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EGYPT: THE TAXATION OF THE AGRICULTURAL SECTOR

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RDI Acronyms List

<i>ACRONYM</i>	<i>DESCRIPTION</i>
AC	Agricultural Census
AERI	Agriculture Engineering Research Institute
AHD	Aswan High Dam
AIC	Agricultural and Irrigation Committee of the People's Assembly
ALCOTEXA	Alexandria Cotton Exporters Association
APRP	Agricultural Policy Reform Program
ARC	Agriculture Research Center
AY	Agricultural Year Locator (October 1 st to September 30 th of the following year)
BOD	Board of Directors
CAGA	Central Administration for Governorates Affairs
CAPMAS	Central Agency for Public Mobilization & Statistics
CAPQ	Central Administration for Plant Quarantine, MALR
CASC	Central Administration for Seed Certification
CASP	Central Administration for Seed Production
CAWD	Central Administration for Water Distribution
CBE	Central Bank of Egypt
CIDA	Canadian International Development Agency
CIF	Cost, Freight and Insurance
CMA	Capital Market Authority
Co.	Company
COP	Chief of Party
CSPP	Egyptian-German Cotton Sector Promotion Program
CTS	Cargill Technical Services
DA	Development Associates, Inc.
DAI/B	Development Alternatives, Inc./Bethesda
EAO	Egyptian Agriculture Organization
ELS	Extra Long Staple Cotton
ERSAP	Economic Reform and Structural Adjustment Program
ESAS	Egyptian Seed Association
ESAs	Employee Shareholder's Association
ESOPs	Employees Stock Ownership Program

<i>ACRONYM</i>	<i>DESCRIPTION</i>
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FDIs	Foreign Direct Investments
Fed.	Feddan = 4200 square meter
FIHC	Food Industries Holding company
FOB	Free on Board
FSR	Food Security Research Unit
FY	Fiscal Year
GA	General Assembly
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GOE	Government of Egypt
GTZ	German Technical Assistance Agency
HC	Holding Company
HEIA	Horticultural Export Improvement Association
IDA	International Development Association
IFC	International Financial Cooperation
IPPC	International Plant Protection Convention
IPO	Initial Public Offering
IIMI	International Irrigation Management Institute
IR	Intermediate Results
Kg.	Kilogram
Kt.	Kentar
Libra	Pound of 0.45359 kilogram, also abbreviated as lb.
LE	Egyptian Pound
LK	Lint Kentar of cotton, 50 kgs.
LOE	Level of Effort
LS	Long Staple cotton
MALR	Ministry of Agriculture & Land Reclamation
MENA	Middle East North Africa
MEIC	Ministry of Economy & International Cooperation
MIMW	Ministry of Industry & Mineral Wealth
MT	Metric Ton

<i>ACRONYM</i>	<i>DESCRIPTION</i>
MOF	Ministry of Finance
MoTS	Ministry of Trade & Supply
MPE	Ministry of Public Enterprises
MPWWR	Ministry of Public Works & Water Resources
MLS	Medium-Long Staple cotton
MVE	Monitoring, Verification & Evaluation Unit
NARS	National Agriculture Research Center
NBE	National Bank of Egypt
NCF	National Consulting Firm
NFPA	National Food Processor Association
NGO	Non-Governmental Organization
O & M	Operation & Maintenance
OSAF	Office for Studies And Finance
OVR	Office of Variety Testing & Registration
PA	People's Assembly
PBDAC	Principal Bank for Development and Agricultural Credit
PEO	Public Enterprise Office
P&L	Privatization & Liberalization
PIDP	Partnership In Development Project
PMU	Project Management Unit
PPC	Program Planning Committee
PRA	Participatory Rapid Appraisal
PU	Purdue University
PVP	Plant Variety Protection
RETD	Real Estate Tax Department
RDI	Reform, Design & Implementation Unit
ROW	Rest of the World
SCC	Sugar Crops Council
SCRI	Sugar Crops Research Institute
SIIC	Sugar and Integrated Industries Company
SK	Seed Kentar of cotton (157.5 kgs.)
SPC	Seed Privatization Committee
SS	Short Staple cotton

<i>ACRONYM</i>	<i>DESCRIPTION</i>
STTA	Short Term Technical Assistance
SWG	Sugarcane Working Group
TA	Technical Assistance
TAMIS	Technical & Administrative Management Information System
TAT	Technical Assistance Team
TF	Task Forces
TO	Training Officer
TOR	Terms of Reference
TNA	Training Needs Assessment
TRG	Training Resources Group
TSG	The Services Group
UIT	Unified Income Tax
UMD	University of Maryland
USAID	United States Agency for International Development
US\$	United States Dollar
USPMA	U.S. Produce Marketing Association
USDA	U.S. Department of Agriculture
WB	World Bank
WTO	World Trade Organization
WUA	Water User Association

EXECUTIVE SUMMARY

1. Egypt's agricultural sector generates one-sixth of GDP and one-third of total employment, but it bears a very small proportion of the overall tax burden. The sector is directly taxed in three ways: via the traditional agricultural land tax, the corporate net profits tax, and the unified income tax on unincorporated farmers. Although the focus of this report is on the agricultural land tax, taxation of agriculture under the latter two levies is also taken into consideration.

2. The agricultural land tax base is the estimated net rental value as assessed every 10 years by Ministry of Finance-led Division and Estimation Committees. The tax is levied on landowners at a basic tax rate of 14%, and there are numerous exemptions whose objective is to remove low-income farmers from any tax liability. The current tax base was established in 1986-88, a period when land rent controls were in effect. Due to this fixed base period, real (inflation adjusted) tax yields have decreased significantly. Although land rent controls were abolished as of October 1, 1997, the tax itself has been frozen until the year 2003, thereby implying a further drop in real yields. In FY 1995/96 land taxes generated 0.36% of central government tax revenues and 0.25% of total revenues (tax and non-tax). Given the high level of collection costs, net revenues amounted to approximately half these amounts.

3. A well-designed and implemented land tax can be quite equitable without significantly distorting output and investment decisions. In the Egyptian case it is reasonable to assume that the burden of the agricultural land tax falls where it is intended—upon landowners. A somewhat rough empirical analysis demonstrates that the agricultural land tax traces a zigzag regressive-progressive-regressive effective rate pattern over farm household income deciles. However, these tax rates are so low (generally well below 1% of total household income) that the apparent unfairness of the regressive portions of this distribution is essentially a non-issue.

4. The proper administration of an agricultural land tax requires an updated cadastral system. The four basic elements of a cadaster are the geographic location of the land parcel, its area and boundaries, its value, and its ownership. These first two elements are essentially extant, but the third element is drastically undervalued since it is based on assessed values from the 1986-88 reference period. The fourth element is completely inadequate for two principal reasons: the accuracy of land tenure records has been continuously eroded by the subdivision of land at inheritance, and the high transaction costs charged by the Ministry of Justice for re-registering land cause buyers and sellers to validate the land purchase contract in the courts without officially registering an ownership name change.

5. According to the laws which underlie Egypt's system of local government, one-quarter of the basic and additional taxes collected on agricultural land should be returned to the governorate in which the land is located; the remaining three-quarters should be devolved to the respective towns and villages. This does not happen. The central government does make lump-sum transfers to the governorates, and the governorates do make budget transfers to the local council units. But these transfers

are not related to land tax collections in each locality. Local government units are not autonomous. Rather, they are local administrative units of the central government.

6. In addition to administering and collecting the agricultural land tax, the Ministry of Finance's (MOF) Real Estate Tax Department (RETD) also collects the (urban) buildings tax, the entertainment tax, and numerous taxes, fees, and fines for other ministries and public agencies. It is estimated that only 50% of the RETD's time is allocated to the overall administration of the land tax. Thus, the activities which the RETD carries out are of certain importance to other ministries, and this includes the taxpayer information gathered by the RETD which is shared with other Ministry of Finance tax departments. The RETD presently carries out all its operations manually, although there is an unfunded plan to computerize the operation.

7. The administrative costs of collecting the agricultural land tax are extremely high, reaching some 40% to 50% of total collections. This means that only 50% to 60% of gross land tax revenues remain to finance government spending programs. Moreover, taxpayer compliance costs (monetary and non-monetary) are also high.

8. Egypt vastly underuses its property tax system (agricultural land and selected urban buildings). Property taxation is seriously deficient in most aspects, from tax base valuation to property registration and record keeping. Wholesale reform is sorely needed.

9. Given the very low level of agricultural land taxation, it is highly unlikely that this tax impinges upon investment incentives. The corporate income and unified income taxes may have some marginal impact on investment decisions but, given the existence of generous tax holidays and high exemptions, this does not appear to be a major factor.

10. As corporations become increasingly engaged in agricultural activities, the issue of taxing the income generated in the agricultural sector via use of the corporation income tax will take on more importance. While tax holidays significantly erode the corporate profits tax base, the administrative efficiency with which the MOF's Income Tax Department collects this levy is an issue in itself. Numerous processing deficiencies can be improved once the Department's operations are computerized with a continuously updated taxpayer masterfile.

11. The Unified Tax on Income of Natural Persons (or Unified Income Tax—UIT) imposes an income tax obligation on the net income derived from agricultural land and buildings (revenues of real estate wealth). The base for this levy is the same as that used for the agricultural land tax—the estimated annual rental value of the land. Although land rent controls have been abolished, this base will not change before the year 2003, thereby severely restricting the growth and elasticity of tax revenues. De facto and de jure exemptions for farmers mean that only upper-middle to high income farmers are actually subject to the UIT. All the issues of tax administration efficiency that apply to the corporate income tax are at least as applicable to the UIT.

12. Most countries around the world tax agricultural land via general property taxation regimes, not via a tax on agricultural land alone. The property tax is usually a mixture of taxation on the pure site value of land, improvements to the land, and structures on the land. The property tax often constitutes an important source of local government revenues.

13. Egypt's agricultural land tax is deficient in many aspects. It is a poor revenue-generator, it lacks vertical and horizontal equity, and its administration is sub-par. To tax Egyptian agriculture under the corporate income and unified income taxes would not be much better, but does have potential if recent administrative reforms can be consolidated.

14. There are three basic alternatives for the future course of agricultural taxation in Egypt:

- The present system, however flawed, can be continued essentially as is.
- The overall property tax system (on land and buildings) can be totally reformed.
- The agricultural land tax can be abolished and the agricultural sector can be taxed under the unified income and corporate income taxes. This raises the issues of what to do with redundant RETD employees, the efficiency of tax administration within the Income Tax Department, and the modification of the present tax base of the UIT. The decision to explore this third option and the issues it raises will require further detailed analysis.

PREFACE

This report was written as an analytical follow-up to a study published in December 1997 by the APRP-RDI Unit under USAID Contract No. 263-C-00-97-00005-00. The initial study, The Total Farm Tax Burden in Egypt, focused on the agricultural land tax and the other types of direct taxes paid by Egyptian farmers.

The terms of reference for the present report cover the issues of:

- Collection and analysis of data to confirm or reject the hypotheses of the initial study.
- Equity of the agricultural land tax burden.
- Feasibility and equity of taxing farm incomes via the Unified Income Tax.
- Inter-country comparability of Egyptian land taxation.

Several potentially collateral issues are not analyzed. Among these are the indirect taxation of agriculture via other forms of taxation (e.g., sales and import taxation, exchange rate overvaluation) and the decentralization of governmental activities.

There are several factors that limit the scope of this study. First and foremost is the lack of access to Egypt's Ministry of Finance (MOF). It was only in the last week of a four-week stay in Egypt that interviews were conducted in the MOF itself, and these interviews were limited to the heads of the Real Estate and Income Tax Departments. Nobody below these very top levels was interviewed. A thorough analysis of the systems and procedures used by the MOF to collect those taxes affecting the agricultural sector requires a more in-depth gathering of information. Some of this required information is found in the preliminary lists of questions and issues presented in Annexes 1 and 2. As a result of the restricted access, recurrence was made to secondary sources (data and nondata) outside the Ministry. This is evidenced by the extensive list of references found at the end of this study. A second principal limiting factor was the inability to carry out interviews in MOF field offices outside Cairo. Nevertheless, and somewhat paradoxically, the conclusions drawn from the ensuing analysis can be taken with a large degree of confidence, since many are based on in-depth analyses found in the referenced secondary sources.

This report is organized in six sections. After presenting an overview of Egypt's tax and public revenue system in Section I, specific aspects of the agricultural land tax are analyzed in Section II. Given the myriad deficiencies of this form of property taxation in Egypt, a very preliminary look at more efficient taxation of agricultural incomes via the corporate income tax and unified income tax is the subject of Sections III and IV. To inject some international perspective into Egypt's property taxation scene, Section V offers a cursory glance at property taxation in ten different countries. Section VI then summarizes the findings and presents the recommendations that flow from the previous sections.

I would like to acknowledge the unswerving loyalty, companionship, and comments of Dr. Mohamed Sharaf during the time I was in Egypt. I am also grateful for the comments of Dr. Jane Gleason, Dr. Max Goldensohn, and Dr. Taha Khaled.

I. INTRODUCTION

A. The Reforms of the 1990s

The decade of the 1990s has witnessed significant reforms in Egypt's overall economic policies. The freeing of goods and services prices, exchange rate unification, deregulation, privatization, and the transformation from an inward-looking toward a more open economic model proceed apace. Accompanying these reforms have been significant changes in the central government's tax policy. In 1991 sales tax (a sort of value-added tax) reform was enacted which essentially taxed goods at the import and manufacturing level; it will soon be extended to the wholesale and retail levels. A global tax on noncorporate incomes was introduced in 1993 to replace the previous schedular regimes. This tax was accompanied by rate reductions and a degree of simplification. These reforms were not extended to the local government levels, which, in the overall scheme of taxation, is insignificant in Egypt's highly centralized public administration and tax structures. (Table 1 shows that total local government revenues over the 1990-97 period amounted to 4-5% of central government revenues).

Also evident from Table 1 (and Table 3) is the large gap between central government total revenues and tax revenues. For the 1990-97 interval, tax revenues were only 69% of total revenues, a low proportion on an internationally comparative basis. The principal nontax revenue sources are transfers from the Egyptian General Petroleum Corporation (EGPC), the Suez Canal Authority (SCA), and the Central Bank of Egypt. In FY 1996/97 these three transfer sources comprised 59% of all nontax revenues.

B. Composition of the Central Government's Tax System

Table 2 sets forth the relative importance of principal taxes in the central government's tax structure. As may be noted, across the 1990-97 period the three largest revenue generators were taxes on corporate profits, goods and services (the sales tax which includes excisable goods), and customs duties. In FY 1996/97 they provided almost four-fifths of total tax revenue. The corporate profit tax is highly concentrated in three entities: the EGPC, the SCA, and the Central Bank; together they accounted for 57% of corporate tax revenues in FY 1996/97. The flip side is that all other corporations paid only 43% of the total—due in large part to extensive granting of tax holidays which also impacts taxation of corporate incomes derived from agriculture. Note also that, according to the classification system used in recording the GOE's fiscal accounts, the EGPC, the SCA, and the Central Bank make both transfers to nontax revenues and payments under the corporate profit tax. In FY 1996/97 these three entities accounted for 30% of all central government revenues.

Another characteristic of the central government's tax system between 1990/91 and 1995/96 was its relative buoyancy, defined as the relation between the percentage changes of tax revenues and GDP. Whether its lack of buoyancy in FY 1996/97 merely represents a short-run downward trend remains to be seen. Tables 3

and 4 attest to these patterns. Table 3 shows real (inflation-adjusted) tax revenues increasing slightly between FY 1991/92 and FY 1995/96, but dropping in FY 1996/97. Table 4 shows that, while the overall tax ratio (taxes as a percentage of GDP) was fairly steady in the 17% range from 1991/92 through 1995/96, it declined to 15.8 in FY 1996/97. An independent study (Abdel-Rahman, 1998) on tax buoyancy covering the 1990/91-1995/96 interval demonstrated an overall tax system buoyancy coefficient of 1.18; the corporate profit tax had a buoyancy coefficient of 1.36, the sales tax 1.41, and customs duties 1.07.

A tax ratio in the 16%-17% range falls within "low to acceptable" regional parameters when those countries with large amounts of hydrocarbon revenue are excluded. Some selected tax ratios (covering the years 1995 or 1996) for geographically proximate countries with little or no hydrocarbon revenue are: Cyprus (27%), Israel (35%), Lebanon (15%), Jordan (17%), Morocco (21%), Tunisia (20%), and Turkey (14%). The principal reasons for Egypt's relatively low tax ratio is the poor yield from personal income taxes and the comparatively low yield from domestic sales taxes (0.7% and 4.4% of GDP respectively in 1996/97). The ineffective use of personal income taxes, which includes the unified income tax under which noncorporate agricultural sector incomes can be taxed, has implications for reaching such farm income.

C. Composition of Local Government Revenue Systems

The relative insignificance of local government revenues vis-à-vis those of the central government is apparent from Table 1. This is a reflection of Egypt's highly centralized public sector, where the local administration of public goods and services is carried out by entities (ministries, public enterprises, etc.) of the central government (see Mayfield, 1996, and Wozny, 1992). The governorates, towns, and villages are mere branches of the central government, so that the distinction between central and local government finances is essentially artificial. Despite this caveat, this study will proceed as if it were possible to make the distinction.

As has been pointed out in APRP-RDI (1997), Mayfield (1996), and Wozny (1992), local government revenue sources are both multiple and variable between governorates, towns, and villages. They range from taxes/fees on tractors and irrigation pumps to licenses/fees for animals slaughtered and for consumption of water, electricity, and gas. The agricultural land tax represents a fraction of these gross revenues, in recent years comprising only 6% of the total (see Table 1).

D. Tax Administration Efficiency

A tax system is only as good as the ability to collect the legally levied taxes. Most countries display a "modern" tax structure in the sense that income, expenditure, and wealth are all taxed under systems of income, sales, excise, and property taxation. The amount of tax revenue actually collected is a function of both tax policy and tax administration. The former is concerned with establishing the correct tax bases and rates to tap into the constantly changing tax handles which are characteristic of a

dynamic economy. The latter takes bases and rates as givens and concerns itself with the nuts and bolts of taxpayer identification, of levying the appropriate amount of taxes on each taxpayer, and of collecting said amount. The more complex the tax code (e.g., exemptions, deductions, multiple rates) and the higher the taxpayer compliance costs, the less effective will be the tax administration and collection process. In sum, tax administration is tax policy.

“Egypt’s sales tax and income tax systems are administratively complex and relatively inefficient at generating revenue by regional standards. To this extent, a key fiscal objective is to press ahead with reform of the tax system to enhance efficiency and underpin efforts to further increase domestic saving.” (IMF, 1998, p.3). To its credit, during the 1990s the MOF via its various Tax Departments (Income, Sales, Customs, and Real Estate) has taken steps to substantially improve many administrative processes, especially for income and sales taxes (Barents, 1998). Examples include enhanced information sharing between the Sales, Customs, and Income Tax Departments, significant improvement in computerized systems, and establishment of a unique Tax Administration Number (TAN) for each taxpayer and a resultant taxpayer masterfile at both the District Office level and the Central Department of ADP. Moreover, tax code reforms have simplified tax administration. For income taxes, schedular levies were transformed into a single global impost, rates were reduced, family burden allowances were substantially raised which eliminated three million low income taxpayers from income tax obligations, greater use of withholding was implemented, and nonwage income was consolidated into a single tax return.

Much remains to be done (Barents, 1998). The Income Tax Department, which administers all corporate and individual income taxes, stamp duties, the social solidarity tax, and the 2% development duty, lacks a functional organization, continues to audit 100% of returns, retains rather complicated administrative procedures, and offers little training. Future reforms might include the institution of tax payments via the banking system and the introduction of methods for presumptive taxation. Collection and compliance costs remain relatively high with the current system.

The magnitude of tax evasion in any country is always an exercise in estimation cum speculation. One recent estimate of income tax evasion in Egypt places it at LE 80 billion (Al-Ahram Al-Iktisadi, 5/26/97 as cited in Tohamy, 1998). This figure was derived by applying a 42% income tax rate to an estimated LE 190 billion in the informal sector. In perspective, LE 80 billion represents 200% of the LE 40 billion in tax revenues collected by the central government in FY 1996/97. Of course, there is no way to judge the accuracy of such an estimate. Tohamy employed a cross-country regression model using panel data from 60 countries in an attempt to gauge the magnitude of tax evasion in Egypt. The conclusion was that the level of tax evasion in Egypt is similar to that in other developing countries (Indonesia, Korea, and Thailand) and perhaps less than in Latin America. Small comfort.

II. AGRICULTURAL LAND TAX

Agriculture is one of Egypt's key economic sectors. By itself it generates one-sixth of GDP, and its spillover impact on other sectors which use its output as input increases its overall economic importance by a multiple of two to three. Adopting a broad definition of agriculture's contribution to exports by adding the value of cotton yarn, textiles, and ready-made garments to agricultural products themselves, approximately one-third of merchandise exports are attributable to the sector. It is even more important in terms of employment. Of a labor force of some 17.7 million, 4.5 million jobs are found in agriculture (International Labor Organization - ILO - figures cited in *The Egyptian Gazette*, 11/26/98); subtracting two million unemployed from the labor force estimate means that almost 30% of Egypt's total employment is presently found in the agricultural sector. Although this figure represents a significant drop from the 39% registered in the 1986 Census of Population (labor force data are not yet available from the 1996 Census of Population), it is clearly indicative of the socioeconomic importance of the sector. Again, multiplier effects on overall employment in such sectors as services and manufacturing may effectively double its impact on total employment. Not surprisingly, in rural areas agriculture is by far the largest direct job generator. According to the 1986 Census, 63% of rural jobs were in agriculture.

There are two basic ways to tax agriculture directly: tax the income derived from agricultural pursuits and/or tax wealth cum property taxation. Although both forms of taxation are presently used in Egypt, it will later become apparent that this tax burden is relatively low. In the past the implicit taxation of agriculture involved, among other factors, application of an overvalued exchange rate to exports, local currency differentials between government-established buying and selling prices for export crops, domestic price controls, and protection of local manufacturing via high tariff barriers. To a large extent this implicit taxation has been eliminated with the liberalization measures put in place over the past decade. Nevertheless, customs duties continue to raise the prices of agricultural inputs and real exchange rate appreciation may be adversely affecting exports.

The Egyptian agricultural land tax is a levy on presumptive agricultural income. Thus, it might be considered an income tax in the guise of a land tax. Phrased another way, it represents a somewhat round-about method of taxing wealth (land ownership) via a tax on a presumptive income flow. This leads one to question the *raison d'être* of such a method. Why not tax agricultural incomes directly via an income tax? As will be subsequently pointed out, this is much more easily said than done—for a score of administrative reasons.

A. Principal Characteristics of the Agricultural Land Tax

The basic land tax laws and features governing the current taxation of agricultural land holdings specify that:

- A tax is levied on all cultivable agricultural land (actually cultivated or not) based upon its estimated annual rental value (Law #113/1939).
- The estimated annual rental value is reassessed every 10 years by a committee process (Law #53/1935). The present (late 1998) land tax is based on assessed values from 1986-1988 that became effective January 1, 1989. The next reassessment, which normally would have been underway and/or completed by the end of 1998, will most likely not be initiated until after 2001; land taxation based on this reassessment cannot go into effect until at least 2003.
- The tax rate applied to the rental value base is 14% (Law #65/1949). An additional tax of 15% (Decree 1652/1963) on the absolute amount of the initial tax was rescinded effective January 1, 1982, but governorate council fees of an equal amount are still in effect in most governorates. There is an additional tax (Law #112/1997) of LE 0.25/feddan on land cultivated in traditional crops, LE 1/feddan for vegetables, and LE 5/feddan for orchards.
- Taxpayers whose annual land tax does not exceed LE 4 are totally exempt, while those whose land tax falls in the LE 4-20 range are exempted from LE 4 of tax (Law #370/1953).
- Additionally, Law #151/1973 offers 100% land tax exemption (base, surtax, and additional) to landholders whose total (country-wide) landholdings are not greater than 3 feddan; these latter exemptions are not applicable if the area cultivated is fruit orchards or if the taxpayer has other nonagricultural income sources. Also exempt for 10 years after they “become productive” are reclaimed, desert, and fallow lands; permanent exemptions are granted on agricultural land owned by the state and land dedicated to the common benefit of village inhabitants.
- The tax is assessed on the landowner (as opposed to the tenant), who is legally liable for payment. In practice, the Real Estate Tax Department collects the tax from whomever is working the land (owner or tenant). Payments are due semiannually, usually after the summer and winter harvests.
- According to Laws #43/1979 and #145/1988 governing local government (all levels below the central government) financial system, one quarter of all land taxes (base and surtax) imposed on agricultural land located within the geographical boundaries of the unit revert to the governorates; 75% revert to the towns and villages.
- In each area or village a Division and Estimation Committee determines the net rental value of all agricultural lands. Its membership consists of an MOF representative as president, representatives of the Egyptian Survey Authority and the Ministry of Agriculture, the village chief/mayor (“umda”), and two local landowners appointed by the MOF. The Division function begins several years prior to the revaluation; its responsibility is to survey the quality of land in each village land basin and to categorize lands of similar quality according to expected productivity. The Estimation function is to estimate the average net rent per

feddan, by assigning a value to each parcel, taking into account such factors as cropping patterns, land fertility, input costs, distance from the center of the village, irrigation methods, etc.

- Land rent controls, in effect since 1952, were abolished as of October 1, 1997 (Law #96/1992). Simultaneously, in the face of impending higher rental values, land taxes have been frozen until the year 2003. This means that, both as a proportion of total tax revenue and in real terms, land tax yields will continue to decline until (at least) FY 2003/04.

B. Equity Aspects

1. Conceptual

Properly designed and implemented agricultural land taxes, which are especially useful for financing local government expenditures, can treat farmers in a relatively equitable manner without generating notably adverse effects on production and investment incentives. Land taxes may be assessed on the basis of land area, income, or rental value. The distinction between the latter two is that the income concept is more inclusive, covering not only income derived from the land itself but from labor, capital, and improvements. In practice, tax authorities around the world use one of three methods to assess the tax: an in rem levy based on land area, a levy based on land market value or net income derived from the land, or objective measures such as distance of the parcel from the market or soil quality. The latter two variables represent proxies for presumptive income or land productivity. The conceptual foundation behind all methods is that a land tax represents a pure site value levy that targets the implicit value of land exclusive of all improvements. This view derives from the Ricardian theory of rent, whereby the rental amount is a function of the yield of a land parcel over and above the yield on marginal land (the poorest land under cultivation). A land tax that is assessed on pure site value causes no economic distortions, because pure site value cannot be altered. In reality, the assumption that it is administratively feasible to distinguish between pure site value and improvements is impractical.

Egyptian land tax is based on the use of the objective measure method. Regionwide and nationwide equity in application depends on the accuracy of the initial assessment, the uniformity in assessment techniques and procedures in each locality where Division and Estimation Committees carry out their decennial evaluations, and its administration. It results in a presumptive assessment that provides a rough (and perhaps fairly accurate) approximation of the income potential from the average parcel of land. It is clearly not a pure site value levy since such capital improvements as irrigation are taken into account. One of its positive aspects is that it represents a method that does not rely on market or net income assessments. Moreover, the tax could be adjusted for inflation by simply raising the tax rate on the constant base figure; this has not been implemented in Egypt, with the consequence that the real (inflation-adjusted) value of land tax revenues has been severely eroded over time (see Table 3).

In its most direct and simple form (the conventional theory of property tax incidence), the incidence of a land tax falls upon the landowner; i.e., with a fixed supply of land, profit maximization, and competitive product and factor markets, the imposition of the tax lowers the price of land. This is valid whether or not the land is cultivated by the owner or tenant. It is not important who actually makes the tax payment; if it happens to be the tenant, his rental payment is accordingly reduced. Moreover, under these conditions the landowner cannot shift the tax backward to laborers or input suppliers.

The “new view” of property tax incidence, dating from the early 1970s, begins with the assumption that all factors of production are perfectly supply inelastic in the nation as a whole, but that capital is perfectly mobile with the country. Under these assumptions, in the long run a uniform tax on all land and capital is borne by owners of land and capital. Thus, property tax incidence across household income groups becomes a function of the distribution of capital and land ownership and will usually be highly progressive. “In the long-run we are all dead” (J.M. Keynes). Therefore, without belaboring the myriad theories that might be attached to the incidence of the property tax, the theory adopted in this paper is the conventional view; i.e., that agricultural land tax in Egypt is borne by landowners. This is also a common sense viewpoint. It would be difficult to imagine a conversation between an Egyptian land tax collector and a landowner in which the collector informs the owner that, in the long run, his tax is shifted to capital.

If the tax is perceived as onerous (in excess of economic and/or total rent), it may adversely impinge upon new investment decisions, leading to reduced returns to labor and capital (backward shifting), diminished output, and subsequent higher output prices (long-run forward shifting to consumers). Intersectoral shifting may result if the land tax reduces agricultural output, leading to a transfer of resources and tax burden to other sectors. Intrasectoral shifting to other groups linked to the agricultural sector (landless workers, traders) is also a possibility if part of the tax impacts the prices received by these groups.

In sum, there are myriad possible scenarios for some amount of shifting of the agricultural land tax. However, in present-day Egypt, with its most productive land in relatively fixed supply, the liberalization cum elimination of most output, input, and rental controls and a farmer class well attuned to profit maximization, it is quite reasonable to postulate the nonshifting of the agricultural land tax. Its burden is borne by landowners. This will be the assumption used below to carry out the empirical incidence estimates.

There are additional equity-related characteristics of an agricultural land tax. If properly designed and administered, it most likely reaches a broad income base in a sector where a large amount of nonmonetary income (home-produced food and fuel, imputed value of owner-occupied dwellings) is generated. Both this income-in-kind and monetary incomes of many small-scale farmers are very difficult to reach under other forms of taxation. Thus, the land tax becomes a form of wealth taxation, reaching persons who aren't touched by income- and expenditure-based taxes.

One inequity characteristic of most agricultural land taxes is that the tax must be paid year after year regardless of crop prices and resulting farmer incomes. This tax obligation imposes a fixed cost burden on farmers in an already risky and uncertain business. In Egypt the tax has been fixed for 10-year periods; its inflexibility is a burden on farmers whose incomes fluctuate annually due to factors over which they have little or no control.

Another potential inequity is that no two plots of land are exactly equal in productivity and rental value. Yet, land and farmers in unlike circumstances are treated equally for taxation purposes. Of course, for administrative reasons it is not feasible to single out each case. All cadastral systems deal with averages.

2. Empirical

The empirical verification of the progressivity/regressivity/proportionality of Egypt's agricultural land tax is a function of how the burden of the land tax is distributed across farmer income groups (from lowest to highest income bracket). Effective tax rates must be calculated for each income bracket or percentile (quintiles, deciles, etc.). The numerator consists of the absolute amount of tax paid, while the denominator is the farmer's income from all sources (agricultural and nonagricultural). If the effective tax rate rises as incomes rise, the tax is progressive in structure; if it decreases, the structure is regressive, and if it remains constant, the tax is proportional. The mere fact that the nominal tax rate is 14% across-the-board does not automatically imply proportionality.

There is a dearth of data directly linking land tax payments to farmer income. Neither the 1990 Agricultural Census (MALR, no date) nor the CAPMAS (Central Authority for Popular Mobilization and Statistics). Expenditure and Consumption Survey: 1995-1996 is useful for this purpose. It was not possible to verify if the MOF has data by adjusted gross income brackets for land taxes paid by taxpayers who derived income from agricultural activities. That these sources do not contain the desired data is not surprising. Even in countries with well-developed statistical services, information directly linking land or property taxation to farmer income groups is absent. Perusal of 1990 Agricultural Census data and the incorporation of certain assumptions would permit the derivation of average estimates of farmer agricultural income by size of landholding and crop. Another approach independent of census and household survey data is to use farm survey data available from the Central Administration for Agricultural Economics (CAAE) and/or other farm surveys (e.g., see Selzer, 1998) to estimate net returns per feddan for farmers in representative regions. In addition to the issue of defining and finding a "representative" region, in both sources income from nonagricultural activities and income-in-kind are excluded, and such incomes most likely represent a significant portion of farmer income, particularly at the very lowest (and higher) income levels.

There is one data source that does permit a rough approximation of direct taxes paid by farmers according to income brackets. The 1997 Egypt Integrated Household Survey (MALR, 1997) includes a question that links household and per capita household income to all direct taxes paid (taxes on income, land, housing, and property) in those cases where the head of household's primary employment is

farming. The income base includes monetary income and nonmonetary income derived from food and fuel produced and consumed on the farm in addition to the imputed income derived from consumer durables. For the overall 2,352 household sample survey, such definition of income amounts to (when expanded from the sample) some 70% of personal income as estimated in the national accounts. The results for farm sector households are presented in Table 5.

The data in Table 5 are grouped by farm household and farm household per capita income deciles; decile 1 represents the poorest 10% of all farm households, while decile 10 refers to the richest households. Note that expenditures are used as a proxy for incomes. The apparent incongruity that average household expenditure does not steadily rise as deciles rise is due to the fact that the number of persons per household varies for each decile; however, the average expenditure per capita does conform to the expected pattern.

It is the effective tax rate pattern vis-à-vis the decile intervals that generates conclusions regarding the regressivity, proportionality, or progressivity of direct taxes paid by farm households. Both effective tax rate columns trace similar zigzag patterns: regressivity over the first three deciles, progressivity above the fourth decile until the eighth decile for households and until the seventh decile for households per capita, and regressivity in the upper deciles.

It is easy to conclude that the observed regressive-progressive-regressive pattern somehow constitutes inequity to lower income farmers. Before a rush to judgment, both the absolute burden of taxes paid and the deficiencies behind this data set must be taken into account.

First is the issue of the absolute burden. If, in fact, the data represent reasonable approximations to taxes paid by farmers, it must be concluded that the direct tax burden is insignificant in all deciles. Even in the poorest decile all the taxes paid represent well less than one percent of income. If this is the case, the Egyptian farmer is subject to one of the lowest direct tax burdens in the world! The regressivity-progressivity question is truly a nonissue. That the Egyptian farmer is not preoccupied by his tax burden is substantiated by the extensive field interviews reported in APRP-RDI (1997).

The caveats applicable to the present use of this survey data are several. Among them is the fact that is that the survey was not designed to measure tax burdens on farmers. Rather, it was designed as a nationwide survey to estimate household welfare levels. There is scant attention paid to taxation; emphasis is placed on per capita household expenditures. It is not possible to disentangle the several direct taxes paid by farm households, although it might be surmised that, especially in the lower deciles, the agricultural land tax is the most important tax paid. Moreover, in most deciles it may be the tax that has the greatest impact on the taxpayer's memory.

An indirect and more intuitive approach to the structure of the land tax reaches much the same conclusion. Behind such an approximation is the assumption that land tax is not shiftable and is therefore borne in its entirety by the landowner. With respect to farm income alone (excluding farmer-received income from outside the farm sector),

it seems reasonable to assume that income differentials are positively and highly correlated with farm size, region, and cropping patterns; i.e., the greater the landholding area the higher the farm income. It is precisely these differences in cropping patterns, irrigation methods, distance from town center, etc. that the local Division and Estimation Committees take into account when establishing agricultural land net rental values as the tax base for the agricultural land tax. It is also reasonable to assume that, within the geographic jurisdiction of each Committee there is a great deal of uniformity. Therefore, at least within each of these jurisdictions there is no reason to assume that the pre-exemption agricultural land tax is anything but proportional. The presence of central government MOF officials and the use of a pre-established (weighted) formula may operate to ensure a degree of nationwide uniformity.

The existence of legal exemptions complicates the proportionality conclusion. The 3-feddan or less exemption for those farmers with no outside income sources clearly seeks to relieve poorer farmers of the land tax burden. Under the reasonable assumption that the poorest of the farmers (in terms of net returns to area cultivated) have the smallest landholdings, this exemption injects an element of progressivity into the tax in that the levy first kicks in on landholdings above 3 feddan. This is supported by data from the 1990 Agricultural Census (MALR, no date). Three-quarters of civil landholders with no other occupation have 3 or fewer feddan of land; these same landholders farm 36% of cultivable areas.

Most farmers appear to pay the land tax whether or not they are legally obligated due to the lack of title documents and the red tape involved in obtaining the annual exemption (see Section II.C). This observation may be correct, but it is based only on random observations. Moreover, according to the 1990 Agricultural Census, some 37% of farmers with landholdings of less than one feddan have other (nonagricultural) occupations and are therefore disqualified from applying for the exemption in the first place; the percentages corresponding to landholdings of 1-2 and 2-3 feddan are, respectively, 20% and 15%. Additionally, land cultivated as orchard does not receive the exemption, and approximately 5% of Egypt's cultivable area is orchard.

The story may change a bit if the effective land tax rate is measured against total income (agricultural and nonagricultural) of landholders. Above the 5-7 feddan interval of landholdings (1990 Agricultural Census) the percentage of landholders with occupations outside farming steadily rises, from 14% in the 5-7 feddan class to 39% in the over-100 feddan open-ended interval. Moreover, a steadily rising percentage of those landholders who have outside occupations are professionals, technicians, and/or administrative and managerial personnel. Given that remuneration received by such persons is well above average Egyptian salary and income levels, it can be reasonably postulated that the land tax burden becomes a decreasing proportion of total income as total income rises.

This is the definition of a regressive tax. The question again arises: Does it really matter? Such potential regressivity probably begins somewhere above the landholding size class of 4-5 feddan. A mere 10% of landholding individuals falls in these classes; less than 2% of total landholders are found in the 15 feddan and above category. If this regressivity were applicable to the overall Egyptian tax system (and given its

expenditure-based bias, it may well be), such inequity would provide food for thought. However, the small amount of agricultural land tax paid by even low income farmers converts the potential regressivity issue, albeit at higher income levels, into a nonissue.

There are at least three other caveats to the aforementioned conclusions that cannot be empirically taken into account: the infrequency of the land tax base presumptive assessments, the land registration problem, and the committee process for land value estimation. Since the land tax represents a given percentage of a net rental income figure that is fixed for a minimum of 10 years, there is a very high probability that the actual income derived from a given landholding will vary relative to the income derived from other landholdings. The fact that this base is not more frequently adjusted will cause deviations from the original net rental assessments, thereby creating both vertical and horizontal inequities which will tend to grow over time.

The accuracy of official land registry records is questionable. In rural Egypt a land buyer must pay a transaction fee as a percentage of the purchase price to get the land re-registered in his name. These fees are administered by the Ministry of Justice through its central Property Registration Department and the local Office of the Notary (Adams, 1991). To avoid such a relatively substantial payment, the buyer recurs to the court to attest to the validity and effectiveness of the land purchase contract. In this way the name under which the land is registered does not change. Up to 30% of all landholdings may fall in this category. This means that there may be fewer landholders than under the official records; as a corollary, tax evasion may be occurring via the same person owning multiple landholdings not registered under the same name, with tax exemption granted to each of several parcels.

The Division and Estimation Committee mechanism for estimating land rental values may lead to either underassessment and/or outright favoritism cum corruption. The local mayor and the two farmer representatives on the Committee are all landholders with a vested interest in underestimation. Such underestimation may spill over into lower assessments for friends and family, thereby injecting both horizontal and vertical inequities into the overall process.

C. Rural Land Cadaster System

Egypt's first modern cadastral survey was done under British auspices between 1895 and 1912 (other sources place it between 1892 and 1907). This resulted in an ownership record which dates from that period and which is still used to settle land disputes. Apparently, this was the first and last nationwide survey. In recent years numerous somewhat coordinated surveys have been done by the Egyptian Survey Authority (ESA, an entity of the Ministry of Public Works and Water Resources), many funded by foreign donors; one \$40 million project in two governorates was USAID-financed; another effort in the Aswan governorate was financed by the GTZ.

All recent surveys are multipurpose, meaning they provide information that can be used by many public agencies in addition to the MOF, which administers the agricultural land tax via its branches in the governorates and district commissions.

The databases generated are openly available and accessible. The MOF's Real Estate Tax Department and the Ministry of Justice's Property Registration Department automatically receive these data. It is estimated that 60% of Egypt's old lands has been surveyed by these efforts.

The proper administration of any agricultural land tax requires an up-to-date cadastral system. The term cadaster is most commonly used to refer to an official record of the (1) geographic location, (2) area and boundaries, (3) value of each parcel of land in a defined place (district, governorate, etc.), and (4) ownership (tenure). The basic reference source contains maps and some system of cross-references linking the maps and the aforementioned information. A complete and functional cadastral system requires all four elements.

Egypt presently has good maps and an apparently decent registry of the first two elements. The maps are maintained by ESA, and are used by the Division and Estimation Committees and the governorates' Real Estate Directorates in the decennial presumptive revaluations. Regarding the third element, since the 1930s the presumptive net rental value of land has been re-estimated five times, most recently in 1986-88, on old lands (about 7 million feddan), and not at all on some 3 million feddan of new (reclaimed) lands. More importantly, the 1997 freeing of rent controls effectively increased these net rental values by some multiple not yet reflected in the land tax base. Thus, this third element is significantly underestimated, and the government of Egypt and the MOF have decided that updated assessments cannot be implemented earlier than 2003.

The system almost totally breaks down with respect to the fourth element. An up-to-date land tenure registry is truly inadequate. Although cadasters in many parts of Egypt are being updated via the multipurpose surveys, this does not mean that the real owner is properly registered. Field interviews carried out in October-November 1998 by the Land Tenure Study team of the APRP-RDI Unit in several governorates show conclusively that new registration of ownership is extremely limited and is performed only in cases of owner-tenant conflict. Land tenure registration is not increasing due to the 1997 implementation of Law #96/1992. Although most landowners inherited their land, neither they nor the district Real Estate Tax Office is able to find the deed to prove ownership. This situation is apparently not too worrisome to the owners since they feel that their owner-tenant contract is proof enough of ownership. Nevertheless, valid and up-to-date registration of land ownership is important for future land market stability and continued investment in land and improvements.

Ownership is not being matched with the survey for two principal reasons:

(1) The continuing erosion of the accuracy of land tenure records is due to the subdivision of land at inheritance in accordance with Islamic tradition. Official record of land ownership is not updated because the large amount of documentation required to subdivide land between generations is costly in terms of fees charged and time spent following up on required procedures. The owner of record may be long deceased, or the listed owners may be absentees or junior members of a family, with the land rented out to relatives who remained in the village. Thus, although the Budget Record (Form #25) supposedly contains complete cadastral information (location,

land area, net rental value, and ownership), the veracity of tenure information is very questionable.

(2) The aforementioned transaction costs (see Section II.B) for re-registering land are charged by the Ministry of Justice via its Property Registration Department. To avoid these relatively high fees the buyer and seller recur to the courts to validate the land purchase contract, but this procedure does not involve a name change. It is estimated that as many as 30% of all landholdings might be affected by this phenomenon. But it is not just the monetary transactions costs that affect this decision not to legally register. The taxpayer's compliance cost in terms of time spent is high. To buy land via official procedures, at a minimum the following steps must be taken:

- The completion and sending of the application to purchase to the Ministry of Justice.
- The ESA District Office carries out a land survey.
- The application and survey results are returned to Justice's Registration Department
- A copy of the sales contract is sent to ESA and the MOF's District Real Estate Office. Other copies are sent to the Taxation Office in the governorate and to the central government.

This ambiguity in land titling possibly creates another serious problem for the small landowner when applying for the land tax exemption based on holdings of 3 feddan or less. There exist two contrasting versions. On one hand, it is claimed that the burden of proof that the landholder has less than 3 feddan falls upon the farmer himself. Unable to prove true title to landholding(s) because of the registration problem, the tax is paid whether or not it is due. This means that this exemption incorporated in the tax code to aid small landholders does not achieve its objective, thereby causing an inequity. On the other hand, Real Estate Tax Department officials state that all qualified farmers who apply for the exemption receive it because exemptions are verified by local committees. Fraudulent applications will be easily discovered. Moreover, the application process is easy, involving no long bureaucratic procedure or fee.

One thing is clear. From a tax collection viewpoint the land title registration deficiency is not an impediment. The tax is collected from the person who is working the land, be he owner or tenant. That this constitutes a barrier to developing a land market or to developing a different type of property tax system is divorced from the tax collection process under present conditions.

D. Use of Agricultural Land Tax Revenues

Laws #43/1979 and #145/1988 provide the legal basis for Egypt's system of local administration. According to these laws, one-quarter of the basic and additional taxes collected on agricultural land is returned to the governorates in which the property is located; the remaining three-quarters is devolved to the towns and villages on the taxed land located within their respective boundaries. There presently exist 27 governorates and, according to Mayfield (1996), 199 towns and 928 villages; the latter subdivide into 3,568 satellite villages and 25,000 hamlets. However, according to the

1996 Census of Population there are 165 cities and 4,400 villages. There appears to be no easy way to reconcile these figures. The principal ministries that intervene in local fiscal matters are the MOF, the Ministry of Planning (MOP), the Central Agency for Organization and Administration (CAOA), and the Ministry of Local Administration (MLA). Of importance to the following discussion is that "the governorates and their subunits are little more than deconcentrated branches of the GOE, and it is inappropriate to make distinctions between central and local government activities...." (Wozny, 1992, p.3). For example, each governorate's Finance Directorate is simply the local branch of the MOF and, as such, is funded directly by the MOF. This has relevance to the devolution of the agricultural land tax to the local level, to the budget process, and to any thought of decentralization.

Field interviews conducted by the APRP-RDI farm tax burden team (see APRP-RDI, 1997) in the Real Estate Tax offices of several governorates found that all agricultural land tax payments go to the MOF in Cairo. The commissioners did not know if and in what amounts they were returned to the governorate. Apparently the 25%/75% split between governorates and towns/villages under Law #43/1979 does not happen, at least not in the stipulated amounts. According to Wozny (1992, p.18), "none of these intragovernorate allocation rules has much relevance....since the governorate leadership determines the amount of spending to be allowed by each local council unit. Most of this spending is funded by lump-sum transfers from the central government to the governorates. It does not matter if a governorate fails to go through the formality of identifying a certain small percentage of a village's total spending allocation as that village's share of the land tax."

As a corollary, governorates, towns, and villages, while having some input into the annual budget development process, neither autonomously prepare their own budgets nor have any control over their size. Local budget deficits are covered by subsidies the governorates receive from the central government. This emphasizes the irrelevancy of allocating a specific revenue item between governorates, towns, and villages. Their amount is not correlated to subsequent expenditures. CAO A determines the personnel budget for each governorate, the MOP and other central government ministries allocate public investment monies, and the MOF determines current nonpersonnel spending.

Since Egypt's local government entities (governorates and subunits) are essentially local administrative units of the central government, it is not appropriate to think in terms of using taxes such as the agricultural land tax to promote decentralization. Local governments are not fiscally autonomous. Rather, their role is advisory in nature, counseling the central government agencies on local spending needs and providing a limited amount of public goods and services. The present intergovernmental fiscal system is centrally determined and administered, and it will take a political decision to make any changes. A description and analysis of intergovernmental fiscal relations in Egypt can be found in Schroeder (1991).

E. MOF's Real Estate Tax Department: Structure, Functions, and Costs

The MOF's Real Estate Tax Department (RETD) currently employs some 38,000 persons. In addition to the central administration in Cairo, there are offices in all governorates and districts and in most villages. Tax collectors are the backbone of the department, responsible for collecting the agricultural land tax, the buildings tax, and the entertainment tax. They also collect a multiplicity of fees, fines, and taxes for other public agencies, including soil improvement and agricultural protection fees for the Ministry of Agriculture; tile drainage fees for the Ministry of Public Works and Water Resources; unified tax down payments for the MOF; social security taxes for the Ministry of Social Affairs; and pilgrimage fees for the Ministry of the Interior. At the village level the tax collector is located either in the agricultural cooperative or the mayor's office. There is a tax collector (or tax master) in every village, each one responsible for 750-800 taxpayers. The educational profile of the average collector is that of a high school (intermediate level) graduate and a one-year course at the MOF's Tax Institute(s) in Cairo and in some governorates.

The main functions of the RETD nationwide are tax collection, issuance of land certificates (which are not accepted as validation or proof of land ownership), maintenance of taxpayer accounts, and issuance of birth and death certificates for those persons born before 1962. Department officials estimate that time allocated to various administrating and collecting activities break down as follows: 50% for agricultural land tax; 30% for buildings tax; and 5% for all others. In the central office in Cairo the principal tasks revolve around technical supervision, control, statistics, training, inspection, and the preparation of laws. Since 1974 noncentral office personnel in the RETD are administrative employees of the governorates, and therefore not subject to direct central control as they are in all other MOF tax departments. This apparently causes problems with discipline and control.

The buildings tax (Law #136/1981) is levied on the estimated net rental value of industrial and commercial buildings, certain residential buildings, and some furnished apartments; the tax rate for industrial and commercial buildings is a flat 10%, but for residential buildings may vary from 10% to 40%. It is an urban-oriented tax and effectively exempts most buildings in agricultural areas. This tax has been frozen until 2004.

The entertainment tax draws its legal base from Law # 22/1951 and MOF Decree #195/1986. It is a progressive rate tax (from 20% to 60%) which is applied to a broad range of entertainment activities. Its collection was transferred to the RETD in 1990. Collections are made daily, and the collection process is very labor-intensive. It employs three separate persons: a collector who makes one visit per day, a controller who actually sits at the entertainment site, and an inspector who makes unannounced spot checks on the first two persons.

All processes and operations are manual, tend to be routine and repetitive, and could greatly benefit from computerization. The MOF has approved a four-stage computerization plan that is presently somewhere in the first stage. Full implementation will take three years once LE 25-31 million in funding is available, which does not appear likely.

Tax arrears between 1992 and 1996 amounted to more than 100% of collections, but are slowly being reduced. No data were made available as to current arrears as a proportion of collections. But the penalty system is weak, and an extended appeals process simply foments greater arrears. Firestine (1992) concluded in 1992 that record keeping was outdated and inflexible, and billing was inefficient. Little appears to have changed since that time.

There are several functions and characteristics of the Department that are pertinent to its future "repositioning." Firstly, tax collectors compile lists of persons and businesses that contain taxpayer names and addresses, type of activity engaged in, and the rental value of the property (land, building) exploited. This information is shared with other MOF tax departments. At present these lists are manually maintained, and computerization would greatly enhance their value to users, not to mention as a source of information to collect other levies.

Secondly, the Income Tax Department uses RETD tax collectors to collect the portion of the unified income tax owed by sole proprietors. As relations are presently structured, the former simply sends the latter instructions as to how much and from whom to collect. The tax collector is not paid for this work and, therefore, has little incentive to do so. Advantage is not being taken of a good source of information and the incentive to do a better job. Thirdly, the RETD is overstaffed. Some may be qualified to work (after retraining) in other tax departments.

As was pointed out in the APRP-RDI (1997, Table 8, p.35), the administrative costs of major taxes collected by the Department represent an extraordinarily high percentage of their gross collections. In FY 1995/96 wages and other current expenses amounted to 41% of gross revenues; this figure excludes additional allocable costs such as fringe benefits and the opportunity costs of owning or renting public office buildings. This figure is not out of line with a 36% figure cited by Holland in reference to another study that covered FY 1986/87. Without a breakdown of the number of employees per tax and the current expenses (wage and other) allocated to each levy, it is difficult to reach more precise figures. Based on several plausible assumptions, the APRP-RDI study concluded that the collection costs of the agricultural land tax alone amounted to some 50% of gross revenues. Even if this fraction were overestimated, there is no doubt that agricultural land tax administration is highly inefficient. As cited in Holland (1990), it is estimated that in the United States and the United Kingdom collections costs fall in the range of 1-2% of revenues; from Rosengard (1998) it is estimated that in Chile and Jamaica these costs average 9% and 11% respectively of gross collections.

An insight into the labor intensive nature of the RETD's work and a glimpse at the division of responsibilities within a district office charged with tax collections can be gathered from Mohieddin (1995), who visited three district offices. Each office had 13 different sections. Tax collectors, or tax masters, collect the agricultural land tax, the buildings tax, and tile drainage dues. The tax masters comprised three-fifths of office employees. Of the total number of tax masters, 50%-60% collected the land tax, 20%-30% drainage tile fees, and the remainder the buildings tax and apparently other levies. These appeared to be local council taxes, social security, and delinquent

accounts from taxes long ago abolished. The 50%-60% figure squares well with the time allocation estimates made by central administration officials in Cairo, but the tile drainage figure is far above. This may have to do with the very small Mohieddin sample compared to a more general overview.

The law states that the taxpayer pays in person at the district offices or at the cashier at the Real Estate Tax Directorate of the governorates. Nevertheless, according to Mohieddin (1995) the tax masters work mostly in the field actually making the collections. Moreover, they are poorly paid and receive no transportation allowances. That they are poorly paid is certain. Remuneration levels (salaries plus incentive bonuses) in late 1998 were approximately LE 150 per month; other Department administrative personnel earn around LE 200 per month. One consistent complaint is that, contrary to the Income Tax Department tax masters who receive the taxpayer in their office, the Real Estate tax masters have to run after the farmers to collect. This is verified by Firestone (1992, p. 17). In the cities taxpayers generally do go to the local GOE cashier. However, in the villages "very few taxpayers willingly make payments until the cashier actually comes to them. This is not generally done until a tax bill has been outstanding for at least six months. At that point, cashiers must often make repeated visits to the delinquent citizen in order to collect the outstanding tax". This version was disputed by officials of the RETD in Cairo. They sustained that, although it is correct that tax collectors do have to seek out taxpayers, it is not really a tedious process because often the tax collector is from the same village or is a long-time resident of that village. One might argue that such familiarity could impede collections, as it is easy to "overlook" overdue accounts from friends and neighbors. Perhaps it is merely a coincidence that land tax arrearages are more than substantial—as a percentage of actual collections they reach up to 100%. Moreover, there is a 5-year statute of limitations (Law #646/1953) on land tax debts.

Under any standards the collection costs of the taxes administered by the RETD are far above acceptable. This problem is not endemic only to Egypt. Strasma *et al* (1987) document the difficulties inherent in efficiently administering this type of tax. And Bird (1974, p. 223) concludes that "the administrative constraint on effective land tax administration is so severe in most developing countries today that virtually all the more refined fiscal devices beloved of theorists can and should be discarded for that reason alone. Not only will they not be well administered; they will in all likelihood be so poorly administered as to produce neither equity, efficiency, nor revenue."

There is another facet of the administrative cost equation that tends to be overlooked. In FY 1995/96 the land tax generated LE 138 million in gross revenue; the land, building, and entertainment taxes together generated LE 233 million. Assuming that costs amounted to 40% of this total, this means that, from the three taxes, only LE 140 million remained in government coffers to finance public expenditures. And from the land tax alone a mere LE 83 million remained; LE 83 million amounted to 0.2% of central government tax revenues in FY 1995/96.

It can be argued that administrative costs are a large proportion of revenues collected because the denominator is low. In this view, a doubling or tripling of the denominator could sharply reduce the proportion. Arithmetically, of course, this is

valid. Either the tax base or the tax rate (or both) can be raised (ignoring the political consequences), but this will not solve the underlying problem. The overall system is deficient. This has implications far beyond mere rate and/or base adjustments, and is taken up in the following subsection (II.F).

Also usually overlooked in any discussion about the administrative costs of taxation are the compliance costs from the point of view of the taxpayer. Compliance costs are generally some multiple of administrative costs, at least in those normal instances where administrative costs are less than double digits (as a proportion of gross revenues); see Sandford (1994). The direct compliance costs of paying the land tax are not clear. There is certainly some cost involved. In Section II.C it was pointed out that the compliance costs (monetary and implicit) of registering a land sale transaction have significantly deterred legal and proper land registration. What little work that has been done for the Egyptian case regarding the compliance costs of taxation has focused on the more important taxes (income and sales). The conclusion was that they are seen by the private sector as significant obstacles to doing business. Especially singled out were the arbitrariness and discretionary nature of MOF procedures and decisions (Tohamy, 1998).

F. Property Tax Reform

There are only two major property taxes in Egypt's public revenue system: that on agricultural land and that on buildings. At present the more important of the two is the former, although it was not possible to substantiate this statement using data from recent tax collections because the MOF was reluctant to provide the data. Both taxes are collected by the MOF's RETD together with the entertainment tax, but the latter is not a form of property taxation. The subsequent comments are generally directed toward the agricultural land tax, but are also of relevance to the vastly underused buildings tax.

The present system of property taxation in Egypt is seriously deficient in almost every aspect. Many of these deficiencies have already been pointed out. They range from the first step in the system, the tax base valuation function, all the way through and including the key administrative processes of property registration, taxpayer identification, record keeping, and collection. One consequence is that the real (inflation-adjusted) values of property tax revenues fall, not only because the base is revalued every 10 years (not taking into account the freeze on the land tax through the year 2003), but also due to administrative inefficiencies.

There is no point in adopting a band-aid approach to property tax ailments. It would only create distortions elsewhere in the system. If there is not a complete top-to-bottom overhaul, it should be abolished. Firestine (1992, pp. 37-41) presented a series of recommendations for property tax reform that remain valid today. The following 11 points summarize these recommendations:

1. Develop coordination between the MOF and the Ministry of Justice to stimulate expanded and improved land ownership registration; reduce

- property registration fees and transfer taxes; streamline registration procedures and reduce documentation requirements.
- 2. Review the present state of tax map quality to determine what is needed to obtain more accurate and up-to-date cadastral maps.
- 3. Consolidate existing property tax legislation into a single law.
- 4. Develop computer-based procedures to reduce local bias and undue variation in the valuation procedure.
- 5. Fully automate all real estate tax billing and collection procedures.
- 6. Redesign, test, and introduce new basic documentary records regarding properties to take advantage of available computer technology.
- 7. Fully survey and revalue property every five years.
- 8. Substantially revise operating procedures at all levels.
- 9. Train personnel in new procedures and formats.
- 10. Carry out the specification, procurement, and installation of appropriate computer equipment.
- 11. Initiate the reform process in one or two pilot governorates

Holland (1990) presented a less comprehensive set of property tax reform recommendations which also emphasized some of the above points: a computerized property record system and a computer-assisted mass appraisal capability allowing property to be valued and assessed by formula. This would leave the Division and Estimation Committees the reduced task of valuing only the hard-to-assess parcels. Holland cites a 1986 study done for USAID/Egypt by ISTI (International Science and Technology Institute). ("Towards Local Resource Mobilization: Applied Demonstration Project for Improving Revenue Collection for the Property Tax in the City of Giza"). This study concluded that by installing computerized capacity, benefits would exceed costs by some six times within two to three years.

The 1997 implementation of the new tenancy law (Law #96/1992), which abolished land rent controls as of October 1, 1997, means that land rental prices are now market-determined. Since the agricultural land tax itself has been frozen through year 2003, there is no hurry to revalue the tax base (the net rental value of land) if this base is to be retained for the purposes of levying both the agricultural land tax and the unified income tax on agricultural revenues (see Section IV for a discussion of this latter tax). The freezing of the tax and, in effect, the tax base, does mean that the direct taxation of Egyptian agriculture is being placed on hold for another five years. The relative taxation of the sector will continue to decline during this period, implying that agriculture, which was overtaxed prior to the 1990s during the era of inward-looking economic policy, will now be increasingly undertaxed, not paying its "fair share" toward the country's economic development.

In view of the tax freeze, this is a very appropriate moment to open a discussion regarding the future of both forms of taxing the agricultural sector (land and income taxation).

Here are seven of the most important issues that spring to mind:

1. Since the 1930s, the tax base, the net rental value of land, has been determined by Division and Estimation Committees. Is their work effective? Is there some nationwide uniformity to their net rental value estimations? Are they still needed?

Is the weighted formula they use to do the estimates appropriate for present conditions?

2. Historically, the net rental value of land tax base has been adjusted only every ten years. Under previous conditions of price controls on outputs and inputs this might have been partially justified, but under market mechanisms such adjustments should take place either annually or periodically. A mechanism (automatic or not) must be put in place to make such adjustments, for the Committees cannot undertake the prolonged estimation process on an annual basis. Such a long-term and completely inelastic tax base should not be part of a modern tax system.
3. Land rents are now market-determined. The net rental value of land represents a perfectly acceptable base for taxing the annual income derived from land tenancy. The problem lies in its determination. In 21st century Egypt, should the historical system of Division and Estimation Committee-based rental value determination be maintained, or is there another and better way? What should constitute the future tax base for agricultural land and income taxation?
4. No matter which tax base is chosen, work should soon begin on analyzing alternatives. Given that the taxation of agriculture via both the land and income taxes is frozen until the year 2003, it is not too soon to initiate discussions of such alternatives. Certainly, one alternative is to maintain the present system. If so, the Committees should begin their work by not simply employing the old methodology but by analyzing the old and incorporating modifications where appropriate.
5. If the current assessment methodology is maintained and updated, net rental values become operative by FY 2004/05. Simple math leads to the conclusion that, if the tax rate is kept at 14%, in the first year after revaluation land tax revenues will be some 2-3 times higher than they were in the mid-1990s. Net land tax revenues (gross revenue less collection costs) comprised 0.2% of total central government revenues in the mid-1990s, and with the tax freeze this figure will have dropped to the neighborhood of 0.1% by the year 2003. This does not mean that by FY 2004/05 net land tax revenues will amount to 0.3% of total tax revenues because, in the meantime, other more elastic tax revenue sources will also have increased. Thus, under a more realistic scenario, by FY 2004/05 net land tax revenues will again constitute a mere 0.2% or less of Egypt's tax revenues.
6. There are three basic future options regarding property cum agricultural land taxation: maintain but revise and update the present system; carry out a complete reform of the system; or abolish the present system and use other forms of direct taxation to capture income generated in the agricultural sector. Revision of the present system would be less costly than complete reform and brings the benefit of familiarity. Complete reform implies a top-to-bottom shakeup of the RETD along the lines recommended by Firestone, paying special attention to the crucial areas of computerization, record keeping and management, collection, and, most importantly, a complete fiscal cadastre. This means an updated official record of the location, area, and the boundaries of the land, the proper registration of landowners, and a new assessment. Transition costs will be high, especially if the transition involves adopting aerial-based cadastral mapping for the purposes of national standardization. The surveys done by the Egyptian Survey Authority (see Section II.C) may be very useful, but this calls for further investigation. The use of land sales value sampling would be suspect, given the registration problem and the

relative lack of a track record of transactions under market-determined demand and supply conditions. Elimination of the agricultural land tax might be visualized as the easy way out, but would raise other issues such as how to effectively tax the agricultural sector, how to replace the (little) revenue lost to the government, and what to do with those RETD employees who would no longer be dealing with the tax. The immediate answer to the first two queries is more effective use of the unified income tax (see Section IV); a preliminary attempt to respond to the latter is found in Section VI.

G. Effect on Investment

The relationship between changes in any tax and the resulting private sector investment decisions is difficult to isolate simply because, in the real world, a multiplicity of factors usually impinges upon the decision to invest. Theoretically, all taxes generate both substitution and income effects. Under the substitution effect, a rise in land (or property) taxation by decreasing the return to land would lead to less investment in land and land improvements. On the other hand, via the income effect this same decrease in returns would lead to greater investment in an attempt to recoup the tax losses. However, if all factor and product markets are perfectly competitive, if the supply of land is completely inelastic, and if landowners are operating at their profit-maximizing position, there will be no impact on production and investment incentives. But this is not the real world.

Bahl and Linn (1992, Chapter 6) present the results of numerous empirical studies with respect to the long-term impact on investment (and other variables) of different policy instruments associated with property taxation. Many policy instrument-impact relationships are inconclusive, and where reasonably conclusive do not connote transferability between countries and jurisdictions. Thus, there is probably little here of relevance to the Egyptian case.

Given the very low level of taxation imposed by the agricultural land tax in Egypt, there is most likely little or no impact on the investment decision in land and improvements to the quality of that land. The same conclusion is probably valid regarding the relationship between the investment in land and the imposition of the unified income tax on incomes derived from agriculture across the lower and middle ranges of taxable income. Since the unified income tax is levied at progressive rates (see Section IV), it might possibly have some adverse impact on investment decisions. The corporate income tax also reaches income derived from the agricultural sector by incorporated firms (see Section III). Since this tax is imposed at flat rates above a net profit level of LE 18,000, the issue of progressive rates is not pertinent. However, the level of the present rates (40% plus a 2% development duty) is relatively high and may somewhat impinge upon investment decisions. However, corporate tax holidays abound and most likely ameliorate these effects.

There does exist indirect evidence that in Egypt the income effect may be predominant. Field interviews undertaken by RDI Unit staff and consultants to several governorates in October and November of 1998 to gauge various impacts of land rent control elimination concluded that tenants now have added incentives to invest in land

improvements such as increased fertilizer use, adoption of higher-yield seeds) to increase their returns to cover higher rental and input costs. Admittedly, it might be somewhat of a stretch to equate land rental changes to tax changes, but it may offer some indication of the potential property tax-investment nexus.

H. Future of the Agricultural Land Tax: Is It Worth Maintaining?

There are numerous arguments both in favor of and against maintaining the agricultural land tax. What follows is a summary of the arguments already covered in Sections II.A-F.

1. Reasons for Maintaining the Tax

- At least conceptually, the land tax, if unshiftable, can treat landowners in similar circumstances equally (horizontal equity) and landowners in dissimilar circumstances unequally (vertical equity). The (incomplete) empirical evidence presented above describes a land tax pattern that, although tracing a regressive-progressive-regressive effective rate path, represents a very minimal tax burden on the average farmer.
- Agricultural land taxation represents a method of wealth taxation, one of the three general tax bases available to all governments (income and expenditure are the others). Wealth taxation is extremely underused in the Egyptian tax structure, and land is a repository of wealth. Therefore, it should be taxed as it is under the land tax.
- The agricultural sector is a hard-to-tax sector, and income generated in this sector is generally hard to identify and tax via income taxation. Thus, a well-designed and implemented land tax can be more effective than an income tax as a means of taxing this sector of the economy; i.e., the land tax net might capture those who escape the income tax net.
- All taxes produce often undesired effects on optimal resource allocation. Relative to most other taxes, these negative impacts are minimal under a land tax.
- It is a historic and traditional form of taxation to which land holders are accustomed. The flip side is that knowledge of the levy leads taxpayers to develop evasion and avoidance mechanisms.
- RETD personnel also collect other taxes/fees and provide information valuable in identifying taxpayers who have other types of tax debts.

2. Reasons for Abolishing the Tax

- The net revenue yield is so low that it hardly makes a dent in government revenues: in FY 1995/96 it generated 0.2% of central government tax revenues

and 0.1% of central government total revenue. These percentages will continue to decline until at least FY 2004/05.

- The present system of tax administration is thoroughly deficient, from very low assessment ratios to the absence of computerized systems of record keeping and management, correct taxpayer registration, and collection procedures. The cost of complete reform is significant and may not justify itself vis-à-vis future revenue yields.
- Since net rental values are based on assessments made between 1986 and 1988, those landholdings that have risen in value faster than the average will be relatively undertaxed. New property, if taxed, will be overtaxed.
- No two land parcels are identical, so that even the most diligent Division and Estimation Committee ultimately fails to generate equity in taxation even at the local level. It follows that differences between Committee jurisdictions (i.e., nationally) will be wider. In fact, data show that the average land tax assessed per feddan varies widely by governorates, which is indicative of both overtaxation and undertaxation.
- Assuming that its payment represents a burden for lower income farmers, the fact that it has been fixed in amount since 1989 (through 2003) while income from crops varies may be unjust.
- Its real (inflation-adjusted) yield has declined significantly over time—see Table 3. This amounted to a 33% drop between FY 1990/91 and FY 1995/96. This is due to a low initial assessment ratio (ratio between assessed value and market value), inefficient administration, and a 10-year (now 15) revaluation interval.
- It generates high collection and compliance costs.
- Delinquent accounts (arrears) may amount to up to 100% of collections; without more efficient administration and follow-up, most will not be recovered. This is partially due to a weak enforcement system (penalties, interest charged).
- Given the low burden of the tax, the question of its regressivity or progressivity is a nonissue. What matters is the structure of the entire tax system, in which the land tax is a very unimportant cog. But what really matters is the income redistributive impact of the fiscal system (taxes and public expenditures).
- Lowering the collection cost to total revenue ratio by doubling (tripling) the denominator via tax base or tax rate hikes is a completely misdirected solution. For one thing, its fiscal impact would not be felt until FY 2004/05, and it will probably create a great deal of disaffection among farmers. But the basic reason for not doing so is the existence of widespread and profound administrative deficiencies throughout the system of property taxation. Without the political and monetary commitment to thoroughly modernize the system, it is not even worth trying.

III. TAXATION OF AGRICULTURAL INCOME VIA THE CORPORATION INCOME TAX (CIT)

According to the 1990 Agricultural Census, a mere 4.3% of the total area under cultivation in Egypt was in corporate hands. Given the reform and liberalization measures that have been put into effect over the past decade, this figure may be significantly higher both presently and in the future. Therefore, the issue of taxing income generated in the agricultural corporate sector (via the corporate income tax) will take on heightened importance as corporations become increasingly active in agriculture either via land purchases or land rentals.

The corporate income tax (CIT) is an annual levy on the accrued net taxable profits of domestic (and foreign) corporations, which include public sector enterprises, joint stock companies, and limited partnerships by shares (see Law #157/1981 as amended by #187/1993). Taxable profits include realized nonreinvested capital gains and 10% of income from moveable capital. Allowable deductions cover all normal business expenses, including actual rent or estimated rental value of premises. Losses can be carried forward for five years, and there is no inflation adjustment.

Tax rates discriminate between exporters and manufacturers on the one hand and corporations in all other sectors. For the former tax rates are 34% (32% plus a development duty of 2% on annual net profits above LE 18,000); the latter are subject to a 42% rate (40% base rate plus the 2% development duty). These rates are relatively high compared to other countries in the region. For example, corporate tax rates (Ernst & Young, 1998) are 25% in Cyprus, 35% in Greece, 36% in Israel, 25 % in Jordan, 10% in Lebanon, 35% in Malta, 35% in Morocco, 25%-45% in Saudi Arabia, 25%-40% in the Seychelles, 26% in Singapore, 35% in Tunisia, and 25% in Turkey. Tax holidays significantly erode the tax base: 10 years for projects located in New Urban Communities (Law #59/1979), indefinite periods for investments in free zones (Law #230/1989), 5-15 years for investments outside free zones in designated sectors (e.g., tourism), and 5 years for corporations employing 50 or more workers (Law #187/1993). A better way of dealing with the tax base erosion brought about by tax holidays is to replace it with a system of partial expensing and investment tax credits. This should be preceded by a cost-benefit analysis of all tax holidays.

Any tax is only as good as the ability to collect it. Therefore, the question of the administrative efficiency of the CIT is very pertinent. In other words, what is the feasibility of tapping into the income generated by corporations which operate in the agricultural sector by application of the CIT? What is the present status of tax administration vis-à-vis the collection of tax obligations?

In general, the CIT is complex and in need of simplification. The numerous (and discriminatory) tax rates and special provisions, the many exemptions, the appeals process, and the sometimes lack of clarity in the tax code and regulations render it difficult to administer and to comply with. This implies that it is difficult to both assess and collect tax liabilities (see Barents, 1997).

A tax administration system must first identify potential taxpayers. There does exist a computerized taxpayer masterfile which is updated monthly, and each taxpayer (corporate and individual) has a unique identification number. The masterfile contains such information as the taxpayer name and address, tax registration number, type of legal entity, and the names of partners and their registration number (if any). There are apparently personal computers in all 210 MOF district offices. Two multiprocessors are connected with the six branches that function as serving centers for technical support to the district offices. However, all this is of little benefit until basic information regarding each corporate taxpayer (actual and potential) is recorded. And for this to happen, these firms must be either directly identified or identified via the use of third-party information. Nonfilers are identified using records from electric and communications authorities, professional unions, police records for furnished units, and block or neighborhood sweeps. Under the law there exist strong penalties (fines and imprisonment) for failure to register, and these laws also apply to third parties (e.g., other firms, landlords) who are legally required to provide information. However, sanction enforcement is meek and inconsistent, and there exists the very distinct probability that a considerable number of firms avoid registration. Difficulties continue even after the firm appears on the tax rolls. Many do not file returns, and a far greater number underreport net taxable income via income understatement and/or expense overstatement.

One problem is that income underreporting is apparently not considered fraudulent. Furthermore, if questioned the taxpayer can prolong the appeals process, during which time the initial tax liability cannot be increased. The appeal first goes to the MOF's Internal Review Committees and if not resolved at this level is passed to the Appeals Committee. These cases generally arise due to the failure of the tax auditors to generate an acceptable figure for taxable income and the tax obligation.

This, in turn, leads to another deficiency—the practice of auditing 100% of tax returns. Such a practice, almost by definition, implies that tax return audits will be inadequate, as there is not enough time to devote to auditing those returns that truly merit a complete or more thorough audit. This points out the absence of a true audit program, which, using preselected criteria, is able to red flag only those tax returns which might have serious problems. Under current practice, the responsibility for generating an adequate and reasonable taxable income figure has been defaulted to the aforementioned Committees. Audit selection must become more selective.

IV. TAXATION OF AGRICULTURAL INCOME VIA THE UNIFIED INCOME TAX

The Unified Tax on Income of Natural Persons (Laws #157/1981 and #187/93 and amendments 90/1996, 226/1996, 162/1997, and 5/1998), hereafter called the Unified Income Tax (UIT), is levied on five categories of noncorporate income (Middle East Library, 1998): wages and salaries; moveable capital (interest income and foreign dividends); noncommercial professions; net profits of all operations carried out by commercial and industrial entities whose owners are sole proprietorships, sole and general partnerships, and simple limited partnerships; and agricultural land and buildings (revenues of real estate wealth). Persons engaged

solely in agricultural production would be taxed under the latter category, while individuals engaged in the selling of agricultural inputs and/or the marketing of agricultural products would be taxed as commercial entities. With respect to commercial and industrial activities, all costs are generally deductible, including social insurance contributions, normal depreciation, and additional depreciation for new capital goods. For nonagricultural enterprises in which no books are maintained, gross income is estimated using indicators and guidelines issued by the MOF; costs are estimated at 25% of the gross figure and are deducted to arrive at the taxable income base.

Tax rates are progressive, ranging from 20% on taxable income (net profits) not exceeding LE 2500 to 40% on taxable income over LE 16,000. An additional development duty of 2% is applied to the tax base above LE 18,000, thereby transforming the tax rate range to 20%-42%. Special treatment is accorded exporters and manufacturers; for net profits in excess of LE 8000, only 80% of manufacturing profits and 70% of export profits are included in the tax base.

As noted, net income generated from the exploitation of agricultural lands (and buildings) is taxed under the UIT (see Revenues of Real Estate Wealth, Part 5, Articles 81-87). Thus, most farmers and farm income (i.e., landholders and tenants), if taxed at all under an income tax regime, would be reached via this component of the UIT. The tax base is the same base as that used for agricultural land tax: the estimated annual rental value as defined by Law #113/1939. According to the MOF this value is equal to (estimated return by type of crop) multiplied by the (number of feddan under cultivation). A presumptive 20% for production costs is then deducted along with the agricultural land tax obligation; if records are available this deduction may exceed 20%. For landholders (as opposed to tenants), revenues are set at twice the rental value. The tax is collected in conjunction with the agricultural land tax.

That the tax base for taxing income derived from agricultural pursuits is the same as the tax base for the agricultural land tax is significant, especially from a revenue yield perspective. This base will not be changed before 2003, but with the lifting of land rental controls the base has probably risen by a multiple of two to three. This severely proscribes using the UIT to go after agricultural sector incomes. And there appears to be little flexibility here. The obvious but legally and politically difficult ways to better access such incomes are either to change the law and/or carry out rental value reassessments before the year 2003. These reassessments might then be applied only to the UIT tax base, thereby leaving the agricultural land tax frozen through the year 2003.

In addition to offering personal exemptions varying from LE 2000 for single taxpayers to LE 3000 for married taxpayers with children, small agricultural sector proprietors receive significant exemptions. Farmers with three feddan or less of land and no other income sources are totally exempt from the UIT (as they are from the agricultural land tax); this exemption applies to farmers with less than one feddan of land if they cultivate ornamental and medicinal plants (orchard land). Farm income from nurseries of all horticultural crops is not exempt unless the nursery is for personal use. Areas planted in desert (reclaimed or new) lands are exempt for 10 years subsequent to the land becoming "productive." No matter how generous these

exemptions might appear to be, the taxpayer must apply annually to qualify for said exemptions. This means that the caveats previously set forth in Section II.C regarding the de facto use of these exemptions are applicable.

Field studies and interviews on agricultural taxation reported in APRP-RDI Unit (1997) found that very few farmers appear to pay taxes under the UIT; for example, in the Miniya II Tax District a mere 12 of 16,000 UIT files represent farmers. This occurs despite estimates that average net returns per feddan under normal crop rotations would generate a tax obligation for most farms cultivating over two feddan (discounting the legal exemption for farmers with three feddan or less and no other income sources); for example, see APRP-RDI Unit (1997) and Selzer (1998). It is apparently MOF Income Tax Department practice to de facto extend exemption to those who cultivate less than 10 feddan. According to the 1990 Agricultural Census, such practice effectively removes over 96% of individual landholders (this excludes corporations and cooperatives) and just under 70% of (old) land area under cultivation (including corporations and cooperatives) from the UIT base. Nevertheless, even in 1990 this meant that some 93,000 individual landholders owned 10 feddan or more of farmland. The above certainly implies that the UIT as it impacts the agricultural sector is a highly progressive levy. What inequities do occur would most likely transpire within the upper 5%-10% of farm sector incomes.

According to interviews at the MOF's Income Tax Department, there are approximately 5,000,000 UIT taxpayers on the rolls under the five categories of income. Of this total some 5%, or 250,000 taxpayers, derive income from the agricultural sector. There is only one file used for each taxpayer for all taxes, and each taxpayer has a unique Tax Administration Number (TAN); see Section I.D. As noted above, a married taxpayer receives a personal exemption of LE 3,000. When this is taken into account along with the (presumptive) 20% cost deduction from the low and unadjusted 1989 tax base, what was observed in the field interviews appears logical. In effect, farmers who grow traditional crops on 8 to 10 feddan of land become legally exempt from the UIT.

From a tax administration viewpoint and given the newness of the UIT (in effect since January, 1994), the de jure and/or de facto exemption of small farmers is reasonable. Their incomes are not readily quantifiable, they are illiterate, and they are geographically dispersed. Nevertheless, the MOF via joint efforts between the Income Tax and Real Estate Tax Departments should make serious efforts to slowly bring those who have net taxable incomes above the legally exempt limit into the tax net using some types of presumptive methods. That such methods are apparently being employed for the UIT in urban areas is a positive sign.

All the issues of tax administration efficiency pertinent to the CIT (Section III) are at least as equally applicable to the UIT. Despite the marked improvement over the schedular income taxation existent prior to the 1993 reforms, the UIT remains in need of across-the-board simplification (from tax code to tax forms) and improved identification and collection procedures. For example, the top marginal rate of 42% (40% plus 2% development levy) is high, and comes into play at a relatively low level of taxable income. Income redistribution via the tax system is not good policy; the expenditure side of the public budget offers a more effective means of achieving such

objectives. Sanctions are weak and/or not applied, the auditing of 100% of returns represents a poor allocation of scarce resources, and presumptive methods of taxing agricultural incomes must be beefed up if there is any hope of making significant progress in levying reasonably equitable taxes on Egypt's farm sector.

The identification and taxation of noncorporate firms and individuals in metropolitan areas should not present overwhelming difficulties. It is more difficult to find and properly tax small noncorporate groups that operate in the rural agricultural sector. But with a certain level of effort, there is little excuse for not finding such firms, for they do have a physical presence or facility—and they are well known to the MOF's Real Estate Tax Department due to the collection of the land tax. If their revenues and net income are suspect, even when they maintain records, they can be taxed using presumptive methods. Egypt already has experience with the presumptive taxation of agricultural land. In the case of small agricultural enterprises, some presumptive indicators might be the number of employees, an estimated output volume, the value or amount of machinery, the updated net rental value of the land, etc. Such norms are not easy to design and implement, but they do represent one way of taxing a hard-to-tax sector. According to Murray (1990), nonregistration is not nearly as serious a problem as are nonfiling, underreporting, and tax delinquency.

The Income Tax Department's 41,600 employees collect individual and corporate income taxes and all the assorted stamp duties. This means that in 1995/96, under these three levies, LE 16,781 million were collected, but the bulk (72%) was attributable to corporate taxes. Another 18% derived from stamp duties, leaving only 10% (LE 1,558 million) linked to taxes on individuals. These latter levies were derived from the UIT, which can be further broken down into taxes on wages and salaries, on interest and foreign dividends, and net incomes from professions and sole proprietorships. Unfortunately, data to further disaggregate UIT collections are not available. Taxes on both wages and salaries and interest income are withheld at the source.

According to a rough approximation made by Department authorities, some 95% of the Department's employees work with the UIT. Given the large variety of stamp taxes and the numerous tax-paying corporations, it is difficult to accept this figure. 95% of employees may deal with the UIT levies, but probably all of these personnel do not deal with the UIT on a full-time basis. Acceptance of the 95% means that 39,520 employees work at UIT administration with collections amounting to LE 39,423 per employee. Even though this average tax collection figure is most likely an underestimate, it does compare favorably with the LE 6,132 per employee collected by the Real Estate Tax Department during the same fiscal year.

Thus, although the absolute magnitude of the difference between per employee tax collections in the Income and Real Estate Tax departments must not be taken as an irrefutable measure of employee efficiency, the gap is so enormous that, in addition to reflecting tax structure and broader tax bases, it most likely also has significant implications vis-à-vis employee efficiency. At present, property tax collection processes are highly labor intensive and not computerized. In fact, given historical precedence and practice, it is difficult to visualize abrupt modification of the way the agricultural land tax is collected, implying that even computerization of processes may

not significantly improve collection efficiency unless other parallel reforms are adopted.

V. AGRICULTURAL LAND TAXATION SYSTEMS IN OTHER COUNTRIES

Most countries around the world use some form of agricultural land taxation. Historically, land taxation generated a substantial proportion of both central and local government tax revenues. For example, in Egypt close to a quarter of central government tax revenue was derived from land taxes as late as the early 1940s; the corresponding figure for India was 16% in 1938, 55% for Nepal in the late 1940s, and 12% for Paraguay in the early 1950s. Nevertheless, by the early 1990s almost no central government in the world derived more than a small fraction of its tax and total revenue from agricultural land taxation. Land taxation does remain an important source of local government tax revenue, especially in countries with a federal system of government. However, neither agricultural land nor land by itself (agricultural, rural, urban) are the only elements in most modern property tax bases. Rather, the base is a mixture of the pure site value of land, improvements to the land, and structures (commercial and industrial buildings and residences). It is not therefore easy to empirically separate the pure land (agricultural and nonagricultural) value from the overall property tax base.

In the United States close to 14% of all government revenues are provided by property taxes (real and personal), but the tax base is neither land by itself nor even totally real (immovable) property. Japan, which initiated its economic transformation in the 19th century on a foundation of land value taxation, today derives some 5%-7% of all government revenue from property taxation (not exclusively land, nor agricultural land). The declining importance of land taxation has numerous causes. The principal ones are the administrative difficulties associated with land taxation, the relative ease of gathering taxes from other types of tax bases, and the declining value of land as a percentage of GDP as economic growth proceeds apace.

The “demise” of property taxation is exaggerated because its use as a public budget financing source is usually approached from the perspective of national/central government finances. This is in part due to the fact that many public finance researchers use the internationally comparable and consistent data series presented in the IMF’s annual Government Finance Statistics Yearbook. The focus of these data are the central governments of IMF member countries, and often the finances of the local government units (states, provinces, metropolitan areas, cities, and towns) are excluded from the database. Property taxes in many urban and local government entities continue to represent significant public revenue sources. Even in the examples which are subsequently presented, the level of aggregation remains such that the importance of property taxation for cities and towns may be understated.

The property tax examples which follow represent a selection taken from Andelson (1997), Rosengard (1998), and Youngman & Malme. In all cases (with the exception of Jamaica) the taxed properties are both land (agricultural and nonagricultural), improvements to land, and buildings. Where it is stated that the tax

rate is determined by the budget, this means that the nominal rate is adjusted annually as part of the budget process; i.e., according to projected spending needs.

1. AUSTRALIA:

Tax Base: Market value

Tax Rate: Budget

Assessment Ratio: NA

Yield as % All Government Revenue: 5%

Yield as % Local Government Revenue: 41%-57% (by state)

Yield as % GDP: 1.6%

2. CHILE:

Tax Base: Average market prices for highest potential use

Tax Rate: 2%

Assessment Ratio: 80% of market value

Yield as % All Government Revenue: 4%

Yield as % Local Government Revenue: 23%

Yield as % GDP: 1%

3. EGYPT:

Tax Base: Estimated net rental value of land and buildings

Tax Rate: Land:14% plus 15% of tax; buildings:10%-40%

Assessment Ratio: Not defined; small % of market value

Yield as % All Government Revenue: 0.3%

Yield as % Local Government Revenue: 8.2% (land and buildings)

Yield as % GDP: <0.1%

4. JAMAICA:

Tax Base: Market value of unimproved land (site value)

Tax Rate: J\$5 flat for first J\$6,000; then 1%-3%

Assessment Ratio: 100%

Yield as % All Government Revenue: 1%

Yield as % Local Government Revenue: NA (revenues go to central fund)

Yield as % GDP: 0.2%

5. INDONESIA:

Tax Base: Market value

Tax Rate: 0.5%

Assessment Ratio: 20%-100%

Yield as % All Government Revenue: 2.0%

Yield as % Local Government Revenue: 2%-10% (by region or province)

Yield as % GDP: 0.4%

6. JAPAN:

Tax Base: Market value

Tax Rate: 1.4%-2.1%

Assessment Ratio: 36%-70%

Yield as % All Government Revenue: 6%

Yield as % Local Government Revenue: 18%

Yield as % GDP: 2%

7. PHILIPPINES:

Tax Base: Market value

Tax Rate: 0.5%-2.0% plus 1.0% education fund

Assessment Ratio: 15%-80% depending on use and value

Yield as % All Government Revenue: 2%

Yield as % Local Government Revenue: 26%

Yield as % GDP: 0.4%

8. SOUTH KOREA:

Tax Base: Market value

Tax Rate: 0.3%-5%

Assessment Ratio: 30%

Yield as % All Government Revenue: 1.8%

Yield as % Local Government Revenue: 1%-10% (by county)

Yield as % GDP: 0.6%

9. UNITED KINGDOM

Tax Base: Market and/or rental value

Tax Rate: Fixed

Assessment Ratio: Variable

Yield as % All Government Revenue: NA

Yield as % Local Government Revenue: NA

Yield as % GDP: NA

10. UNITED STATES

Tax Base: Market value

Tax Rate: Budget

Assessment Ratio: Variable by state and local government

Yield as % All Government Revenue: 14%

Yield as % Local Government Revenue: 26% U.S. average; varies by state and county

Yield as % GDP: 4%

From the preceding overview of property taxation in selected countries, several phenomena are evident. As a national-level revenue source, property taxation is not very significant. On the other hand, for local governments it can constitute an important income source. With respect to Egypt, property taxation is very much underused even though the nominal tax rate is high. This is a reflection of a very limited and underassessed tax base and administrative deficiencies.

VI. CONCLUSIONS AND RECOMMENDATIONS

The taxation of Egypt's agricultural sector has drastically evolved over the past four decades. From the 1950s until the early 1990s it was heavily and implicitly taxed via an overvalued exchange rate, the use of export taxes, and the local currency differentials between the government-established buying and selling prices for principal export crops. Today the sector is subject to revenue-insignificant land and income taxation. The net collections from the agricultural land tax amounted to a miniscule 0.2% of total tax revenues in FY 1995/96. Although the figures are not directly available, revenues from the taxation of agricultural incomes via the Unified Income Tax (UIT) probably did not amount to a higher proportion. What is more, the base of these two forms of taxation has been frozen at least until the year 2003, so that by FY 2003/04 this percentage will be substantially below the FY 1995/96 level.

The agricultural land tax as presently constituted is deficient in almost every aspect: revenue generation, vertical and horizontal equity, and administration. The current status of the taxation of income derived from agricultural activities via the corporate and unified income taxes is not much better off, but shows promise given recent changes in the Income Tax Department's systems and procedures.

There are three options to select from regarding the future of agricultural taxation in Egypt: (1) Leave the system alone and update the tax base periodically as has been done since the 1930s; (2) Carry out a total reform of the property tax system, including agricultural and urban lands and buildings; (3) Abolish the agricultural land tax and intensify efforts to tax agricultural incomes under the corporate and unified taxes. The implications of choosing each option are discussed below.

Option 1: *Continue the Present System*

In terms of immediate effort, this represents the easiest solution. On the positive side, landholders and MOF bureaucrats are accustomed to the agricultural land tax and, increasingly, to use of the UIT to tax the agricultural sector. Although the revenue-generation capacity is very limited, the RETD's employees do serve the tax/fee collection needs of other ministries, including the Income Tax Department of the MOF (see Section II.E).

On the negative side, the agricultural land tax is a very expensive levy: its collection cost approximates half of its gross collections; its gross and net revenue impact on government total and tax revenues is close to negligible and will change very little after net rental value re-estimation is implemented after the year 2003; the net rental value estimation process carried out by the Division and Estimation Committees is lengthy (2-3 years) and therefore costly in terms of time and other opportunity costs; it is administratively deficient partially due to lack of computerization, which in itself implies a future expenditure of millions of pounds; reform of procedures and processes will not convert the tax into a large revenue generator, for to do so would require a very significant upward revaluation and expansion of the tax base.

In sum, from a purely public finance viewpoint the agricultural land tax is not worth maintaining as presently structured. This leads to the second option.

Option 2: *Reform the Overall Property Tax System*

As discussed in Section V, most (if not all) governments around the world use some form of property taxation, especially as a financing source for governmental levels below the central government. Such taxation generally impacts both land and structures in rural and urban areas. Egypt's property tax system consists of the agricultural land tax and an urban-biased buildings tax on commercial and (nonluxury) residential properties. Both are vastly underused and administratively deficient.

Any serious reform of property taxation in Egypt would have to draw far more real property (buildings) into the tax net together with rural and urban land. Such reform would consume both time and resource. Although coverage of all Egypt could easily take ten years or more of effort, a concentrated focus on one or two major (pilot) governorates could feasibly be achieved in two to three years by selecting a governorate (or region or area) already well mapped by the Egyptian Survey Authority. Such an effort would require proceeding along the lines previously outlined in Section II.F.

Option 3: *Abolish the Agricultural Land Tax and the Taxation of the Agricultural Sector via the Income Tax System*

Abolishment of the agricultural land tax is certainly feasible and, given the frequently enumerated deficiencies of the present system, justifiable and commendable. If such a measure were to be carried out Egypt might get the jump on Pakistan which, under a 1997 ESAF and EFF program negotiated with the IMF, committed itself to complete a study on moving from an agricultural land-based tax to an agricultural income tax early in the 21st century (see Khan and Khan, 1998). The Egyptian case does raise three important issues that are addressed below.

1. **RETD Employees.** The RETD presently employs some 38,000 persons who administer and collect a large variety of taxes and fees: the buildings and entertainment taxes for the RETD and fees, fines, and taxes for other ministries and public agencies (see Section II.E). They also play a role in collecting the UIT on agricultural income. At most only half the total number of employees are directly associated with the land tax. Thus, even after abolishment of the land tax approximately half of RETD personnel will retain work responsibilities.

These are very crude estimates. To determine exactly how many RETD employees would remain without work if land tax were abolished would require a time and task allocation analysis within the RETD. An especially important component of this analysis would be the determination of how RETD personnel and activities are tied to the information and tax collecting activities of all other public agencies to which they are presently linked.

After determining which employees are redundant (only in terms of activities carried out by the RETD), it would be necessary to generate a profile for each one that does not accept a retirement package. Among the variables that should be contained in the profile are age, educational background, qualifications, and work experience. This profile would then be used to offer employment in an Agricultural Income Tax Section of an expanded Income Tax Department. Others would have the option of selecting from several retirement packages.

2. The Taxation of Agricultural Income. Abolition of the agricultural land tax must not mean that middle- to upper-income farmers escape the tax net. Quite the contrary. Agriculture is an economically important sector and should pay its fair share of taxes. Elimination of the land tax means that agriculture must be taxed under income tax regimes, corporate or personal. This is more easily said than done and is dependent upon the tax administration efficiency of the MOF's Income Tax Department. As was pointed out in Sections III and IV, although much progress was made in the 1990s on the administrative front, much remains to be done.

The issue here really revolves around the ability and capacity of the MOF's Income Tax Department to identify potential taxpayers, to assess the correct tax on them, and to collect the tax within reasonable cost limits. Due to the lack of access to the MOF (see limitations mentioned in the Preface), it is not possible at this juncture to even make a perfunctory assessment of this capacity. Before the option to abolish the land tax is given further serious consideration, an assessment of the current and potential status of processes, procedures, and systems within the Income Tax Department should be carried out in order to get a better handle on the Department's ability to extend the income tax net into the agricultural sector.

There exists a distinct knowledge gap regarding a multiplicity of issues. A preliminary list of questions is found in Annex B. Others questions that focus solely on the agricultural sector should proceed along the general lines of:

- Identification of the Income Tax Department's processes for taxpayer identification under the corporate and unified income taxes.
- Types of computerized systems in place to identify taxpayers and collect taxes from them.
- The nature of the relationship between agricultural land tax collectors, the RETD, and the Income Tax Department.
- Information sharing between the RETD and the Income Tax Department.
- Taxpayer information storage in the Income Tax Department.
- The possibilities of using presumptive methods to tax incomes from agriculture.
- The feasibility of employing agricultural land tax personnel in an Agricultural Income Tax Section of the Income Tax Department.

3. Potential Revenue and the Income Tax Law. The current income tax law (see Middle East Library for Economic Services, 1998) represents a very serious impediment to replacing the agricultural land tax with an enhanced unified income tax that adequately reaches into the agricultural sector. As previously discussed in Section IV, the present tax base for the UIT is the same one that is used for the agricultural land tax (the estimated net rental value of landholdings minus a

presumptive 20% for costs). This base will not be changed until, at the earliest, FY 2004, and is currently based on assessments done between 1986 and 1988. Even before the freeing of land rents and agricultural price controls this tax base was significantly underestimated; it is now drastically underestimated. This clearly means that the Income Tax Department, even assuming it possesses the most efficient administrative capacity available, by law under the UIT is unable to tap a far larger and growing tax base. This is not the case for corporate taxation of agricultural incomes; in this instance the problem is the overly generous granting of tax holidays.

At issue here is not the taxation of the net incomes of low-income farmers, which form the bulk of all landholders. Such taxation would not be cost effective. Rather, the question is how to identify, measure, and tax the net incomes of upper middle- and upper-income farmers. For many of these farmers it might be eventually feasible to tax them in the same way and under the same definition of tax base as is done under corporate taxation; i.e., on net taxable profits. However, for the near future their tax base might feasibly remain the estimated net rental value of the landholding. But this must be updated as soon as possible using either the traditional Division and Estimation Committee approach or some other presumptive method. To await the year 2003 is to seriously undertax those incomes derived from agricultural pursuits by well-off farmers.

Without access to some basic MOF data, there is no way to even crudely estimate the tax collection potential from both the UIT and corporate taxes. The only statement that can be made with certainty is that, at present, Egypt is not even coming close to tapping the agricultural sector's potential tax revenues under the current income tax regime.

TABLE 1

**Egypt: Central and Local Government Revenues
1990/91 – 1996/97 (LE millions)**

Year	Total Revenues			Tax Revenues		Land Tax as Percentage of:	
	Central Gov.	Local Gov.	Local as % Central	Central Gov.	Land Tax	Central Gov. Taxes	Local Gov. Revenues
1990/91	23,876	1,092	4.6	15,504	115	0.7	10.5
1991/92	35,842	1,525	4.3	24,285	118	0.5	7.7
1992/93	41,702	1,882	4.5	27,334	124	0.5	6.6
1993/94	44,062	1,983	4.5	31,373	127	0.4	6.4
1994/95	50,545	1,885	3.7	34,279	130	0.4	6.9
1995/96	55,097	2,128	3.9	38,249	138	0.4	6.5
1996/97	57,808	2,354	4.1	40,518			

Source : Derived from MOF data.

TABLE 2

**Egypt: Composition of the Central Government
Tax System, 1990/91 – 1996/97**

Type of Tax	1990/91	1993/94	1996/97
Corporate Profits	36.4	34.0	31.7
Personal Income	5.0	4.3	4.3
Goods and Services	21.8	25.8	28.0
Customs Duties	21.1	19.5	20.1
Stamp Duties	8.5	8.5	7.8
Others	7.2	7.9	8.1
Total	100.0	100.0	100.0

Source: Derived from MOF data.

TABLE 3

**Egypt: Central and Local Government Revenues,
Nominal and Real , 1990/91 – 1996/97**

	Nominal (LE millions)				Real (1990/91 = 100) ^a			
	Central Gov.		Local Gov.		Central Gov.		Local Gov.	
Year	Total Rev.	Tax Rev.	Total Rev.	Land Tax	Total Rev.	Tax Rev.	Total Rev.	Land Tax
1990/91	23,876	15,504	1,092	115	23,876	15,504	1,092	115
1991/92	35,842	24,285	1,525	118	29,943	20,288	1,274	99
1992/93	41,702	27,334	1,882	124	30,663	20,099	1,384	91
1993/94	44,062	31,373	1,983	127	28,893	20,572	1,300	83
1994/95	50,545	34,279	1,885	130	30,652	20,788	1,143	79
1995/96	55,097	38,249	2,128	138	30,832	21,404	1,191	77
1996/97	57,808	40,518	2,400		28,254	19,804	1,173	

^a Deflated by urban CPI (all items).

Sources: Derived from MOF data.

TABLE 4A

**Egypt: Central Government
Tax Revenues by Principal Categories
as Percentage of GDP ^a 1990/91 – 1996/97**

Type of tax	Fiscal Year						
	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
Corporate Profits	4.8	6.5	6.4	6.2	5.9	6.0	5.0
Personal Income	0.7	0.7	0.7	0.8	0.7	0.7	0.7
Goods and Services	2.9	4.5	4.6	4.7	4.6	4.6	4.4
Customs Duties	2.8	3.3	3.2	3.5	3.4	3.5	3.2
Stamp Duties	1.1	1.3	1.3	1.5	1.4	1.3	1.2
Others	0.8	1.2	1.2	1.4	0.7	0.7	1.3
All taxes	13.1	17.5	17.4	18.1	16.7	16.8	15.8

^a GDP at market prices.

Table 4B

**Egypt: Central and Local Government Revenues
as Percentage of GDP ^a 1990/91 – 1996/97**

	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97
Central Gov. :							
Tax Revenues	13.1	17.5	17.4	18.1	16.7	16.8	15.8
All Revenues	20.2	25.8	26.5	25.4	24.7	24.2	22.6
Local Gov.	0.9	1.1	1.2	1.1	0.9	0.9	0.9
All Gov. ^b	21.1	26.9	27.7	26.5	25.6	25.1	23.5

^a GDP at market prices.

^b Central and local governments.

TABLE 5

**Egypt: Direct Taxes ^a Paid by Farm Households ^b
According to Decile Income Intervals ^c**

Decile	Households			Households per capita		
	Average Expenditure	Taxes Paid	Effective Tax Rate	Average Expenditure	Taxes Paid	Effective Tax Rate
1	10,090	65	0.64	842	4.17	0.50
2	10,847	41	0.38	934	3.90	0.42
3	7,972	22	0.28	1045	3.30	0.32
4	10,394	73	0.70	1135	8.19	0.72
5	9,349	48	0.51	1212	6.79	0.56
6	11,628	68	0.58	1302	8.23	0.63
7	11,675	119	1.02	1490	16.54	1.11
8	12,675	135	1.11	1783	15.81	0.89
9	15,432	74	0.48	2445	12.85	0.53
10	34,456	144	0.42	4315	17.50	0.41

^a Land, income, housing, and property.

^b Head of household's primary employment is farming.

^c Annual in LE.

Source : Derived from Egypt Integrated Household Survey: 1997 as contained in files maintained by the International Food Policy Research Institute (IFPRI) project.

REFERENCES

- Abdel-Rahman, Abdel Monem. Egypt's General Sales Tax: Recent Developments and Reforms Ahead (Cairo: March, 1998). Egyptian Center for Economic Studies (ECES) Working Paper No. 22.
- Adams, Richard H. The Taxation of Agriculture in Egypt (USAID/Egypt: 1991). Paper #1991-4, Public Finance Administration Project.
- Andelson, Robert V. Land-Value Taxation Around the World (New York: Robert Schalkenbach Foundation, 1997).
- APRP-RDI Unit. The Total Farm Tax Burden in Egypt. Report #19 (December, 1997).
- Bahl, Roy W. and Johannes F. Linn. Urban Public Finance in Developing Countries (New York: Oxford University Press, 1992).
- Barents Group. Egypt Public Finance Administration Project Final Report (November, 1998).
- Barents Group. Final Report of the Egypt Corporate Tax Project (March, 1997).
- Bird, Richard M. Taxing Agricultural Land in Developing Countries (Cambridge: Harvard University Press, 1974).
- Central Agency for Public Mobilization and Statistics (CAPMAS). Expenditure and Consumption Survey: 1995-1996. Vol. 4, Parts 1 and 2.
- CAPMAS Statistical Year Book: 1992-1997 (Cairo: 1998).
- Ernst & Young. World Wide Corporate Tax Guide (January, 1998).
- Ernst & Young. 1998 World Wide Executive Tax Guide (September, 1997).
- Firestine, Robert E. Property Tax Administration in Egypt (USAID/Egypt: May, 1992). Public Finance Administration Project.
- Holland, Daniel. Property Taxation in Egypt (USAID/Egypt: May, 1990). Paper #1990-5, Public Finance Administration Project.
- Ibrahim, Mohamed Kamel. The Legal Frame of the Cadaster in the Urban and Built Up Areas in Egypt (Cairo: Egyptian Survey Authority and GTZ, 1997). Report of the Egyptian-German Cadastral Project.
- International Monetary Fund. Egypt: Beyond Stabilization, Toward a Dynamic Market Economy (Washington: IMF, 1998).
- Khan, Mahmood H. and Mohsin S. Khan. Taxing Agriculture in Pakistan (Washington: IMF Paper on Policy Analysis and Assessment, May, 1998).

Mayfield, James B. Local Government in Egypt: Structure, Process, and the Challenges of Reform (Cairo: The American University in Cairo Press, 1996).

Middle East Library for Economic Services, Income Tax Law as Amended by the Unified Tax (Cairo: September, 1998).

Ministry of Agriculture and Land Reclamation, Economic Affairs Sector, General Department of Agricultural Census. The Sixth Agricultural Census: 1990.

Ministry of Agriculture and Land Reclamation and Ministry of Trade and Supply. Egypt Integrated Household Survey (Cairo: 1997).

Ministry of Justice, The Registry System of Real Estate Disposal Acts in the Arab Republic of Egypt (Cairo, no date).

Mohieddin, Mohamed M. The Land Tax System in Egypt: A Descriptive Report of its Historic, Legal, and Organizational Aspects (Cairo: Ministry of Public Works and Water Resources and USAID, 1995).

Murray, Matthew N. Taxation of the Hard to Tax Sector (USAID/Egypt: September, 1990). Public Finance Administration Project.

Newbery, David. "Agricultural Taxation: The Main Issues", in David Newbery and Nicholas Stern (eds.), The Theory of Taxation for Developing Countries (New York: Oxford University Press, 1987), pp. 366-386.

Rosengard, Jay K. Property Tax Reform in Developing Countries (Boston: Kluwer Academic Publishers, 1998).

Sandford, Cedric T. "International Comparisons of Administrative and Compliance Costs of Taxation", Australian Tax Forum, V.11, No.3 (1994), pp. 291-309.

Schroeder, Larry. Intergovernmental Fiscal Relations in Egypt (USAID/Egypt: August, 1991). Public Finance Administration Project.

Selzer, Thomas. Results of the 1997 Farm Survey in Dakahleya and Beni Suef. MALR and Egyptian German Cotton Sector Promotion Program (September, 1998).

Skinner, Jonathan. "Prospects for Agricultural Land Taxation in Developing Countries", The World Bank Economic Review, V.5, No.3 (Sept. 1991), pp. 493-511.

Strasma, John, James Alm, Eric Shearer, and Alfred Waldstein. Impact of Agricultural Land Revenue Systems on Agricultural Land Usage (Burlington: Associates in Rural Development, 1987). USAID Contract PDC-0091-C-00-6215-00.

Tohamy, Sahar. Tax Administration and Transaction Costs in Egypt (Cairo: November, 1998) Egyptian Center for Economic Studies (ECES) Working Paper No. 33.

Wozny, James A. The Current Structure and Financing of Local Administration in Egypt (USAID/Egypt: January, 1992). Public Finance Administration Project.

Youngman, Joan M. and Jane H. Malme. An International Survey of Taxes on Land and Buildings (Deventer: Kluwer Law and Taxation Publishers).

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ANNEX A

SELECTED QUESTIONS FOR THE REAL ESTATE TAX DEPARTMENT

1. What are the agricultural land tax revenues for 1995/96, 1996/97, and 1997/98?
2. What is the breakdown of other revenues (tax and nontax) collected, 1995/96, 1996/97, and 1997/98?
3. How many employees are there nationwide and by districts?
4. Which taxes and fees do these employees collect in addition to the land tax? How many employees are assigned to each tax/fee?
5. What are their other responsibilities?
6. What are the tax/revenue collection procedures and processes?
7. What are the costs of collection, 1995/96, 1996/97, and 1997/98, including wages, salaries, and other current expenses?
8. How many tax returns were filed under land tax? What are their classifications?
9. What percentage of net revenues was returned to local governments?
10. Is there an organizational chart?
11. How many district offices/collection offices are there?
12. What are the functional lines of responsibility between local offices and central office?
13. What are the staffing patterns: level of education, years of service, etc.?
14. What are the recruiting practices?
15. What are pay levels and fringes?
16. What is annual staff turnover?
17. Are there career ladders?
18. What is the budget for the current fiscal year?
19. What types of statistical reporting are used?
20. Is there a description of systems or Management Information System, manual or computerized?
21. Are there taxpayer service and information centers?
22. Is there a taxpayer masterfile?
23. What are the data processing techniques and systems; e.g., location, configuration, application, hardware and software, organization, procedures?
24. What are the estimates of number and amount of delinquencies?
25. Are there measures to deal with delinquencies? Can you describe a delinquent returns systems and information document system?
26. Is there a penalty structure and is interest charged?
27. What are your audit techniques and procedures? Audit process (field and office audit, special investigations)?
28. Is there an appeals process?
29. Does the RETD use the cadastral survey data provided by the ESA?
30. What are the functional organization, tasks, and responsibilities in the average local office?
31. What is the current tax payments system: withholding, estimated tax, systems for collection of other types of taxes?

ANNEX B

SELECTED QUESTIONS FOR THE INCOME TAX DEPARTMENT REGARDING THE UNIFIED INCOME TAX (UIT)

1. What are the overall GOE revenue and tax statistics, 1995/96-1997/98?
2. What is the UIT breakdown by taxes from wages & salaries, commercial & industrial activities, immovable capital, others?
3. What are the costs of collection—wages & salaries and current expenses?
4. How many employees are there and what are their responsibilities? Does everybody collect all income taxes (excluding corporate) or are there specific responsibilities?
5. What methods are used to collect taxes?
6. What methods are used to identify nonfilers and stopfilers?
7. What evasion detection methods are in use?
8. What auditing techniques and procedures—desk and field—are in use?
9. How many tax returns are there, by income level?
10. How many tax returns with income from agricultural sector (and income level) are there?
11. Is there an organizational chart?
12. How many district offices are there?
13. What are the functional lines of responsibility between district offices and Cairo and are there functional statements for the overall Department?
14. What are the staffing patterns and recruiting practices?
15. What are the pay levels with fringes?
16. Are there career ladders?
17. What types of statistical reporting and data are available?
18. What is the level and magnitude of computerization of systems? What are the types of systems?
19. What is the status of taxpayer masterfile and what type of information is contained in it? How is the file used?
20. How many and how large are delinquencies? Describe the delinquent returns program.
21. What is the penalty structure and is interest charged?
22. Is there an appeals process?
23. What are the functions of Real Estate Tax Department (RETD)? How do they coordinate collections? What is the role and usefulness of RETD tax collectors? According to RETD, they collect “down payment” on UIT. What does this mean?
24. How should the agricultural sector be taxed? What are the problems and difficulties?
25. The base for UIT on agricultural sector is estimated net rental value of land. Now that the situation has changed, what might replace it?
26. Legally farmers with less than 3 feddan of land (1 feddan of orchard) and no other income sources are exempt from UIT. What is actual practice? Whom do tax collectors really go after in the agricultural sector?
27. Do farmers have to apply annually for these exemptions?
28. Can tax policy-making elements and their relationship to the Department be identified?