

Property Taxation and Land Management

Volkan CAGDAS, Mehmet GUR and Vildan KURT, Turkey

Key words: Property taxation, land management, land administration, cadastre.

SUMMARY

Property tax is the fundamental source of income for local government services in most developed and developing countries. Thus, property tax has been accepted a local tax in many countries. Also, it is an administrative tool that provides financial autonomy to local governments for decentralization. In addition to this, property tax is generally considered a fiscal tool of land management for sustainable development due to its characteristics that directs usage of land resources.

In this paper, basic attributes of property taxation, its functions in land management policies and interrelationship between property taxation and land administration will be held on. And also, property taxation in Turkey will be mentioned in general aspects.

Property Taxation and Land Management

Volkan CAGDAS, Mehmet GUR and Vildan KURT, Turkey

1. INTRODUCTION

Property taxes are a management instrument for controlling real estate market and guiding land usage. As DALE and MCAUGHLIN (1999) pointed out, they are a mechanism that can be used to reduce demand for land in areas of overdevelopment or stimulate demand, -for instance by encouraging vacant or underutilized land to be brought onto market. From another perspective, they are a fiscal source for providing revenue to governments for local government's activities.

In this paper, basic attributes of property taxation and its usage in land management policy are considered and interrelationship property taxation between land administrations is hold on. In the result, Turkish property tax system will be mentioned in general aspects.

2. TAX AND PROPERTY TAXES

Tax term is defined in Encyclopedia of Britannica as; "*compulsory levy that is the most important source of government revenue*". Taxes are classified into two groups as direct and indirect. Indirect tax is collected indirectly from consumers by adding it prices of goods and services. Taxes on consumption and production are regarded as indirect taxes. Direct tax is collected directly from taxpayers. Taxes on income and wealth are regarded as direct taxes. Generally, assessment of taxes depends on income, expenditure and wealth bases. Therefore, taxes can be classified as taxes on income, taxes on expenditure and taxes on wealth. Property tax is a kind of wealth tax (YILMAZ 1996).

As declared in Land Administration Guidelines (1996), any taxation systems should; i) serve clearly defined social objectives; ii) raise significant amount of revenue; iii) be exclusively under the control of the government authority; iv) be administered in a way that public understands and sees as fair; v) be relatively simple and cheap to collect; vi) be designed to make it difficult to avoid making payments; vii) distribute the tax burden equitably across the community; viii) encourage the good use of resources.

Property taxes are the oldest and most prevalent form of taxation. They are seen a local tax due to it is often used to fund local government's activities. There are many variations of property taxation applications in all over the world. As indicated by MUNRO (2000), property taxes may be classified broadly into '*annual*' and '*incidental*' taxes. Taxes levied annually on property are seen wealth tax in every country. The annual levy may be based on the estimated market value for which the property would sell under normal circumstances, or the assessed rental value of the land or property, or in some countries area of the property (DALE and MCLAUGHLIN 1999). Incidental taxes arise because a specific event triggers the tax, such as the sale of the property, or its change to more valuable use (MUNRO 2000).

The power to tax may rest with the central government, regional or local governments, or both. Generally, a country's constitution would establish basic taxation powers. In most of the countries the power to tax property rests with the central government. However, all or a portion of property tax revenues are assigned to local governments, the central governments may give local governments some power to set tax rates, to decide which properties are to be taxed, and to grant exemptions and property tax relief beyond that called for in national legislation (ALMY 2001).

Object of the property taxation could change from a country to another country and it may be defined as the land alone, the buildings alone, or the land and buildings together. Also, the liability for the tax may lie with the owner or the occupier; the buyer or the seller (MUNRO 2000). Property tax exemptions are granted by central, state or local governments. It may be based on various factors such as ownership, the use of the property, or on characteristics of the owner or occupier.

In property taxation, there are two most common tax bases. These are 'value' and 'area' bases. In value based systems, usually market value of the property is considered. The market value is defined in FRIEDMAN (1963) as; "*market value is the price which a willing buyer would be justified in paying and a willing seller would be warranted in accepting, if each is well-informed or well-advised, motivated by reactions of typical users, free of undue stimulus, financially capable of ownership, occupancy and/or use, and allowed a reasonable time in which to test the market.*" In estimating market value of the property, three most common valuation approaches are practiced. These are 'comparison approach', 'income approach' and 'cost approach'. The comparison approach is the simplest way to estimate the market value of the property is to identify another property that has recently sold and which has identical characteristic. If there is no identical property in market for comparison, the cost approach or income approach is applied. In the cost approach, the market value of the property is arrived at as follows: Estimated reproduction or replacement cost of the building new, less estimated occurred depreciation, if any, plus estimated land values. It may be used in service and special purpose buildings, some types of industrial buildings, certain kinds of rental projects (FRIEDMAN 1963). In the commercial or industrial property valuations, income approach is applied. It is used to determine of the market value of the property by capitalizing its net operating income at a rate stemming from similar type properties which have been sold. The other tax base is area of the property. If using of market value in tax assessment does not possible, usually area based system is preferred. Under area based property tax systems, taxes are determined simply by multiplying a measurement of area by a rate. As pointed out by ALMY (2001), area-based systems have the advantage of being simpler to administer. In these systems, only area measurements are needed. They are easier to implement, because market data do not have to be collected and analyzed. They are also more objective than value-based systems, in that area measurements are less contestable than value estimates. On the other hand, area-based property tax systems are less fair. For example, highly desirable properties pay the same taxes as undesirable properties.

Property tax rates are determined by local or central governments and in many countries local governments levy rates that differ by property class. Different tax rates may be imposed for different classes of property (residential, commercial, and industrial, for example). This

system gives local governments the power to manage the distribution of the tax burden across various property classes within their jurisdiction in addition to determining the size of the overall tax burden on taxpayers (BIRD and SLACK 2002). They may be fixed legislation; annually adjusted for inflation or determined based on budgetary needs. If rates is determined based on budgetary needs, the amount of total budget of administration, total amount of estimated non-property tax revenue and the amount of total assessed value are needed.

Property taxes have a number of advantages, both in terms of providing revenues to government (especially local government) and as a tool for guiding land use and development (DALE and McLAUGHLIN 1999). From economical aspect, the advantages of property taxation are summarized as follow: In all countries, property taxes are accepted the best minor revenue sources. For example, in developing countries property taxes accounted for only about 0.4% of Gross National Production (GNP), and about 2% of total tax revenues in 1990's. Although, the equivalent share for the Organization for Economic Co-Operation and Development (OECD) countries remained at a bit more than 1.33% of GNP and about 4% of all tax revenues throughout the period. Nonetheless, property taxes are important sources of sub national revenue in many countries, and more so in developing countries than in developed or transition countries. In the 1990's, property taxes accounted for 40% of all sub national taxes in developing countries, 35% in developed countries, although only 12% in transition countries (BIRD and SLACK 2002).

3. LAND MANAGEMENT AND LAND POLICY

Classic economic theory holds that there are three vehicles for generating wealth in an economy –labor, capital and land (DALE and MCLAUGHLIN 1999). Land in the production factors, has unique attributes. This attribute provides to live and to sustain efficiency of other production factors. In other words, from the economical perspective land is a production factor which attracts investment, generating wealth and from the social perspective, land is sensitive and scarce resource.

Properties, as reported in Land Administration Guidelines (1996), comprise a remarkable 50%-75% of a country's national wealth. The percentage varies according to stage of development and make up of the national economy. General experience would suggest that countries with a lower degree of economic development and consequently fewer alternative investments will have a higher percentage of national wealth in properties (MUNRO 1997). The reason of excessive interest to the land is causing from condition of the lands unreproduced attribute. Thus, land is an elementary resource of a nation. Therefore, it must be managed by the societies to provide its optimum and effective usage. Its effective utilization and management is a major contributor of social and economic development.

Nowadays, for providing both economical and social development and also environmental protection, '*sustainable development*' approach has been improved. As stated by SEVETDAL (2002), the aim of the sustainable development is to balance economic, environmental and social needs, allowing prosperity for now and future generations. Sustainable development consist of a long term, integrated approach to developing and achieving a healthy community by jointly addressing economic, environmental and social

issues, whilst avoiding the over consumption of key natural resources. Sustainable development term needed a new management approach for these functions, and then land management term was born.

Land management, defined in The Bathurst Declaration on Land Administration for Sustainable Development (1999) as; *“the activities associated with the management of land as a resource from both an environmental and an economic perspective towards sustainable development”*. Land management is the process by which the resources of land are put to good effect. In addition to this, it is an integrated system solving land related problems. It covers all activities concerned with the management of the land as a resource both from an environmental and an economic perspective. It can include farming, mineral extraction, property and estate management, and the physical planning of towns and the countryside. It embraces such matters as; i) property conveyance, including decisions on mortgages and investment; ii) property assessment and valuation; iii) the development and management of utilities and services; iv) the management of land resources such as forestry, soils, or agriculture; v) the formation and implementation of land use planning; vi) environmental impact assessment; vii) the monitoring of all activities on land that affect the best use of that land (UNECE 1996).

The land management system needs an integrated and clarified land policy. The land policy is the philosophy of the land management, in other words, the land management is the implementation of the land policy. The Bogor Declaration, arising from the United Nations Inter-regional Meeting of The Experts on The Cadastre (1996), stated that; *“Land policy is a part of the national policy of countries. Such policies are generally related to economic development, social justice and equity, and political stability. The land policy may for instance include or promote the provision of security of tenure, improve access to credit, land reform, land titling and the resolution of issues relating to traditional or customary tenures, facilitate special attention to provision of land for the poor, ethnic minorities and women, facilitate land use and physical planning, real property taxation, measures to prevent land speculation and land disputes. The meeting emphasized the need to establish a coherent national land policy to guide policies within different sectors.”*

The land policy is categorized as urban land policy and rural land policy. The general purpose of the urban land policy is *“to harmonize the individual ownership and the public interests on the land and also prevent using land against to public interest.”* The purpose of urban land policy is detailed as follow; i) to facilitate of urban development plans applications, ii) to increase urban parcel supply, iii) to prevent inflation in property price, iv) to gain the value increment that is a result of planning decisions to public (KELES 1997). The elementary aims of the rural land policy are; i) to provide protecting of environment and nature life, ii) effective usage of rural land to meet community nutrition and settlement needs. As a summarily, land policy has to tending to promote economic and social development in both urban and rural areas.

The property taxation is the most efficient fiscal instrument in both urban land policy and in rural land policy. Whether taxation is arranged and applied for land management purposes, it will adjust and provide discipline in land markets.

4. PROPERTY TAXES FOR LAND MANAGEMENT

As stated above, land is both fragile and scarce resource and also a production factor. In addition to this, land is accepted as an investment tool that provides easily gain profits without labor, especially developing countries. But, as ARSLAN (1997) expressed, it is need to differentiate investments that accepted land as a production factor, from investments that make without of production aim or gain profits without labor. Speculative investments aimed profit from properties without any labor is oriented by economic, social and cultural factors. Insufficient, insecure, low profited investment tools and investors requests that gain easily avoiding from production risks can be denoted among the economic factors of the speculative investments. Social statute and assurance are caused from being a property owner, can be regarded as social and cultural factors of the speculative investments.

Speculative investments do not provide contribution to nation economic development; even they have delaying and preventive effects. In some countries, which in capital accumulation are low and slow, savings have been put into land and properties that is called '*dead investments*' instead of used for development. Thus, resources could not be used in optimum conditions and productive agricultural land that must be used for providing increasing population needs, have been transforming into urban parcel rapidly. As a result of this, land owners become richer, people who gain with their labor become poorer and injustices in distribution of income have been increasing.

These problems can be solved with effective land management and its fiscal tool taxation. Taxation gives opportunities to public to orient of land usage. This tool can be used as a land market regulator or encouraging for certain investment form for providing optimum land usage, so optimum use of properties from their owners, utilization of disuse land or transfer of disuse land to use for investments have been encouraged.

Using capital for speculative purpose by binding it to properties and unearned income can be prevented by taxation. Also, motivation to house producing, value increment of properties which is gained from public services and infrastructure can be turned back to public.

There are many functions of the property taxation for the land management process, such as:

- To increase urban land plot supply and so, decreasing urban land prices, to taxation of unbuilt urban lands.
- To prevent property speculations and establish social justice, to taxation of underutilized properties.
- To control, protect and prevent density of settlements in sensitive areas, such as historically and environmental areas, to taxation of the lands in these areas.
- To support for maintenance and restoration of historical and artistic buildings by tax exemption.
- To adjust urban development, orient the demand from overdevelopment area to underutilized area.
- To prevent illegal settlements by levy highly taxation rates on illegal buildings

- To apply property transfer taxation for prevent often transfer of property for speculative purposes.
- To protect agricultural attributes of rural lands by decreasing tax rates in rural areas.
- To provide community justice by taxing on increments value of properties that is the result of public investments and plan practices.

5. LAND ADMINISTRATION AND PROPERTY TAXATION

Cadastre has become more important activity field due to its functions in economic development and environment management in global world. When the data access has been getting easy, users need more information about ownership, plan, valuation and their interaction to each other, and this cause increasing of direct or indirect demands to the cadastre (DEMIREL et al. 2003). Therefore, the cadastre term has been evolving toward land administration system.

Land administration, is defined by the The Bathurst Declaration on Land Administration for Sustainable Development 1999 as; *“the processes of determining, recording and disseminating information on ownership, value and use of land when implementing land management”* As indicated by STEUDLER and WILLIAMSON (2002) that, it is considered to include a core cadastre (usually including land registration, cadastral surveying, cadastral mapping and related indices) multipurpose cadastre and parcel based land information systems, and in many systems is closely related to or facilitates or includes information on land use planning and valuation, taxation systems (although land administration systems does not usually include the actual land use planning or land valuation processes).

Land administration functions may be divided into four components; juridical, regulatory, fiscal and information management. The juridical component places greatest emphasis on the holding and registration of rights in land. It comprises a series of processes concerned with the original determination or adjudication of existing land rights, transfers, prescription, and expropriation. The regulatory component is mostly concerned with the development and use of the land. It includes land development and use restrictions imposed through zoning mechanism and the designation of areas of special interest, ranging from historic district to fragile ecosystems. The fiscal component focuses on the economic utility of the land. Its processes may be used to support increased revenue collection and production, and may act as incentives to consolidate or redistribute land or to use land for particular purposes. Information management is integral to all three components described above: the juridical cadastre underpins land registration; the fiscal cadastre supports valuation and taxation; and zoning and other information systems facilitate planning and enforcement of regulations (DALE and MCLAUGHIN 1999).

The benefits of land administration are outlined in Land Administration Guidelines. These are summarized as follow; i) guarantee of ownership and security of tenure; ii) support for land and property taxation; iii) provide security for credit; iv) develop and monitor land markets; v) protect state lands; vi) reduce land disputes; vii) facilitate rural land reform; viii) improve urban planning and infrastructure development; ix) support environmental management; x) produce statistical data.

The components of land administration have functions for property taxation. These are summarized as follows:

The juridical component of land administration defines the tax payer, types of properties which to be taxed and grant exception. Tax authorities use data that are gotten from juridical component of land administration to levy various tax forms on properties in local or regional or national scale for establishing effective and productive property market, develop property markets in order to public interests. Furthermore, this system provides an inventory about public properties, determination of the tax exemptions is more easily than classical methods.

Fiscal component of land administration focuses on economical characteristics and values of properties. STEUDLER and WILLIAMSON (2002) pointed out that; fiscal component of land administration does not include taxation-valuation processes. In the other words, the function of the land administration supplies data to valuation and taxation authority and update of these data. DALE and MCLAUGHLIN (1999) stated that, any land administration system which serves property taxation should involve; i) identification and mapping of all properties which are to be subject to tax; ii) classification of each property in accordance with an agreed set of characteristics relating to such matters as its use, size, type of constructions and improvements; iii) collection and analysis of relevant market data such as sales price, rental charges or building maintenance costs; iv) determination of the value of each parcel and its associated buildings; v) identification of the person who will be responsible for paying the tax; vi) preparation of the valuation roll; vii) notification of the individual property taxpayer of what has to be paid and collection of the appropriate taxes; viii) provision of procedures so that any citizen who believes that the assessment is incorrect can appeal for it to be reviewed.

The controlled development of land usage in desired way and form is available with a land administration system that contains data which are required by planning and taxation centers. Land administration systems must contain classified attribute data of properties for this controlled development. Property types must be defined clearly to avoid any drawback, the changes of properties type must be kept current and changes must be transmitted directly to the tax authority centers. By these reasons, the definition properties which are the subject of the must be done and land administration and tax authorities are agreed on it.

6. GENERAL OVERVIEW OF TURKISH PROPERTY TAXATION SYSTEM

In Turkey, the fundamental regulation related to tax and taxation had been arranged with The Constitution of 1982 and tax had been handled as a citizenship mission that should be compatible with social justice principles. The principles related to property taxes had been also regulated with Property Tax Act put into effect in 1970 and some changes had been made up today.

In Turkey, property taxes are solely accepted a revenue source for local government's activities and their balancing and controlling functions have been not to take into consideration. In our country there is no tax structure which regulates property market.

In many countries, local governments have been vested with limited authority to change tax rates and to give exemptions, but in Turkey local governments have not such authority to make arrangements about taxes. Nevertheless, tax revenue collected and shared by local governments (Table 1).

In Turkey, there has not been provided significant revenue from property taxes except the initial years of republic. Revenue from wealth taxes, that include property tax, had constituted approximately 13% of all tax revenue in the period of 1923-1935. It had declined under 1% of all tax revenue in the period 1986-2001. The share of wealth tax levied from the riches has been decreasing time by time in the period 1935-2001, however the share of consumption tax that levys indirectly from people has risen up to 34% (Table 2)

Table 1: Share of property tax revenue

<i>Distribution of tax revenue</i>	<i>In the metropolitan municipality (%)</i>	<i>Out of the metropolitan municipality (%)</i>
Share of metropolitan municipality	58,5	-
Share of province private administration	7,5	15
Share of county and township municipality	34	85

Table 2: Types of tax income (DPT 2001)

<i>Years</i>	<i>Income taxes (%)</i>	<i>Wealth taxes (%)</i>	<i>Consumption taxes (%)</i>	<i>Import taxes (%)</i>
1923-1925	29,92	12,62	29,73	27,72
1926-1930	8,95	16,58	48,80	25,67
1931-1935	22,67	16,40	31,95	29,97
1936-1940	30,95	8,60	32,15	28,18
1941-1945	37,78	9,46	41,98	10,73
1946-1950	35,07	4,14	41,90	18,38
1951-1955	28,75	2,66	45,50	23,04
1956-1960	37,46	1,80	40,51	20,23
1961-1965	34,06	1,57	38,85	26,02
1966-1970	31,27	1,89	37,38	27,45
1971-1975	41,11	1,22	35,20	22,47
1976-1980	54,87	0,89	27,57	16,68
1981-1985	48,92	1,49	23,59	11,86
1986-1990	43,22	0,73	26,34	15,32
1991-1995	37,51	0,71	27,56	13,11
1996-2001	33,02	0,79	33,93	12,37

In the period of 1965-1981, the share of the revenue provided from property tax in municipality revenue raised up to 46% as its maximum in 1981, and its average was 20%. This share had declined to 1%-7% in the period period of 1991-1998 and its maximum share was 7% in this period (Table 3 and Table 4). On the other hand, the average of this ratio is 18% in OECD countries, 19% in developing countries and 9% in countries in transition.

Table 3: Share of rent and wealth taxes in municipality taxes and revenue in 1965-1981 (TODAIE 2003)

<i>Years</i>	<i>Share in the municipality taxes (%)</i>	<i>Share in the municipality revenue (%)</i>
1965	26,9	14,9
1966	25,2	12,4
1967	29,5	15,8
1968	29,6	14,9
1969	34,6	17,1
1970	36,3	17,9
1980	66,1	32,1
1981	76,9	46,3

Table 4: Share of property taxes in municipality taxes and revenue in 1991-1998 (TODAIE 2003)

<i>Years</i>	<i>Share in the municipality taxes (%)</i>	<i>Share in the municipality revenue (%)</i>
1991	6,1	4,0
1992	4,7	2,8
1993	3,0	1,6
1994	11,4	7,0
1995	6,1	3,8
1996	3,7	2,3
1997	2,1	1,2
1998	9,7	6,0

In the boundaries of Turkey have been levied taxes on every building and land according to Property Tax Act.

Property tax is calculated and levied depend on '*declarations*' stated owners by municipality. Declarations are composed of attributes data about property legal situation, such as ownership data, development plan data, address data and etc.

Tax payer is property owner, owner of usufruct right, and if both are absent the person who use the property. Turkish Civil Act separates ownership into two, as independent and associated

ownership. Associated ownership occurred as shared and co-operated ownership. Shared ownership is the ownership where more than one person own actually undivided shares and each owner has the right and engagements due to his share. Co-operated ownership is the ownership of a community which is brought together due to the laws or agreements. In that case, the shares of owners are not definite and can not be disposed of. The person, who is an owner of a shared property, liability of tax is limited as his share. In cooperation ownership, property tax liability of each owner spreads all of the property.

According to Property Tax Act; tax exemption has been given to public institutions and organizations, universities, municipalities, village legal personalities and etc due to type of their ownership, and also health, religious, transportation, infrastructure and other public services buildings due to their usage. These properties are out of taxation. Giving tax exemption is under the authorization of The Ministers Council.

In Turkey, tax value of the property is accepted a tax base. '*Cost of building per square meter*' which is determined with the cooperation of Finance and Public Works ministries and '*parcel value*' which is estimated the Commissions of the Valuation are used for assessment of building tax value. Urban parcel tax value is computed according to unit value which is estimated with taking every local zone into account by Commissions of the Valuation. Agricultural land tax value is computed according to unit value which is estimated with taking soil types into account by Commissions of the Valuation in every county.

Buildings and parcel tax value is increased according to half times of '*revaluation rate*' for every tax year. Revaluation rate can be used for making tax values update as explained in our laws. Revaluation rate which is computed by Ministry of Finance express annual changing rate in the Wholesale Price Indices (GUR and et al. 2002).

According to Property Tax Act, tax rate is 0.1% for residence building, 0.2% for non-residence building, 0.1% for agricultural land and 0.3% for urban parcel. These rates are used two times in metropolitan areas. In addition to this, The Council of Ministers has authorization to decrease 50% and increase 30% of these rates that are determined in the act.

Table 5: Property tax rates in Turkey

Property type	Tax base	Tax rate out of the metropolitan municipality (%)	Tax rate in the metropolitan municipality(%)
Other buildings	Tax value	0.2	0.4
House	Tax value	0.1	0.2
Agricultural land	Tax value	0.1	0.2
Urban plots	Tax value	0.3	0.6

Also, Income Tax Act which is accepted in 1961 includes arrangement related to taxation of income acquired from properties. According to the Income Tax Act, property owners who gain a rent income have to pay income tax. Rent gains are defined as '*property capital income*' in this

law. Furthermore, this code includes principles related to taxation of increment value of property value.

7. CONCLUSIONS

All forms of taxes that levy on properties have two main objectives. First of these is levy on properties, which are the indicators of wealth, to provide a part of resources that are needed for building of local public services and setting of social balance by this way. The other is control of resource usage. But the preliminary condition to provide these functions is the existing of a land management system, that its content, principles, aims, tools, institutions and policies had been determined. Land taxation would not be effective for development if it has not been practiced with in an integrated land management system. In order to manage the land; technical, legal, institutional structures should be reconstructed, to provide requirements of policies and sub-policies such as agriculture, industry, environment, land plot, house and etc. Contradiction of land use will be adjusted by this way and also taxation tool should be utilized.

The key of land management and land taxation is land administration and also its core, cadastre. It is not possible to provide an effective land management system and taxation without cadastre, which has been trying to reconstruction to ensure sustainable development and environmental improvement in the whole of the world.

REFERENCES

- ALMY R.: A Survey of Property Tax Systems in Europe. The Ministry of Finance Republic of Slovenia, Department of Taxes and Customs, March 2001.
- ARSLAN R.: Arazi Kullanış Ekonomisi. Yıldız Teknik Üniversitesi Yayını, Yayın No: YTU.MF.YK-97.0315, İstanbul, 1997.
- BIRD M. R. and SLACK E.: Land and Property Taxation: A Review. World Bank, March 2002.
- DALE P. F. and MCLAUGHIN J. D.: Land Administration. Oxford University Publications, ISBN 0-19-823390-6, New York, USA, 1999.
- DEMIREL Z., ACLAR A., DEMİR H., GUR M., KURT V., CAGDAS V.: Toprak Düzenlemelerinde Yeni Gelişmeler ve Yapılanmalar. 9.Türkiye Harita Bilimsel ve Teknik Kurultayı, 31 Mart-04 Nisan 2003, Sayfa: 145-169, Ankara, 2003.
- FRIEDMAN J.: Encyclopedia of Real Estate. Prentice Hall, 5.Edition, USA, 1963.
- GUR M., CAGDAS V., DEMİR H.: A General Overview of Real Estate Valuation Applications in Turkey. XXII.Fédération Internationale des Géomètres (FIG) Congress, 19-26 April 2002, Washington DC, USA.
- KELES R.: Kentleşme Politikası. Imge Yayınevi, 4.Baskı, ISBN 975-533-053-4, Ankara, 1996.
- MUNRO P. F.: Land Policy Options. Fédération Internationale des Géomètres (FIG) Commission 7 Annual Meeting, Penang, Malaysia, 5-9 May 1997.
- MUNRO P. F.: Best Practices for Property/Land Tax and Valuation Administration in a Decentralized System. International Conference on Land Policy, 26 July 2000, Jakarta, Indonesia.
- SEVETDAL H.: Land Administration and Land Management: An Institutional Approach. XXII.International Fédération Internationale des Géomètres (FIG) Congress, Washington DC, USA, April 19-26 2002.

- STEUDLER D. and WILLIAMSON I. P.: A Framework for Benchmarking Land Administration Systems. XXII.International Fédération Internationale des Géomètres Congress (FIG), Washington DC, USA, 19-26 April 2002.
- YILMAZ H.: Türkiye’de Vergi Yapısı ve 1980’den Sonra Sektörel Vergi Yüklerinin Gelisimi. Uzmanlık Tezi, Devlet Planlama Teşkilatı (DPT), İktisadi Sektörler ve Koordinasyon Genel Mudurluğu, Proje Yatırımları Değerlendirme ve Analiz Dairesi, Ankara, 1996.
- The Bathurst Declaration on Land Administration for Sustainable Development. Fédération Internationale des Géomètres (FIG) and United Nations (UN), Publication No:21, Copenhagen, Denmark, 1999.
- The Bogor Declaration. United Nations Interregional Meeting of Experts on the Cadastre, United Nations (UN) and Fédération Internationale des Géomètres (FIG), Bogor, Indonesia. 18-22 March 1996.
- Land Administration Guidelines. United Nations Economic Commission for Europe (UNECE), New York, USA, 1996.
- Sekizinci Bes Yillik Kalkınma Planı Vergi Özel İhtisas Komisyonu Raporu, Devlet Planlama Teşkilatı (DPT), Ankara, 2001.
- Türkiye Ortadoğu Amme İdareleri Enstitüsü (TODAİE), Yerel Yönetimler Araştırma ve Eğitim Merkezi, <http://www.yerelnet.org.tr/yerelyonetimler/belediyegeligiderler.php>, May 2003.
- <http://www.britannica.com/>, July 2003.

CONTACTS

Volkan Cagdas
Yildiz Technical University
Civil Engineering Faculty
Department of Geodesy and Photogrammetry Engineering
Yildiz Campus
34349, Besiktas
Istanbul
TURKEY
Tel. + 90 212 259 70 70
Fax + 90 212 261 07 67
Email: volkan@yildiz.edu.tr
Web site: <http://www.tyd.yildiz.edu.tr/>