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# Strategy for Piloting Property Tax Law: City of Kigali, Rwanda - 2002-2003

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**Abstract:** This study reports findings of implementing property tax in Rwanda. It begins by narrating the experience found elsewhere in the world. It shows that revenue generated from property tax as a proportion of other local taxes is still low and some efforts are needed to increase its contribution. Then it provides an in-depth analysis of the law that empowers the sub-national level governments to levy the tax for the Government of Rwanda (GoR).

The analysis of the law specifically focuses on the City of Kigali (CoK) experience where Nyarugenge district served as a pilot study. The main reasons for its selection are due to the fact that property tax is an urban phenomenon in Rwanda. In addition, Nyarugenge stands to be a major commercial center with a wide range of properties that represent the main sections of the law.

We used data for the period 2003-2004 to paint a picture of property tax trend over the period and a comparison of Nyarugenge district with the rest of the districts in CoK. Findings show that property tax yield has increased for the whole of CoK and specifically for Nyarugenge.

The study details challenges faced in the implementation process and advances some plausible solutions. It concludes that property tax may play a leading role as an own source of revenue for the sub-national level governments if the suggested reforms are pursued. Furthermore, these results could be replicated in the whole of Rwanda and for any country contemplating to reform its property tax system.

**Key words:** *Property tax, Fiscal Decentralization, Sub-national governments, fixed asset tax, immobile asset tax.*

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# Piloting Property Tax Law Strategy 2002-2003: City of Kigali, Rwanda

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## I. Introduction

This study examines the implementation of property tax[1] for the Government of Rwanda (GoR). Historically, in 2002 this tax, user fees and other taxes were devolved to be administered and collected by local governments. This is in line with the decentralization policy that was initiated in 2001. Property tax is an annual tax on real property and usually, but not always, a local tax. Theoretical and empirical studies provide that the tax base may be *land only, buildings only, or both land and buildings*. During the period, in Rwanda and Uganda the tax base is both land and buildings. In Tanzania the tax base is just buildings while in Kenya it is only land.

This study selected Nyarugenge district in the City of Kigali (CoK) as an urban pilot district. The reason being property tax in Rwanda is mainly an urban phenomenon; understanding Nyarugenge approximates cognizance of the symmetric rural localities. This is because; land is the main property taxable in the rural areas as well as in some urban centers including Nyarugenge district. Results of the implementation strategy are reported and are the basis of policy recommendations. Most importantly the findings may be replicated to the rest of the districts in Rwanda.

The rationale of property tax is largely due to its ability to generate revenues to finance local government infrastructure investments and provision of municipal services (Kelly, 1998). The entire local governments in GoR supply a number of services that exhibit *semi-public goods*[2] characteristics such as water, sewers, solid waste collection and disposal, etc. These are goods which individual beneficiaries can be identified and user fee imposed.

Moreover, other goods exhibit *pure-public good*[3] characteristics for instance; local streets, roads, and street lighting that benefit most of the users in general - who cannot be identified, this makes user fees inappropriate. Instead, these should be funded fromlocal taxes like property tax. It is an appealing revenue generation option given the primary store of accumulated wealth tied up in real estate. However, despite of this recognition, property taxation continues to be overwhelmed by technical, administrative and procedural problems (Kelly, 2000a). It is necessary to ensure that districts and towns are financially stable with predictable and effective revenue sources. Property tax is potentially the largest and most stable of the ubiquitous funding sources for the subnational level in the GoR.

The current study is organized in seven sections. Section 2 provides a world over comparison of property tax revenues as a proportion of local taxes. Section 3 deals with basic features of Rwandan property tax law. In section 4 we discuss the pilot implementation strategy detailing the procedures adopted for the property census. Next is section 5 that explains the administrative arrangements of the fixed assets department. The penultimate section elucidates lessons learnt in carrying out the pilot. Finally, section 7 draws summary conclusions.

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[*] This paper was developed when I was working as Senior Fiscal Decentralization Advisor to the GoR under USAID funded project that was implemented by Agricultural Rural Development Inc (ARD Inc).

[1] Property tax and fixed assets tax are used interchangeably as in the law No. 17/2002 of May 10th, 2002 modified by law No. 33/2003 of September 06th, 2003 establishing the sources of revenue for districts and towns and its management.

[2] These are the kind of goods and services that are divisible in provision and some consumers can be excluded from consuming them.

[3] This is the extreme case where some goods and services once provided every one enjoys the benefits; they are not divisible and non-excludable.

## II. World over property tax comparison

Property tax is one of the fundamental sources of income for local governments in most developed and developing countries. Therefore, it is an important source of revenue that provides financial autonomy to the local governments (Volkan, 2003). Nonetheless, in developing countries it is not exploited to its fullest extent, primarily due to weakness in *property valuation, administration, collection* and *enforcement aspects*. Typically, it accounts for only 20 to 30 percentage points of its own source revenue (McCluskey, 2003).

Many countries have been successful in implementing and collecting property taxes. In some countries property tax revenue collected accounts for more than 50 percent of the total tax revenue. Table (1) shows experience in some countries of property tax revenue as a percentage of total local revenues.

**Table 1: Property tax revenue as a percentage of local revenue**

| Country | Property tax revenue/Local revenue (%) |
|---|---|
| Australia | 60.0 |
| Canada | 53.3 |
| Japan | 45.3 |
| Argentina | 35.0 |
| USA | 29.0 |
| Rwanda* | 21.0 |
| South Africa | 21.0 |
| Germany | 15.5 |
| Mexico | 13.0 |
| Indonesia | 10.7 |
| Poland | 9.7 |
| Russia | 8.1 |
| Hungary | 2.2 |
| Thailand | 1.2 |

Source: **www.lincolninst.edu/docs/180/267_Yangzou**

Table 1 above also reveals that in Rwanda property tax constitutes only 21percent of the total local taxes. The implication is that this source could be improved to play a leading role within the sub-nation level governments. The interpretation of the numbers in the above table assumes that local taxes remain constant *ceteris paribus*.

## III. Basic features of the GoR property tax law

The most salient feature of the Rwandan property tax is its reliance on the *property owners to fulfill most of the functions related to its implementation and enforcement*. Perhaps, this gives room for evasion and avoidance while leaving the local government authorities doing very little. The following points are critical to the reader to grasp issues contained in this study.

(i) *Declaration and identification* - in article (22) of the law states that fixed assets census should be conducted at the beginning of the year and not later than the last day of January of every calendar year. The law requires fixed *asset owners, possessors or usufructuary*[4] to conduct census of properties on their own and results of this to be recorded in a register meant for that purpose. Appropriately the register must be kept and maintained by the district and town tax collectors.

(ii) *The due date* - in Rwanda property tax is paid by owners, possessor or usufructuary of real property located in a district or town not later than *March 31st every year*. The tax is determined based on the *nature, location and use* of the fixed asset and the tax is calculated on the value of the building as declared by the taxpayer[5]. Before this law, property tax was collected by the central government and assessed on the square area of the fixed asset.

* The author used 2003 fiscal data to compute the figure.

[4] Is a person holding a property on *usufruct* terms. Where usufruct is a legal right accorded to a person or party that confers the temporary right to use and derive income or benefit from someone else's property.

[5] Land is taxed on the basis of surface square area.

(iii) *Ownership and alteration notifications* - the law explains in article (7) that where the taxpayer owns a taxable asset at any other time than the beginning of the year, s[h]e shall notify in writing the administration of the district or town in which the taxable asset is located within a period not exceeding thirty (30) days from the time of acquisition. S[he] shall immediately pay tax for the proportional part of the respective year if applicable. Article (8) of the same law states that in case of alterations of the *nature and/or use* of the declared assets, the taxpayer should notify the district or town administration within a period not exceeding thirty (30) days and pays its related tax immediately if there is any tax liable. The same applies when the taxpayer is changed.

Empirically, there are several ways of dealing with changes in ownership or physical characteristics after that date. One is to ignore the changes until next year. Another approach is for the assessment or collection agency to prorate taxes according to the fractions of the year before and after the changes by issuing supplemental assessments or tax bills (McCluskey, 2003).

(iv) *Applicable property tax rates* – the process of setting property tax rates is a major component of the property tax system reform. The issue here is whether a local taxing jurisdiction should apply a *single uniform property tax rate* to all properties within its taxing jurisdiction or whether *variable tax rates* should be used; that is, tax rates that vary, according to *location, nature and use of the fixed asset*.

Article (5) of law number 33 of September 06th, 2003, stipulates that the district or town council shall fix the tax rate of between 0.1 to 0.2 percentage points of the value of the buildings. Article (6) of the same law gives powers to district and town councils to fix tax on vacant plots. There are varying amounts of tax per square meter depending on the location of the plot. The highest tax rate per square meter is for plots in CoK, followed by plots in other towns, then in trading areas, and lastly in rural areas whereby the tax is per hectare. When land is a tourist site, the tax is increased by 10 percent of the annual ordinary tax rate.

(v) *Valuation and assessment* - one major flaw of the current law is to assign this important role to the ratepayers alone. Article (3) provides that the tax is calculated on the value of the house or building as declared by the taxpayer. The implication is that if the property owner under-declares the value of the property then the tax payable as assessed by the city collector will also be under-assessed.

(vi) COK revenue *sharing arrangements* - examining article (3) of the former law number 7/2001, it details modalities of revenues sharing of the collected taxes between the CoK and its districts. At the time of the study, property tax revenues were collected by districts administrations and shared between the three levels namely: the CoK, districts, and the sectors where the taxed properties are located. The CoK received 40, the districts 50 and the sectors 10 percentage points respectively. This arrangement ignored sectors and cells; yet they are the closest administrative structures to the rate payers. As such, sectors and cells could improve their participation and motivated to collect property tax if they were part of the revenue sharing mechanism[6]. Whence, the study proposed then, revenue sharing ratios could be altered as follows: CoK 37.5, Districts 47.5, Sectors 10 and Cells 5 percentage points respectively.

CoK plans and coordinates the activities of the districts including tax policy and planning. The districts manage the tax collection process whereby tax payers are supposed to either remit the taxes to the district collector's office or directly to the district bank account.

(vii) *Property rights, markets and related institutions* - Property rights in Rwanda in the period were not well developed. This emanates from two main aspects. Firstly, the country has been under internal conflict since its independence from the Belgians in 1962 that were translated into civil wars and the 1994 genocide. This explanation led to massive population movements within and outside the country. The said population migration led to land and buildings abandonment, which until year 2004 led to unclaimed properties, unresolved claims and complains all over the country. Secondly, lack of well-developed legal framework specifically land laws.

Additionally, immovable property markets especially in real estate were lacking at the time of the study. This limits the availability of the market information on land and buildings, which is key determinant in *valuation* and *assessment* of properties at a given location.

## IV. Overview of piloting property tax

The current section details the pilot work. We mentioned before that Nyarugenge district in CoK was piloted for several reasons. First, we recognized that in GoR property tax is an urban phenomenon and Nyarugenge approximates the situation. Second, the two main components of fixed asset tax namely land and buildings are

[6] This study observes that sectors and cells may help in activities such as census, bill distribution and property identification.

simultaneously implemented in Nyarugenge, thus robust findings could obtain. Third, the rate payers themselves are more informed than the rest of the districts and Nyarugenge stands to be the center of business in CoK. We now turn into specifics.

**4.1 Immovable property census**

CoK launched a massive campaign to collect all the taxes that fall under their mandate. The campaign was implemented under Fund Mobilization Census (FMC), officially inaugurated in CoK on March 5th, 2004 at Kigali Institute of Science, Technology and Management (KIST) stadium. The census aimed at boosting revenue collection and documenting immovable properties' information (i.e. land and buildings) located in CoK. Furthermore, FMC intended to identify defaulters and evaders of different taxes and duties in the CoK.

The main objectives of the FMC were listed to:

a) Identify all immovable properties and their owners in the CoK.
b) Understand types of economic activities and their ownership conducted in the CoK.
c) Establish basis for issuing certificates of ownership for immovable properties or assigning property rights to lawful owners.
d) Establish tax and user fees liabilities and recover the existed arrears.

During that census the rate payers were requested to present the following:

(i) certificates of ownership of immovable properties (land and buildings);
(ii) all receipts of taxes and duties and
(iii) The rental agreements of the rented buildings.

The census was conducted in all eight districts of the CoK applying three stages.

*Stage one:* grass root sensitization campaign of the lowest administrative structures i.e. the sectors and cells.

*Stage two:* organized regular meetings with leaders and residents at sectors and cell levels. The meetings intended to inform the public about the importance of the census and their role to provide accurate and timely information.

*Stage three:* involved distribution of questioner forms to all residents. These forms were designed to capture information about the properties themselves and that of their owners, occupiers or renters including but not limited to names, national identity card number, tax identification number (TIN), physical address, telephone number, job title and etc.

The census lasted for three months between March 9th to June 10th, 2004 that was carried out by the CoK and its district employees together with grass root level administrations. There were six enumerators assigned to each district to carry out the census. CoK sent two personnel to every district where each district provided four personnel. The two enumerators from CoK had to train the personnel from the districts on how to carry out the census. Among the census staff from the districts included residents from the sectors and cells. Nevertheless, to complete and speed up the census a three days extension was granted, which was supported by private enumerators who worked from the 11th to 13th June, 2004.

**4.2 Problems of Piloting property tax**

During the implementation period, the process faced several snags; the most salient could be summarized into three dimensions - legal framework, empirical and administrative:

**Legal Framework**

In this regard, there existed contradictions in the way FMC initiative was designed, implemented and its legality. For instance, the law stipulates that owner of fixed asset is supposed to assume the census and to report to the local authority respecting the due date not later than 31st January of each calendar year. However, the census was carried out in March and extended throughout to June. At that time, the law was not clear on how to determine the threshold of the taxable value of the buildings. Furthermore, numerous provisions[7] of the same law appeared to be vague e.g. on the 'tax base determination'; it mentions buildings, but doesn't include land and its improvements.

**Administrative Problems**

There was huge shortage for qualified manpower in the property tax profession that hampered the efficiency and efficacy of the census process. This was observed in the field of valuations, legislative processes and procedures, collection, accounting, auditing and ICT applications. Inadequate working tools such reasonably furnished office with working equipment, tools and reliable transportation for field work. Generally, the study

[7] It must be emphasized that identifying all vague, incomplete and the contradicting sections of the respective law was beyond the scope of this study.

observed insufficient capacity building programs for both tax officers and taxpayers. There was a dire and urgent need to design training programs suitable to both groups.

**Practical or empirical field snags**

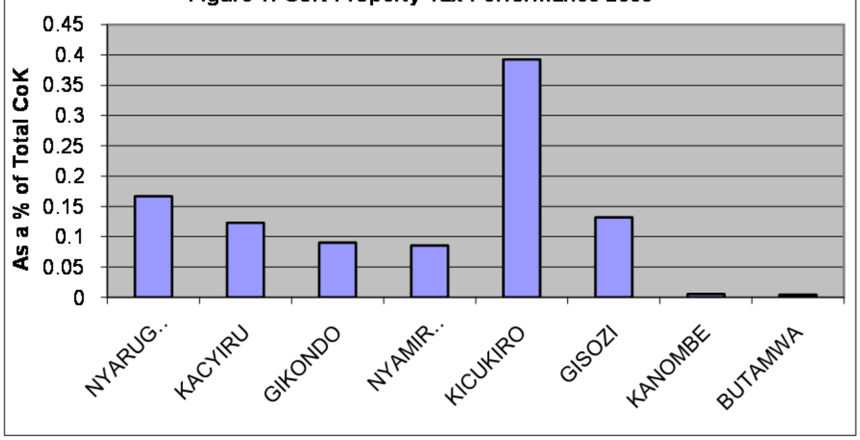
High rate of poor responses from the rate taxpayers during the census was observed. Some respondents were not cooperative and unwilling to answer questions posed. There were incidents where residents were not at home at the time of census. Yet in few occasions officers were denied access to homes and offices of mainly expatriates and embassies.

Similar challenges are expected to be common in most countries aspiring to implement immobile tax at its initial stages. These shall be circumvented by carefully designing pilot projects, documenting lessons learned and clearly establishing mitigating strategies. The foregoing discussion was the purpose of the current study, results of which would permit the census results to be replicated to the rest of the districts in Rwanda.

**4.3 The performance of property tax in CoK (2003 and 2004)**

A synopsis of revenue performance for CoK revealed that Kicukiro was leading by realizing almost 38 percentage points of the total collection for CoK in 2003. Nonetheless, by that time it was home of the most industrial premises and with numerous land plots. In addition, there existed many large-scale animal ranches.

Figure 1: CoK Property Tax Performance 2003




Nyarugenge ranked second as expected with about 17.4 percentage points of the total CoK property tax revenues. Plausible explanations for the observed pattern is that most of the district buildings are government owned properties that are not taxable while others were not assigned ownership rights. Aside, many properties in this area remain unidentified and undiscovered, therefore went untaxed.

The districts of Kanombe and Butamwa came last because they were less endowed in terms of property development and they seemed to be better classified as rural instead of town as is the case now.

Figure 2: Nyarugenge Property Tax Revenue Performace 2003

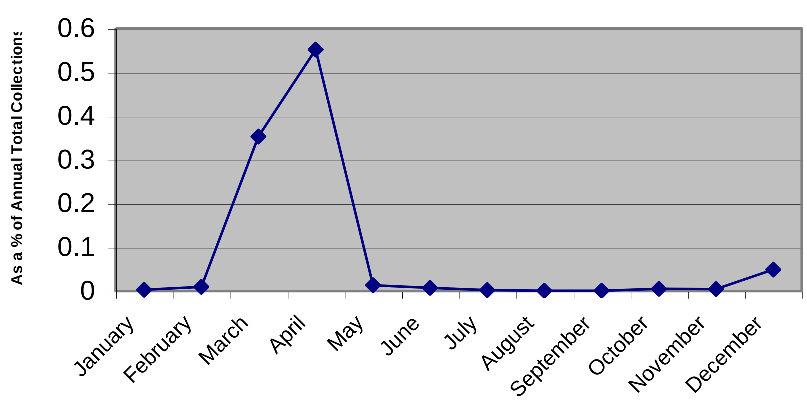


Figure 2 depicts property tax performance for Nyarugenge for the year 2003. It reveals that April turns out to be the peak since it coincides with the due date provided by the law that is the last day of March in every year. Property tax is an annual tax and the period between May to November illustrates lower property tax revenues were realized. At the beginning of December collection increased probably to catch-up with the approaching due date.

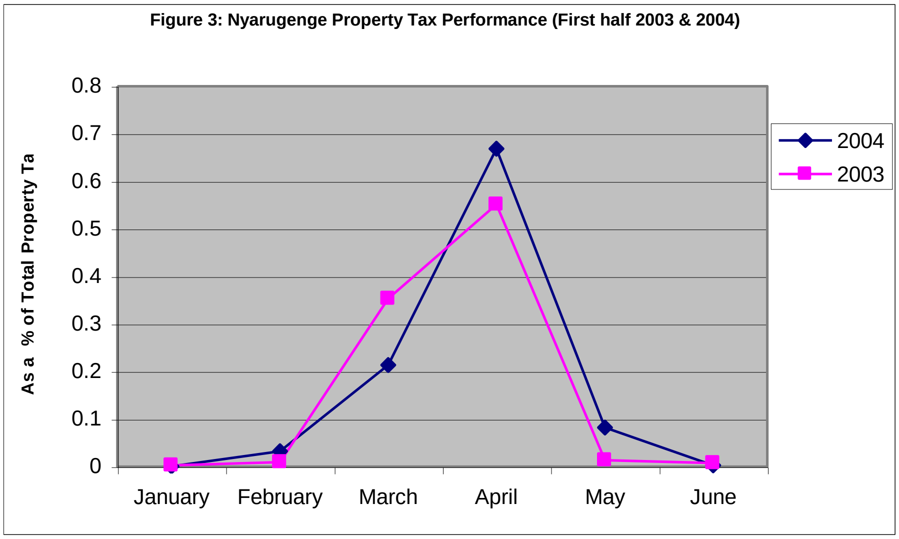
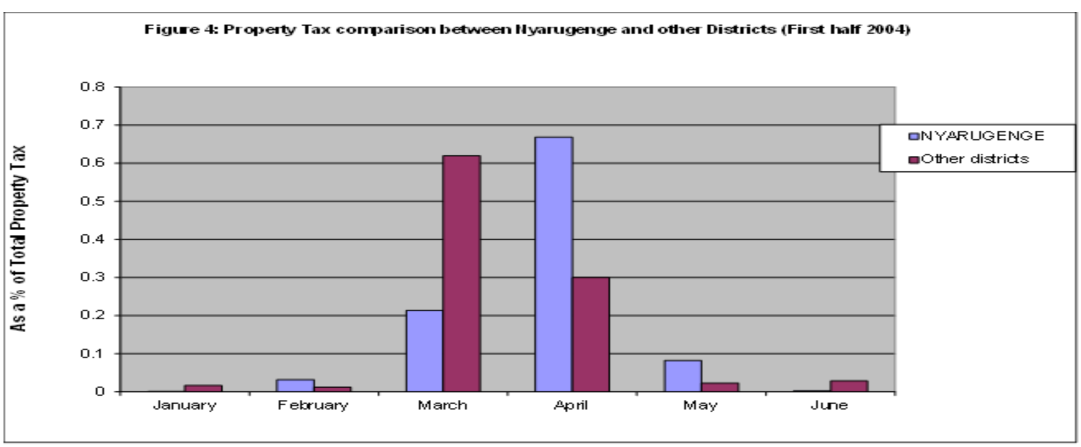



Figure 3 above illustrates that in the first half of the year 2003 and that of 2004 collections were normally distributed with both peak levels in the month of April. Generally, the year 2004 collections exceeded that of 2003 with an exceptionally brief period between mid-Februarys to mid-March of their respective first half of the period before the peak. This is depicted by the year 2004 curve being superimposed well above that of the preceding year. In the two years under discussion both peak level collections were about 55and 68 percentage points of their entire period totals respectively. In March of the years 2003 and 2004 collections were around 35 and 22 percentage points respectively; specifically year 2003 collections were slightly higher than that of the same period in year 2004.
The rest of the months i.e., January, February, May and June tax yield were at their lowest levels. The highest collections observed in the months of March and April in both years was a result of the due date set on 31$^{st}$ March of every year respectively. This implied that ratepayers aimed at meeting the due date to avoid penalties. Another reason was that CoK management carried out rigorous sensitization program via the mass media and held several grass-root campaigns to enforce compliance, which was implemented just before the due dates.




In figure 4 above we compared Nyarugenge to the other seven districts of CoK. The same trend described earlier repeats. The interesting result is that in the month of April Nyarugenge collections exceeded the rest of the districts combined approximated by more than 50 percentage points. Perhaps this was due to the massive tax collection campaign drive in Nyarugenge and the fact that this district had most of the immobile assets at the time of the study as we mentioned elsewhere.

## V. Major reform aspects of pilot

The pilot embraces numerous reform aspects relevant to completing the exercise. We provide a narrative of the reform areas identified and dwelled upon to be useful to attain the objective of the current study. They include but not limited to the following:

**5.1 Administrative reform arrangements**

Property taxation is said to embrace supervision and internal control, physical and fiscal cadastre maintenance, locational and geo mapping, assessment and valuation, billing and collection, accounting and reporting for revenues, audit and investigation, legislative framework and appeal mechanisms; and finally automation and computerized enforcements. It is recommendable these functions to be performed by different departments. Aside, it is advisable to link the function of administering property tax with other organizations outside of tax administration, such as the legal cadastre, surveying, and mapping agencies and so forth. Property tax administration must deal with stakeholders such as rate payers, policymakers and legislative bodies.

Another useful aspect concerns costs of administering property tax, which is an important design consideration. A serious challenge faced by the whole of GoR sub-national level governments on property tax administration is to achieve cost-effectiveness. That is, an acceptably high level of performance at an acceptably low level of administrative costs. One aspect of cost-effectiveness is gauged by administrative costs as a percentage of property tax revenues. The objective would be to minimize this ratio. In the year 2004, data on administrative cost was not readily available but the then established Local Government Finance Department (LGFD) could find it appropriate to establish this ratio in the future for policy purposes.

Factors that affect absolute costs per unit of revenue include differences in the coverage of the property tax bases, whether taxes are based on area or value, the frequency of revaluations, the extent of computerization, and whether there are other uses of valuation and fiscal cadastral data. The cost per unit of revenue also depends, in part, on the effective tax rates[8]. Other things being equal, the higher the effective tax rate, the lower the administrative cost.

**5.2 Monitoring and Regulatory Roles**

In Rwanda there is a dire need to institute strong regulatory and monitoring functions since overall responsibilities for property administration are divided among different levels of government. Each level or unit of local government should be informed about and held accountable for carrying out its responsibilities properly and in a timely fashion. Information, documents and data must flow smoothly through the property tax administration system. When local governments have considerable latitude in setting tax rates, granting exemptions and relief, and the like, safeguards are needed to prevent a few local governments from under-assessing or under-taxing properties. These regulatory and monitoring functions should be extended to include measures to address corrupt elements.

At the time of this study, the property tax department was in addition responsible for monitoring and regulating revenue aspects of the Nyarugenge district. That department was headed by the District Tax Collector who supervised other kinds of taxes such as rental, trading license and etc. The head reported to the District Executive Secretary, and supervised four tax assessors responsible for all types of taxes including the property tax. This kind of chain of command is always useful for accountability reasons.

The LGFD should work closely with the provincial level inspectors to monitor and regulate the effectiveness of the districts' and towns' revenue and expenditure management. Then it could extend and integrate its coordination to that of the Auditor General's Office (AGO's). Finally, it should be able to tabulate and use the fiscal data to establish key indicators that will gauge and evaluate fiscal performance and position of the local governments. If this is implemented professionally LGFD could provide useful input relevant for local government policymaking in the area of local taxation.

**5.3 Fiscal versus Physical Cadastral Development**

The GOR contracted GEOMAPS to develop the COK's fiscal cadastre that aimed at computerizing and recording the information about the taxpayers and properties (land parcels and buildings). A fiscal cadastre is a compilation of the basic property information necessary for valuation, assessment, billing, collection and

[8] The property effective tax rate is defined as the percent of the estimated market value of one's property paid in taxes. The imputation of individual property's effective tax rate is to divide the annual tax bill by the estimated market value of that particular property. For instance, if you own a property worth RwF100,000 and your annual tax bill is RwF 5,000, then your individual effective tax rate is 5,000/100,000 = 0.05, that it 5%

enforcement for fiscal purposes.[9] Constructing a fiscal cadastre is primarily a field exercise where teams, using available maps, go to the field to enumerate properties and collect basic information on each property using individual forms or property cards. These completed cards provide the basis for creating a computerized or tax roll manual; that can also be drawn electronically. The quality of the final tax roll is a function of the quality of the data collected in the field. If the field data collection process is incomplete or inaccurate, the final property tax roll will not reflect the full revenue potential and will introduce equity and efficiency problems (Kelly and Musunu, 2000).

Once fiscal cadastre is developed it should be updated every year to incorporate new taxpayers as well as any revaluation of the properties. It is always advisable that all taxable properties are identified and described on the assessment roll with each property assigned a roll number (Kitchen, 2003). In that paper Kitchen expounds further that, the assigned number is important for linking assessment information with tax billing and property transfer records. The assessment roll should include the address of the property, its owner, building and lot size in square meters or hectares, the age of the building and information on renovations or improvements.

This information will be used to assign an assessed value to the property, especially if the tax base is market value and the property has not recently been sold. Furthermore, this information should be reported in a consistent way and a process should be established to update assessment annually or as frequently as administratively possible. Once assessed values must be determined, local tax rates must be set, tax bills issued, responses must be made to assessment appeals, taxes must be collected, and arrears must be addressed.

We constructed tax roll from the census data for Nyarugenge with information on the taxpayers such as name, address, plot numbers, district name, sector name, cell name, property value, tax paid and date of payment. However, the problem with the register was that very few respondents provided the above information exhaustively. The number of properties identified was 6,205 owned by 5,030 taxpayers[10]. Property tax collected amounted to only on 691 properties, which was 11% of the total properties. The developed tax roll for Nyarugenge contained useful information from the census but very few houses were found to have all the information requested.

### 5.4 Applied Valuation Approaches

Four valuation techniques deserve a mention under this section for GoR that includes *self-valuation*, *individual valuation, market valuation and a variant of mass valuation*. The first two were implemented unsystematically at the time this study was carried out in Rwanda. The remaining two offered alternatives for future when relevant property information is documented using the first two approaches.

#### 5.4.1 Self-Assessment Valuation

The then property tax in Rwanda provided that owner of property declares the value for tax assessment purposes. We mentioned elsewhere in this study that the law stipulates that land shall be valued based on the surface area measured in square meters while buildings on their value. This could result into incorrect value of properties and inequitable distribution of the tax burden due to the fact that some taxpayers may be either honest or dishonest that could lead to high incidence of tax evasion and avoidance. The law also provides an option to use valuation experts to appraise properties. There are different alternatives for selecting valuation experts that could be used to arrive at almost correct value of properties. These include in-house valuers (districts employees), private valuers (contracting private consultants), or government’s valuers.

Under *area-based property valuation systems* of land, payable taxes are determined by simply multiplying a measurement of surface area by a tax rate applicable. Area-based systems have the advantage of being simpler to administer.[11] Only area measurements are needed. They are easier to implement, because market data do not have to be collected and analyzed. There is no need for revaluations and they are more objective than value estimates.

On the other hand, area-based property tax systems are less fair. The highly desirable propertiescould pay the same taxes as undesirable properties. Individual assessments bear little relationship to either ability to pay or benefits received, which reduces public acceptance. Although taxpayers might see this as an advantage, area-based property taxes are less buoyant than value-based systems, unless frequent adjustments are made to taxes.

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[9] Physical cadastral or Cadastral map of property illustrates clear characteristics of property boundaries, including exact location of servitude boundaries and any sub-divisions.

[10] This could mean that a property owner owns more than one property; that needed to be validated by district officials when they received the tax roll we prepared.

[11] However, in Rwanda this approach failed on buildings and the respective section of the law was immediately suspended and modified, see law no. 17/2002 as modified by law no. 33/2003.

Differently from above, buildings in Rwanda are taxed based on their value. Meanwhile, the approach to value determination in the country lacked clarity. There was a need to focus more on the market values[12] to enhance the equity aspect of the tax system as opposed to the self-assessment approach that was applicable during the period of this study. When properties are sold in any year, market value is the selling price, but properties that do not change hands in the year; market value must be estimated (Kitchen, 2003). There are at least three estimation methods that could be used in Rwanda in this case:

A comparative sales approach

It could be used when markets are active and similar properties are being sold in the same or comparable neighborhoods. This is the most appropriate when properties are relatively new, in areas such as Nyarutarama in CoK. This assigns a market value to an unsold property by looking at valid selling prices of similar or comparable properties.

A depreciated cost approach

This is sometimes used when property is valued by assigning value to the land as if it were vacant and adding the cost of replacing the buildings and other improvements.

A capitalized income approach

This is primarily for properties that generate actual rental income. Here, the annual net rental income (gross annual rental income minus annual operating expenses) is estimated with this annual net income subsequently converted to a capitalized property value (market value) using a capitalization factor. To illustrate, if net annual rental income from a specific property is RWF1, 000,000 and if the current interest rate is 5 percent (current rate of return on a bond, for example), the capitalized value of the property would be RWF 20, 000,000 (net rent divided by interest rate or RWF1, 000,000/. 05). This is also the market value because an individual would be willing to pay RWF 20, 000,000 for a property that generates an annual net rent of RWF1, 000,000 – this is a 5 percent return and is identical to the return on bonds. The capitalized income approach can be used in CoK to impute value on the properties, which values were not obtained during the census, but rent was collected.

However, the comparative sales and depreciated cost approaches appear to be superior to net rental income (gross rental income minus expenses) in determining market value. Three explanations to this are plausible; firstly properties such as vacant land parcels may not be a reliable measure of net rental income at market rates. Secondly, rental income may be difficult, perhaps impossible to estimate for unique commercial and industrial properties including steel mills, mining operations and the like. Finally, assessors may not have access to rental income information because this information is not publicly available in the same way as are sales prices. In spite of these problems, rental value assessment is used in France, India and Morocco (Kitchen, 2003).

**5.4.2 Individual Valuation**

Individual valuation approach involves valuing properties on an individual parcel basis, which requires a valuation survey or to physically visit each property to determine the value of the property on a single parcel. It is time consuming and costly exercise, leading to long delays in updating of valuation rolls. This was the approach, used by the CoK in implementing the FMC under the assistance of GEOMAPS to consolidate and enhance the self-valuation approach instituted by the law.

Even with the results of the then census in CoK no property value was recorded for the Nyarugenge district.[13] In following – up to this exercise fiscal data experts advised the Nyarugenge district to enforce door-to-door visits to properties identified by the census or the GEOMAPS and verify the self-valued properties. This exercise aimed at establishing value of all individual properties and to recover any uncollected taxes. Then from the above approach town and district authorities could construct their tax rolls documenting all the relevant information about the property owners and that of their properties. When this information is available it becomes simple to implement mass valuation described below.

**5.4.3 Mass Valuation**

To overcome the above problems, many countries have simplified their valuation systems and adopted mass valuation approach for property taxation purposes. Mass valuation of properties has been shown to produce more equitable, up-to-date values in a more transparent, cost effective, timely and sustainable way (Kelly and Ward, 1999).

[12] Market value is the price that is determined between a willing buyer and a willing seller in an arm's length deal. Market value estimates the value that the market assigns on individual properties.

[13] Owners were not available on the date of census or were reluctant to reveal their property value.

This view is shared with Keith, (1993) who argues that mass appraisal is particularly used to describe large-scale computerized methods that must be applied if a revaluation is to be completed. The approach may be useful to Rwanda as a next step to use the information collected by the previous approach to update their property tax register in the future.

However, it has never been possible to value properties individually for property tax purpose even at least when all the properties are known. The tendency is that the valuing authority may have personal knowledge of only a small proportion of the properties that makes it rational to invoke mass-valuation techniques. The work must be delegated. For instance, GEOMAPS in the CoK after documenting all the properties in one district, under certain assumptions could attach value to properties in the remaining districts. A related approach is Computer Assisted Mass Appraisal (CAMA), which has radically altered the valuation and administration of property taxes throughout the world. Essentially, CAMA allows for the application of a model that values large groups of homogeneous properties. Nyarugenge applied the developed tax roll register to implement a mix of both mass valuation approaches to obtain values of all properties.

Therefore, it is important for the GoR to enhance the development of the self-assessment initially to all districts, and then consolidate the gains from that approach by quickly launching property census to be conducted by the districts' and towns' tax collectors. Then from the census results, tax register must be constructed that will form the basis for applying a mix of mass appraisal techniques.

#### 5.4.4 Revaluations of properties

The law in Rwanda states that revaluations should be undertaken every year. Just as the initial valuation, a revaluation exercise involves the reassessment of each property contained on the valuation roll. Given the scale of the revaluation exercise, which normally involves numerous properties, it is not unusual to see revaluations cancelled or postponed, sometimes indefinitely. The prime reason for this course of action is the cost of revaluation. If municipalities are to be able to undertake revaluations it will be essential that the valuation methodology is simple to apply and sufficiently robust to allow for revaluations at the stated revaluation interval (McCluskey, 2003).

Nevertheless, as described above, once the tax register is established, for instance, that of Nyarugenge revaluation becomes easier. It will involve the application of the traditional mass appraisal or CAMA technique to establish new value of all properties even every year based on plausible assumptions as determined by the district tax collector.

### *5.5 Strengthening of Valuation Procedures*

Property tax valuation involves highly specialized and technical procedures and approaches to ensure that all property types are correctly and uniformly assessed. The lack of qualified staff is a major problem for most developing countries that are grappling with the introduction of property taxes (Olima, 2000).

During the time of the study, the valuation profession in Rwanda was not well developed. There were no training colleges for professional valuation cadre that resulted into very few registered valuers. In both private and public sectors, the shortage of professional valuers and valuation technicians as in the case of other developing countries was alarming. During that period, there were very few trained valuers who studied abroad.

### *5.6 Assessment Process*

In Rwanda staff of the district tax collector's office assess the properties after the taxpayer has declared the value of h[is][er] property. One possible approach for Rwanda is self-assessment mentioned above. Although the property tax administration is responsible for the assessment of the tax payable in most of the property tax systems, an important feature of most systems is a requirement that taxpayers must provide information needed to administer the tax (McCluskey, 2003). Taxpayers may be obliged to provide information only on request, or they may have specific reporting requirement. For example, taxpayers commonly are required to disclose ownership, prices paid and the circumstances of sales of the property. Taxpayers may be required to list and describe their property holdings. They also may be required to notify the tax administration of any change in ownership or property attributes.

There are two main advantages of self-assessment and similar mandatory reporting; one is considerable data can be collected in a very short period of time relative to the time it would take for the property tax administration to undertake property-by-property field inspection. Two is the administrative costs are substantially reduced. The main disadvantage of self-assessment is *under-declaration of value*, which stems from lack of competent workers and willful acts of evasion by potential taxpayers. Laws concerning self-assessment and other forms of mandatory reporting ordinarily should provide audit powers and sanctions to enforce compliance.

### *5.7 Billing and collection*

Within the property tax administrative system the components of billing, collection and enforcement are of fundamental importance. One of the most significant problems associated with a property tax in many developing countries is the extremely low levels of compliance by taxpayers and the inability to enforce non-payment

(Dillinger, 1991). It is essential that once properties have been valued, tax bills (demand notices) should be prepared and sent to the taxpayer and the amounts levied collected. Low levels of compliance and the buildup of arrears can significantly offset any efficiency made in terms of property identification and valuation. The then practice in Rwanda, bill notices were sent; which was very ineffective because not every property owner had a known postal address.

Billing strategies in all districts should consist of a mix of approaches such as mailing, courier or hand deliveries. That is, door-to-door or via cell meetings where demand notices for payment of the property tax could be handed to the rate payers. All offices prepare tax-billing demands annually. The demand notice is in all cases are pre-printed standard forms. Information such as roll number, property address, owner, date of the notice and amount owed is either written by hand or computer generated.

In CoK the following four steps warrant a mention:

*Step 1:* Involved the taxpayer declaring the value of the property at the office of the district tax collector by filling-in a declaration form.

*Step 2:* The staff of the district tax collector's office calculate the property tax due on the basis of the declaration form.

*Step 3:* Demand notices issued to the taxpayers and requested to pay the calculated tax amount. The payment could be made at the bank or district collector's office.

*Step 4:* Monitoring, verification, auditing and bank reconciliation of the paid tax carried out by the districts and city officials.

It is useful to mention that the CoK's fiscal cadastral database is linked to its bank account at the Bank of Commerce, Industry and Development (BCDI). When a taxpayer remits tax through this bank account the database is updated automatically to reflect the transaction on the computer working stations at the CoK and district offices. Paying tax directly to the district bank account is the best practice because it minimizes corruption since there is no direct contact between the taxpayers and revenue collectors.

***5.8 Enforcement and appeals***

Appeal against an assessment should be simple, cheap, quick, transparent, readily accessible to the taxpayer in person and manifestly independent (Keith, 1993). Article 41 of the Rwandan property tax law No. 17/2002 of May 10th, 2002 provides for taxpayers to file their claims and redress in writing to the district or town council where the taxable items are located disputing the demanded amount that is to be paid within 3 months after receiving the assessment form or from the tax due date.

The appeals procedure starts with the right of the taxpayer to object the valuation assessment report contained on the demand notice. This right to object extends to the tax authority regarding any entry or omission and to owners or occupiers of the hereditament they own or occupy. The objection must be in writing, stating the grounds on which the objection is made and the amendments desired. The objections are then referred to the valuation tribunal for hearing. Results from the pilot indicates that there has been no serious objections from the public since any value declared was considered correct by the tax officers to encourage self-valuation. Any party could challenge or object the judgment as provided in article 42, which states that incase the taxpayers are not satisfied with the decision taken by the district or town council; they could refer it to the relevant courts. The law is not precise on the competence of the court; however the appeal could only be made at the High Court.

***5.9 Composition of a Tribunal***

The law in discussion is silent on the composition of the appeal tribunal at that time. We then recommended in order to have independent judgment, the appeal tribunal members should not in any case relate to the district or town councils. This is to encourage taxpayers to be accorded fair treatment of their appeals.

The appeal tribunal members could include a chairman, a deputy chairman, valuation surveyors, local authority leaders such as cell leaders and district or town lawyer.

The chairman must be a magistrate or an advocate with good standing. Other members of the tribunal should be such persons as the district council deems fit for the purpose provided that none is a member of the district council. The intent is that members should be qualified and/or experienced in one of the property tax management professions.

***5.10 Taxpayers' education and participation***

Effective dissemination of information to the public about property taxation and taxpayer assistance programs are integral to public acceptance of the property tax system. Acceptance is increased when all agencies involved in property tax administration communicate with taxpayers, explaining the rationale for the tax, how it is administered, and explaining taxpayers' rights and responsibilities. Successful property tax implementation depends on the combined efforts of many stakeholders with different responsibilities. That is, the central government e.g.

MINALOC, MINECOFIN and RRA for general policy formulation; districts valuation office for the fiscal cadastre maintenance and valuation; the district tax collector office for collection, reporting and enforcement; tribunals and courts for hearing of appeals; the private sector for contracting different activities like valuation exercise; and finally the taxpayers for information volunteering and paying the tax (Kelly and Musunu, 2000).

In addition, politicians play a major role in influencing the administration of the fixed asset tax such as, allocating sufficient resources for effective management, providing political support and/or will for collection and enforcement, using the collected revenues to provide improved local services; all of which affect the collection and enforcement rate. Since these stakeholders all influence the revenue raising capacity of property taxation, proper mobilization of their support is vital. Each stakeholder group must be made aware of their responsibilities and given the resources to properly exercise their obligations and rights.

Through a combination of in-house and external training efforts, the GoR need to continually focus on ensuring a high degree of public awareness of the property tax objectives and procedures. The FMC campaign in the CoK proved that public sensitization plays an enormous role in enhancing compliance on the part of the taxpayers. One key aspect for this is to effectively link the collection of the property tax revenues with the delivery of improved local services. This was the case with the CoK campaign where members of the public were educated via mass media, sector and cell meetings on the merits of paying taxes in accordance to the law.

***5.11 Private sector involvement***

Countries are increasingly turning to private-sector companies to provide service that have been provided by civil servants working for government agencies. Municipalities are increasingly contracting private companies for valuation services. Many cities in Africa are beginning to turn tax collection over to private firms working on commission (Moue, 1995). In Namibia except in Windhoek, the rest of the country valuation work is done by contract, either arranged directly by the local authority involved, or through the ministry of regional, local government, and housing. The ministry is involved in this process for small towns and villages where, because of manpower and skills shortages, it must become the *de-facto* local authority for various operations (Howard, 1995).

In Uganda, due to shortage of government valuers and other logistical problems, the Chief Government Valuer (CGV) cannot fully discharge his rating duties. In the past, the CGV has appointed private registered valuers to do rating assessments; for example, in 1982, five private valuers were appointed to revalue five districts of Kampala. In the period between years 1992 to 1995, private valuers were appointed to revalue some of the districts in the city of Kampala (Okellokello and Nsamba-Gayiiya, 1995). On the other hand, in Rwanda the law clearly stipulates that taxpayers could hire private individuals to help them with property tax accounting, valuation and engage advocates to pursue their appeal cases.

***5.12 Computerization and automation***

Computerization and automation may not solve the problems of levying property tax; they might also lead to more complex issues than is anticipated. The problem is that these computers are programmed and operated by people; they rely on information inputted by people, which also lead to their output acted upon by other people. It is therefore, hard to believe that these people will alter their attitude (work ethics) just because of the introduction of new equipment. A careful use of computers is needed, although is arguable that computerization and automation are beneficial when administrative capacity is well organized and the taxpayers are also knowledgeable. In addition, the GoR should ensure training in the field of computer and automation applications are sustainable and power supply is steady and is not erratic with infrequent power cuts.

Nevertheless, computerization and automation is expected to make it easier for districts and towns to report on their fiscal position and performance, tax collectors develop an electronic tax roll, implement CAMA frequently and monitor the banking, as is the case with CoK at the time. The matching of these reports with properties reported by individuals allows a check on the accuracy with which rate payers report their property information, and the very fact that the government has this capability will increase the extent of compliance. The implication is that revenue generation at sub-national level governments in the GoR may increase if computerization and automation are adopted cautionary. Computers can be used to facilitate all aspects of administration-managing individual property information, property valuation, tax assessment, billing, collection and enforcement. Successfully computerization depends on the ability to link the data-processing activities with the administrative components of property taxation. These two components must be effectively integrated to form a comprehensive property tax administration management system.

Hence GoR requires simple, narrowly focused computerized systems focused on basic operations, which tend to do better than complex systems. The purpose of property tax information management systems must be to support the administration of property taxation at all levels and LGFD must lay down strategies on how this should proceed. For instance, local governments need uniform software that could be used by all districts and towns for uniformity in reporting property tax and local taxes.

***5.13 Human Resource Management***

To achieve popular acceptance, revenue targets and other goals; property tax administration must recruit sufficient human and acquire technological resources. MINALOC must emphasize local officials' training in the field of property taxation. During that period, several tax collectors from RRA and CoK have been sent to South Africa for property tax training. This effort could be supplemented by initiating study tours in the region for the MINALOC and local government staffs on various fields of revenue administration to get an exposure of what is the practical experience in other countries.

Staffing requirements depend on factors such as the amount of work to be done, time available, how work is organized, and type of available technology. Staff may be hired or work contracted out. Humans' abilities depend on their education, training, and experience. Normally, the costs of staff constitute the greatest proportion of administrative costs; this necessitates efficient use of staff to be very important. However, low levels of pay in the public services across Rwanda's central and local governments together can distort the picture of administrative costs, because low levels of pay and competent administration cannot be sustained in the long run. The stuff turnover could be high because best staffs would likely leave when better paying jobs become available. A permanently low level of pay is an invitation to corruption.

***5.14 Audit and Investigation***

Lessons from pilot experience in Nyarugenge district reveals that tax audit and investigation roles are least developed. Nevertheless, these roles form part of the property tax administration. It is necessary and fundamental to have audit as it examines whether the taxpayer has declared or has correctly declared value of h[is][er] property and the tax liability has been correctly calculated.

The main purpose of conducting tax audits is to detect the defaulting taxpayers. The risk of detection should provide an incentive to taxpayers to comply voluntarily with the tax system. In order to prevent taxes evasion, in any case, the risk of detection will have to be combined with strong enforcement procedures and high sanctions against tax evaders. An effective audit system can deliver a message to dishonest taxpayers that tax evaders face a high risk of detection.

The tax audit unit works together with the investigation section. The investigation section helps to gather information on tax evaders. The investigation usually starts from collecting information from various services. Information may originate from district officials themselves who might know that there has been under-declaration of property value or that a certain property has been left out of the valuation roll. Alternatively information might come from the taxpayers who know that there has been under-valuation or exclusion.

Staffing of the investigation team should include police in addition to the civilian staff. One or two police staff should be seconded to each district; this could be possible as each district has a police station, and their salaries be paid by the district.[14]

**5.15 Grant of Exemptions**

Another aspect of property tax administration relates to grant of exemptions. They may be legally or discretionary granted. In any way exemptions are notorious because they deny local authority of their potential revenues and create huge dead weight loss for the non-beneficiaries.

**5.15.1 Relief Measures**

In the law, article 4 lists properties that are exempted from property tax. In addition, the following should be included on the lists: properties occupied by the president, properties used for libraries and public museums, properties meant exclusively for cemetery and crematory, qualified public outdoor sports/recreation properties, and national parks and reserve if publicly owned. If exemptions and relief measures are liberally granted, some undeserving taxpayers will benefit along with deserving taxpayers.

On the other hand, the more stringent the eligibility criteria are, the more costly the administration becomes. In other words, there is a trade-off between the revenue lost from unwarranted exemptions and the increased cost of administration when exemptions are carefully granted.

[14] In Tanzania in the 1990s it was mandatory for tax officers to include an undercover police officer in their team during audit/investigation trips to the taxpayers.

### 5.15.2 Deferrals or temporal payment delay

On an exceptional basis, it may be possible to obtain permission to delay payment of property tax temporarily without incurring any penalties other than perhaps interest. A number of property tax systems make it possible for elderly people to defer property taxes payments on their residents indefinitely. Any unpaid tax may remain a lien on the property, which is repaid when owner sells the property or is recovered from the owner's estate when the rate payer dies. The lien may be capped at the value of the property.

For instance a 65 years old or more may be allowed to defer the land related taxes to either an owner-occupier dwelling[15]. Yet another possibility is to defer tax when one is handicapped or is mandatory for low-income groups and the disabled to alleviate any tax burden arising from increased taxes due to reassessment (Kitchen, 2003). There are a number of implications arising from the use of tax deferral schemes. First, if one's ability to pay taxes is measured by a combination of income and wealth where property tax is viewed as a proxy for a tax on wealth, then a taxpayer who is asset rich but income poor could use this scheme to reduce h[is]h[er] tax burden. In fact, tax deferral schemes can be especially useful in alleviating cash flow problems for income deficient taxpayers.

While one may be critical of age or disability dependent eligibility requirements for any income transfer scheme, it may be administratively practical to impose restrictions of this sort[16]. Otherwise, if this program were expanded to include everyone, there could be a significant increase in the number of applicants with the ensuing result that tax deferrals plus interest charges on them would be outstanding for a much longer period of time.

## VI. Lessons learned from the pilot

The foregoing discussion relates to the pilot experiences in implementing property tax in the CoK with several lessons summarized hereunder. Firstly, identification of properties could be done by the help of grass root administration such as cells. These administrative structures are the closest to the citizens and can effectively identify exactly who owns property in their location with minimal effort.

Secondly, fiscal and partly physical cadastre of the CoK was developed by GEOMAPS. This pilot study advocates that tax roll register could be developed just with a well-planned property census since the former is a costly exercise.

Moreover, all properties should be appraised by professional valuers. Few districts had own valuers at the time of this study, they could contract private valuers to augment this effort. Similarly, at the same time more efforts could be directed towards developing required skills among their staff and recruiting qualified cadre of valuers. These professional valuers should help to develop valuation rolls that are useful for assessing property tax and at generating tax bills or demand notices for each rate payer. Once demand notices are ready, district officials should dispatch these to their respective sectors and finally to the cells. The cell administrators must deliver them to the exact rate payers. Postal or courier services could be used when rate payers have established mailing postal or physical addresses respectively.

Fourthly, it would be wise for other districts to emulate CoK for tax collection procedures.[17] CoK has a system whereby fiscal cadastral database is linked to the city bank account, when the taxpayer pays directly through this account the database is updated automatically to reflect the payment done by a particular taxpayer. This practice is good because it minimizes corruption since it limits direct contact between the taxpayers and the revenue collectors.

Nonetheless, districts should put in place tribunals to hear appeals raised by taxpayers. These tribunals should attract qualified members or experienced in the property tax management profession. The chairman must be a magistrate or an advocate of good standing. Sixthly, computerization and automation would facilitate, simplify and increase efficiency in various aspects of property tax administration.

Aside, large volume of information can be stored and/or processed in the form of electronic database on individual properties. Computerization and automation will also easy the assessment of tax payable; for instance Nyarugenge could use the developed tax roll and apply an established rate on the dutiable value to determine the tax bill.

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[15] This was very plausible suggestion from our study where the life expectancy was 48 yrs of age in Rwanda by then.

[16] For example in Nyarugenge at the time of the study, had a huge number of disabled persons due to the 1994 genocide.

[17] Especially the urban districts with electric power supply to support computerization and high tax yield to meet the cost.

Nevertheless, districts should set up strong audit and investigation units in the tax collection department as a matter of urgency. The amount of revenue collected from property tax is still very small partly due to non-compliance of taxpayers; this unit may help to recover property tax evaded to a large extent.

Lastly, for successful implementation of property tax system, education is necessary to both ratepayers and officers administering and processing the taxes. This involves dissemination of information on property tax, taxpayers' assistance programs and their rights and responsibilities. This will lead to the understanding of the property tax that could promote compliance, accountability and increased revenue collection.

## VII. Summary Conclusions

Although Rwanda has been collecting property tax before and after its independence, this was done by the central government. The decentralization policy adopted by GoR decentralized some of the taxes and user fees including property tax.

Districts have been given powers to levy property tax and in addition, given the responsibility to identify properties, undertake valuation, make assessment, issue bills, collect taxes, audit, investigate and enforce.

An immediate and crucial task ahead is to put up in place a strong system for collecting the tax. There is a need to deliver adequate capacity building programs to district tax collecting personnel to empower them with knowledge of all aspects of the property tax system right from identification of properties to the enforcement of non-compliance.

Furthermore, there is a strong need to integrate stakeholders' education because successful property tax implementation will depend on the combined efforts of all stakeholders with different responsibilities.

Finally, there is a need to coordinate and harmonize efforts of all local government structures participating in the reform strategy of the property tax system such as policy formulation and administrative dimensions.

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