

6 PROJECT IMPACTS AND MITIGATION MEASURES

6.1 GENERAL

Under the Turnkey Contract for construction of the 1,076 km Turkish section of the Project, sub-contracted construction firms will work simultaneously on four different sections of the pipeline. Since the acquisition of the majority of land will be only temporary for use thereafter during the construction phase, with use to be restored to original owners subject to certain restrictions, DSA/BOTA^a will implement a rolling plan of land acquisition tied to the four construction schedules. By doing so, disruptions to land use are minimised and last minute changes (such as the discovery of culturally significant sites) can be made without having to undo or redo land acquisition. In addition, since compensation valuation will depend largely on the current value of agricultural income from the land (which can change dramatically from year to year) the size of Project impacts can be known with precision, but the value of Project impacts can only be estimated using current economic data.

Since no homes will be destroyed, the key impacts of the Project on peoples' lives can be categorized as follows:

- Loss of land for agricultural cultivation;
- Loss of grazing and pasture land;
- Reduced livelihoods or productivity losses;
- Loss of man-made structures and infrastructure;
- Reduced access to pastures and forests; and
- Loss of community assets and infrastructure.

These impacts and the associated mitigation measures are discussed in Sections 6.4 to 6.18 and in the entitlement matrices at the end of this Chapter.

The distribution in number of affected plots across the ten involved provinces is very different. Affected plots in Sivas, Erzurum and Ardahan represent 45 percent of the total number of plots; whereas affected plots in Adana, Gumushane and Osmaniye comprise only 6 percent of the total, as shown in Chapter 1. Also, within each province, certain counties are impacted significantly more than others (Figure 6.1). One important implication of this is the need for RAP implementation and monitoring to give particularly close attention to certain provinces. Equally important are the differential impacts on individual plots; Figure 6.1 shows how the corridor takes a very small portion of most plots and slightly more of others.

There is, however, a direct correlation between the number of affected plots in a province and the number of affected people. Four provinces have high numbers of affected plots and owners (Table 6.1). There are some provinces with relatively fewer plots affected, but they differ in the number of owners who will have to be compensated per plot. For instance, in Kayseri, a comparison of the affected number of plots and owners shows that a large majority of plots are owned by one person, thus substantially enhancing the potential for negotiated compensation. In Kahramanmaras, on the other hand, each plot has an average of three owners, likely complicating the compensation process and thus requiring DSA/BOTA^a to make special efforts in such cases to bring all owners into the compensation negotiations process.

Figure 6.1 Land Plots

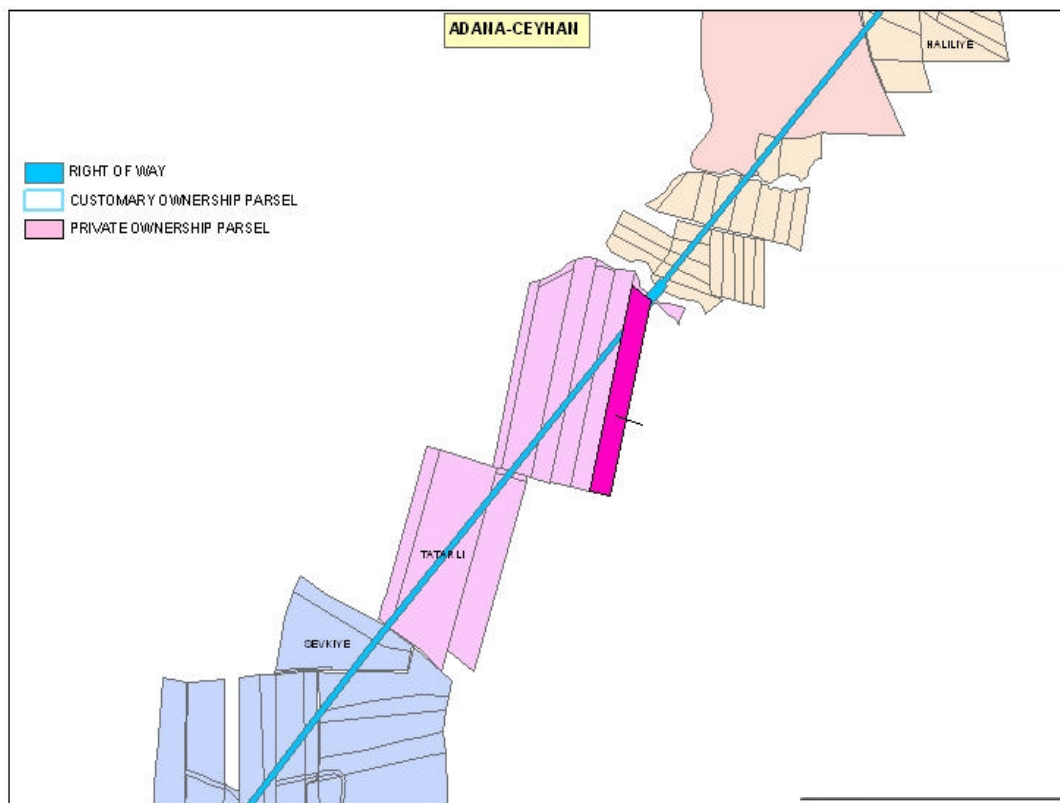


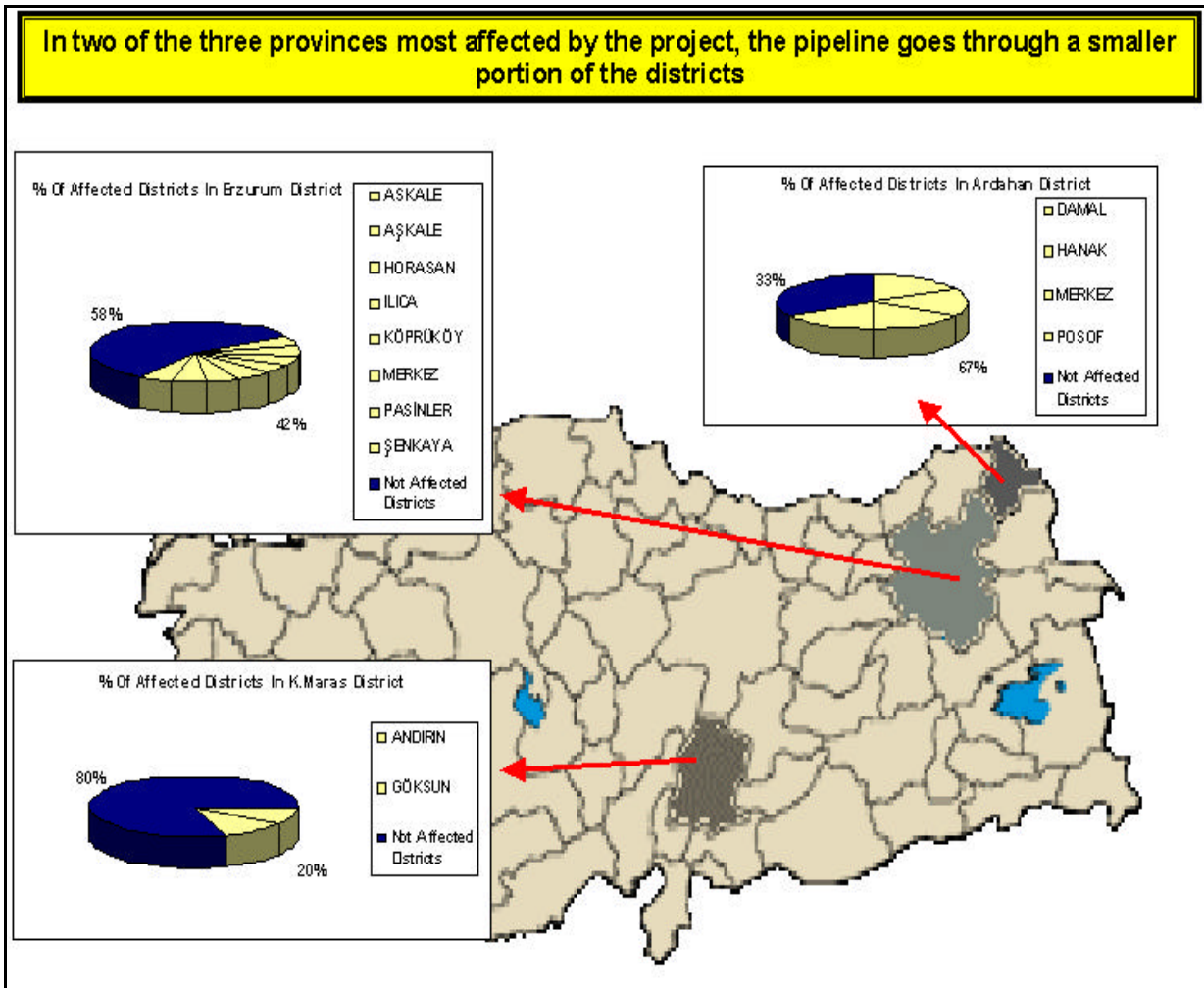
Table 6.1 Project Affected Plots and Owners¹

Province	Number of Affected Plots	Number of Owners
ADANA	358	1194
ARDAHAN	1500	1878
ERZINCAN	1522	4209
ERZURUM	2355	3804
GUMUSHANE	195	352
KAHRAMANMARAS	1321	3828
KARS	768	800
KAYSERI	1099	1266
OSMANIYE	477	3177
SIVAS	2682	7475
TOTAL	12277	27983

Source: BTC Project, GIS Database, 2002

¹ The number of owners/users is not identical with the number of households. In many cases, several persons within a household may own a plot. The number of affected households, however, cannot be obtained by dividing the total number of owners to the average number of owners since not all joint owners are family members. Nevertheless, this is a relatively easier assumption to make.

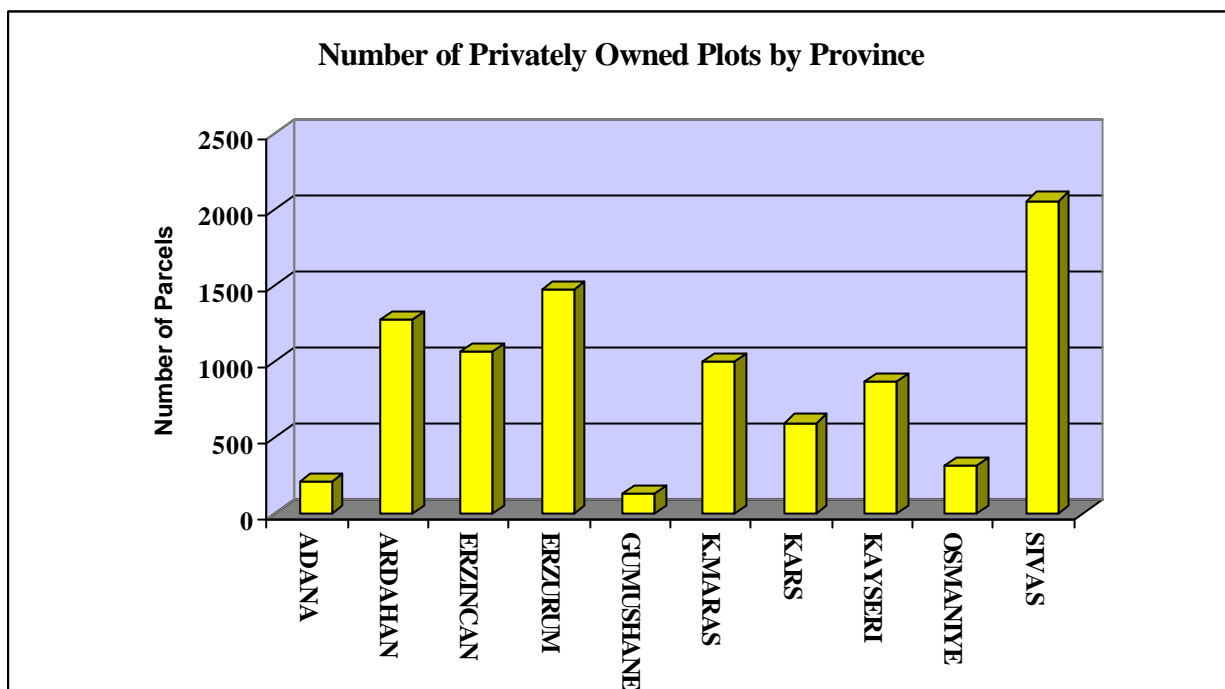
Figure 6.2 Land Plots Extent to Which Districts Are Affected by the Pipeline



6.2 SUMMARY OF PROJECT AFFECTED POPULATIONS

Nearly 30,000 owners and tenant/sharecroppers are affected by the Project in Turkey. This indicates that over 10,000 households might be affected given that in many cases the plots are registered in the names of multiple owners (Figure 6.4). In provinces with well-established land registration systems, such as Adana and Osmaniye, a large number of owners appear on the title deed. In other provinces, where customary ownership prevails, such as in Kars and Ardahan, the household head has been identified as the owner. The Project's impacts on plots owned by single persons will be greater in terms of lost income per owner. In addition, the impacts of the Project on multiple owners may be less in income lost but will also be less in individual compensation received. However, independent of the number of owners of a plot, small plots that have a substantial portion of land expropriated will have greater losses on a percentage basis than larger plots with less land lost. These factors are likely to increase the complexity of reaching negotiated compensation agreement with all types of owners, thus making it more difficult for DSA/BOTA^a to complete the expropriation process rapidly.

Figure 6.3 Number of Privately Owned Plots by Province



Source: BTC Project, GIS Database, 2002

The Project affects different types of populations:

6.2.1 Owners

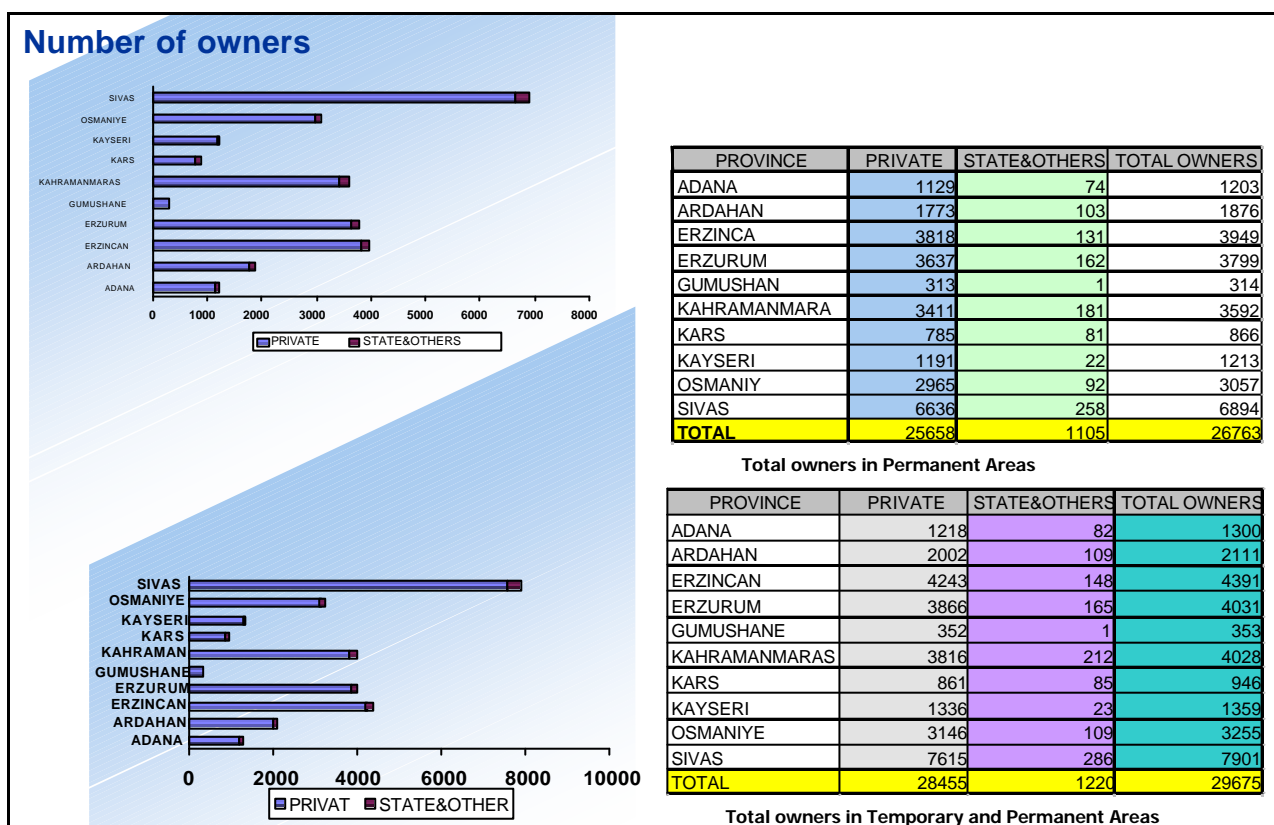
Affected owners consist of owners of both agricultural and urban land. There are a greater number of agricultural landowners than urban landowners and they will be compensated both for land that is permanently and temporarily acquired on the basis of discounted net income. Urban landowners will receive a sum equivalent to the “market value” of their land. Plots are often held jointly by members of a family (Figure 6.4) as a result the directly affected people consist of all persons who are either single or joint owners or users.

Landowners can also be divided into two groups based on their legal status: those with a title deed and those with traditional/customary land rights (Figure 6.5). The land registration system has not yet been established in many parts of Turkey. In localities where such a system does exist, land plots have been registered in the names of multiple owners, primarily as a result of the system of inheritance. In contrast, those persons whose status falls into the category of “customary rights owner” have been identified for the benefit of the Project by village authorities. Often it is the individual that is deemed “head of the household” who has been registered as the “owner.” With respect to entitlements, both groups have equal rights and will be compensated fully.

Plots that have been registered tend to have a higher number of owners. Through the process of inheritance, ownership has been passed from one parent to several children. Customary ownership rights, on the other hand, tend, to a greater extent, to be registered in the name of one or few persons (Chapter 4). In terms of potential dispute among owners during the expropriation process, these tend to arise both among deeded and customary owners. For the first group, the primary cause of dispute is due to delays in the registration of inheritance. For the latter group,

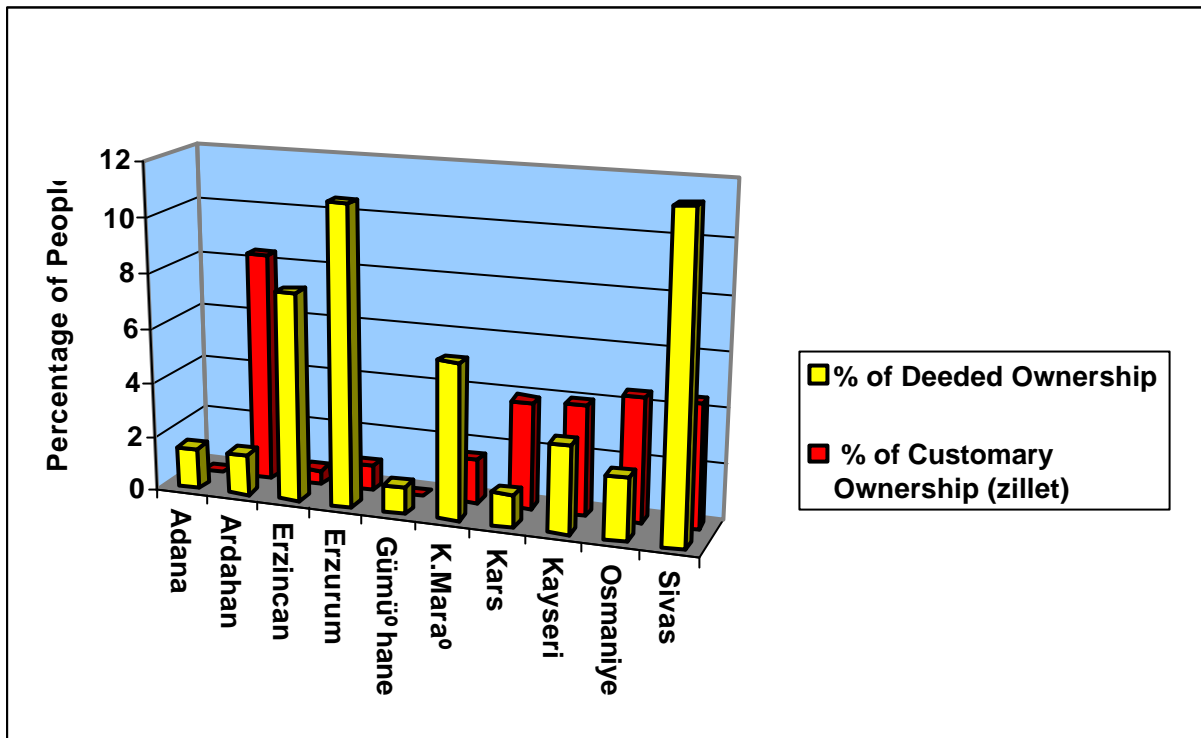
on the other hand, often the dispute arises when one person, rather than a whole group of persons with rights to customarily held lands, wishes to impose his/her own name as the rightful owner. The resolution of these disputes is the responsibility of the families and individuals concerned; the Project has no right to interfere. However, in order to facilitate the timely receipt of compensation to be paid to each of the individual owners of a given plot, repeated efforts are being made to provide guidance so that people resolve their disputes and gain timely access to compensation payments.

Figure 6.4 Joint Ownership



Source: BTC Project, GIS Database, 2002

Figure 6.5 Percentage of Project Affected Population



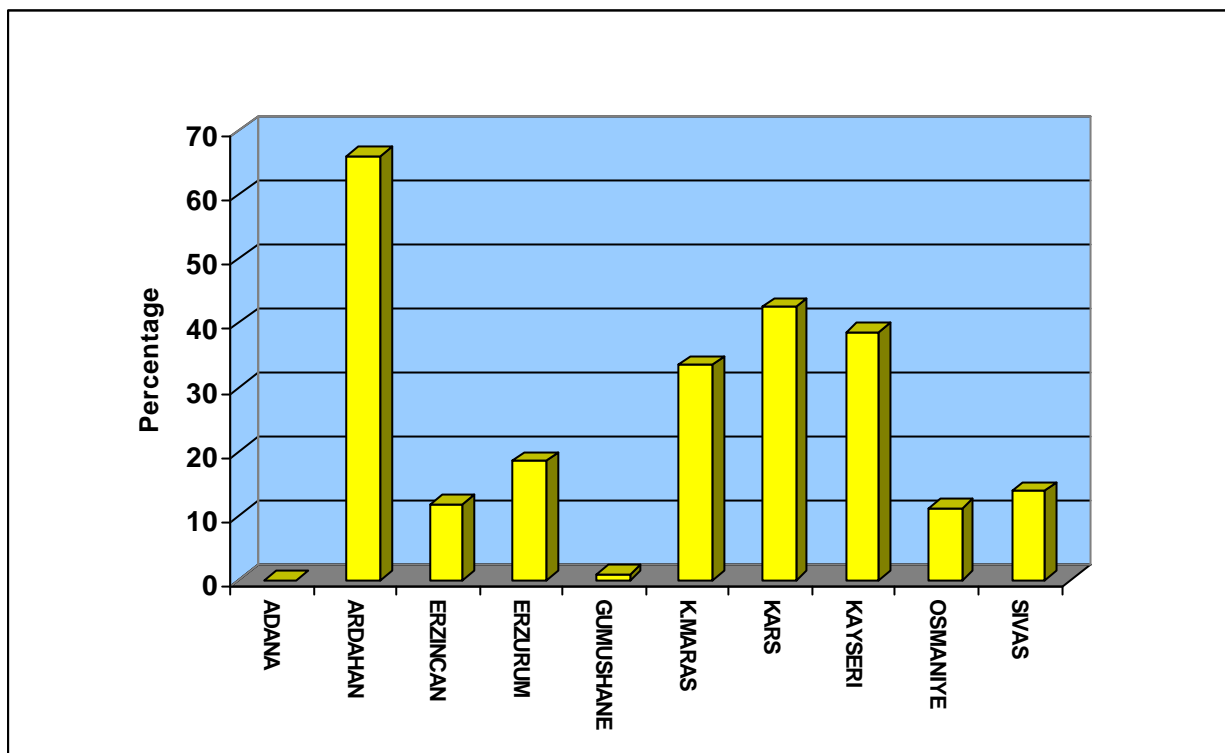
Source: BTC Project, GIS Database, 2002

Yet another category of owners involve 177 plots about which there were already ownership disputes before the advent of the Project. These disputes have been registered in the GIS system and on the title deed, but their solutions will have to be sought outside of the Project. There is no doubt that the owners are fully entitled to compensation, but until they sort out the ownership issue among themselves, their compensation will be kept in the custody of the courts and will earn interest at commercial rates. To help them gain timely access to their compensation payments, the Project is sending them letters and providing them relevant guidance.

Non-resident (absentee) owners constitute an important segment of the affected populations, especially in some provinces (Figure 6.6). Indeed, in some provinces, rural out-migration has resulted in high levels of absentee ownership. About 1,133 of the privately owned and deeded plots have absentee owners. In Ardahan, for instance, over 60 percent of affected plots have at least one absentee owner. Among the project impacted populations, about 2,647 are non-resident.

The entitlements of this group are identical to the resident owners. The existence of non-resident owners, however, poses significant challenges for the expropriation agency. First, discovering the correct addresses of these non-resident owners is difficult. Indeed, the responses to the mail survey thus far demonstrate that additional effort will be needed for address identification and verification. Secondly, contacting these landowners in a timely manner and getting responses from them has not been easy.

Figure 6.6 Percentage of Plots With Absentee Owners



Source: BTC Project, GIS Database, 2002

A separate mail survey of non-resident owners has been carried out for the express purpose of assessing the difficulties involved in this process. The results point to the necessity of providing early information to the non-resident owners, and encouraging them to issue a power of attorney so that their resident kin can participate in valuation negotiations and receive payments on their behalf. Thus, in order both to disclose the RAP and to enhance absentee owner participation in negotiated solutions, an additional set of letters will be sent to them all.

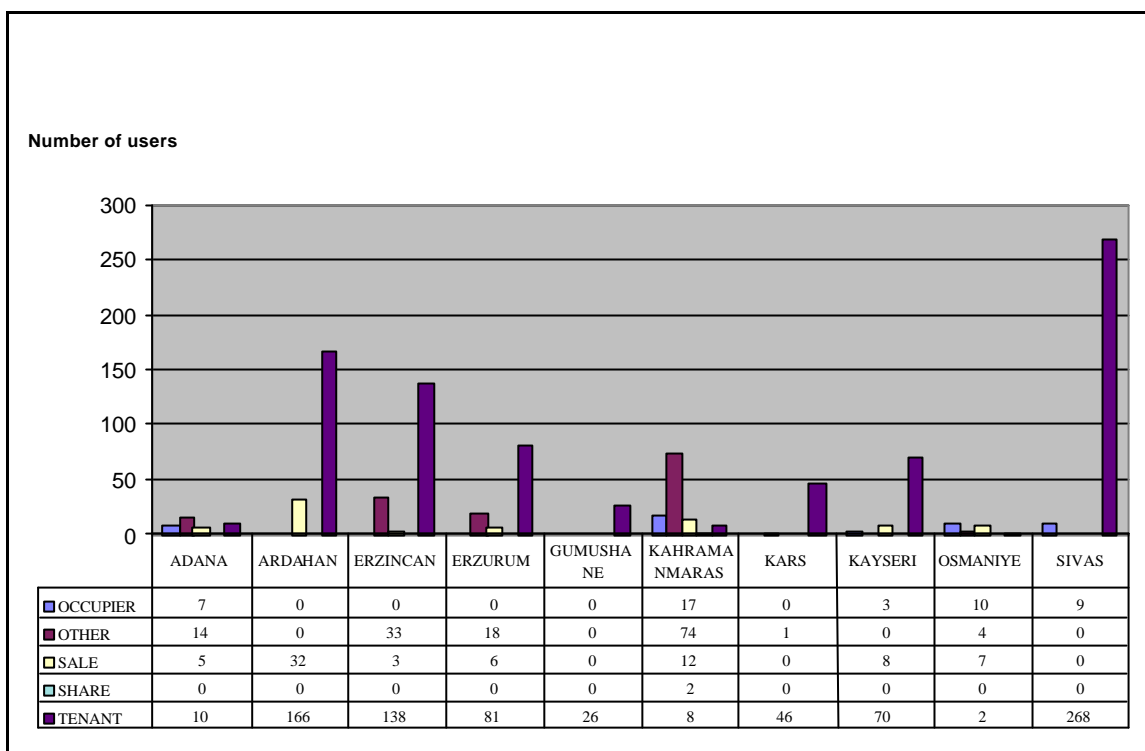
6.2.2 Tenants

The RAP survey has revealed that persons who are not a household member of an owner have cultivated about 18 percent of the affected plots. Similarly, DSA/BOTA^a has established that tenant/sharecropper families cultivated over 1,000 of the plots². Tenants and sharecroppers are entitled to compensation depending upon the oral or written contractual arrangements between them and the owners³ (Figure 6.7). Their entitlements are limited to affected crops, trees (if planted by the tenants) and structures (including informal irrigation works) that might have been built by tenants. Also, depending on the contractual arrangements, a portion of affected assets (such as crops) might have to be shared between the owner and the sharecropper.

² Based on the socio-economic survey, about 1,600 should have been cultivated by non-owners, instead of 1,100. The reason for the discrepancy may be attributable to customary ownership; the GIS data may be recognizing tenants on lands held with title deed. Nevertheless, between 1,100 and 1,600 plots have tenant/sharecroppers whose rights are recognized by the Project.

³ The Turkish Expropriation Law, however, only recognizes the compensation rights of the landowners whereas IFC/World Bank guidelines explicitly provide for compensation to tenants.

Figure 6.7 Tenancy Arrangements



The tenancy arrangements are complex and the local laws do not recognize the right of the tenants to compensation. To comply with the requirements of World Bank OD 4.30, every effort will be made to compensate the tenants while, at the same time, recognizing the rights of the owners. Therefore, tenants are being asked to record their arrangements with the owners. If some documentation is available, both parties will be paid through the regular funds of DSA/BOTA^a. Should these present difficulties for a certain group, their case will be considered for compensation under the RAP Fund.

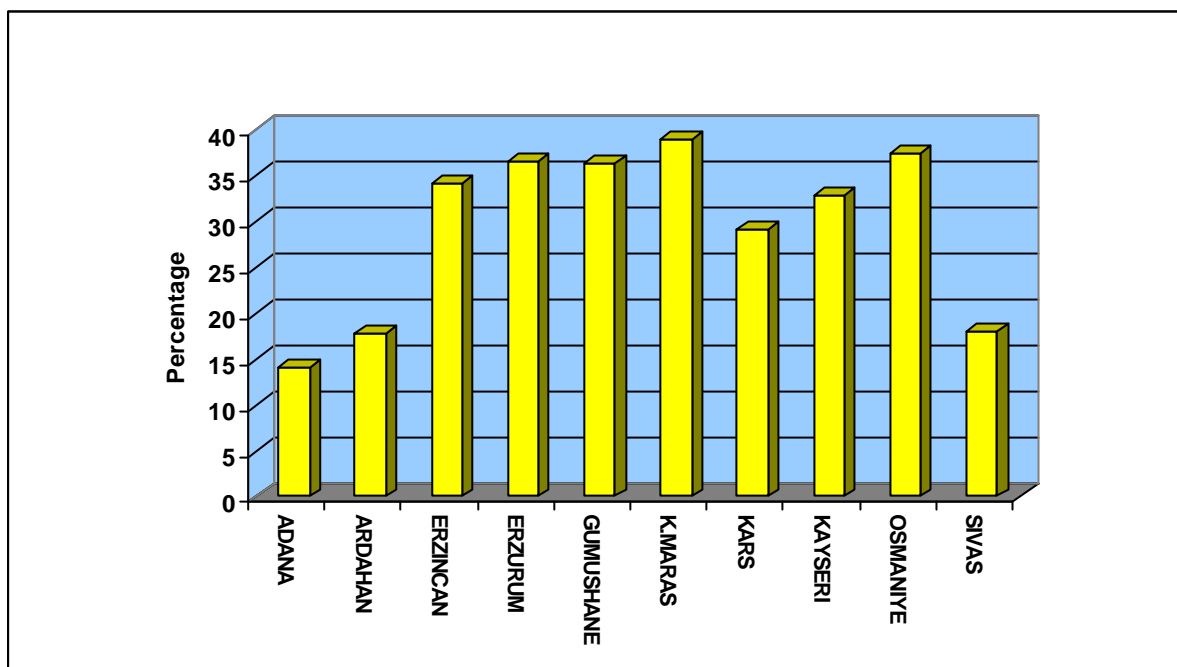
When there is no agreement between owners and ‘tenants,’ then the latter are formally squatters and not recognized under Turkish Law. Squatters may also be present on publicly owned lands. The local laws do not recognize the rights of this group to any compensation, whereas World Bank OD 4.30 requires that they receive compensation for any assets they created on the land they worked even when the land belongs to another party. The asset inventory process indicates that about 50 squatters may be cultivating state lands. This group would be provided with compensation for any crops they may have cultivated prior to the start of construction. This compensation will be offered by the RAP Fund.

6.2.3 Women

While women and men have equal rights to land under civil law, and the amendments of this law recognize the equal share of women in marital property, the percent of women among owners is small and highly variable from one province to the other (Figure 6.8). In no region do women constitute 50% of landowners although, as Figure 6.8 shows, the percentages of female landowners is not negligible. Unfortunately, women do not always come forward for consultation meetings. By the same token, it can be expected that they also will not be equal partners in the valuation negotiations. To try and address this situation, the Project will target women with some of the community development programs to be financed with the RAP Fund.

More importantly, the project has helped promote the recognition of customary ownership rights of women who are heading households. The project will also help formalise their land rights and cover the related registration cost.

Figure 6.8 Percentage of women owners by province



Source: BTC Project, GIS Database, 2002

6.3 SUMMARY OF PROJECT LAND ACQUISITION

In terms of ownership status, the Project impacts both public and private lands as shown in Table 6.2. In terms of plots, private ones outnumber publicly held ones by nearly three times. This is because forest and some Treasury lands tend to be registered in large plots. In terms of the Project's intention to expropriate 8 metres of land permanently for the ROW and to use a total of 28 metres during the construction phase, private owners will have to give up substantially larger portions of their land than public owners do.

Table 6.2 Project Impacts on Types of Land

	Number of Parcels	Area (Ha)	Affected Area in 28 m (or 22m) Corridor (Ha)	Permanently Affected Area in 8m strip (Ha)
PUBLICLY OWNED LANDS				
Unregistered treasury lands.	2,355	1,507.6	421.5	116.4
Registered treasury lands	486	2,853.8	84.3	35.0
Registered forest	30	583.6	15.3	5.2
Grazing land (public ownership)	32	374.1	17.9	5.1
Pasture	236	9320.0	312.3	82.4
Other village common area	67	375.2	26.3	7.6
Total other land types in unregistered forest	65	488.7	173.3	62.6
<i>Registered private plots in forest</i>	20	180.0	3.9	1.3
<i>Squatters in forest</i>	31	187.1	7.7	2.8
<i>Pasture in forest</i>	14	121.7	4.7	1.4
Total Public Ownership	3,336	14,939.4	1,067.3	319.8
PRIVATE OWNERSHIP				
Customary Ownership	3,017	4,864.9	570.2	172.0
Private registered owners	5,970	9,864.0	1,175.5	362.5
Total private ownership	8,987	14,729.9	1,745.6	534.4
GRAND TOTAL:	12,258	29,179.6	2,796.5	848.7

Compensation will be paid for both the permanent and temporary acquisition of land and for the assets of both private and public sector owners. In both cases, the Project will expropriate, on average, only a very small portion of the relevant lands and a relatively small portion of the specific plot of land.

It has already been shown through the socio-economic study that a negligible portion of total land private holdings is affected (Chapter 4). Even when the impacts on the affected plots are examined, less than 15 percent is affected by the temporary construction zone of 28 metres and less than 5 percent is affected through the process of permanent acquisition, as shown in the table below.

Table 6.3 Project Impacts on Privately Owned Lands, By Province

Province	Total area of Impacted Plots (Ha)	Total area Within 28m Corridor (Ha)	% of Plot Area Affected by 28m Corridor	Expropriated Area in 8m Strip (Ha)	% Plot Area Affected by 8m Corridor.
Adana	959.5	66.9	7.0	18.6	1.9
Ardahan	1,139.1	176.6	15.5	55.3	4.9
Erzincan	1,399.5	224.0	16.0	71.2	5.1
Erzurum	3,395.8	370.7	10.9	113.3	3.3
Gumushane	105.8	18.8	17.8	5.5	5.2
K. Maras	1,397.1	196.4	14.1	56.9	4.1
Kars	1,148.3	1691.9	12.6	513.9	3.8
Kayseri	1,990.6	210.6	10.6	60.5	3.0
Osmaniye	574.0	70.5	12.3	19.8	3.5
Sivas	2,440.3	357.4	14.6	112.8	4.6

Source: BTC Project, GIS Database, 2002

6.4 PERMANENT LOSS OF CULTIVATED LAND FOR PIPELINE CORRIDOR

6.4.1 Land for the 8m Pipeline Corridor

6.4.1.1 Impacts

“Permanent loss” of cultivated land can be defined both in legal and in practical terms. In the legal sense, the Project includes the transfer of legal title for 534 hectares from original owners to DSA/BOTA^a and the Project. The safety zone of 7 metres on each side of the pipeline and additional lands around the permanent facilities (although the zone is not imposed by the Project but by the Ministry of Health) also involves a lifetime of permanent restriction in land use. In practical terms, however, except for the land used for permanent facilities, land will be available with restrictions to the owners for cultivation, including land used for the ROW. The restrictions will involve the planting of large trees and the construction of buildings. The relative impacts and areas to be expropriated in each province are shown in Figure 6.9.

6.4.1.2 Mitigation

Owners/users will be compensated based on the discounted net income of permanently and temporarily acquired land. They will also be compensated for the use restrictions imposed upon their land.

6.4.2 Land Affected by AGIs

6.4.2.1 Impacts

Potentially, owners of lands that will be expropriated for construction of AGIs may be affected to a greater extent than owners of lands that will be expropriated for the pipeline construction.

The full land data on AGIs exists in the GIS data set,⁴ and will be used to monitor differential impacts. AGI construction, as opposed to the pipeline construction, will not be undertaken on a linear basis and thus, will affect a significantly higher proportion of land plots than the pipeline itself.

The socio-economic survey did not differentiate between the land plots that will be affected by AGI construction and others, although it did have a focus on villages that will house these structures. The special sub-sample of AGI affected plots were identified and included in the socio-economic survey, but these have not been identified with a special code number. The results presented in this section are only indicative and inconclusive therefore they will need to be confirmed and updated during RAP monitoring.

The survey findings show that, on average, villages housing AGIs:

- Lose more of their land to expropriation, both in absolute and proportional terms;
- Have slightly lower per capita monthly expenses (and, thus, incomes); and
- Lose a slightly higher portion of their total incomes and land incomes due to both temporary and permanent land expropriation.

Table 6.4 summarises various impacts of land acquisition in villages that will accommodate AGIs compared to villages that will not house AGIs.

Table 6.4 Villages Housing AGIs and Villages without AGIs⁵

	AGI in Village	No AGI in Village
Total plot area affected (sq.m.)	18,607	15,346
Land lost to 28-meter corridor (sq.m.)	3,917	1,780
Land lost to 8-meter corridor (sq.m.)	1,852	509
Per capita monthly household expenditures (USD)	124	135
Proportion of overall plot taken (28-meter corridor) to total plot area (%)	27	18
Proportion of total land affected to total household land ownership (%)	11	4
Proportion of lost income to total declared income (%)	2	0.3

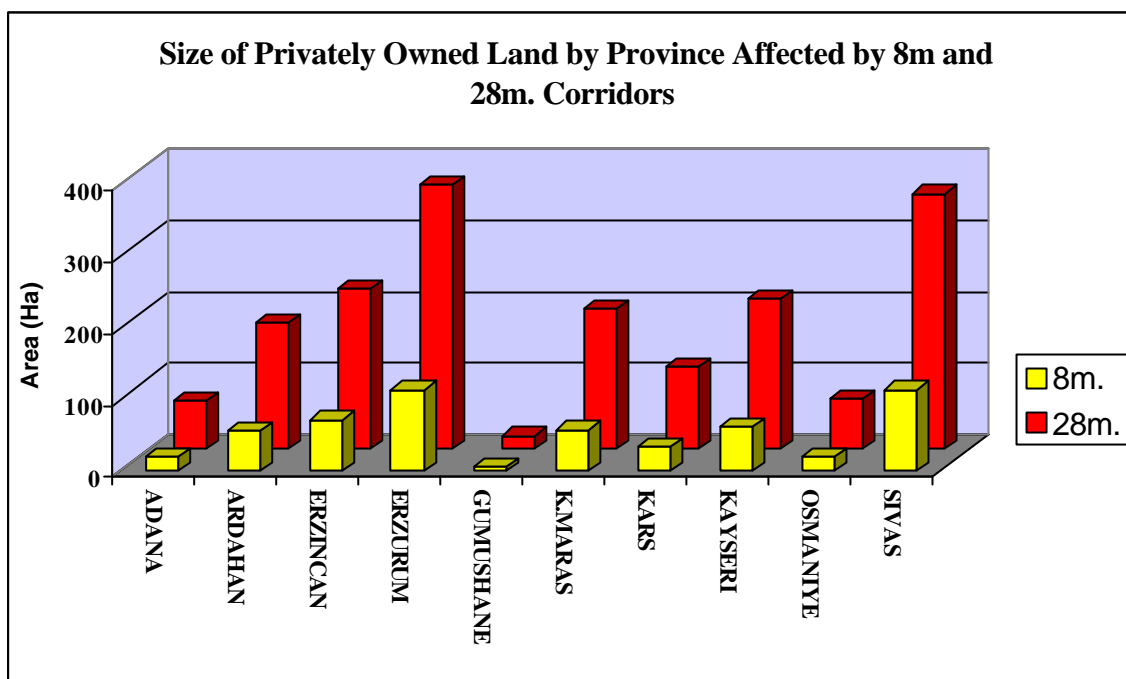
6.4.2.2 Mitigation

The owners of AGI plots will be fully compensated for their land. Additional mitigation is not required. Nevertheless, the monitoring system established will closely evaluate relative impacts on this group and will formulate additional mitigation if needed. To facilitate this monitoring, the existing socio-economic survey will be re-coded to separate the AGI plots from others. Also, a RAP survey update will be prepared for these areas with immediate effect.

⁴ The total quantity of land required for the construction of each of the AGIs is shown in Annex 6.1. Between 55% and 100% of the land required for each installation is privately owned. Between 29 and 54 owners are affected by permanent acquisition of their lands, and relatively fewer land users (up to four on PT1) are affected.

⁵ This data is only indicative and is not representative at the household level.

Figure 6.9 Impacts on Private Plots



Source: BTC Project, GIS Database, 2002

6.5 PERMANENT RESTRICTIONS ON LAND USE IN THE PIPELINE PROTECTION ZONE

6.5.1 Impacts

The Ministry of Health has determined that the Project facilities will be classified as a first class non-hygienic establishment and that a Health Protection Strip (HPS) will be required. The HPS distances were identified for the following facilities:

- For pumping stations: 150 m around the pump house
- For pigging stations: 80 m around the pigging station
- For block valves: 20 metres around the block valves
- For the Ceyhan tank farm: 100 metres around the Ceyhan tank farm area

According to Article 5 of the Non-Hygienic Facilities Regulation, it is prohibited to construct buildings within a HPS, although most agricultural activities may be continued.

6.5.2 Mitigation

For land use restrictions imposed upon any land that falls outside the 8 metre permanently acquired corridor, the Project will pay compensation. The relevant compensation will be included in the compensation to be paid for the 20 metre corridor outside the 8 metre pipeline corridor.

6.6 TEMPORARY LOSS OF AGRICULTURAL PRODUCTION CAUSED BY ACCESS OVER LAND DURING CONSTRUCTION

6.6.1 Land for the 28m Pipeline Corridor

6.6.1.1 Impacts

During construction, a 28 metre wide corridor (which includes the permanently acquired 8 metre strip) will be used. As a result, landowners and/or land users will lose use of the affected land. The tables and figures presented in Section 6.3 show the amounts of public and private lands that will be affected by construction.

6.6.1.2 Mitigation

For the duration of construction, payments will be made for these lands based on their discounted net income. Subsequently, these lands will be reinstated and returned to their original owners for use by them, subject to certain restrictions. The consultations show that people have been extremely unsatisfied in the past with the conditions of the land as returned to them in the context of other projects. Thus, a special effort will be made to reinstate the land properly. In reviewing the past conflicts on land valuation, it can be seen that the court appointed experts are assuming a minimum of 10 percent productivity loss subsequent to reinstatement. In the calculation of the compensation levels for the 20 metre corridor that will be returned to people, this factor will be taken into account.

6.6.2 Land Affected by Construction Camps

6.6.2.1 Impacts

Lands for construction camps will not be expropriated; rather, they will be rented from landowners. Agreement on compensation will be reached with landowners through negotiations resulting in an amicable, commercial rental agreement. If a landowner declines to enter into a rental agreement, the proposed locations for the camps will be modified. Land users will be affected by loss of access to the lands that they use.

6.6.2.2 Mitigation

Amicable agreements will be achieved with all affected landowners and fair compensation will be paid to the landowner in line with the agreement. Compensation payments for crops will be paid based on evaluation by agricultural experts prior to land entry.

6.6.3 Lands Affected by Pipe Storage Yards

6.6.3.1 Impacts

The main material and pipe storage yard will be located at Iskenderum. BOTA^a will form a rental agreement with a commercial landowner owning land in the industrial area of Iskenderum

(hence no private landowners or land users will be affected). In addition, there may be storage at the construction camp locations; however there will be no additional land take over and above that for the camps.

The construction contractors may require additional pipe storage yards, however these locations (if required) have not yet been identified. Such locations will be rented by the construction contractor by means of amicable, commercial agreements with landowners (i.e. these areas will not be expropriated and landowners can decline to rent their lands).

6.6.3.2 Mitigation

Mitigation for impacts associated with construction camps is discussed above. Payment for the use of lands at Iskenderum and any other rented lands for intermediate pipe storage yards will be paid to the landowner in accordance with the terms of the relevant rental agreement

6.6.4 Impacts on Grazing Land and Pasture

6.6.4.1 Impacts

The tables presented in Section 6.3 show total impacts on State or community owned pastures and privately owned grazing lands. These are relatively small and when the reinstatement is done properly, the impacts are minimal. Nevertheless, there will be disruption to livestock activity during construction and potentially an attendant loss of income as a result.

Table 6.4 shows that the magnitude of pastures losses will be highest in the provinces of Kars and Ardahan. In relative terms, the impacts are highest in the province of Kahramanmaras. There is extensive reliance by people on open grazing and a high proportion of income is generated through livestock management.

Table 6.5 Magnitude of Pasture Loss by Construction Corridor Width and Province

Province	Parcel area (ha)	% of Pasture Affected within 28 metre Corridor	% of Pasture Affected within 8 metre Strip (permanently expropriated)	% of Pasture Affected within 20 metre Strips (temporarily expropriated)
Adana	84.5	5.8	1.7	4.1
Ardahan	2,351.2	3.4	1.1	2.2
Erzincan	555.0	5.7	1.8	3.9
Erzurum	1,285.5	3.7	1.0	2.7
Gumushane	-	-	-	-
Kahramanmaras	118.4	2.7	0.8	2.0
Kars	1,654.8	4.9	1.4	3.5
Kayseri	2,430.8	1.4	0.4	1.0
Osmaniye	-	-	-	-
Sivas	840.5	4.5	1.3	3.3
Total	9,320.7	3.4	1.0	2.4

Source: BTC Project GIS Database, 2002

6.6.4.2 Mitigation

In constructing the pipeline, passageways will be created through affected pasture and grazing lands to allow passage from one side of the pasture to the other, thus avoiding adverse impacts on animal feeding patterns. The State organizations will be compensated through interagency dialogue.

The local expropriation law recognizes only the rights of the owners to compensation; because of this, the users of the pastures are not subject to compensation consideration and would likely suffer income losses. Accordingly, BTC Co. will establish a RAP Fund to provide community development funds to those villages affected by the loss of pastures. The identification of the communities and the mechanisms through which this undertaking will be managed constitutes a priority RAP activity.

6.7 LOSS OF HOMES AND INFRASTRUCTURE

6.7.1 Impacts

The Project's impact on buildings, barns, and other attachments will be extremely modest. No residential homes will be damaged by the Project (special route changes have been agreed to avoid impacts on residential properties) although three farm buildings will be demolished

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Table 6.6 Project Affected Assets

PROJECT AFFECTED ASSETS	ADANA	ARDAHAN	ERZINCAN	ERZURUM	GUMUSHANE	KAHRAMAN MARAS	KARS	KAYSERI	OSMANIYE	SIVAS	TOTAL
NUMBER OF PRIVATELY OWNED AFFECTED PLOTS	283	1,525	1,223	1657	129	1,162	735	1026	367	2,392	10,499¹
NUMBER OF PLOTS WITH ASSETS	19	45	80	27	29	255	10	14	118	116	713
% OF TOTAL PLOTS WITH ASSETS	6.7	3.0	6.5	1.6	22.5	21.9	1.4	1.4	32.2	4.8	6.8
TREES	26	217	352	163	115	1934	22	74	605	431	3,939
FARM BUILDINGS						3 (2 Barns and 1 poultry house)			1		4
WATER FOUNTAINS			1	1		7			2		11
FENCES			10	1		4		1	1	41	58
IRRIGATION INFRASTRUCTURE ²	5		6	1		24			10	6	52

Source: BTC Project GIS Database, 2002

¹ This sum is greater than the sum of privately owned parcels because some of the publicly owned parcels also has privately built structures on them.

² Irrigation infrastructure includes irrigation and drainage channels, irrigation ponds and water storage units.

³ There were also two latrines and one pool.

Source: BTC GIS Database

6.7.2 Mitigation

The owners of affected attachments will be compensated based on the replacement value of their assets.

6.8 IMPACTS ON IRRIGATION SYSTEMS

6.8.1 Impacts

The Project's impacts on irrigation systems will be significant, with some 52 distribution canals affected (see Table 6.5). Nearly half of these are in Kahramanmaras. The 52 canals identified are the formal irrigation schemes constructed by the relevant state organization (DSI). In addition, irrigation channels installed by private landowners will be affected.

6.8.2 Mitigation

Arrangements for the construction of the pipeline without damage to the irrigation systems have been discussed between DSA/BOTA^a and DSI. A protocol has also been signed specifying the conditions under which pipeline construction will take place in irrigated areas. The construction will be performed so that there will be no damage to crop production and with close cooperation with local Water User Associations. The construction contractors will pay for any accidental damages that occur, and both DSA/BOTA^a and BTC Co. will ensure fair and full payments for damages.

The detailed arrangements for protection and reinstatement of irrigation channels are presented in the Social Management and Monitoring Plan (SMMP) in Appendix C8 of the EIA for the Turkish section of the Project.

6.9 LOSS OF TREES / PERENNIAL CROPS

6.9.1 Impacts

A relatively large number of plots have trees that required a separate inventory and valuation. This inventory has been completed and the results are reflected in Table 6.5. The age, size and type of each tree have been registered on individual plots.

6.9.2 Mitigation

DSA/BOTA^a is in the process of preparing valuation tables to facilitate the compensation for trees, based on the capitalization of net income methodology. The Ministry of Forestry will carry out the valuation for trees.

6.10 LOSS OF ANNUAL / SEASONAL CROPS

6.10.1 Impacts

Most of the private land subject to expropriation by DSA/BOTA^a for the Project is under cultivation. Given the relative scarcity of irrigation infrastructure in privately owned affected areas, rain fed agriculture is predominant. Crops are rotated from year to year. The socio-economic survey provided a great deal of information to permit a complete mapping of the crop cover in each of the 10 provinces. During construction, 20 metres of land (5 metres on one side and 15 metres on the other side of the corridor) will be used temporarily, and crop production will be interrupted.

6.10.2 Mitigation

Using the capitalisation of net income methodology for these lands, affected farmers will be compensated for the duration of construction (approximately 2 years) plus an additional year to allow for the proper reinstatement of land and the removal of construction debris. Valuation methods are explained further in Chapter 5. Compensation payments for crops will be paid based on evaluation by agricultural experts prior to land entry.

6.11 INJURY TO LIVESTOCK

No other productive assets will be affected by the Project. The construction of the pipeline may potentially cause injury to livestock due to livestock falling into trenches, being injured by vehicles or eating dangerous wastes. This impact will be significant if households that are dependent on livestock are no longer able to secure a standard of living equal to that held before losing livestock. The detailed arrangements for preventing injury to livestock are presented in the Social Management and Monitoring Plan (SMMP) in Appendix C8 of the EIA for the Turkish section of the Project.

6.12 IMPACTS ON FORESTLAND

6.12.1 Impacts

The Project impacts on forestlands, including areas without tree cover, are limited but highly variable from one region to the other. There are, however, difficulties in measuring the impacts on forest by using the GIS system. This is because the Project information merely reflects forest areas in the immediate vicinity of the corridor and other facilities. For instance, as indicated in Table 6.6 the corridor passes through 3.2 hectares of forests and the 28 metre corridor uses almost all of this land. In reality, the forestlands included in the database are a tiny segment of forests that surround the pipeline.

To better capture this reality, we have obtained data that show the total forest cover in each of the 10 provinces and the proportion of these areas that are affected by the pipeline and other Project components (Table 6.7). As can be seen, expropriated forestlands are a negligible fraction of the forested areas in the affected provinces.

Table 6.7 Magnitude of Forestland Loss, by Construction Corridor Width and Province

PROVINCE	Affected Size of Forest Plots (Ha)	Percent of Forests Affected by the Project (28-metres)	Percent of Forest Affected by the Project (8-metres)
Adana	3	98.7	35.3
Ardahan	434	3.3	1.1
Erzincan	1001	10.9	3.7
Erzurum	430	7.6	2.7
Gumushane	12	96.5	35.1
Kahramanmaras	247	23.1	8.3
Kars	9	99.6	35.8
Kayseri	181	4.7	1.4
Osmaniye	105	8.9	2.6
Sivas	-	-	-
Total	2,423	10.5	3.6

SOURCE: Ministry of Forestry 2002, BOTA^a 2002

Table 6.8 Project Impacts on Forests

PROVINCE	Size of Total Forest Areas (Ha) in Province	Size of Project Affected Forest (Ha)	Proportion of Expropriated Forests to Total Forests in Province s
Adana	543,168	2.961	0.0000055
Ardahan	26,840	14.322	0.0005336
Kars	31,775	8.964	0.0002821
Erzurum	206,100	32.68	0.0001586
Erzincan	106,528	109.109	0.0010242
Gumushane	166,237	11.58	0.0000697
Sivas	264,469	-	-
Kayseri	117,105	8.507	0.0000726
Kahramanmaras	508,802	57.057	0.0001121
Osmaniye	152,926	9.345	0.0000611

SOURCE: Ministry of Forestry 2002, BOTA^a 2002

6.12.2 Mitigation

In accordance with the expropriation law, payments for acquisition of State owned land will be awarded to the State Authorities. In order to compensate users of State owned lands (principally squatters), community-based mitigation programmes will be established in those villages most affected (principally by the loss of pastures and forestlands). These programmes will be funded by the RAP Fund.

6.13 IMPACTS ON ENTERPRISES

6.13.1 Beekeeping

The BTC Pipeline may physically disturb bees within 250m to 300m of the pipeline due to sensitivity to dust, noise and vibration. Bees with hives within 5km of the pipeline corridor will be affected by loss of vegetation. According to the EIA for Turkey, beekeeping is an important economic activity in some central and southern provinces through which the pipeline passes including Sivas, Kayseri and Kahramanmaraş. The detailed arrangements for preventing and mitigating impacts on beekeeping activities are presented in the Social Management and Monitoring Plan (SMMP) in Appendix C8 of the EIA for the Turkish section of the Project.

6.13.2 Fisheries

Fishing is a source of livelihood, mainly for household consumption, in settlements along the pipeline corridor. Fisheries may be impacted by construction of the pipeline across rivers due to increased sediment levels and impacts on their habitats. The detailed arrangements for preventing and mitigating impacts on fisheries are presented in the Social Management and Monitoring Plan (SMMP) in Appendix C8 of the EIA for the Turkish section of the Project.

6.13.3 Fishing Activities at the Ceyhan Marine Terminal (Superseded-Refer to Annex 6.4)

6.13.3.1 Introduction

The impact of the Security Exclusion Zone and Manoeuvring Area around the jetty at the BTC marine terminal will have an impact on the livelihoods of local fishermen. Data has been collected through socio-economic baseline studies, consultation meetings and interviews with residents living in the vicinity of the terminal and specifically with the fishermen in Golovasi⁶ during the environmental and social impact assessment studies. This is summarised in Annex 6.2.

An additional study was also commissioned to provide more background to the fishing industry as a whole in the Ceyhan area (see Annex 6.3). This supplementary research was undertaken by TUDAV (Turkish Marine Research Foundation). Both the EIA and TUDAV studies confirmed that there will be an impact on the livelihoods of the fishermen at Golovasi. TUDAV proposed some compensation measures (Annex 6.3).

The issue is complex and any compensation calculation inevitably will need to be based on a number of assumptions. As there is no precedent for this in Turkey, a plan has been developed consisting of several steps in order to demonstrate fairness and transparency in the evaluation of the compensation measures that will be proposed to the affected fishermen.

A five-stage process has been developed:

⁶ Includes fishermen who live in Sahil Sitesi which is a quarter of Golovasi

1. Determination of draft compensation packages (based on the studies undertaken by TUDAV and KORA and ERM);
2. Internal Experts Group to review and comment;
3. External Experts Group with fishermen representatives and local representatives to assess initial compensation proposals;
4. Consultation with impacted fishermen; and
5. Individual Meetings with the fishermen.

1st stage: Internal Meeting within the Project Team

A meeting was held in early November to agree the approach the project should take to this issue. The outcome of this meeting was to establish an internal expert group to clarify the issues regarding the development of a compensation methodology for fishermen in the vicinity of the BTC Marine Terminal. This group includes an economist from KORA, part of the Middle East Technical University (Ankara), a compensation expert from the Rural and Urban Development Foundation (RUDF), a fishing expert from TUDAV and a resettlement expert.

2nd stage: Internal Expert Group Meeting

The internal expert group meeting was held in mid November in Istanbul. The objective of this meeting was to:

- Clarify the extent of the impact
- Determine a methodology for calculating the value of compensation
- Identify data gaps, variables and where data needs to be verified
- Develop a compensation strategy to be presented to the “External Expert Group”.

The findings of the Internal Expert Group that will be used as a basis for discussion with the External Expert Group are presented later in this section.

3rd stage: External Expert Group Meeting

Experts on fishing and compensation issues and responsible authorities will be invited to test the appropriateness of the suggested compensation measures.

The purpose of this meeting is to conduct a ‘trial run’ of the compensation measures with a wide range of stakeholders plus a smaller representative group of the fishermen and the Muhtar (local authority representative) and other community/fishing representatives who will be selected by the Golovasi residents. This is the most crucial stage of the process since it will assist the Project in establishing whether the compensation measures are on the ‘right track’.

This meeting is planned to take place at the end of November/early December and will be held in the Adana region.

4th stage: Discuss Proposals with Fishing Community

The next stage is the disclosure and consultation with the fishermen. This stage will consist of a discussion of the issue and proposed compensation measures with the fishermen. It is considered

important to discuss this as a group so that everybody's views are taken into account and that consensus can be reached between the fishermen and the Project.

Individual data that will be used to finalise the compensation amounts will be collected during this consultation meeting.

5th Stage: Individual meetings with the fishermen

Once the compensation strategy is agreed, the second stage of the process will involve negotiations with individual fishermen in order to determine the form of compensation.

6.13.3.2 Policy And Legislative Framework

There is no record of compensation by any governmental or private organizations to fishermen in Turkey. The Turkish Resettlement Law and Expropriation Law do not address compensation to fishermen. However, the Project will compensate the income loss of fishermen according to the O.D.4.30 principles, as economically displaced persons.

6.13.3.3 Overview Of Impact Identification For The Fishermen

The BTC Project studied the impacts of the BTC Marine Terminal on fishing activities during construction and operation phase through socio-economic baseline data collection and extensive public consultation meetings and finally through a scientific study undertaken by TUDAV.

The potential environmental impacts and mitigation measures of the terminal on the marine environment are addressed in the Environmental Impact Assessment (EIA) study. They are therefore not repeated here.

This section therefore discusses the most significant socio-economic impact which is the loss of income of fishermen due to the reduced access to the fishing grounds and presents the compensation methodology identified by an expert group (See Section 6.13.3.1).

6.13.3.3.1 Project Impacts on Fishing Activities

The Project impacts on fishing activities will not be the same during the construction and operation phase. Main impacts that might occur are explained below.

◆ Project Impacts on fishing activities during the Construction Phase of the BTC Jetty

It is anticipated that the marine construction works will take approximately two years starting in March 2002. The piling work is one of the main aspects of the jetty construction and will take just over one year to complete. During the construction of the BTC jetty, a limited "Safety Zone" (circa 200 meters around the jetty) will be enforced around the jetty construction to ensure the construction work does not pose a hazard to other ships. The Safety Zone falls within the existing Operating Zone. (See Figure 6.10). Therefore, there will be no impact of the BTC jetty on fishermen during the construction phase since there will not be any additional loss to the existing fishing grounds as the existing Operating Zone precludes net and line fishing already.

◆ Project Impacts on Fishing Activities during the Operation Phase of the BTC Jetty

The main impacts on the fishermen will be from the extended Operating and Security Zones which will be enforced when the jetty and terminal becomes operational in 2005.

The Security Zone (i.e. that enforced by the coastguard) will be implemented during operation and will be confined to an area 400m on either side of the jetty, i.e. an area in the order of 208ha.

The Operating Zone around the proposed marine facilities will be approximately 1 nautical mile (1.8 km) around the jetty, to allow for safe tanker manoeuvring. The size of this zone means that it will overlap with the operational area for the existing jetty to the north, and extend to cover an additional area to the south. In such operating zones, net and line fishing is prohibited by law.

The Operating and Security Zones represent about 20% of what is believed to be the area that Golovasi fishermen use, although additional fishing grounds to the south east of the terminal are also used by the Golovasi fishermen according to the TUDAV study.

◆ **Geographical area of impact**

The results of the studies indicate that only the fishermen and few permanent crewmembers working in Golovasi port will be directly impacted by establishment of Security and Operating zones around the jetty during the operation phase.

Most of these fishermen are residents of Golovasi village, whilst a few of them live in neighbouring quarter, Sahil Sitesi.

◆ **Likely categories of economically displaced persons**

There are three main categories of people associated with fishing activities in the vicinity of the BTC Ceyhan Terminal: Fishermen (boat owners), crewmembers and tradesmen. Possible compensation measures are discussed in Section 6.13.3.6. Other groups such as trawler fishermen, illegal fishermen, fishermen from neighbouring settlements are also considered. These groups are as follows:

◆ **Local fishermen who owns boats**

Forty fishermen⁷ were identified being directly impacted by the proposed construction and operation of the jetty. It was agreed that only registered boat owners at Golovasi Port will be eligible for compensation regardless of whether they are the residents of Golovasi village or not. During the first round of consultation meetings it was suggested to the fishermen that they should register their boats. Recent studies by TUDAV indicate that all of the fishermen in Golovasi Port have registered their boats.

Fishermen are required to hold a “fisherman licence” from the Directorate of Sea Products and register their boats to the local Harbour Authority in Ceyhan in order to catch fish. The entitlements of these fishermen will be proved from the official records that will be provided by the Directorate of Sea Products and Ceyhan Harbour Authority, which is responsible for fishing activities in the Ceyhan region.

⁷ *The Project will update the census of these fishermen with additional questionnaires that aims to have more data on the individual level to determine the actual amount of compensation levels by December 2002.*

◆ **Crewmembers**

According to TUDAV's survey there are a maximum of two crewmembers working in each boat. The total number of crewmembers is therefore a maximum of 80. Only a few of these crewmembers fish regularly and possess "crew" certificates from the Harbour Authority. The Project will recognize these regular crewmembers as entitled persons and will compensate their losses. Most work on a part time basis, dependent on seasonality and other work opportunities; these crewmembers will not be compensated as they will still be able to gain employment as and when the opportunity arises. The Project will target these (generally) young crewmembers during the construction worker recruitment process and will engage these groups where possible in skill development and training programmes. Often the crewmembers come from the same family and do not derive an income. They will be compensated through net income compensation of the household heads (fishermen). See 6.13.3.4.2: "Net Income of Fishermen".

◆ **Tradesmen**

Most of the tradesmen live and operate in Yumurtalik where a larger fishing community exists operating from Yumurtalik Port. They have several alternative fish supply sources in the region and the scale of supply of fish from Golovasi is not significant in their relative business. Therefore, the impact of Ceyhan Marine Terminal on tradesmen will be negligible.

◆ **Trawler Fishermen**

The trawler fishermen do not generally use the area. It is also recognized that due to the fluctuations in the fishing seasons, weather conditions, fish breeding patterns and fish prices in the market they change their fishing grounds frequently since they have bigger and more technically advanced boats compared to the Golovasi fishermen. They generally catch fish in the open seas. Therefore, the impact of the reduction in fishing grounds on trawler fishermen is negligible.

◆ **Illegal fishermen**

There are legal constraints on fish size, species, season and fishing ground (i.e. it is prohibited to trawl within 3 miles from the coast). However, some fishermen, particularly non-local ones, do not obey these rules. However, it appears that these non-local fishermen do not use the proposed restricted area; therefore, they will not be impacted from the reduction in the fishing ground.

◆ **Fishermen from surrounding settlements**

The field surveys confirmed that fishermen from other settlements such as Incirli do not use the fishing grounds where the jetty will be constructed.

◆ **Conclusion**

In summary, the main group that will be directly impacted are the local owners of fishing boats and permanent crewmembers. Although the initial survey results indicate that there are no multi boat owners, this will also be verified. The cut off date for registered boat owners will be officially announced and the final data will be collected and will be cross-checked from the official statistics provided by the Port Authority. All of the registered boat owners who are fishing for commercial or subsistence reasons will be recognized as entitled persons and will be compensated.

6.13.3.4 Mitigation Measures For The Fishermen

The loss of income to the fishermen will be determined based on several criteria and assumptions. The monetary value of the loss and alternative compensation proposals will be discussed with the External Review Group before being proposed to the fishermen themselves. These alternatives are discussed in Section 6.13.3.6.

6.13.3.4.1 Mitigation Measures During the Construction Phase

As stated in 6.13.3.3 during the construction of the jetty there will only be a limited Safety Zone (200 m) around the jetty, which falls within the existing Operation Zone of BOTA^a. The construction impacts of the jetty on fish species will not be significant according to the EIA findings. Therefore, the mitigation measures addressed in the EIA will be applied to minimise the potential adverse impacts and maximise any positive impacts during the construction phase. Mitigation measures for the fishermen are summarised below:

- **Employment Opportunities:** Priority will be given to the fishermen during the construction workers recruitment process. The greatest positive socio-economic contribution that the BTC Pipeline Project will bring to local communities is the possibility of direct employment and the stimulus that local purchasing can bring to the local economy. Employees will directly benefit from secure, although short-term, income
- **Training of the local fishermen:** Opportunities for alternative skill training for those that are seeking other alternative employment will be considered.
- **Increase awareness of over fishing and making them aware of other fishing opportunities:** An NGO experienced in fishing will be involved in the Project to increase the awareness of fishermen especially concerning the impacts of over fishing. However, opportunities do exist. Some species currently are perceived by local fishermen to have no commercial value. This NGO will raise awareness for fishing other species, for example blue crab and spotted mantis shrimp, which are usually discarded by them when they are caught. The NGO will train and encourage the fishermen to use these species and create additional income within their existing way of life. Tradesmen will also be encouraged to market these species that have not traditionally been exploited.

Figure 6.10: Safety Zone During the Construction Phase of the Jetty⁸



⁸ This is a draft map.

6.13.3.4.2 Mitigation Measures During The Operation Phase

The main impact of the BTC jetty on the fishermen will be from the extended Operating and Security Zones during the operation phase starting from 2005. The Internal Expert Group developed the initial compensation strategy for the fishermen, which are presented below. The Project will offer different alternatives to different categories during the negotiations with the fishermen. These compensation methods are summarised in Section 6.13.3.6.

◆ Method of valuing the extent of the impact of the Security and Operating Zones on fishing activities

Compensation measures for the entitled fishermen (who are defined in Section 6.13.3.3) are being developed according to several criteria:

- Percentage reduction in the fishing grounds
- Fishermen's net income
- Uniformity of the impact for each fishermen
- Age of the fishermen
- Economic life of the boats

◆ The percentage of the restricted area

The restricted area (Operating Zone which includes Security Zone) is used as a basis for the calculation. An area of approximately 1 nautical mile is required around the jetty to allow for the safe movement of tankers and to ensure the safety of the fishing boats. Tankers will range from 80,000 to 300,000 tonnes weight, and require a water depth of 10m which occurs approximately 1.2 km from the coast.

The 400m Security Zone (within the Operating Zone) around the jetty as defined by the decree of Council of Ministers (Art. 2565). The extent of the additional area, which will be restricted due to the Security and Operation Zones (See Figure 6.11) for the BTC Marine Terminal, is 20% according to TUDAV study. However, this figure does not cover the additional fishing grounds that are used by Golovasi fishermen.

◆ External factors

It is widely reported that fish stocks are decreasing in Iskenderun Bay because of over fishing and industrialization along the coastline. However, fish stocks to some extent will be protected because of the establishment of the security and operation zones around the BTC jetty. The jetty will also provide habitats for certain species. Although these general statements are accepted in principle by the experts, there is not sufficient data to draw any specific conclusions. Consequently, the percentage restriction in the fishing grounds is taken as the basis for the identification of the extent of the impact of the BTC jetty on fishermen's incomes. In other words, the percentage of the reduction in fishing grounds is the same as the percentage of the loss in the income levels of the fishermen. This will be verified following further discussions with the External Expert Group.

◆ **Net income of fishermen**

Current net income of the fishermen will be used as a basis to calculate the impact in monetary terms. The declared income of the fishermen was identified through the socio-economic questionnaires conducted in Golovasi village during September 2001. In addition TUDAV also investigated incomes in August 2002. There are inconsistencies between the figures identified in these two studies. These inconsistencies between the two data sets are partly due to the increasing expectations of the fishermen as a result of several meetings held with them in Golovasi. This baseline data will be verified by a comprehensive census study by December.

The External Review Group will review all figures and assumptions to ensure the fairness of compensation methodology.

◆ **Uniformity of the impact**

For the purpose of the compensation calculation it is assumed that fish stocks are found uniformly in the sea and therefore the impact of the reduction in the fishing ground will be the same for each fisherman.

◆ **Age of the fishermen**

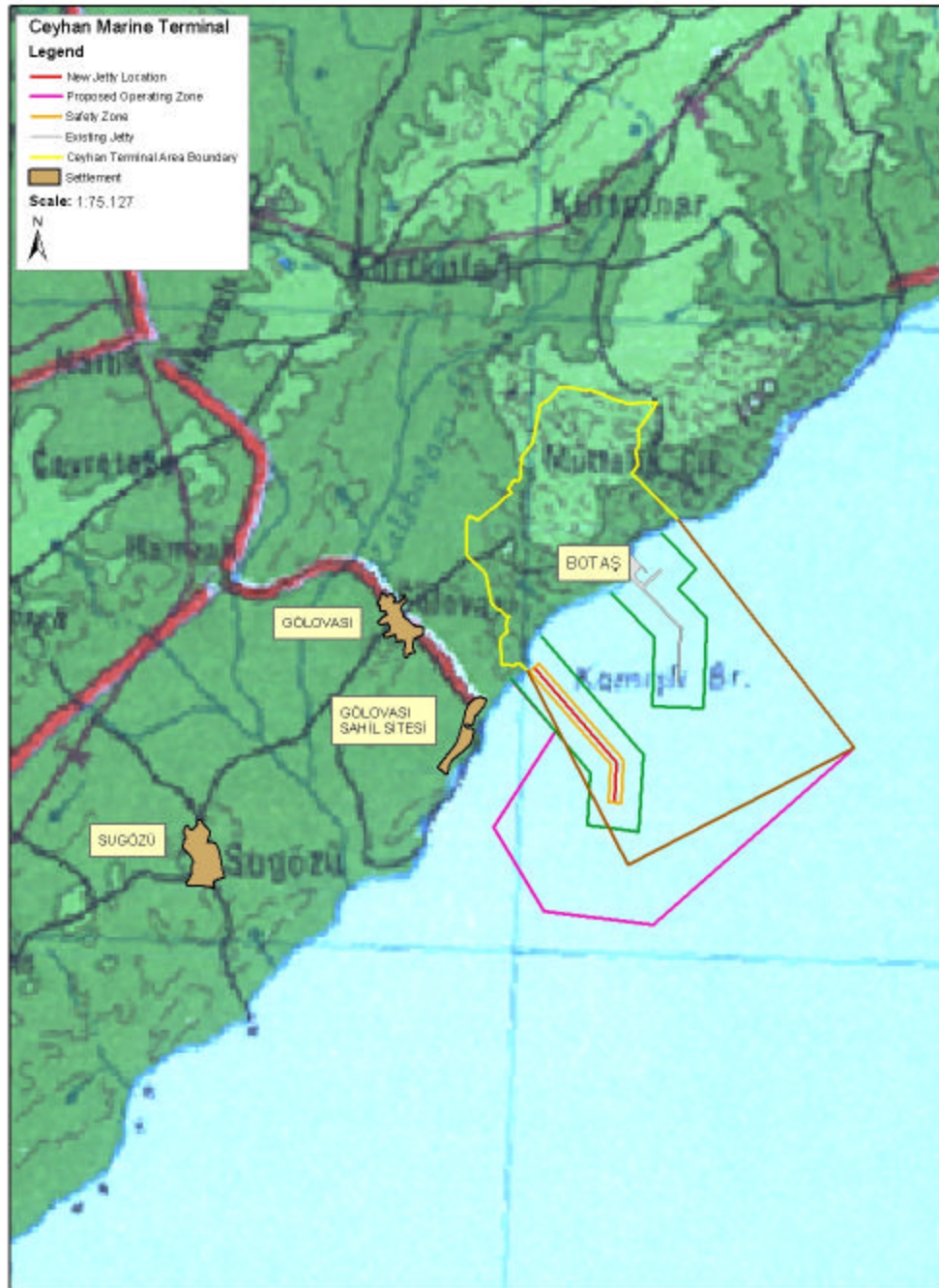
Fishing experts identified the age of 65 as a suitable retirement age for fishermen. The retirement age according to the Turkish Labour Law is also 65. The age of fishermen will therefore be another criteria to determine the amount of compensation.

◆ **Economic life of fishing boats**

The economic life and condition of fishing boats will be assessed when calculating the individual compensation amounts. The economic life of small fishing boat is approximately 15 years according to the fishing experts. After 15 years it requires significant and expensive refurbishment.

It was decided that with a background of over fishing and declining fishing stocks, fishermen would not be encouraged to buy new fishing boats as this would lead to further over fishing in the area.

Figure 6.11 : Proposed Operating Zone Coordinates⁹



⁹ This is a draft map.

6.13.3.5 Methodology For Compensation

As stated above in compensating the fishermen, the size of the affected area will be the first variable to calculate. In other words, a percentage reduction in fishing area causes the same percentage fall in income.

The next variable is the annual income of an average fisherman. In order to calculate this variable, the data from the September 2001 baseline questionnaire and the TÜDAV data will be used as a starting point. In addition to these data sources, a new questionnaire will be carried out with all the entitled fishermen. This questionnaire will use the expenditure approach; this methodology requires information from fishermen/permanent crewmembers including details of fishermen ask to declare their income, expenditure, and assets. After necessary inflation corrections for the 2001 socio-economic survey data, an average annual income figure for a typical fisherman can be determined.

Another two additional important variables should be taken into consideration; (i) the economic life of the boat (15); and (ii) the age of the registered boat owner (65), as stated above. A further assumption is that the expected income and the productivity are likely to fall at higher ages. This assumption will be incorporated to the calculations by introducing an age coefficient that will be calculated as a result of a new questionnaire.

6.13.3.6 Compensation Methods

The Project identified different compensation options for different categories. As stated above, only the fishermen and permanent crewmembers are eligible for compensation. These compensation methods will be further reviewed after the discussions with the external group and with the fishermen. The following are possible ways of compensating fishermen and permanent crewmembers:

- **Cash payment:** Based on the above criteria cash payment could be offered to the boat owners.
- **Temporary and permanent employment opportunities:** Golovasi will be given a priority in terms of employment opportunities for the construction of the BTC Marine Terminal for three years. The total number of people to be employed in the construction of the marine terminal will be between 700-1000 including skilled, semi-skilled and unskilled workers.

Residents of Golovasi will also be considered for permanent employment during the operation phase.

- **Skill development and training:** The Project can support vocational training of the fishermen to increase their competency in other sectors or they can be trained to work in the Ceyhan terminal during the operation phase.
- **Increased awareness of over fishing:** An NGO experienced in fishing will be involved in the Project to increase the awareness of fishermen especially concerning the impacts of over-fishing. This NGO will train the fishermen of fishing other species, which are currently unexploited. Some species, such as blue crab and spotted mantis shrimp, are not consumed domestically. The fishermen usually discard them when they are caught in the nets. The NGO will train and encourage the fishermen to use these species and create additional income within their existing way of earning life.
- **Creation of alternative livelihoods (SME development):** The Project can also finance SMEs in the area to create alternative livelihoods for the fishermen in Golovasi.

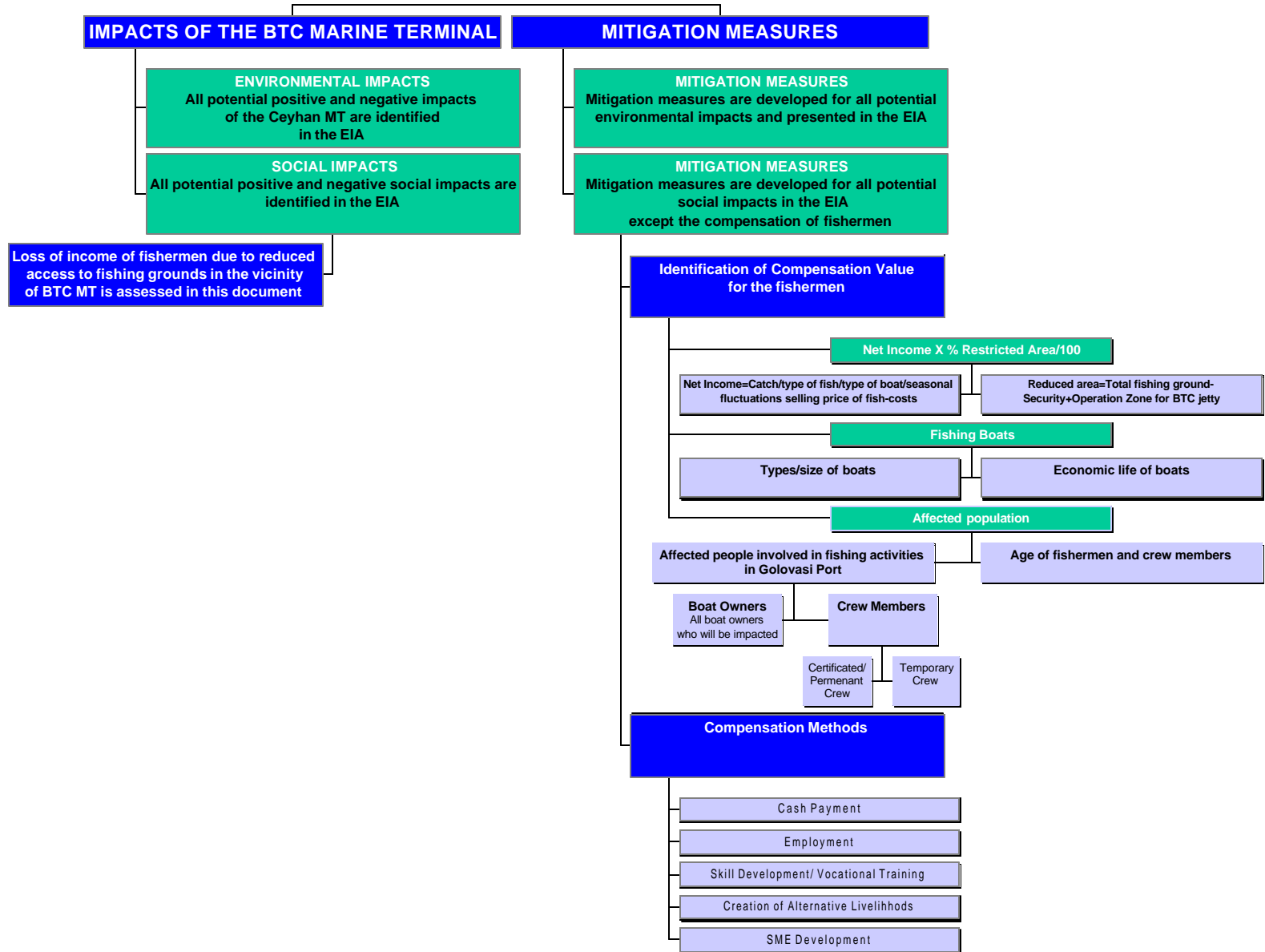
6.13.3.7 Conclusion

The Project will finalise the compensation values after completion of the additional tasks identified above. There is an on-going process of consultation with fishermen to develop action plans to mitigate the impacts of the Project. Further detailed and updated information will be included in the overall BTC RAP that will be disclosed locally and internationally in the World Bank Info Shop in early 2003.

As stated in the Introduction Section, the Project will discuss this approach with an External Expert Group by the end of November 2002 / early December.

Once the External Expert Group agree the compensation strategy, the next stage of the process will involve discussions with fishermen/crewmembers in order to determine the amount of compensation and the different methods of compensation.

MARINE TERMINAL IMPACTS AND MITIGATION MEASURES



6.14 LOSS OR DAMAGE TO COMMUNITY PROPERTY AND RESOURCES

6.14.1 Impacts

Some of the pasture or grazing lands affected by the project belong to the village administrations. These are shown in the tables in Section 6.3. Members of the affected communities may be unable to use these communal resources during construction.

6.14.2 Mitigation

Loss or damage to these resources will be compensated by direct payment to village administrations. The valuation methodology will be the same as that used for all productive land and thus will be determined based on the capitalized net income from these lands/assets.

6.15 LOSS OR DAMAGE TO SERVICES AND INFRASTRUCTURE AND PRODUCTION LOSSES FOLLOWING REINSTATEMENT OF THE LAND

6.15.1 Impacts

The most significant damage to infrastructure will occur in the case of small irrigation canals. As discussed above, the mitigation for this will consist of very promptly restoring the flow of water from the canal once the pipeline is laid-out. The exact timing of the construction interruptions will be determined through collaboration with the relevant authorities.

In addition, the potential exists for disruption to utility distribution, for example through damage to telecommunication and electricity cables. Also, road quality may potentially deteriorate due to heavy use by construction vehicles.

In the past, it has been assumed by court appointed experts carrying out land valuations that land would lose its productivity subsequent to re-instatement. This loss is assumed to be equivalent to 10 percent of the value of the temporarily expropriated areas (20 metres on either side of the 8 metre permanent corridor).

6.15.2 Mitigation

The detailed arrangements for protection and reinstatement of infrastructure are presented in the Social Management and Monitoring Plan (SMMP) in Appendix C8 of the EIA for the Turkish section of the BTC Pipeline.

Landowners and land users will be compensated for the potential 10 percent economic loss associated with reduced productivity of reinstated land. They will also receive additional compensation for the expropriation of the 8 metre corridor. Although the 8 metre corridor will be available subject to restrictions to ex-owners for their future cultivation, the land plot itself may have diminished value in the eyes of potential buyers due to having a pipeline crossing through it.

6.16 LOSS OF CULTURAL PROPERTY (LOCAL SHRINES, GRAVES)

6.16.1 Impacts

The relevant issues relating to cultural property have been detailed in the EIA for the Project. Any known cultural heritage elements have already been avoided through the route selection process. There is a cemetery that the pipeline passes through; however, this is currently a plot zoned for this purpose but not being utilized as such.

6.16.2 Mitigation

If any unanticipated cultural property is encountered during construction, re-routing will be the preferred response.. The detailed arrangements for protecting cultural property (in particular heritage sites) are presented in the Cultural Heritage Management Plan (CHMP) in Appendix C7 of the EIA for the Turkish section of the BTC Pipeline.

6.17 SEVERANCE IMPACTS

6.17.1 Impacts

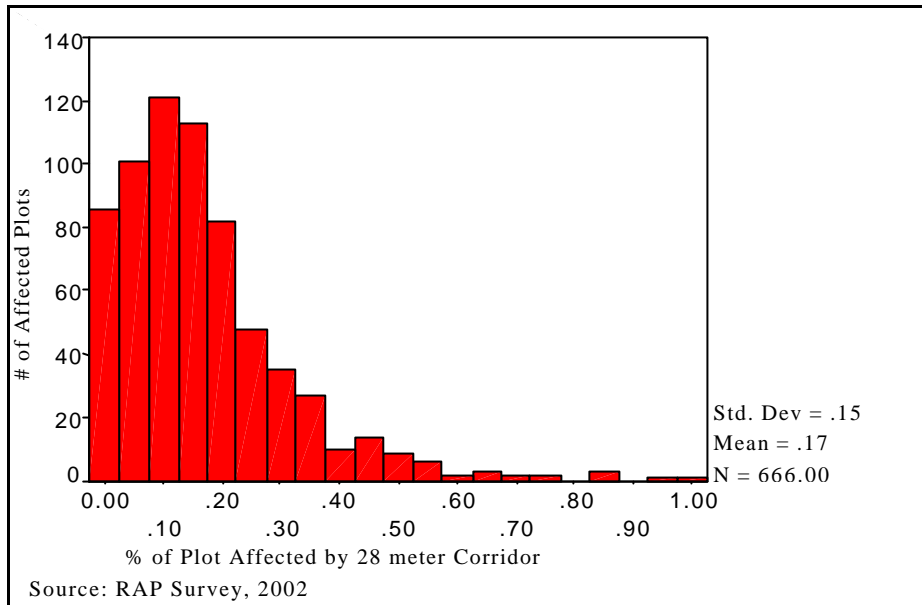
The impact of the Project on affected plots will be restricted to an average of 5 percent of the plot for permanently expropriated areas, and less than an average of 15 percent of the plot for temporarily expropriated areas during the three years construction period. Once construction is completed and subject to certain restrictions, all of the 28 metres will be returned to the affected people for their use. As already mentioned, some restrictions will be imposed and compensation will be paid for these restrictions¹⁰ (Figure 6.10). Nevertheless, there will be a small proportion of plots where more than 50 percent of plot is lost, as shown in Figure 6.10. Where above ground installations are constructed, the potential for severance is greater and the potential exists for land acquisition to create plots of land that are no longer accessible by the landowner.

6.17.2 Mitigation

If people believe that their land would be no longer economically viable for cultivation, they will be entitled to request that the rest of their plot be expropriated. However, given the high value attached to land and the fact that a majority of affected owners have other plots of land adjacent to affected plots, it is unlikely that such requests will be made.

¹⁰ This compensation for encumbrance is believed to be between 1-3 percent of the purchase value of the land.

Figure 6.12 BTC Impacts Relative to the Total Size of Affected Plots



**BTC PROJECT RESETTLEMENT ACTION PLAN
TURKEY
FINAL REPORT**

Entitlement Matrix

Project Affected Person	Entitlement				
	Permanent Land Acquisition	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
<p>Landowner: Title deed holder</p>	<ul style="list-style-type: none"> • Land within the 8m ROW and AGIs will be acquired • Fair compensation will be paid based on net income capitalization plus a fee for reduced marketability for each individual plot • No bargaining will be made but views of owners/users on valuation (made by the valuation commission) will be taken into account • Payment will be made into bank account in name of landowner within 45 days of mutual agreement in accordance with expropriation law • No entry to land for construction before payment is deposited • For joint-owners, payment will be awarded on the basis of shares registered on each owner • If shares of joint owners are not registered, their mutual consent on ownership right and shares will be encouraged • In case of continued disputed joint ownership, a lawsuit will be filed for relevant determination. Both sides will be present as defendants. The amount judged by the court will be deposited at a bank in the name of right holder to be concluded as a result of such lawsuit. • If the severed portion of the land is not suitable for use, expropriation of that portion may also be requested. Applications should be made to the project within 30 days of receiving expropriation notification 	<ul style="list-style-type: none"> • Easement rights will be established on the 20m ROW for 3 years • Compensation will be paid taking net income losses throughout the duration of temporary use • Reduced plot value and reduced productivity due to land use restrictions • Payment will be made into bank account in name of landowner within 45 days of agreement in accordance with the expropriation law • No land entry before payment is deposited. • If there are shared owners, payment will be awarded on the basis of area owned. • In case of disputed ownership, a lawsuit will be filed for determination of the cost and registration, and both sides will be presented as defendants. The amount judged by the court will be deposited at a bank in the name of right holder to be concluded as a result of such lawsuit. 	<ul style="list-style-type: none"> • Assets lost or damaged within the 28m corridors will be compensated for (based on the full replacement value), or reinstated prior to exit by the contractor. • An exit protocol will be signed by the landowner and the construction contractor to agree satisfactory ROW reinstatement. • Compensation for loss or damage to non-reinstated assets will be based on values determined by official experts. The value will be based on full replacement costs. • Typically, payment will be paid to a bank simultaneously with land payment. • The construction contractors will compensate for accidental damage to assets outside of the 28m corridors. These will be included and will be approved by the owner in the exist protocol. 	<ul style="list-style-type: none"> • Perennial trees and crops will be compensated with cash based on capitalized income stream. • Compensation will be paid for any crops damaged during land entry/construction. • Payment will be based on purchase prices determined by Ministry of Agriculture. • Compensation will be decided upon at time of land entry (anticipated to take place 4-6 weeks before land entry). • Payment will be made to bank account in the name of the owner. Owner can request direct cash payment. • If there are joint owners, payment will be made to the owners who are cultivating the land • Accidental damage to crops outside of the 28m corridors will be compensated for by the construction contractors. • Compensation will 	<ul style="list-style-type: none"> • In cases of non-agreement, disputed ownership and unregistered title deeds that proceed through the Courts, the owner will not pay any Court proceedings (to be paid by the Project). • The Project will visit each village for negotiation. • In case there are absentee owners, the Project will invite these owners to negotiations investigating their addresses. It is not necessary for the right holder to travel to the relevant location. He may prefer having his/her procedures handled by providing Power of Attorney to one of his friends or relatives residing in the relevant area and thus receive compensation. However, for those whose addresses cannot be determined despite all investigations, The Project will appeal to court for determination of compensation payment. • In case the right holder by any means becomes aware that his/her lands are being expropriated and contacts with any

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	Permanent Land Acquisition	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
	<ul style="list-style-type: none"> Land will be available for use by previous owner after construction completion, with use restrictions Compensation will be paid for use restrictions and will be included in the amount paid for 3-years of temporary use right obtained on the 28 meter corridor Reductions in land productivity resulting from re-instatement will be compensated Absentee owners will be attempted to be found and notified by the Project. They have the same entitlements as resident owners. 			be paid for one year's crop value.	<p>and contacts with any local Project agency, his/her expropriation procedures will be handled easily and quickly.</p> <ul style="list-style-type: none"> The Project will provide the transportation for land registry office procedures. The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.
Landowner: Customary Ownership	<ul style="list-style-type: none"> Commission comprising experts specified in the 9th article of expropriation act determines the right holder and certifies it in form of minutes. The minutes will be recorded over the whole parcel. Land within the 8m ROW plus the AGIs will be acquired. Compensation will be calculated based on net income capitalization by court. The Project will request the finalisation of the right holder status and determination of compensation value by appealing to court presenting the assessed compensation value and customary ownership minutes. In accordance with the court judgement, the right holders will be compensated. There will not be a negotiation process. No land entry before payment is deposited. For joint-owners, payment will be awarded on the basis of shares of each 	<ul style="list-style-type: none"> Commission comprising experts specified in the 9th article of expropriation act determines the right holder and certifies it in form of minutes. The minutes will be recorded over the whole parcel. Easement rights will be established on the 20m ROW for 3 years Compensation will be calculated by court taking net income loss throughout duration of temporary use, and the possible value losses due to Project restraints into account. The Project will request the finalization of the right holder status and determination of compensation value by appealing to court presenting the assessed compensation value and customary ownership minutes. 	<ul style="list-style-type: none"> Assets lost or damaged within the 28m corridors will be compensated for (based on the full replacement value), or reinstated prior to exit by the contractor. An exit protocol will be signed by the landowner and the construction contractor to agree satisfactory ROW reinstatement. Compensation for loss or damage to non-reinstated assets will be based on values determined by official experts. The value will be based on full replacement costs. The construction contractor will compensate for accidental damage to assets outside of the 28m corridors. These will be included and will be approved by the owner in the exit protocol. 	<ul style="list-style-type: none"> Perennial trees and crops will be compensated with cash based on capitalized income stream. Payment will be based on purchase prices determined by Ministry of Agriculture. Compensation will be decided upon at time of land entry (anticipated to take place 4-6 weeks before land entry). Payment will be made to bank account in the name of the owner. Owner can request direct cash payment. If there are shared owners, payment will be made to the owners who are cultivating the 	<ul style="list-style-type: none"> The date when commission comprising experts specified in the 9th article of expropriation act will carry its activities in the village will be announced by the Project at that village and the right holders will be requested to be available on their assets during the procedure. In case the commission determinations are objected to before appealing to court, these objections will be evaluated. All the court expenses will be covered by the Project. The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.

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	Permanent Land Acquisition	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
	<p>owner</p> <ul style="list-style-type: none"> If the severed portion of the land is not suitable for use, expropriation of that portion may also be requested. Applications should be made to the project within 30 days of receiving expropriation notification Land will be available for use by previous owner after construction completion, with use restrictions 	<ul style="list-style-type: none"> In accordance with the court judgement, the right holders will be compensated. No land entry before payment is deposited. If there are shared owners, payment will be awarded on the basis of area owned. 		<p>land</p> <ul style="list-style-type: none"> Accidental damage to crops outside of the 28m corridors will be compensated for by the construction contractor. Compensation will be paid for one year's crop value. 	
<p>Landowner: Title deed holder with no cadastral registration</p> <p>(Special situation of villages subjected to land consolidation)</p>	<ul style="list-style-type: none"> Land within the 8m ROW and AGIs will be acquired. Court decision will be taken for certification of land rights for property acquired through land distribution. Ownership certification will be requested from the courts. Fair compensation will be paid based on net income capitalization plus a fee for reduced marketability for each individual plot. Payment will be made into bank account in name of landowner within 45 days of agreement in accordance with expropriation law. No land entry before payment is deposited. If there are shared owners, payment will be awarded on the basis of area owned. If the portion of the land remaining out of expropriation is not suitable for use, expropriation of that portion may also be requested. Applications should be made within 30 days of receiving expropriation notification. Land will be available for use by previous owner after construction completion, with use restrictions 	<ul style="list-style-type: none"> Easement rights establishment on the 20m ROW will be acquired for 3 years. Court decision will be taken for certification of right holder status for property acquired through land distribution, Village Headman's notes, and sales commitment note. Fair compensation will be paid taking net income loss throughout duration of temporary use, and the possible value losses due to project restraints into account. Payment compensates for use rights for 3 years, reduced plot value and reduced productivity due to land use restrictions. Payment will be made into bank account in name of landowner within 45 days of agreement in accordance with the expropriation law. No land entry before payment is deposited. If there are shared owners, payment will be awarded on the basis of area owned. 	<ul style="list-style-type: none"> Assets lost or damaged within the 28m corridors will be compensated for (based on the full replacement value), or reinstated prior to exit by the contractor. An exit protocol will be signed by the landowner and the construction contractor to agree satisfactory ROW reinstatement. Compensation for loss or damage to non-reinstated assets will be based on values determined by official experts. The value will be based on full replacement costs. Typically, payment will be paid to a bank simultaneously with land payment. The construction contractors will compensate for accidental damage to assets outside of the 28m corridors. These will be included and will be approved by the owner in the exit protocol. 	<ul style="list-style-type: none"> Perennial trees and crops will be compensated with cash based on capitalized income stream. Compensation will be paid for any crops damaged during land entry/construction. Payment will be based on purchase prices determined by Ministry of Agriculture. Compensation will be decided upon at time of land entry (anticipated to take place 4-6 weeks before land entry). Payment will be made to bank account in the name of the owner. Owner can request direct cash payment. If there are shared owners, payment will be made to the owners who are cultivating the land 	<ul style="list-style-type: none"> Assistance will be provided from the RAP fund for court applications for certification of right holder status. The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.

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		the basis of area owned.		<ul style="list-style-type: none"> The construction contractor will compensate for accidental damage to crops outside of the 28m corridor. Compensation will be paid for one year's crop value. 	
Landowner: Unregistered inherited land	<ul style="list-style-type: none"> Heirs will be found and notified by the Project, confirming their addresses and location information. They will receive information and assistance on solving their deed problems and registering their lands. The heirs' inheritor status will be certified through court judgement for being eligible for compensation. Land within the 8m ROW plus the AGIs will be acquired. Fair compensation will be paid to the inheritors determined by the court. Compensation will be calculated based on net income capitalisation. Payment will be made into bank account in name of landowner within 45 days of agreement in accordance with expropriation law. No land entry before payment is deposited. If there are shared owners, payment will be awarded on the basis of area owned. If the portion of the land remaining out of expropriation is not suitable for use, expropriation of that portion may also be requested. Applications should be made to the project within 30 days of receiving expropriation notification. Land will be available for use by 	<ul style="list-style-type: none"> Easement rights establishment on the 20m ROW will be acquired for 3 years The heirs' inheritor status will be certified through court judgment for being eligible for compensation. Fair compensation will be paid taking net income loss throughout duration of temporary use, and the possible value losses due to project restraints into account. Payment compensates for use rights for 3 years, reduced plot value and reduced productivity due to land use restrictions. Payment will be made into bank account in name of landowner within 45 days of agreement in accordance with the expropriation law. No land entry before payment is deposited. If there are shared owners, payment will be awarded on the basis of area owned. 	<ul style="list-style-type: none"> Assets lost or damaged within the 28m corridors will be compensated for (based on the full replacement value), or reinstated prior to exit by the contractor. An exit protocol will be signed by the landowner and the construction contractor to agree satisfactory ROW reinstatement. Compensation for loss or damage to non-reinstated assets will be based on values determined by official experts. The value will be based on full replacement costs. Typically, payment will be paid to a bank simultaneously with land payment. The construction contractors will compensate for accidental damage to assets outside of the 28m corridors. These will be included and will be approved by the owner in the exit protocol. 	<ul style="list-style-type: none"> Perennial trees and crops will be compensated with cash based on capitalized income stream. Compensation will be paid for any crops damaged during land entry/construction. Payment will be based on purchase prices determined by Ministry of Agriculture. Compensation will be decided upon at time of land entry (anticipated to take place 4-6 weeks before land entry). Payment will be made to bank account in the name of the owner. Owner can request direct cash payment. If there are shared owners, payment will be made to the owners who are cultivating the land Accidental damage to 	<ul style="list-style-type: none"> In cases of non-agreement, disputed ownership and unregistered title deeds that proceed through the Courts, the owner will not pay any Court proceedings (to be paid by the Project). Contribution will be provided from RAP fund for expenses for certification of inheritor status. The Project will visit each village for negotiation. The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.

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	Permanent Land Acquisition	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
	previous owner after construction completion, with use restrictions			<p>crops outside of the 28m corridor will be compensated for by the construction contractor.</p> <ul style="list-style-type: none"> • Compensation will be paid for one year's crop value. 	
<p>Landowner: Owners of Plots that are subject to urbanisation (arsa)</p>	<ul style="list-style-type: none"> • Land within the 8m ROW plus the AGIs will be acquired. • Fair compensation will be paid. Compensation will be calculated based on fair market value • Payment will be made into bank account in name of landowner within 45 days of agreement. • No land entry before payment is deposited. • If there are shared owners, payment will be awarded on the basis of area owned. • If the portion of the land remaining out of expropriation is not suitable for use (more likely to be heavily severed) expropriation of that portion may also be requested. Applications should be made to the Project within 30 days of receiving expropriation notification. • Land will be available for use by previous owner, with use restrictions defined by the Project. 	<ul style="list-style-type: none"> • Easement rights establishment on the 20m ROW will be acquired for a 3 year period. • Payment compensates for use rights for 3 years, land use restrictions and reduced market value and attractiveness of the urban plot due to building and zoning restrictions • Payment will be made into bank account in name of landowner within 45 days of agreement. • No land entry before payment is deposited. • If there are shared owners, payment will be awarded on the basis of area owned 	<ul style="list-style-type: none"> • Assets lost or damaged within the 28m corridors will be compensated for (based on the full replacement value), or reinstated prior to exit by the contractor. • An exit protocol will be signed by the landowner and the construction contractor to agree satisfactory ROW reinstatement. • Compensation for loss or damage to non-reinstated assets will be based on values determine by official experts. The value will be based on full replacement costs. • Typically, payment will be paid to a bank simultaneously with land payment. • The construction contractors will compensate for accidental damage to assets outside of the 28m corridors. These will be included and will be approved by the owner in the exit protocol. 	<ul style="list-style-type: none"> • Not Applicable 	<ul style="list-style-type: none"> • In cases of non-agreement, disputed ownership and unregistered title deeds that proceed through the Courts, the owner will not pay any Court proceedings (to be paid by the Project). • The Project will visit each village for negotiation. • The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.

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	Permanent Acquisition	Land	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
<p>Asset owner In some cases, someone other than the landowner may own assets on the permanently or temporarily acquired land.</p>	Not applicable		Not applicable	<ul style="list-style-type: none"> • Asset owner will be required to prove their rightful ownership. In unproven cases, payment will be made to the landowner. • Assets lost or damaged within the 28m corridor will be reinstated or compensated for. • An exit protocol will be signed by both parties to agree satisfactory reinstatement. • Compensation for loss or damage to non-reinstated assets will be based on values determine by official experts. Compensation will be equivalent to that paid to landowners who own assets. • Accidental damage to assets outside of the 28m corridor will be compensated for by the construction contractor. 	Not applicable	<ul style="list-style-type: none"> • In cases of non-agreement, disputed ownership and unregistered title deeds that proceed through the Courts, the owner will not pay any Court proceedings (to be paid by the Project). • The Project will visit each village for negotiation. • The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.

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	Permanent Land Acquisition	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
Tenant (with legal agreement)	Not applicable	If there is a confirmed long-term lease: cash compensation will be provided for gross value of lost crops during the time of construction and use restrictions, as decided by Court, on a case-by-case basis	Not applicable	<p>Compensation will be paid for any crops damaged during land entry/construction on the 8-meter ROW and AGI sites</p> <p>Users of land required for construction camps will lose their lease, but will receive compensation for their crops</p> <p>Crop owner will be required to prove their tenancy by means of a legal tenancy agreement before payment can be awarded under the expropriation law.</p> <p>If there are shared tenants, payment will be awarded on the basis of area cultivated.</p> <p>Payment will be based on purchase prices determined by Ministry of Agriculture.</p> <p>Compensation will be decided upon at time of land entry. Payment will be made to bank account in the name of the crop owner. Crop owner can request direct cash payment.</p>	<p>In cases of non-agreement, disputed ownership and unregistered title deeds that proceed through the Courts, the owner will not pay any Court proceedings (to be paid by the Project).</p> <p>The Project will visit each village for negotiation.</p> <p>The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.</p>
Tenant (no legal agreement)	Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Compensation will be paid for any crops damaged during land entry/construction on the 8-meter ROW and AGI sites • Users of land required for construction camps will lose their lease, but will receive compensation for their crops • Crop owner will be required to prove their tenancy agreement. By signing a record with the owner. • In case of absentee owner, the tenant has to have a record declaring that the crops belong to the tenant with the Muhtar of the village and/or the village alders. • Compensation will be paid for any crops damaged during land entry/construction. • Payment may be awarded from the RAP. • If there are shared tenants, payment will be awarded on the basis of area cultivated. • Payment will be based on purchase prices determined by Ministry of Agriculture. • Compensation will be decided upon at time of land entry. Payment will be made to bank account in the name of the owner. Owner can request direct cash payment. 	<ul style="list-style-type: none"> • In cases of non-agreement, disputed ownership and unregistered title deeds that proceed through the Courts, the owner will not pay any Court proceedings (to be paid by the Project). • The project will visit each village for negotiation. • The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.

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	Permanent Land Acquisition	Land Use	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
<p>Squatter: Land user that has not been granted permission by the private landowner</p>	Due cash compensation for the private owner, as indicated above		Due cash compensation for the private owner, as indicated above	<p>Compensation for assets will be awarded to the landowner, alongside land acquisition payments. Asset owner will be required to prove their rightful ownership. In unproved cases, payment will be made to the landowner. Asset owner will be compensated by the project for damage or loss of assets within the 28m corridor. In some cases, this may result in equal payment for assets to both the asset owner and the landowner. In such a case payment to the user will be made by the Project. Compensation for loss or damage will be based on values determine by official 3rd party independent experts. Compensation will be equivalent to that paid to legal asset owners. Accidental damage to assets outside of the 28m corridor will be compensated by the construction contractors.</p>	<p>Crop owner will be required to prove their ownership of the crops by some means other than a tenancy agreement. (i.e. Crop ownership record with the Muhtar or village alders. Compensation will be paid for any crops damaged during land entry/construction on the 8-meter ROW, AGI sites and camp sites, by the project. Payment will be awarded by the project. If there are shared users, payment will be shared on the basis of area cultivated. Payment will be equivalent to that paid to legal tenants. Compensation will be decided upon at time of land entry. Payment will be made to bank account in the name of the crop owner. Crop owner can request direct cash payment.</p>	A response will be formulated from the RAP fund for mitigation.
<p>Squatter: Title deed holder with plot within unregistered forest designated land Unregistered land user with plot within registered forestry land</p>	Compensation will be paid to the Ministry of Forest for land expropriated. Discussions with the Ministry of Forestry are ongoing to find a solution for compensating owners.		Compensation will be paid to the Ministry of Forestry for damage or loss of assets on forestry land. Discussions with the Ministry of Forestry are ongoing to find a solution for compensating owners.	Discussions with the Ministry of Forestry are ongoing to find a solution for compensating crop owners.	A response will be formulated from the RAP fund for mitigation.	

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	Permanent Land Acquisition	Temporary Land Use			
<p>Squatter: Land user that uses a plot within state owned land</p>	<p>Compensation will be paid to the State Authority for land expropriation.</p>		<p>Asset owner will be required to prove their rightful ownership. In unproved cases, payment will be made to the state authority and the project will compensate for the owner</p> <p>Asset owner will be compensated by the project for damage or loss of assets within the 28m corridor. Compensation for loss or damage will be based on values determine by official experts. Compensation will be equivalent to that paid to legal asset owners.</p> <p>Accidental damage to assets outside of the 28m corridors will be compensated for by the construction contractors.</p>	<p>Crop owner will be required to prove their ownership of the crops by having ownership record signed by the Muhtar and/or village alders.</p> <p>Compensation will be paid for any crops damaged during land entry/construction on the 8-meter ROW, AGI sites and camp sites, by the project.</p> <p>If there are shared users, payment will be shared on the basis of area owned.</p> <p>Payment will be equivalent to that paid to legal tenants.</p> <p>Compensation will be decided upon at time of land entry. Payment will be made to bank account in the name of the owner. Owner can request direct cash payment.</p>	<p>A response will be formulated from the RAP fund for mitigation.</p>

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Project Affected Person	Entitlement				
	Permanent Land Acquisition	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
Communities that use state owned pastureland	Not applicable	Not applicable	Not applicable	Not applicable	Project impacts along the pipeline ROW, for the users of state owned pasture are minimal since the pipeline affects a small percentage of total lands available to users. The only potential exceptions are above ground installations; Assessment and definition of appropriate mitigation plans for specific communities will be carried out and supervised by the Project. Implementation of mitigation plans will managed by the Project. A response will be formulated from the RAP fund for mitigation.
Communities that use forestland resources	Not applicable	Not applicable	Not applicable	Not applicable	Users are illegally using forest resources; hence users will not be paid compensation individually. Project impacts on communities that use resources in forestlands will be mitigated by community investment through the BP Community Mitigation Programme. Assessment and definition of appropriate mitigation plans for specific communities will be carried out by the Project . Implementation of mitigation plans will managed by the Project.

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Project Affected Lands and Entity	Entitlement				
	Permanent Land Acquisition	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
Forest lands owned by the Ministry of Forestry	Application for land expropriation to the General Directorate of Forestry. Ministry of Forestry determines expropriation payments. Expropriation payments will be paid to the Treasury. Land will be registered to the Project.	Application for land expropriation to the General Directorate of Forestry. Ministry of Forestry determines expropriation payments. Expropriation payments will be paid to the Ministry of Forest.	Ministry of Forest evaluates payments for damage to or loss of assets. Payments will be paid to the Ministry of Forestry.	Not applicable	Not applicable
State owned pasturelands	Pastureland will be registered in the name of the Treasury. The Treasury will do the land evaluation and the Project will negotiate the expropriation value. Expropriation payments will be paid to the Treasury 8 m corridor of the pastureland will be registered to the Project.	The Treasury will do the land evaluation. Expropriation payments will be paid to the Treasury	Not Applicable	Not applicable	Not applicable
Special case: Unregistered, unused land in-between plots	This land will be registered in the name of the Treasury. The Treasury will do the land evaluation and the Project will negotiate the expropriation value. Expropriation payments will be paid to the Treasury 8 m corridor plus the AGIs will be registered to the Project.	The Treasury will do the land evaluation. Expropriation payments will be paid to the Treasury	Not Applicable	Not applicable	Not applicable
Village owned registered lands	Land within the 8m ROW plus AGIs will be acquired. Fair compensation will be paid. Compensation will be calculated based on net income capitalisation Payment will be made to the village authority budget. No land entry before payment is deposited. If the portion of the land remaining out of expropriation is not suitable for use, expropriation of that portion may also be requested. Applications should be made to the Project within 30 days of receiving expropriation notification. Land will be available for use by the village after reinstatement, with use restrictions defined by the Project.	Easement rights establishment on the 20m ROW will be acquired for max. 3 years period. Fair compensation will be paid taking net income loss throughout duration of temporary use, and the possible value losses due to project restraints into account. Payment compensates for use rights for 3 years, reduced plot value and reduced productivity due to land use restrictions. Payment will be made to the village authority. No land entry before payment is deposited.	Assets installed by village authorities within the 28m ROW may be lost or damaged. Compensation for loss/damage will be based on values determine by official experts. Some assets maybe reinstated by the construction contractor, prior to exit from the land. Payments will be awarded to the village authority budget.	If the land is rented to a tenant, payment for crops will be made to the crop owner.	In cases of non-agreement, disputed ownership and unregistered title deeds that proceed through the Courts, the owner will not pay any Court proceedings (to be paid by the Project). The Project will visit each village for negotiation The Project will pay for all legal fees and taxes as well as power of attorney fees associated with land acquisition.

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Project Affected Person	Entitlement					
	Permanent Land Acquisition	Land	Temporary Land Use	Loss of Assets	Loss of Crops	Other Assistance
Fishermen using fishing grounds that potentially are affected by the development of the BTC Marine Terminal.	Not applicable		Not applicable	Not applicable	Not applicable	<ul style="list-style-type: none"> • Studies of the impacts of the Marine Terminal have been completed between May and September 2002. (Annex 6.3) • A Plan has been developed to review TUDAv's report with experts on fishing and compensation issues. • The compensation measures that are agreed by the experts will be disclosed to the fishing communities and their comments will be gathered in mid December (at least 60-days before construction starts at Ceyhan Marine Terminal in early March 2003.