously evaluated and refined.
- ◆ Cascading set targets to operational levels and providing mechanisms to hold operational executives and staff accountable for their results.
- ◆ Discussing ways to simplify, change or improve existing processes. This could involve analysis of existing systems against national requirements and/or regional and international practises.

The strategic view must be adequately supported by existing operations. Performance targets such as time targets for processing and passing requests should be discussed, agreed upon and set for each institution. Co-operation between operations must be formalised so that participants are aware of their tasks and responsibilities. Through such arrangements set targets can be attained, maintained, monitored and evaluated.

## **6.2 CONTINUOUS BENCHMARKING**

Benchmarking provides a monitoring mechanism that takes into consideration what others have already achieved. It is increasingly being recognized as "a necessary step to identify and monitor strategies, objectives and progress" (FIG, 2002). Cadastral systems in developing countries have not generally kept up with customers' expectation. A continuous benchmarking approach is therefore proposed as shown in figure 1.6.

After "getting stakeholder consensus" on the new cadastral vision, the performance gap between current and desired levels is established for each processes. Root causes for the gap are identified and intervention arrangements designed, communicated, implemented and monitored in order to establish new desired levels.

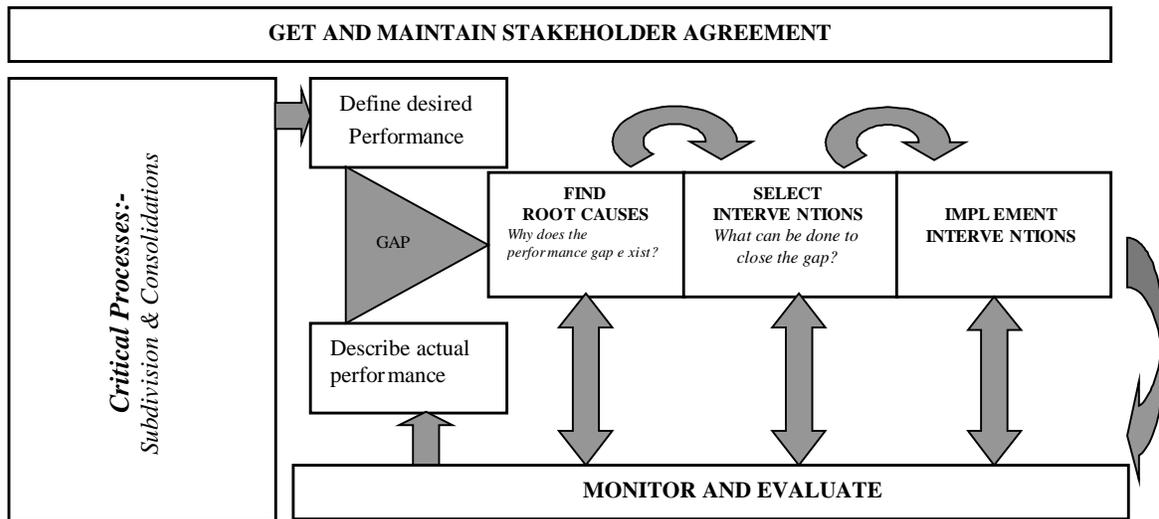


Figure 1.6: The continuous benchmarking approach

With continuous customer and independent audits and long term commitment by top management, the cadastral system in Zimbabwe can thus be transformed to a modern practise that meets customer expectations including those of the newly resettled farmers.

## 7 CONCLUSION

Although separate functional arrangements in cadastral systems are still prevalent globally, there is generally consensus towards simple and integrated practises. The key cadastral institutions in Zimbabwe have an active role to play in order to deliver better service now and during the land reform programme. This paper presents a platform for reforming the cadastral practises while highlighting problem areas and some possible solutions. It is up to the institutions involved to take up the initiative and move forward with the rest of the world.

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