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Effects of the Purpose Expropriation of Land Consolidation to Landholding

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***Abstract*—**In the current expropriation of Turkey, the state acquires necessary lands for its investment without permission of the owners and not searching for alternative solutions, so it is determined that neither processor nor processed is not happy. In this study, interactions of enterprises in Turkey are analysed in case the necessary land for public investments are acquired by expropriation purposed land consolidation. Legal basis, positive and negative sides, financial effects to enterprises of this method is evaluated according to Konya Kadınhanı, Kolukısa avenue which is on the Konya-Ankara High-Speed Train Route.

***Keywords*—**Land consolidation, expropriation purposed land consolidation, sustainable rural development, cost.

I. Introduction

TURKEY should make long term plannings for total development in industry, agriculture, technology and commerce and should apply it. Some part of necessary land for realizing these projects are provided from rural areas. It is important to be careful while providing these lands from rural areas. The applications should hold present and future users of the land harmless [1] . Almost all necessary lands for the needs of public (transportation, water delivery channels and storage areas, energy source areas, etc.) are provided by expropriation in Turkey [2]. State institutions and organizations pay huge amounts to acquire these lands. The state use these acquired lands only for single purpose and can not solve this problem by paying money. New problems begin with expropriation. Pre-expropriation owners of the lands think that they are aggrieved of this application. In accordance to this, these people apply to judicial authorities and increase their work load. The state has to pay huge amounts as a result of these institutions' decisions. Sustainable agriculture applications can be provided by expropriation purposed land consolidation without effecting operator institutions economically and changing life style of land owners. So the country sources wil not be used only for one purpose. So, the authorities of public institutions and organizations, which produces services, should search, try and make necessary studies by using existing laws and rules of Turkey for acquiring options of the necessary lands and areas for their instutions without paying a price, making previous users non-agriculture and earning both in economy and time by reuniting splitted areas after expropriation.

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Land arrangement studies, which is for providing all necessary lands for road, transit way, railway, high-speed train route, canal, natural gas piping systems, petroleum pipelines, dam and all other public investments from Development Readjustment Share (DOP), preventing direct harming or adding value on agricultural enterprises, is called as expropriation purposed land consolidation [3].

Expropriation purposed land consolidations's legal basis are revealed by 5403 Numbered Land Protection and Land Usage Act's "land consolidation and distribution" titled 17th Statement, which says " Land consolidation project area is determined and applied by cabined decision for optimum scale of parcel sizes for providing rational usage of the land,optionally for land owners who have more than half of the land and for the more than half of the owners on the land, nondiscretionary for the demand of ministry or boards for caring public interest [4]."

In route & line projects, (High Speed Train, pipelines, double highways) there is not expected income growth on the expropriated properties after the expropriation. On the contrary, as the area splits and become smaller, there are value losses. In this case, land owners are effected negatively and they ligitate as they are prejudiced to expropriation [5]. Some of them immigrate to city centers as they have not got any area for agriculture left and cause other problems. If expropriation purposed land consolidation is done, the lands in the expropriation area can be made cultivation area for a far less amount than expropriation cost [6].

II. Effects of Expropriation Purposed Land Consolidations' Effect to Enterprises

In this application, Kolukısa Avenue High Speed Train Route in Konya-Kadınhanı District is tried to get by land consolidation. Kolukısa is an avenue which is on the Konya-Kadınhanı-Polatlı-Ankara freeway route, 35km to country town, 90km to city center and have 1500 people population. Application area is given in Fig. 1 [7].

A. Kolukısa Avenue Expropriation Project Map Information and Expropriation Costs

Ankara-Konya High-Speed Train Project begins from north and ends in south side of Kolukısa Avenue. It has 40m to 75m changing width according to cadastral parcels and 15470,53km length in total, and projectized as lane (Fig. 2). The route is on 88 pieces cadastral parcel, 108 parcels in total 20 of which are external registration. 44 pieces of these cadastral parcels are private ownership, 44 pieces belong to

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Forage and Treasury Secretary. Areas of expropriated parcels are given in Table I.

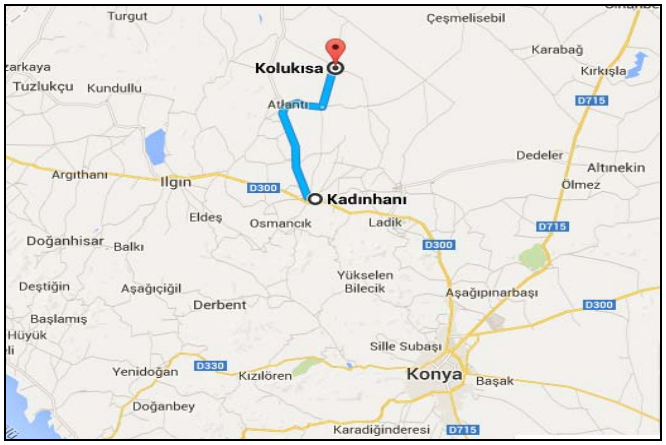


Fig. 1 Kolukısa Avenue Project of Expropriation

TABLE I
KOLUKISA AVENUE AREAS OF THE EXPROPRIATED PARCELS

Parcel Type	*Quantity*	*Ownership(m²)*
Private Ownership	44	360229,81
External Registration and Stony	20	29429,94
Forage and Treasury Secretary	44	466946,64
Village Legal Entity	0	-
Total	108	856606,39

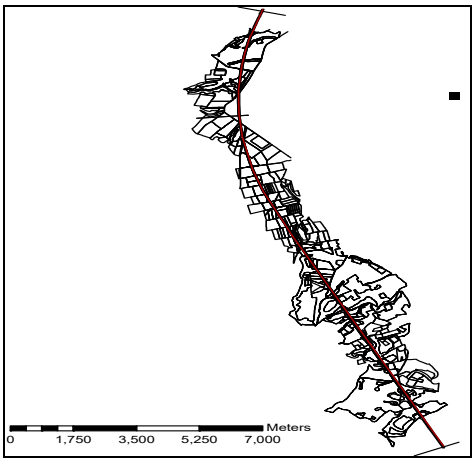


Fig. 2 Kolukısa Avenue High Speed Train Expropriation Route Map

High Speed Train Route bisects 40, trisects 48 of 88 parcels which it crosses over and 136 pieces parcels are created. 19 of these parcels are of nonarable geometric shapes and less than 6000 m² areas.

Expropriation rate and costs are given for Forage, Treasury Village Legal Entity and private individuals epropriated areas in Kolukısa avenue (Table II).

B. Cadastral Registration Information in the Land Consolidation Arrangement Area and Land Consolidation Results in Kolukısa Avenue

It is seen that there are 1461 cadastral parcel in the arrangement area (Fig. 3) in Kolukısa Avenue. There are 941 enterprises in the arrangement area. Each enterprise has 1,55 parcels. Ownership status and percentages of the arranged areas is given in Table III.

TABLE II
TOTAL AMOUNTS TO BE PAID FOR FORAGE, TREASURY, VILLAGE LEGAL ENTITY AND PRIVATE INDIVIDUALS IN KOLUKISA AVENUE

No	Owner	Total Area	M² Price	Exp. Cost	Value Increase	Total Amount
1	Pasture-State land	464367,20	0,35	162528,52	0	162528,52
2	Village legal personality	29603,17	0,35	10361,11	0	10361,11
3	Private property	377218,86	-----	251558,22	55406,53	306394,75
	Total	871189,23				479284,39

TABLE III
OWNERSHIP STATUS AND PERCENTAGES OF THE ARRANGED CADASTRAL PARCELS

Ownership	Qty	%
Private Property	810	55,44
National Treasury	190	13,00
Forage	460	31,49
Village Legal Entity	1	0,07
TOTAL	1461	100

Two public partnership interests are determined as before and after the expropriation by creating parcel indexes and applying the condition of uniting big parcels of the enterprises by these datas and these two rates are compared.

DOP amount of Kolukısa Avenue High-Speed Train Route without expropriation is given in Table IV. Kolukısa Avenue Arrangement area is seen in Fig. 3.

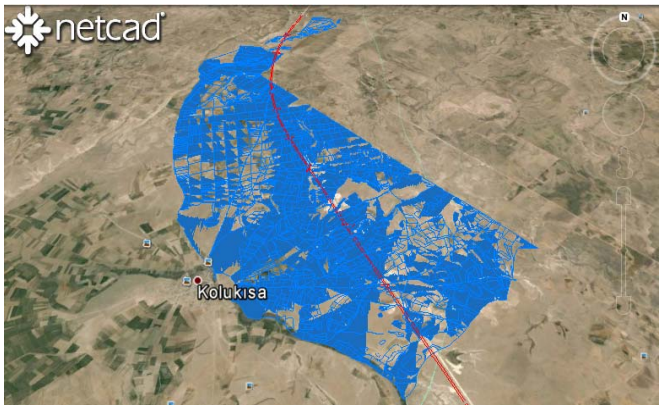


Fig. 3. Kolukısa Avenue Land Arrangement Area [8]

TABLE IV
KOLUKISA AVENUE DOP RATE ACQUISITION WITHOUT EXPROPRIATION

Total Cadastre PDS	60751694,21
Total Block PDS	58333045,03
DOP Rate	0,0398120

If High-Speed Train Route is consolidated by expropriation; DOP calculation should be made by spatial values, not PDS values because of the length of HST route. Related values and result is given in Table V.

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TABLE V
KOLUKISA AVENUE DOP RATE IF CONSOLIDATION IS MADE EXPROPRIATION

Cadastral Parcels Areas Total:	90.231.127 m²
Block Areas Total:	86.638.845 m²
Expropriated Areas Total:	856.606 m²
DOP Rate	0,03060912

As the Cadastral Parcel Area Total will decrease as much as expropriated area total. Total of new cadastral parcels = 90.231.127-856.606 = 89.374.521 m²

$$DOP = \frac{89.374.521 - 86.638.845}{89.374.521} = 0{,}03060912$$

DOP Difference is = 0,0398120-0,03060912 =0,00920288

While there were 1461 parcels in Kolukısa Avenue, which is one of the application areas, before the consolidation, the parcels have increased to 991 pieces after consolidaiton and average parcel size has increased to 87829,73 m² from 61759,84 m². Consolidation rate is 32,16% [1].

III. EVALUATION OF EFFECTS TO ENTERPRISES IN APPLICATION AREA

Muammer Tezcan, who live in Kolukısa Avenue, has 223/8, 236/65 and 236/101 numbered parcels. In these parcels, High Speed Train Route has crossed over from 223/8 numbered parcel and has splitted the parcel to three parts as A, B, C; and B (22826 m²) part is expropriated. Muammer Tezcan has 1/5 share of this parcel. This share corresponds to 4565 m². 3188.60 TL has been paid to enterprise as expropriation cost. 131606 m² of 233/8 parcel has stayed in avenue settlement side and 59348 m²part has stayed in High-Speed Train Route part (Fig. 4).

High-Speed Train Route is fenced with wire for security as soon as operationalized and crossing over is provided by underpass and overpass which are built in 4-5km intervals.

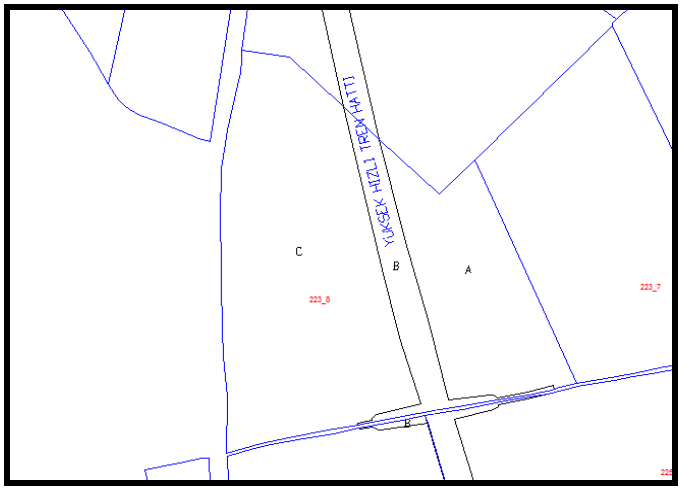


Fig. 4 Shape of 223/8 Numbered Parcel After Route Crossing

TABLE VI
MUAMMER TEZCAN'S PARCELS SITUATION AFTER HSP ROUTE CROSSING

Previous Parcel No	Previous Areas(m²)	Areas after HST Route (m²)
223/8	42755	0,000
223/8/A	0	26321
223/8/C	0	11869
236/65	227400	227400
236/101	5960	5960
Total	276115	271550

According to above condition (present condition), this enterprise does agriculture in four parcels totally in 271550 m² areas. Although 223/C per contra part of expropriated 223/8 parcel is side by side, it cannot reach to 223/C part directly because of fences and 223/C is reachable from overpass in 223/8. Access to above stated parcels from avenue settlement, names of the roads, distances are given in Table VII and Fig. 5.

TABLE VII
PREVIOUS, PRESENT PARCELS', LOCATION AND NAMES OF THE ROADS OF SAMPLE ENTERPRISE

Settlement (YY)-Parcel No	Name of Track	Distance (m)	Travel time from settlement to parcel area (Minutes)	Amount of fuel spent during this time (0,30lt approx. in 1 km)
223/8/A	Track_1	8500	35	2,55
223/8/C	Track _2	9300	40	2,79
236/65	Track _3	6400	25	1,92
236/101	Track _4	3700	15	1,11
TOPLAM		27900	115	8,37

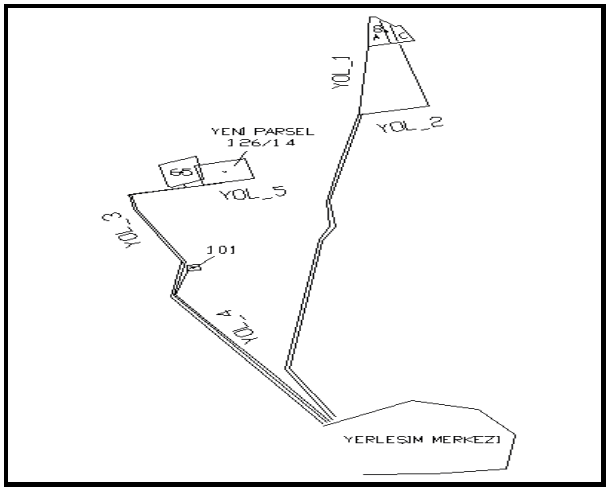


Fig. 5 Position of previous and present parcels of the sample enterprise

This enterprise spent 8,37 lt of diesel only in one way. When we include return it is 8,37x2=16,74 liters of diesel. It is determined that these farms are visited 9 times from harvesting crop until harvesting crop of next year. It will spend 16,74×9=150,66 liters diesel in total annually. Studying time criteria of the same enterprise, the farms are arrived in 115 minutes under the best conditions. It is 230 minutes when

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settlement return is included. According to this calculation, total round-trip time is found as (230 × 9) 2070 minutes which is 34,5 hours.

Position of new parcel after land consolidation is applied to the same enterprise is given in Fig. 4. New parcel of sample enterprise after land consolidation is given as 228/14 and 266812 m². Distance of this parcel to settlement area is 6600 meters and given as Track_5. If tractor consumes 0,30liter per kilometer, it consumes 6,6×0,3=1,98 lt on single way. It consumes 3,96 liters in total as it will consume the same amount while returning back. It is determined that these farms are visited 9 times from harvesting crop until harvesting crop of next year. It will spend 3,96 × 9= 35,64 liters diesel in total annually. Track length, time and diesel consumption of the enterprise before the consolidation and comparison of same criterias are given in Table VII. If the transportation of this enterprise to the new parcel is studied as time, total round trip time is 40 minutes for 6600 meters away new parcel, it means that 40x9=360 minutes are spent.

Path length, diesel consumption and spent time of the sample enterprise for one year before the consolidation is given in Table VIII.

TABLE VIII
COMPARISON OF ENTERPRISE'S PATH LENGTH, TIME AND CONSUMED DIESEL BEFORE AND AFTER THE CONSOLIDATION

	Before Land Consolidation	After Land Consolidation
Track Lengths(m)	27900	6600
Time (Minute)	2070	360
Diesel Consumption (lt) (Annually)	150,66	30,24

IV. CONCLUSION

In this study, Konya-Kadınhanı-Kolukısa-Sarıkaya Avenues, which are on Ankara-Konya High-Speed Train Route, are chosen as research area. The area of the route is tried to be acuired by land consolidation in these avenues and cost, time and results of this study is revealed. Documents and datas of the expropriation processes are acquired in the same avenues, time and results are determined.

In the application area, Kolukısa Avenue 9020 hectar area, 1476 parcels has decreased to 991 parcels.

In Kolukısa avenue, while the percentage of the parcels which use the road was 51,26%, it has become 100% after the consolidation.

When effect of High-Speed Train route to development readjustment share in land consolidation is studied, it is determined as 0,00920288 in Kolukısa avenue.

When one of the situation of land owners in the expropriated area,it is seen that the area of this person has increased to 4 pieces while it was only 3 pieces before the expropriation. Total length of this individual's parcels to settlement was 27,9 kilometers. According to survey results, this parcel is visited 9 times. This farmer will spend 34,5 hours time and 150,66 liters of diesel to all parcels in one year.

If there were land consolidation for the same individual, the amount of new parcel would decrease to one piece and this parcel's distance to settlement would be 6,6km. land owner would go to this parcel 9 times in a year and would spend 30,24liters diesel. This owner would save 28,5 time and 120,42 liters of diesel per year.

When the remaining parts are too small after the consolidation, land owners do not go to office of register of deeds and take the amount and it cause big problems in land registration records.

If expropriation purposed land consolidation is made, emerging land loss, in other words expropriation cost, will be distributed between land owners.

In Turkey, expropriation purposed land consolidation is made undirectly by DSİ and TRGM for the applications of irrigation and draining canals, by General Directorate of Highways for the areas within double highways, new belt highways, the necessary areas are acquired by land consolidation without expropriation. As there is not a standard for these applications, there are different applicatons in each area, and as these are done without the information of the owners, there can be injustices. In order to relief this injustice, 5403 numbered Soil Protection and Land usage Law's 17th statement and 17th statement of the same law's regulation; "provincial special administrations, municipalities and villages and cooperatives with agricultural purposes, legal entities or other public institutions can make land consolidation for project management." should be used. So, state institutions and organisations should acquire necessary land for investment projects without paying price or using disproportionate force by giving land for their lands and arrangements should be made for creating proper size of parcels, transportation between parcels, providing modern watering and agricultural mechanisation techniques' necessities.

Expropriation should be the last method for acquiring the lands needed for investment projects of state institutions and organizations.

Expropriation purposed land consolidation can prevent partition of an area and heritage sourced problems will be solved too.

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