The Investigation of the Income Method on Agricultural Areas in Turkey and a Method Proposal

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Keywords: Land management, real estate development, value, valuation, rate of interest capitalization, cultivated land

SUMMARY

The paragraph f in the article 11 of law no. 2942 The Nationalization Law has been applied on selling the lands of the National Real Estate Management and valuation of the real estates for getting a bank loan. **Income method** has been used according to the paragraph which says "on the condition that using the real estate and source on lands on the place and condition like on the nationalization date, the committee of experts determines the value of the real estate with a report to be prepared". In the applications up to now, local capitalization rate of interest has been determined according to the dry or watered cultivation land and the value of the real estate has been determined.

In this study, it was investigated that annual net income of the land and calculation of local rate interest capitalization are not enough for valuation of the agricultural lands, addition to this, it is necessary to take into consideration of the determination of location value criteria and rates in calculation.

Türkiye'de Tarimsal Alanlarda Uygulanan Gelir Yönteminin İrdelenmesi Ve Bir Yöntem Önerisi

ÖZET

Tarımsal alanların kamulaştırma amaçlı, Milli Emlak Müdürlüğüne ait arazilerin satışı ve bankadan kredi temini amaçlı taşınmaz değerlemesinde 2942 sayılı Kamulaştırma Yasasının 11. maddesinin f fikrası uygulanmıştır. Bu fikradaki "arazilerde taşınmaz mal veya kaynağın kamulaştırma tarihindeki mevkii ve şartlarına göre ve olduğu gibi kullanılması halinde getireceği net gelirini bilirkişi kurulu düzenleyecekleri raporla taşınmazın değerini hesaplar" ifadesi gereğince **gelir yöntemi** kullanılmaktadır. Bugüne kadar yapılan uygulamalarda arazinin sulu veya kuru tarım yapılabilir olmasına göre yöresel kapitalizasyon faiz oranları hesaplanmış ve buradan taşınmazın değerine ulaşılmıştır.

Bu çalışmada, tarımsal alanların değerlemesinde arazinin yıllık net gelirinin ve bölgesel kapitalizasyon faizi oranı hesabının yapılmasının yeterli olmadığı, bunlara ilaveten konumsal değer ölçütlerinin ve oranlarının belirlenerek bu hesapta dikkate alınması gerektiği arastırılmaya çalışılmıştır.

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1. INTRODUCTION

Real estate valuation on agricultural lands and urban areas has become valuable since the 1990s when the liberal economy was began to apply in our country. Since the subject of real estate valuation became a current issue in 2000 in our country "principle confusion" was exist. Because every investigator tried to adapt the principle to our country with little revisions in which country they searched. But a few scientists who made academic studies on valuation and handled the subject before (A. AÇLAR, H. DEMİR, T. YOMRALIOĞLU, E. ÜLGER, ...) could easily overcome this period and adapt the principles to the standards of UDES (ivsc) and to our country.

The real estate valuation has generally become a current issue in urban areas in our country (AÇLAR, A.; ÇAĞDAŞ, V. 2002) but it is neglected in agricultural lands. The reason is:

- Since there is a rapid immigration from country to city, more lands are needed in cities, so the real estate traffic is more than in country. (the rate of urban population was 62% in 2000 whereas it is 70,5% in 2008) (http://www.tuik.gov.tr),
- Customer and seller groups in city are on a vast scale whereas the groups in country are very narrow.
- Freedom and incentive on import in agriculture are very little

Because of the three main reasons, the real estate valuation in agricultural lands has been used on selling the national treasury lands and bank mortgages more than selling between people. But in recent years, increase in banking, loaning, selling the lands of national treasury, privatization, invest on technology by the big land owners, have increased the real estate valuation in agricultural lands.

The number of the people who are to be nourished sufficiently and balanced has increased as the world population increases. This puts forth the necessity of the technologic improvement in agriculture and new lands which are suitable for cultivation. The new agricultural areas are places which are lost their feature of being a forest, and they are generally belong to the state, and the lands which are used as pasture and threshing field and was never cultivated before, and in or around the village lands. In recent years this kind of lands have been sold according to the Communiqué no.313 the General Management of National Estate (Official Gazette No: 26557, dated 19.06.2007) (http://www.milliemlak.gov.tr). It is pointed out in ths communique that the land can be sold to the agricultural users of the land who have used for five years before 31.12.2002, and the valuation of the lands have to be determined by using

the rate of interest capitalization method, and the priority of buying right have to be given to the former user or the inheritor if he or she was dead.

2. REAL ESTATE VALUATION

Value can be defined as the abstract measurement to state the importance of a thing, cost of a thing (TDK, 2005). Valuation is a determination of the value of a thing. The most difficult thing in calculation of agricultural valuation is to determine the local rate of capitalization interest. The most difficult point of that is the difficulty of obtaining data, lack of information and the change of the rate from area to area and even land to land.

A global definition of the real estate valuation is; determining the current normal buying and selling price in real estate traffic by using the suitable methods to the situation of the real estate. Real estate valuation or comparison in its classical meaning is calculated by using one or two of the income and cost methods (SEELE W., 1977). Income capitalization method is used in agricultural fields as it sis a legal obligation.

The scientific studies on real estate valuation in urban regions in our country have been done by A. Açlar et.al. and for today, many spaces were completed in the applications and laws (AÇLAR, A. 1989, AÇLAR, A. 1998, ÇAĞDAŞ, V. 2007). But, scientific studies on valuation in agricultural places are not very much comparing with the urban. The studies on this area accelerated after 2000. The studies in our country examined only in location and aspect of the land. Location superiorities are expressed orally, but the quality is perceived as production. Location superiorities can be put in a mathematical model. Local rate of interest capitalization must be determined differently for each working area. On the contrary, the influence of the conjuncture to valuation was neglected.

2.1. Location Grading

According to habits in our country, local rate of interest capitalization is calculated by division of the annual net income of the land to the selling price. However, the lands in same class and in same productivity may differ in their price. The reason is the superiority of the location to each other. The location superiorities are called the **location valuation criteria**. The valuation criteria and rates can be reduced or expanded for each agriculture area. Location valuation criteria are graded as below. Grading is given according to the interviews of the farmers of the area and the experiences from the applications.

2.2. Soil Quality

The amount of the organic element, dampness, soil class, irrigation facility, grade etc. affects the quality of an agricultural land. In this study area, the climate is continental, according to the average of long years it gets rain 300 mm/year. The topography of the area is little hilly. Most part of the area is in 2-3 % grade/slope, it has rarely 4-5 % grade. Alternately agriculture has been applied and after every alternate the land has left unsown (U). For that reason, in

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calculation of the annual net income and in **land planting plan** this was taken into the consideration. The part where the grade is 4% or more is a little stony, calcareous and has shallow soil. The general feature of the soil is, light brown-grey colour, poor structured, clayey, loamy, has low organic ingredient. These areas are 2nd -3rd class dry land group. Wheat (W) and barley (B) are planted on these lands. The part where the grade is 1-2% is watered, has medium-high organic ingredient. These areas are 1st -2nd class watered land group. Industrial plants like sugar beet (SB) and sunflower (S), wheat, barley and a few peach and cherry trees are planted on these lands

2.3. Capitalization Interest

Interest is a cost which is paid to the owner of the capital for the usage of a certain amount of capital in a certain time. Local rate of interest capitalization is the usage right of the capital on land (MÜLAYİM, 2001). Farmers are bound to the land, because it is trustable, has minimum risk, can't be carried, can't be increased and giving the owner the favour of monopoly.

Using the Market interest rates on determination of the rate of interest capitalization is acceptable for the developed countries. This rule is not valid in our country where the national income is very low and the population rate is not below 10%.

In order to calculate the local rate of interest capitalization, there must be a similar land parcels which have the similar features and recently sold like the land where the evaluation will took place (KARAKAYACI, Z.; OĞUZ, C. 2006). Since there are very big rates between the actual prices of the lands and the prices at Property Register Management in our country, the prices at Property Register Management are not investigated. In spite of this, some of the trusty villagers who have no excuse to be an expert and the land owners are asked the prices after swearing.

Which data will be collected from which institution is given in Table1 (ÇAĞDAŞ, V., 2007). Corp prices in our study area are taken from the District Agriculture Management and Agriculture Stock Market. Data of the crop outputs are taken from the District Agriculture Management, land prices are taken from the real estate agencies and National Real Estate Management.

Capitalization Rate Calculation

Total Income Calculation (TL/da)

- gross income (main crop) = average output (kg/da) x crop price (TL/kg)
- gross income (secondary crop) = average output (kg/da) x crop price (TL/kg)
- total gross income = gross income (main crop) + gross income (secondary crop)

Net Income Calculation (TL/da)

- net income (G) = total gross income - production expenses

Capitalization Rate Calculation

capitalization rate (k)= net income(G) / land value(D)

$$k = \frac{G}{D}$$
 (ÇAĞDAŞ, V., 2007)

Table 1 Collecting Data – Institution Data

Crop selling Prices	Crop Output (kg/da)	Crop Cost (TL/da) (TL/kg)
(TL/kg)	- City/ District Agriculture	- City/District Agriculture
- City/District	Managements	Managements
Agriculture	- Turkey Statistics	- Agriculture Credit
Managements	Institution	Cooperatives
- Land Crop Office	- The Chamber of the	
- The Chamber of the	Agricultural Engineers	
Agricultural	Land selling prices and	Other Data
Engineers	dates	- ÜFE-TUİK
- The Chamber of the	- Property Register	- Personal studies on local
Commerce and	Management (sellings in	price changes
Industry	last a few years)	- Other Economic and Money
- Agriculture Stock	- National Real Estate	parameters
Market	Management.	- The results of the former
- Wholesale Food Market	- Municipalities (Prices for	nationalization Studies
Managements	the real estate tax)	
- Municipalities	- Real Estate Brokers	

2.4. Conjuncture

Real estate valuation means, evaluation of a real estate according to the market habits by one of the methods suitable to the conditions of time and the region. But conjuncture influences the value of real estate as the location and the soil quality (LENDI, M.; HEPPERLE, E., 1995).

Conjuncture expresses the whole actions of the economy of a country like up and down and wavy. In other way, it refers the situation that every condition and position exist. (http://www.itusozluk.com.).

Conjuncture is every kind of political and economic undulations happened in the world and in our country. It influences the countries very little which have very low inflation and high income (national income 20000 \$ and more). On the contrary real estate market was influenced in our country which inflation rate is 10% and national income is 5000 \$. In this case, investment tools go away from the real estate market and stock market, and go to the foreign exchange and gold. In our country, regression was seen in real estate market.(69% decrease in the economic crisis on 5th April 1994; 20% decrease in the economic crisis on

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the 21st February 2001; 27% decrease in the economic crisis on the 11th September 2001) (ERTAŞ M., 2000)

Since there isn't any change in the conjuncture in Turkey, no conjunctural change has been observed.

3. APPLICATION

For this study, the vacant lots of the state in the İsak village of Konya in Turkey of which selling was the subject to the evaluation by the court was chosen. İsak village is in the Northeast of Konya which is 210 km far and has 6250 ha and has the population of 650 people. It has continental climate, watered lands and various crop types. The process for evaluation was followed as below. The Study Area Map is seen in Figure 1.

K1, K2, ... comparison parcel D1, D2, ... evaluation parcels

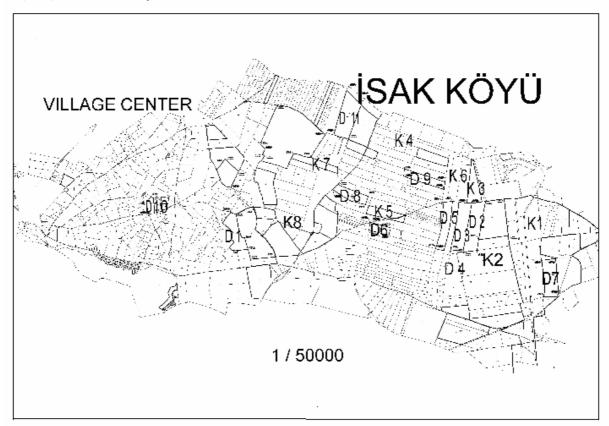


Figure 1. Study Area

Location grades and land types of the 11 lands which are to be evaluated was given on Table8 and 9. The lands of which evaluation will be done later and the land of which **land class** and **location grade** are close to each other were chosen as comparison parcels for the study. It is

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also seen in the Evaluation Map. The land owners and the villagers under oath expressed the true values in Table 3 Column 7 under consensus. The location grade criteria for the study area were applied as below.

-The possibility of producing new parcel: Since agriculture is an activity which is done with the contributions of the family members, enough land must be inherited to the members after the death of the owner. The land must have a possibility of parcel production. For this, the law give permission for producing land to the parcel which is at least 10000 m² and has 25 m side. The grading according to this criterion can be done as below;

Parcel number	0	2	5	7	9	11+
Point	-3	1	2	3	4	5

-The distance from the main road, village centre and petrol station: The distance to the village centre to carry the agricultural equipment to the field, the distance to the main road to reach the market and certain buying centres, the distance from the field to the petrol station for the need of fuel is very important for the farmers. Different grading for the three criteria can be done in this way,

Distance (km)	1	3	5	7	8	9	10	12+
Point	5	4	3	1	0	-1	-2	-3

-The Situation of the Electric Energy: It is an important criteria for well and some of the agricultural machines working with electricity. The grading can be done in this way.

Situation	Present	Present at Neighbour	Absent
Point	5	2	-2

-Facility of Irrigation : as seen on Table 3 there are nearly two times difference between the dry and watered lands. For that reason existence of the well or canal is an important criterion.

Situation	Present	Present at Neighbour	Absent
Point	8	3	-3

-Grade/Slope: Keeping the damp of the land is very important for the vegetal production. It is related with the slope besides the soil type.

Slope (%)	1	2	3	3+
Point	8	6	3	-1

-Soil Class: The amount of the organic elements in the soil is important for growing plants. For that reason soil clas is important.

Soil class	1	2	3
Point	8 - 6	5 - 4	2 -0

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State Many Few **Point** 3 1

-The size and being one piece of the land: All the lands sold by the state are big enough to support a farmer family (100 da for Konya) and in one piece. Four points are given to one piece lands. Size grading can be done as below;

Area (m ²)	100	200	300	400+
Point	2	3	4	5

- **-Cadastre:** Cadastre studies of the area are completed, for that reason 1 point is given to all lands.
- **-The Geometry of the Land:** All the lands in the village are in rectangular shape and the number of the corner points are 4 or 5. The angle edges of comparison parcels which were evaluated are nearly 90° with each other. For that reason the loss of land tracking are very little.

Diagonal no 5 8+
Point 3 -3

-Property Security: There is no life and property danger to obstruct the type of planting the lands, so 1 point is given to all.

In order to valuate the 11 lands which are belong to the National Estate Management, 8 comparison lands which are around was chosen (Figure 1) the rates of location valuation raise are calculated in Table 2 as K1, K2...

Either local experts under oath or the land owners were asked the price of the comparison lands, and their declaration reports are given on Table 3 Column 7. Bare values are reached by the correlation below after location increase value rates subtracted from current values of the lands.

$$YD = \frac{RB}{\left(1 + D_k\right)}$$

YD: Bare value RB: Current value D_k: Location Value

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The Arithmetic averages of calculated bare land values are taken according to their state of land class, watered and dry.

 Table 2 Location Grades of the Comparison Parcels

Location Valuation Criteria	K1	K2	K3	K4	K5	K6	K 7	K8
The facility of Producing new parcel	5	4	0	0	3	4	2	3
Distance to the main road (km)	5	5	5	-2	5	5	0	3
Distance to the village centre (km)	-4	3	-1	0	-1	1	2	1
Distance to the petrol station (km)	5	4	3	-3	2	-1	-1	2
The state of Electricity	5	5	5	5	2	2	-2	-2
Facility of irrigation	8	8	8	8	3	3	-3	-3
Slope	8	6	3	3	3	3	3	3
Soil class	8	8	5	5	4	4	2	2
Regional crop variety (clover, wheat, barley, sugar beet, sunflover)	3	3	3	3	1	3	1	1
One piece land	4	4	4	4	4	4	4	4
Cadastral	1	1	1	1	1	1	1	1
Geometry of the land	3	3	-3	3	3	3	3	3
Land size	4	5	3	4	3	3	3	3
Property security	1	1	1	1	1	1	1	1
Rate of Total Value Increase	56	60	37	33	35	36	16	22

 Table 3 Bare Value Calculation of Comparison Parcels

SN	Block	Parcel	Area (da)	Land class	Land Plantation Plan	Current Value (RB) TL/da	Locational Value (%) D _k	Bare Value YD= RB/(1+D _k)	Bare Value Average TL/da
K1	226	1	317,9	1. C. watered	SB+SF+W+B+U	2300	56	1474,36	1502,81
K2	238	86	530,0	1. C. waterered	SB+SF+W+B+U	2450	60	1531,25	1302,81
K3	219	67	211,6	2. C. watered	SB+SF+W+B+U	1700	37	1240,88	1221,95
K4	219	16	284,1	2. C. water	SB+SF+W+B+U	1600	33	1203,01	1221,93
K5	219	27	153,3	2. C. dry	SF+W+B+U	700	35	518,52	498,23
K6	219	65	240,5	2. C. dry	SF+W+B+U	650	36	477,94	470,23
K 7	216	60	175,3	3. C. dry	W+B+N	450	16	387,93	398,89
K8	216	56	199,8	3. C. dry	W+B+N	500	22	409,84	370,09

The 11 land belongs to the National Estate Management are 1^{st} class watered, 2^{nd} class watered, 2^{nd} class dry and 3^{rd} class dry lands. The widespread land planting plans according to the land class is determined in İsak village. According to these plans, annual net income of the 1^{st} class watered, 2^{nd} class watered, 2^{nd} class dry and 3^{rd} class dry lands are calculated. These are shown in Table 4, Table 5 and Table 6.

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Table 4 Local crops and production grown in the 1st class watered land.

PLANTS	PRODUCTION WATERED (kg/da) (V _s)	NET INCOME RATE (%) (K)	PRİCE (YTL/kg) (F)	ANNUAL NET iNCOME (YTL/da) $G = V_s x K x F$
Wheat	500	40	0.50	100,00
Barley	400	40	0.45	72,00
Wheat straw	400	90	0.20	72,00
Barley straw	300	90	0.10	27,00
Sunflower	300	55	0,60	99,00
Sugar beet	5000	50	0.12	300.00
Direct income support	10 YTL/da			$10 \times 4 = 40$
NET INCOME (Main crop) $G_A = (G_b + G_a + G_y + G_{sp})$	571,00			
NET INCOME (secondary crop) $G_Y = (G_{bs} + G_{as} + G_{d. des})$	139,00			
NET INCOME TOTAL (YTL/da) $G_{NY} = G_A + G_Y$	710,00			
ANNUAL NET INCOME $(G_N = (G_{NY}/D\ddot{o}n.Say.)$	710,00/5= 142,00 YTL/da			

planting plan in 1^{st} class watered land = SB + SF + W + B + U = 5 years

Table 5 Local crops and production grown in the 2nd class watered land.

PLANTS	PRODUCTION WATERED (kg/da) (V _s)	PRODUCTION DRY (kg/da) (V _k)	NET INCOME RATE (%) (K)	PRICE (YTL/kg) (F)	INCOM	AL NET E(YTL/da) x K x F
Wheat	400	300	40	0.50	80,00	60,00
Barley	300	200	40	0.45	54,00	36,00
Wheat straw	300	225	90	0.20	54,00	40,50
Barley straw	250	150	90	0.10	22,50	13,50
Sunflower	200	120	55	0,60	66,00	39,60
Sugar beet	4000		50	0.12	240,00	
Direct income support	10 YTL/da	10 YTL/da			4 x	3 x 10,00
NET INCOME (Main crop) $G_A = (G_b + G_a + G_y + G_{SP})$	440,00	135,60				
NET INCOME(secondary crop) $G_Y = (G_{bs} + G_{as} + G_{d. des})$	116,50	84,00				
NET INCOME TOTAL (YTL/da) $G_{NY} = G_A + G_Y$	556,50	219,60				
ANNUAL NET INCOME	556,50/5=	219,60/4 =				
$(G_N = (G_{NY}/D\ddot{o}n.Say.)$	111,30 YTL/da	54,90 YTL/da				

planting plan in 2^{nd} class watered land = SB + SF + W + B + U = 5 years planting plan in 2^{nd} class dry land = SF + W + B + U = 4 years

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Table 6 Local crops and production grown in the 3rd class dry land.

BİTKİLER	PRODUCTION WATERED (kg/da) (V _k)	NET INCOME RATE (%)	PRICE (YTL/kg) (F)	ANNUAL NET INCOME
Wheat	225	40	0.50	45,00
Barley	150	40	0.45	27,00
Wheat straw	170	90	0.20	30,60
Barley straw	125	90	0.10	11,25
Direct income support	10 YTL/da			$10 \times 3 = 30$
NET INCOME (Main crop) $G_A = (G_b + G_a + G_y + G_{sp})$	72,00			
NET INCOME(secondary crop) $G_Y = (G_{bs} + G_{as} + G_{d. des})$	71,85			
NET INCOME TOTAL (YTL/da) $G_{NY} = G_A + G_Y$	143,85			
ANNUAL NET INCOME $(G_N = (G_{NY} / D\ddot{o}n.Say.)$	143,85/3 = 47,95 YTL/da			

planting plan in 3rd class dry land = W + B + U = 3 yıl

According to **the bare value avarege** calculated in Table 3, and annual net income average for the land class in Tables 4,5,6, and Table 7 is formed to calculate **the local rate of interest capitalization**.

Table 7. Local rate of interest capitalization.

LAND CLASS	PRICE(YTL/da)		ANNUAL NET INCOME (YTL/da)		LOCAL RATE OF CAPITALIZATION INTEREST (%			
	Watered	Dry	Watered	Dry	Watered		Dry	
1	1502,81		142,00		0,094	0,093		
2	1221,95	498,23	111,30	54,90	0,091	0,093	0,110	0.115
3		398,89		47,95			0,120	0,113

All these rates are between the 3-15 % which is the legal obligatory of the Supreme Court 18th Law Office. After the calculation of these rates, valuation grades of 11 lands belong to the National Estate Management are calculated as in Table 8.

In the last step of the calculations, value of 11 lands are calculated as seen in Table 8.

Table 8. The location grades of the valuated parcels.

Locational Valuation Critera Ölçütleri	D 1	D2	D3	D4	D5	D6	D7	D8	D9	D1	D1
The facility of Producing new parcel (adet)	-3	5	2	5	4	-3	5	2	3	2	5
Distance to main road (km)	-2	5	5	4	5	3	5	1	4	-3	-2
Distance to village centre (km)	3	-1	-1	3	1	1	-3	2	-1	5	0
Distance to petrol station (km)	-2	3	3	4	3	2	5	-1	-3	-3	-3
State of electricity	5	2	2	5	2	2	5	5	2	2	5
Facility of irrigation	3	3	3	8	3	3	8	3	3	3	8
Slope	-1	3	3	3	3	3	6	-1	3	-1	3
Soil class	0	4	4	4	4	0	8	0	0	0	5
Regional crop variety (fruit, clover, wheat, barley, potatoes, onion, oaf, fiğ, sugar beet,)	1	3	3	3	3	1	3	1	3	1	3
One piece land	4	4	4	4	4	4	4	4	4	4	4
Cadastral	1	1	1	1	1	1	1	1	1	1	1
Geometry of the land	-3	3	3	3	3	3	3	3	3	3	3
Land size	4	5	4	3	3	2	4	3	3	1	5
Property security	1	1	1	1	1	1	1	1	1	1	1
Rate of Total Value Increase	11	41	37	51	40	23	55	24	26	16	38

Table 9. The current cost calculation of the valuated percels.

SN	block	Parcel	Area (da)	Land class	Land plantation plan	Net income (G) da/yıl	Value (D=G/k)	Location value (%) D _k	Current value RB=D.(1+D _k) TL/da
D1	250	12	253,80	3. C. dry	W+B+U	40	347,83	11	386
D2	238	80	389,01	2. C.watered	SB+SF+W+B+U	116,42	1251,83	41	1765
D3	238	79	344,31	2. C. dry	SF+W+B+U	58,00	504,35	37	691
D4	238	77	202,45	1. Cwatered	SB+SF+W+B+U	145,66	1566,24	51	2365
D5	238	65	233,96	2. C dry	SF+W+B+U	51,48	447,65	40	627
D6	238	19	99,00	3. C. dry	W+B+U	40	347,83	23	428
D7	226	18	298,60	1. C.watered	SB+SF+W+B+U	147,95	1590,86	55	2466
D8	219	51	186,00	3. C. dry	W+B+U	40	347,83	24	431
D9	219	20	188,00	3. C. dry	W+B+U	47	408,70	26	515
D1	215	42	60,00	3. C. dry	W+B+U	33,8	293,91	16	341
D1	214	29	415,90	2.C.watered	SB+SF+W+B+U	121,42	1305,59	38	1802

4. CONCLUSIONS

The usage of the land which is one of the basic components of human life for urban, industrial, transport and agriculture has been increasing day by day. The intensive demand to the agricultural areas from different sectors and nourishment, the value of the agricultural lands has been changing. For this reason, the valuation of the agricultural lands become important. Land valuation is done fort he aims like, nationalization, buying, getting loan and mortgage. Whatever is the aim, the valuation has been done according to the **income management** as it is a legal obligatory. However, **locational value raise** and **conjuncture** are always neglected in these evaluations.

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Official data for no selling fort he local rate of interest capitalization was searched ,but the data of 290 YTL/da for watered land, and 270 YTL/da for the dry land was found. Everybody knows that the prices are not true. Instead of these prices villagers' statements who are under oath are taken into the consideration. In order not to be these happen, land buying and selling charges and land taxes should be abolished or decreased in the rate of 0,1%.

In this way the real prices of the land will be given to the Property Registration Managements and the valuation map will be formed easily, the groups of buyers and sellers and public will be protected against deceive by current and reliable data.

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