4 OVERVIEW OF PROJECT AFFECTED POPULATIONS

4.1 GENERAL FINDINGS

During the preparation of the Resettlement Action Plan (RAP), a large number of studies were carried out, including those relevant to the Environmental and Social Impact Assessment (ESIA). These were useful in providing the broad context within which specific RAP issues were placed. To meet the World Bank OD 4.30 requirements for the preparation of the RAP, the issues were narrowed down to those people and communities whose livelihoods were impacted as a result of Project's land and asset acquisition activities. The RAP report and the studies that are incorporated in it do not address broad social expectations and concerns about the Project; rather they aim to identify issues pertaining to economic and physical displacement caused by the Project and measures to avoid or minimise these.

As part of the (RAP) for the BTC Pipeline construction, a census of affected populations was carried out. This consisted of owners/users of each affected plot for the construction of the pipeline as well as for its maintenance and the operation of the above ground installations (AGIs)[1]. Based on the census results, a socio-economic survey was designed and conducted in May 2002, using a representative sample of affected plots to reveal the characteristics of Project-affected people (PAPs) [2]and assess the magnitude of adverse impacts. The survey instrument, the sample strategy and the list of sampled communities as well as additional tables on the RAP survey are provided in Annexes 4.1, 4.2, and 4.3. In addition, a mail survey was conducted to capture the status of absentee owners. The survey instrument and the description of research methods are set out in Annexes 4.4 and 4.5.

4.2 EIA SOCIO ECONOMIC BASELINE

A detailed socio-economic baseline study was completed for the Turkish EIA and can be found in Chapter 5 of the EIA. The baseline study was undertaken in order to understand key socio-economic conditions in areas potentially affected by the Project; to provide data to enable the prediction and evaluation of potential impacts; to understand the expectations and concerns of stakeholders; to inform the development of the mitigation measures, benchmark future socio-economic changes and impacts and assess the effectiveness of the mitigation measures.

[1] The census of Project Affected Populations (PAPs) from the operational activities related to the Ceyhan Terminal and the use restrictions to be imposed on fisheries are not included in the Census. This is because the studies to identify fisheries impacts, if any relevant to livelihoods, are ongoing. If these studies point to reduced fisheries incomes as a result of the Project related restrictions relevant entitlements will be formulated. Also, the adequacy of the ESIA studies to meet the RAP requirements will be examined, and a census of PAPs together with socio-economic studies will be prepared. A budget for this purpose is already incorporated into Chapter 9 and the relevant census/studies are reflected in the RAP implementation schedule (Chapter 10).

[2] The concept of "Project Affected People" is often used interchangeably with "Project Affected Populations" and refers to the populations whose livelihoods, land, and other immovable assets are impacted by the construction and/or operational activities of the Project. A broader definition of the concept is provided in the ESIA to meet the objectives of the SIA.

The key sources used to obtain this information included: published literature; desk top studies; community consultation meetings with local settlements; questionnaires administered with the Muhtar (village head) of each settlement and questionnaires administered at the household level. The broad issues discussed in the socio-economic baseline section of the EIA cover the administrative structure of Turkey; a socio-economic overview of the pipeline route; demographic and mitigation patterns; land ownership and use; livelihoods; employment and skills; infrastructure; utilities and services and attitudes towards the pipeline.

The RAP socio-economic survey was conducted independently of the EIA socio-economic survey and the findings are distinct.

4.3 SOCIO-ECONOMIC SURVEY

The findings of the socio-economic survey specific to the Project related activities reveal the following:

- The impacts on livelihoods are significant in absolute terms but marginal with respect to their specific impacts on affected families. This is true for all provinces affected by the Project;
- The portion of land that households lose-- permanently or temporarily-- constitutes a small proportion of their total holdings. Only 6 % of the total land holdings are lost to the Project permanently.[3] The projected losses of income from expropriation constitute a modest proportion of land-based incomes. The impacts however are much higher for households affected by above ground facilities (AGI) of the Project than from the pipeline. For instance, annual monthly income losses average US$38 from AGIs and US$12 from the pipeline;
- When other impacts are considered, such as access to forests and grazing lands, the overall income impacts are only slightly modified but livelihood impacts become more visible;
- Nearly a third of the affected landowners have more than one plot that will be expropriated;
- A majority (68 %) of the affected plots are officially registered, i.e. the landowner has official title to the land. In addition, 24 % of the owners have customary title (zilyet) to the land. The rest are in the process of receiving the title. Since the process equally recognises the entitlements of all groups of owners, the entitlements are identical (Chapter 6);
- Less than a fifth of the affected plots are cultivated by tenant farmers. This group, however, is not vulnerable in any measurable way. Rather, three quarters of them have their own land and are leasing the additional land to improve their incomes;
- Tenancy arrangements are varied. However, a majority of tenants will have to be directly compensated as their lease arrangement is based on fixed cash payments. For the rest of the cases, compensation for crops on the affected plots will have to be distributed between owners and users;
- A great majority (95%) of owners/users is informed of the Project, but few have specific information on the size of the land affected and of the new legal framework that provides protection to them. In fact, as late as May 2002, over 95% of the people did not know that the Expropriation Law had been changed;
- A substantial proportion of the affected communities are forest communities and more than one half of their residents are concerned about adverse impacts; and

[3] As per Chapters 1 and 3, the largest portion of the permanently acquired land is for the 8 metre corridor, which will be returned to the ex-owners/users after construction. Thus, the land losses will be around 1 percent once the Project is in operation.

- Several characteristics of affected plots were perceived as not only making expropriation difficult but also complicating the payment process to the PAPs in question. These characteristics are as follows:

    - Whether the plot is formally registered when in practice owned, such as the case of unregistered legal inheritance claims;
    - Whether or not there is a cadastral system available in the affected communities;
    - Whether traditional ownership is established on the plot;
    - Whether the compensation rights of tenant farmers will be recognized by the Project;
    - Whether the assets on the plot (including trees, water resources, irrigation infrastructure) would be adequately compensated;
    - Whether the valuation will be done "without political pressure"; and
    - Whether the absentee owners have the same entitlements as the resident owners.

A large portion of affected plot owners/users has additional plots that will also be subject to expropriation. However, as late as May 2002, very few PAPs had detailed information as to the particulars of the impacts of land acquisition and construction, and few were fully informed of Project impacts on their assets and livelihoods. Thus, both broad and targeted disclosure activities have been designed to better inform the PAPs of the Project and their entitlements. The Project concentrated on informing these people on specific land related issues through disclosure materials (such as the community pamphlet) that was distributed widely and through the consultation meetings held during the disclosure phase of the EIA. The legal framework for land acquisition and compensation was explained by land experts during the community meetings. Furthermore, in order to give more detailed information about the land acquisition and compensation process a reader friendly "Guide to Land Acquisition and Compensation (GLAC)" was prepared. The distribution of the GLAC to the landowners and users started on October 14, 2002. A fuller discussion on the public consultation and disclosure process is found in Chapter 7.

PAPs who are cultivators of their own land as well as those who own it through customary law had inadequate information about:

- How much of their land will be actually impacted;
- How they will be compensated;
- What delays may occur in their receipt of compensation;
- Whether their customary rights will be recognised;
- Whether they will have recourse;
- Whether land reinstatement will be done properly once construction is complete;
- How ownership disputes between owners will be resolved.

Those who have had previous expropriation experience, in particular with BOTAS on a recent gas pipeline Project, have particularly high levels of concern.

All these issues were addressed during the disclosure phase of the EIA. Furthermore, as stated above, the GLAC was prepared to provide answers to these frequently asked questions.

4.4 CHARACTERISTICS OF RESPONDENTS

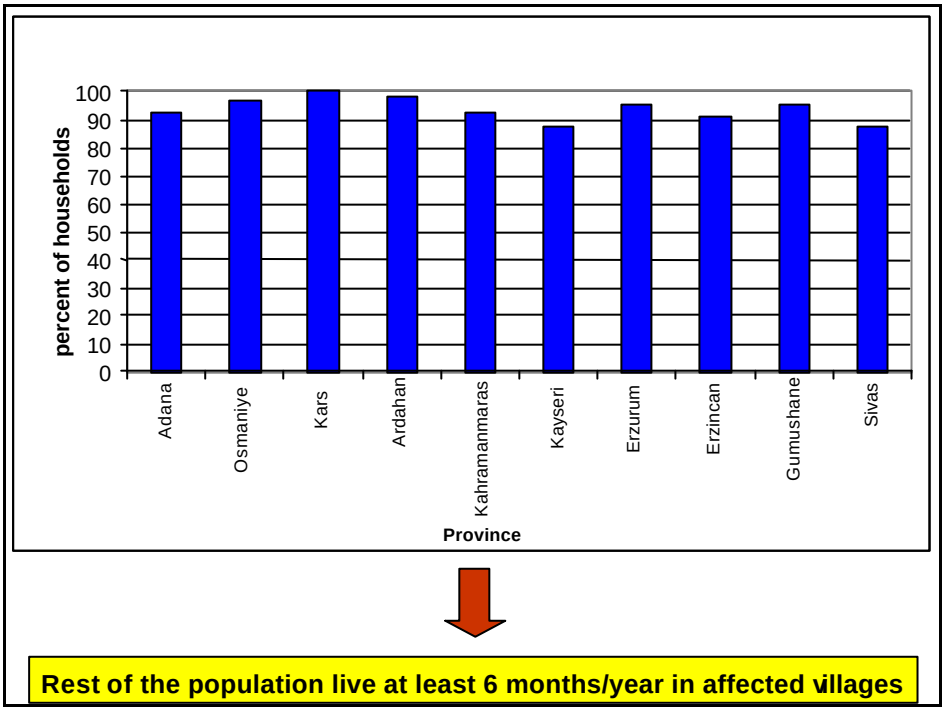
The socio-economic survey of resident owners/tenants as well as the absentee owners focused on household rather than individual characteristics of the respondents. An important reason for this was that if the person whose name appeared in the title deed could not be contacted, his spouse

could be interviewed. Nevertheless, a majority of the respondents were male. A large majority of them were farmers. Although overall education levels were low, literacy rates were high in the affected areas and among the respondents. This alone could potentially help increase the effectiveness of public information efforts. Among the population segment older than seven years of age, 87 % were literate. However, the majority in this population segment has only a primary school education; only about a quarter of them have a secondary or high school education.

4.5 HOUSEHOLD CHARACTERISTICS

The majority of the people in affected households are farmers, deriving incomes from their land and livestock holdings. Almost 97% of the respondents work as farmers, and the remaining professions include labourers, merchants, and government workers. Of the respondents, 86% classified themselves as unpaid family workers. Most households live in the village year round, simplifying the land acquisition process (Figure 4.1).

Figure 4.1 Percentage of Population Living in Affected Villages Year-Round

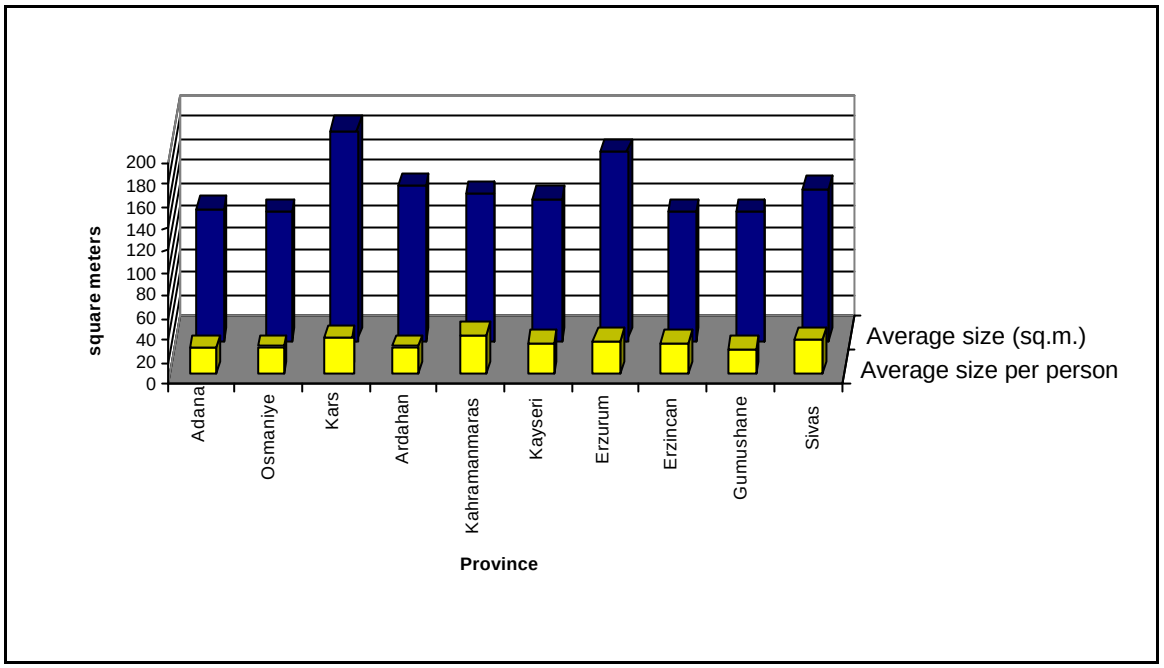


There is a small but significant group of household members who work or live temporarily outside of the province. Average household size is about 6 persons, with little regional variation. About 7 % of the people in the province work outside the province and 14 % study or live temporarily outside the province. Absentee owners were surveyed separately and reported elsewhere in the RAP. Comparative evaluation of the socio-economic characteristics of the households with members outside their community with the more sedentary households shows that the former group has lower land-based incomes ($178/month versus $322/month for sedentary households), although its average per capita income is slightly higher. Thus, the relative impacts of the Project's expropriation activities are likely to be favourable to households with members who work or study outside the affected communities.

Affected households live in good-sized houses, situated on large plots. The average garden plot size for the provinces in question is 2,498 square metres. The average size of a house in the provinces is 140 square metres, with almost 4 rooms. Of all the provinces, Gümüshane has the

smallest average plot size, with 728 square metres and an average house size of 116 square metres. Osmaniye has the largest average plot size, at 6,447 square metres. The average house in Osmaniye is 115 square metres with 4.15 rooms (Figure 4.2).

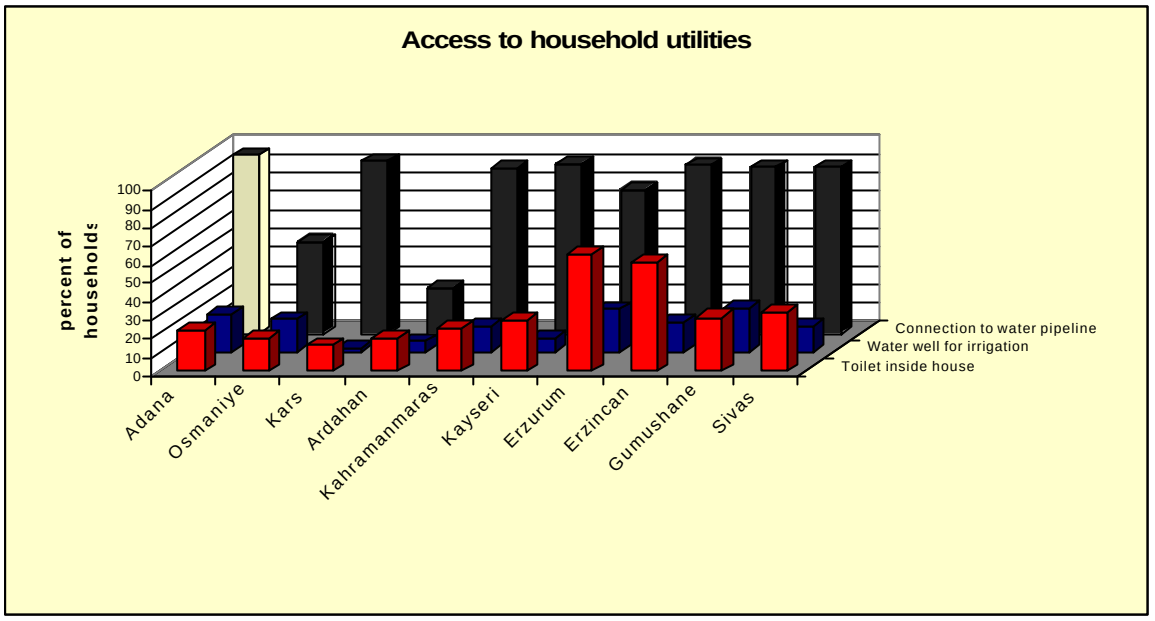
Figure 4.2 Average Size of Residence (per family and per person, sq m)



Most affected households have access to modern household amenities. For instance, 39% have a toilet in their house, 78% have a connection to pipes for drinking water, and 14% have irrigation wells. Part of these households' wealth is connected to their houses; they indicate that if sold, their houses would bring an average of US$15,600. They perceive that buying equivalent property would be more expensive (US$17,000). This is one of the many indicators pointing to a relatively higher standard of PAPs on the Turkish section of the pipeline in contrast with those in the other countries.

A small but significant number of households, about 9%, own additional real estate. The additional real estate is primarily comprised of summer homes, shops, or apartments. Only 4% of those with additional property actually own second homes. Apartment owners, for example, valued their holdings at an average of US$24,550 while shop owners valued their holdings at US$26,000 (Figure 4.3).

Figure 4.3 Access to Household Utilities



4.6 HOUSEHOLD INCOME AND EXPENDITURE

Land-based income is the single most important source of income for households, constituting approximately 49% of total household income[4]. A great majority of PAPs are farmers yet, the efforts of those generating non-agricultural income substantially reduce the share of agricultural income in total income[5]. This is yet another factor that supports the earlier conclusion that the adverse impacts of the Project on affected household livelihoods will be small.[6]

Per capita household expenses are the best indicators of household livelihood;[7] accordingly, Osmaniye is the wealthiest province while Ardahan is the poorest among the affected provinces (Figure 4.4). The data also indicate that there is a direct relationship between land-based incomes

[4] Other sources of income are highly variable. Many households have livestock income, but on average, they constitute less than a fifth of income. Some families have income from trade, few have remittance income, and yet fewer make a living from transportation.

[5] For instance, a small percentage of households have incomes based on urban activities, such as commerce. Despite the fact that such families are small in number the income that they generate from non-agricultural activities is so large that they reduce the role of agricultural income when overall averages are used.

[6] Needless to say, this does not take into consideration factors such as nuisance, time and energy devoted to expropriation arrangements, etc.

[7] Declared incomes are about 60 percent lower than economic incomes calculated through expenditures. This is in line with evidence from other countries. Using declared income one would conclude that the PAPs would be less well off. Using declared production figures a much higher level of income is obtained, especially since in-kind incomes are taken into consideration. However, when the actual expenditures are calculated still higher levels of income are obtained. Regardless of the method used for income estimation, the affected households in the Turkish section of the Project are far better off those in the other countries. As such, the Project impacts on livelihoods are far more modest in Turkey than in Georgia and Azerbaijan.

and total incomes; the higher the land-based income, the higher the real income (Figure 4.5). The average per capita monthly income (measured by expenditures) is US$134.

Figure 4.4 Monthly Household Income – Per Person (as measured by expenditures)

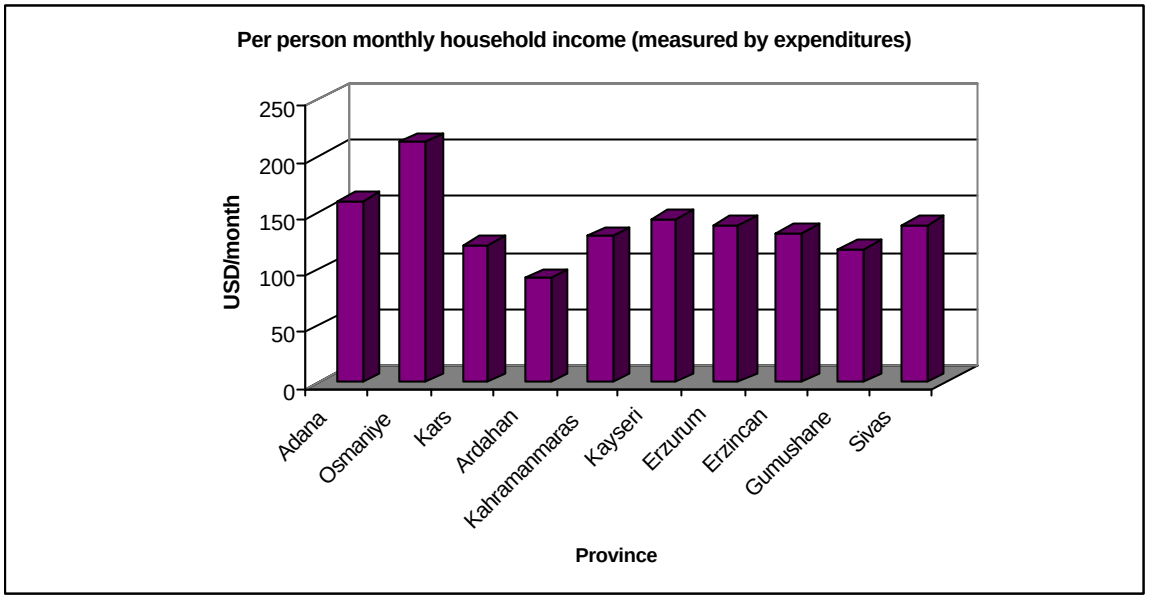
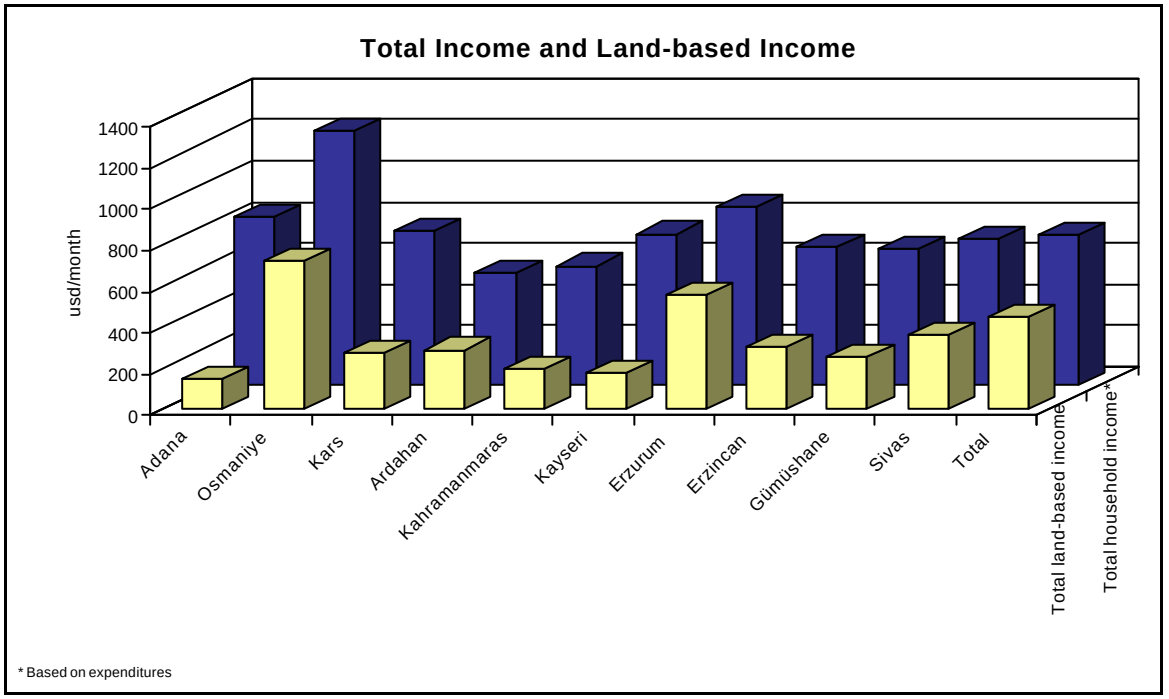


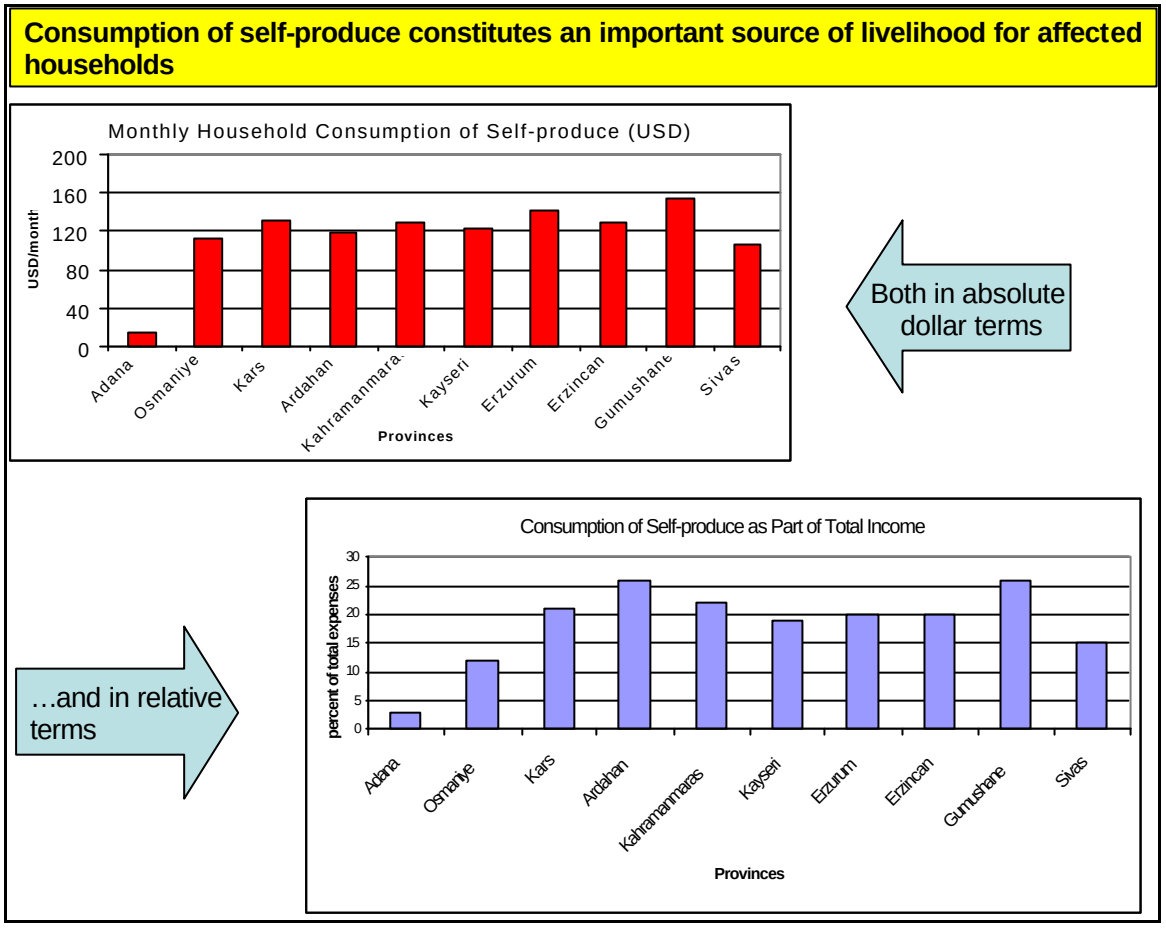
Figure 4. 5 Total Income and Land-Based Income



In-kind incomes generated through household agricultural activities are also high. Declared income levels are, on average, 60 % lower than household incomes as calculated through expenditures (Figure 4.6). This is primarily a manifestation and consequence of cultural modesty. It can also be attributed to the tendency of the respondents to hide their incomes due to potential tax ramifications. In addition, self-consumption constitutes a large portion of

household expenditures (19% of all household expenses). Indeed, households derive an estimated average of US$114/month from consumption of self-produced food items.

Figure 4.6 Consumption of Self Produce



Most affected households have comfortable living standards, as indicated by ownership of household assets. The ownership of productive assets such as trucks or tractors is confined to high-income households. For instance, 85% of these had coloured TV's and 56% had satellite dishes (Figure 4.7). In terms of transportation, 14% of the households have a car, minibus or truck while 47% have a tractor. In addition, 10% have a beehive. Figure 4.7 shows the relationship between ownership of productive assets and household income levels; it reveals that income differences are particularly pronounced among households with and without cars, trucks, and tractors.

4.7 LAND OWNERSHIP AND CULTIVATION

About one third of the affected landowners do not have an official title to their land (Figure 4.8). These people are mostly concentrated in Kars and Ardahan provinces (Table 4.1). The most important reason for not having the deed, cited by more than 90%, is having customary ownership rather than formal, registered ownership. Customary plot owners had concerns about whether their rights would be respected and whether they would receive adequate compensation during expropriation.

Figure 4.7 Income Levels and Household Asset Ownership

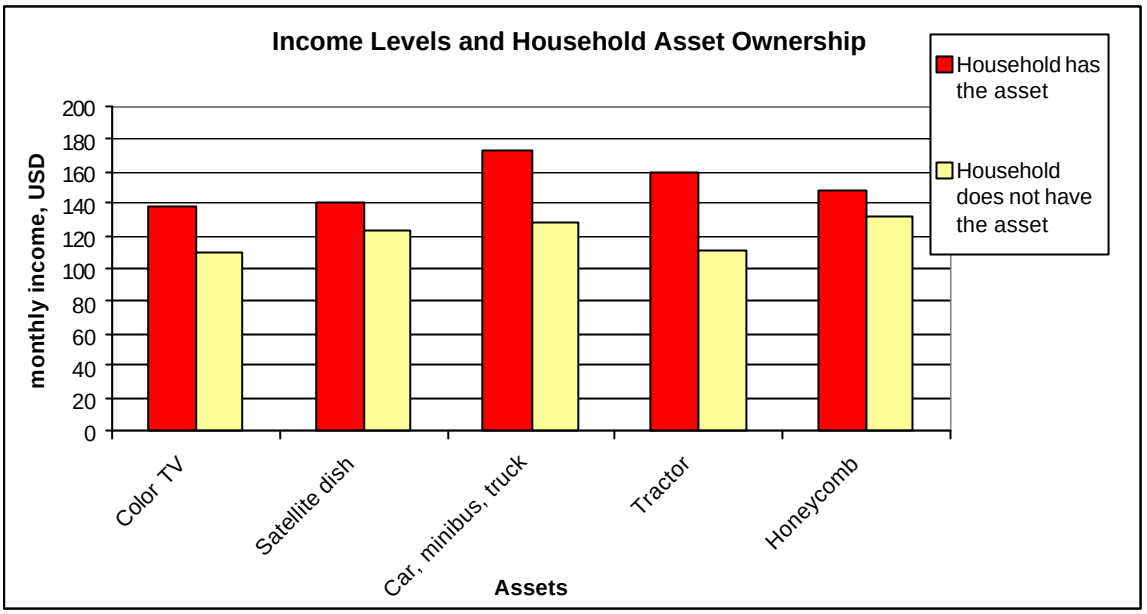


Figure 4.8 Formal Land Titles and Customary Ownership

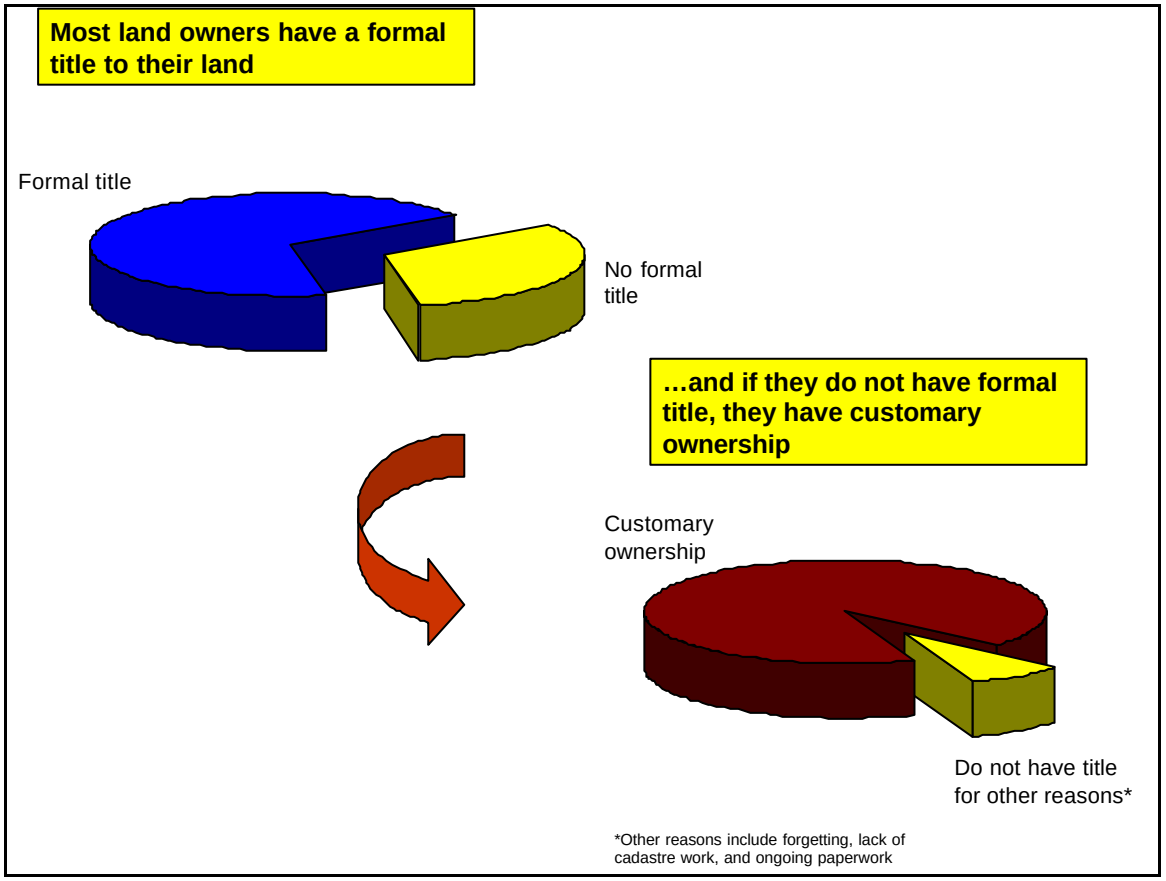


Table 4.1 Households With Formal Title to Land

Province	Percentage of households with Formal Title to Land
Adana	75
Osmaniye	88
Kars	13
Ardahan	32
Kahramanmaras	75
Ayseri	53
Erzurum	82
Erzincan	94
Gümüshane	85
Sivas	78
OVERALL	**68**

With the exception of 15% leased land and 3% rented land, owners cultivate all affected plots. A majority of the people in the region (82%), both owns and works their own plots of land. Those who do not own the land on which they work account for 15% of the survey participants, and 2.6% own the land but lease it out for others to work (Table 4.2).

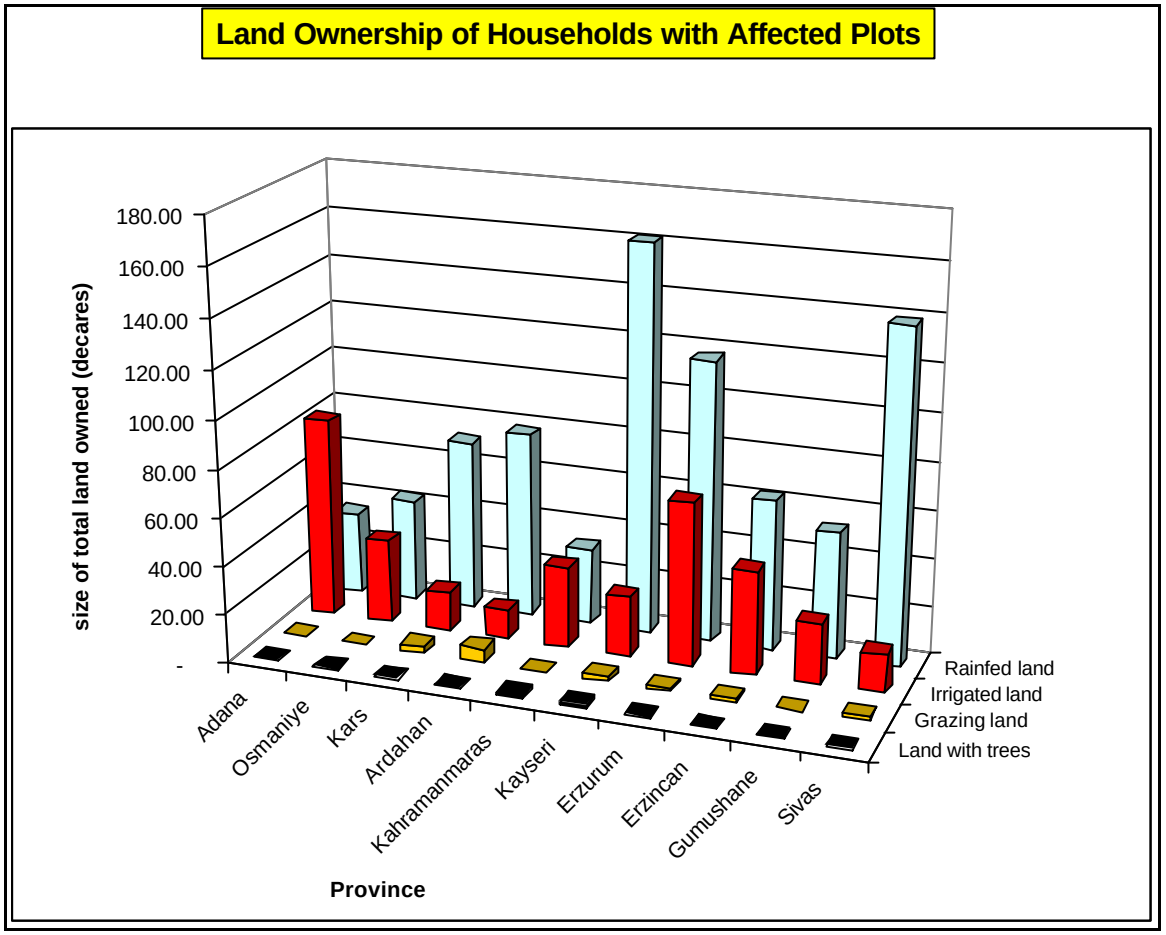
Table 4.2: Land Ownership Status By Province

Province	This plot belongs to me and I work on it (% in provinces)	I work on this plot but it does not belong to me (% in provinces)	I own this plot but I rent it out for others to work on it (% in provinces)	No of respondents
Adana	87	0	13	24
Osmaniye	91	6	3	34
Kars	88	12	0	43
Ardahan	83	17	0	89
Kahramanmaraº	87	4	9	74
Kayseri	82	13	5	63
Erzurum	88	12	0	119
Erzincan	64	36	0	81
Gümüºhane	95	5	0	21
Sivas	77	20	3	133
Overall	**82**	**15**	**3**	**681**

The average size of land owned by PAPs is quite substantial as measured against the prevailing standards in the respective provinces. The reason for this is that the sample consists predominantly of landowners. PAPs own or have ownership shares in an average of 14 hectares[8] of agricultural land, with the largest landholdings found in Erzurum, Kayseri and Sivas provinces (Figure 4.9).

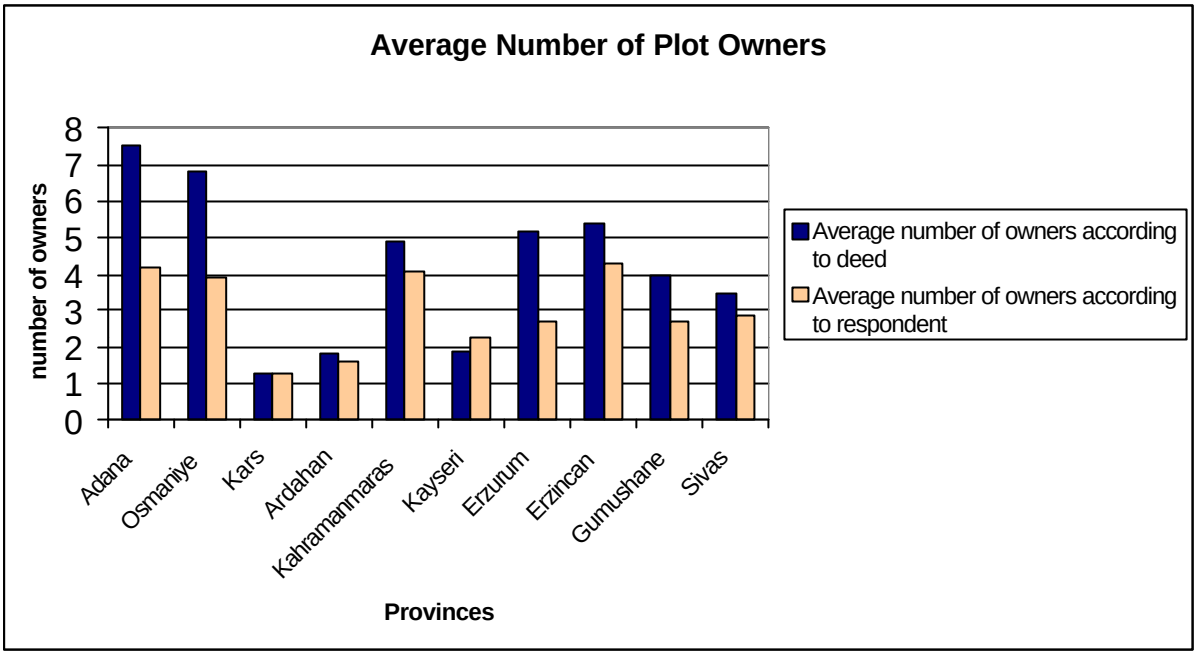
[8] One hectare is approximately 10,000 square metres of land. One thousand metres of land is roughly equivalent to one "donum," the Turkish standard for measuring acreage.

Figure 4.9 Land Ownership of Households with Affected Plots



The affected landowners are unsure about the legal and customary ownership terms that apply to their land, thus increasing the potential for misunderstandings and complications. The data indicates that there are a potentially large number of misinformed respondents in terms of how many people have ownership claims on the land. The following table shows that the number of owners in lands with deed or zilyet (customary right) is significantly higher than the number provided by respondents. When the same table is obtained with the exclusion of single-owner plots, there is a higher discrepancy between what is indicated on the deed and what the respondents indicate. The discrepancy is highest in Osmaniye and Adana (Figure 4.10). Needless to say, given the traditional profile of the rural areas, the discrepancy could also be the result of the denial of women's entitlements to land.

Figure 4.10 Plot Owners



Multiple-owner plots are likely to be a source of delays and potential problems during the expropriation and compensation process. It is therefore important to know the number of owners who will be involved in the expropriation process. Single owner plots make up about half of the plots that will be expropriated; they are most common in Kars and Ardahan provinces. Multiple owner plots, on the other hand, are common in Adana and Gümüºhane. A significant number of the affected plots have 4 or more owners, increasing the potential complexity of expropriation (Table 4.3).

Table 4.3: Single and Multiple-Owner Plots (% in provinces)

Province	Single Owner	2-3 owners	More than 4 owners	Number of respondents
Adana	25	21	54	24
Osmaniye	41	6	53	32
Kars	79	5	16	38
Ardahan	78	16	6	74
Kahramanmaras	38	14	48	71
Kayseri	64	17	19	55
Erzurum	46	20	34	105
Erzincan	40	18	42	52
Gümüshane	25	29	46	20
Sivas	52	11	37	107
Total	**52**	**15**	**33**	**578**

4.8 TENANTS

The key stakeholders of the resettlement and land acquisition process are those families who cultivate the land of others and who may be adversely affected if a portion of this land is

permanently or temporarily expropriated. They will suffer immediate losses from damage to crops, and hence medium term damage to their income. They may also be disadvantaged in receiving compensation due to legal uncertainties that govern their rights (Chapter 2). Therefore, it is critically important to understand the characteristics of the group of tenants and to identify any vulnerability they may have in obtaining fair treatment from the Project. An equally important question concerns the difficulties that the expropriation agency (DSA/BOTAS) may face in serving the needs of this group.

About 18% of affected plots are cultivated by tenants: 15% were interviewed when the plot was visited and 3% were not there themselves but interviews were given by the owners from whom the land is leased. When projected to the whole pipeline construction region, this means that tenants work on 1,618 land plots out of 8,987, comprising of a total land area of about 2,650ha. On average, 314ha of land that tenants work on will be affected by temporary expropriation while 96ha will be affected permanently. Tenancy arrangements are particularly visible in Erzincan, Ardahan and Sivas (Table 4.2).

In comparing the tenants and the owners interviewed, tenants appear relatively disadvantaged with respect to their total land ownership (14.4 hectares of total land for landowners while 12.2 hectares for tenants). About 76% of the tenants have other land that they own or have ownership shares in. 46% of the tenants have irrigated land while 89% have land where rain-fed agriculture is practiced. Most land in use by tenants does not have trees. Only about 7% of the land in use by tenants have trees; tenant parcels have an average of 114 trees. Similar to landowners, the majority of tenants grow wheat; although barley, livestock feed, and beets are also important crops in these lands (Table 4.4).

Table 4.4: Crops Grown by Tenants

Crop	% of tenants growing crop*
Wheat	84
Barley	48
Feed	9
Sugar beets	15
Corn	4
Beans	6
Potatoes	4

*Since each household may raise more than one crop, percentages add up to more than 100.

Tenant households do not appear to be particularly disadvantaged with respect to their household wealth, although forest village tenants have significantly lower incomes**.** On average, landowners spend US$133 per person/month while tenants spend US$139 per person/month; the difference is not statistically significant. However, tenants in forest villages have significantly lower incomes as indicated by their monthly per person expenditures of US$95. It is therefore essential that they receive fair compensation for the affected crops. It is also important that the length of their tenancy arrangements is considered when compensation is calculated.

The potential vulnerability of tenants are indicated by their land ownership status; even though survey results suggest that there is no large-scale income loss potential, individual cases may result in disproportionate high vulnerability for landless tenants. Landless tenants constitute about 21% of tenants working on affected lands. They have an average income level of US$134 per person/month, with land-based income constituting about 40% of total income. In other words, those tenants who currently have no additional land are not necessarily disadvantaged as compared to the tenants who have ownership shares in other land.

Table 4.5: Land Leased Out by Affected Households*

Province	Gives out for rent, sharecropping	Does not rent out any land	No of respondents
Adana	26	74	23
Osmaniye	7	94	31
Kars	0	100	40
Ardahan	1	99	87
Kahramanmaraº	14	86	72
Kayseri	2	98	62
Erzurum	6	94	111
Erzincan	3	97	64
Gümüºhane	5	95	19
Sivas	13	87	127
Total	**7**	**93**	**636**

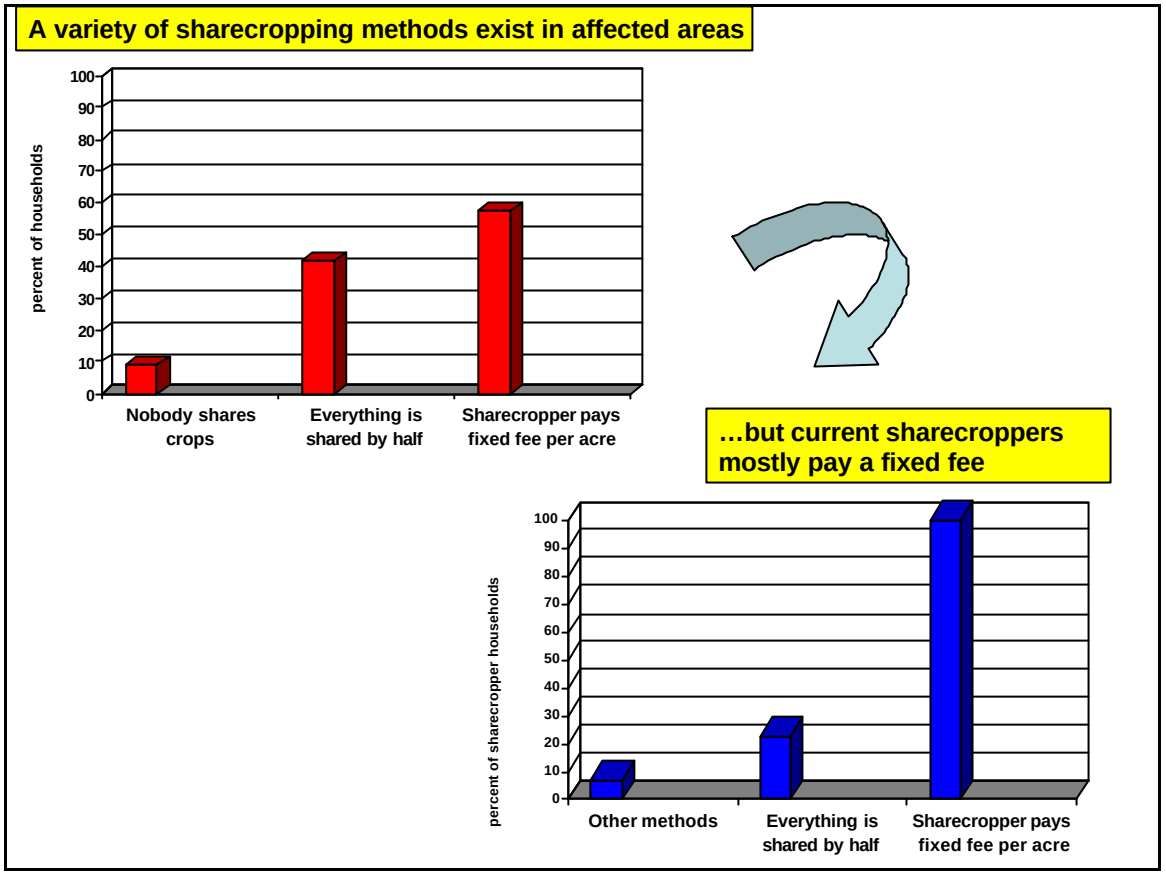
* These are not only affected land plots but all land owned by the household.

Depicting and dealing with complex social situations for small portions of land under tenancy arrangements will take time and effort, and there may be numerous individual cases in which the tenant or the landowner will be adversely affected in a significant way. The key concern of RAP does not have to do with tenants' rights but, rather, complicated tenancy arrangements. Additional issues may even arise from the fact that the tenants of today may not be the tenants of next year. Therefore, DSA/BOTAS is informing all directly affected communities in advance so that tenants can make clear-cut compensation sharing arrangements with owners when drawing up future leases. Also, the disclosure documentation distributed during the third week of September invites all tenants/sharecroppers to obtain a letter from the owners to somewhat formalise the tenancy arrangements and allow them to be compensated for the crops on the land at the time of the entry of the construction teams to the relevant plots. A finding based on the GIS database and the census of affected owners/users (together with their current addresses) shows that the predominant majority of absentee owners live within the region in nearby villages. This too will protect both them and their tenants from inability to receive their entitlements in a timely manner.

Tenancy arrangements are various but they could be streamlined during construction for the smooth progress of expropriation. The most common practice, indicated by 74%, is paying a fixed price for rented rain-fed land. These arrangements cluster in two areas and it appears that the predominant tendency is for straight cash lease arrangements. These arrangements could be strengthened during the next three years when construction will take place; the greater the availability of some sort of notarised existing arrangements, the more likely it will be for the expropriation agency to proceed smoothly and expeditiously. The following table summarises how sharecropping and land rental is practiced (Table 4.5).

Tanancy
Tenancy arrangements are highly diverse and complicated on affected plots. The majority pays a fixed fee per acre of irrigated or rain-fed agricultural land while a substantial portion also equally share the harvest with the landlord. Other arrangements abound in the affected areas. These range from giving a certain portion of the harvest to the landlord, to provision of inputs by the landlord and labour by the sharecropper (Figure 4.11).

Figure 4.11 Sharecropping



The affected plots are not the only source of agricultural income for tenants. Twenty four percent of the tenants rent land from others in addition to the land that will be affected by expropriation; on average, they rent 12.5 hectares (about 125 donums) of land. Rain-fed rented lands are larger (13.1 hectares) and rented by 77% of the tenants, while irrigated lands are smaller (5.2 hectares) and rented by 40% of the tenants. On average, tenants paid US$105 for renting the land that they currently work on.

As with other households, tenant households are predominantly agricultural and have been living in the affected villages almost all their lives. Only 6% of them have government workers and 15% have workers while 56% have students and 25% have pensioners. Thirty three percent of them also have unemployed household members. About 41% of the tenants belong to a cooperative organisation; 7% belong to more than one organisation. Almost all of the tenants have been living in the same village since they were born; only 2 tenant households came from another village. 93% of the households live in the village year-round, the rest live in the village for about 7 months out of a year. There is not a significant difference between tenants and landowners in terms of languages known in the household. Tenant households have similar levels of productive assets to landowners, although they have slightly less tractor ownership than average.

Tenants place a high priority on having an agricultural cooperative and better irrigation for increasing agricultural incomes in their villages. Thirty-three percent of them would like to see a cooperative formed while 46% would like to have more support for irrigation. For increasing livestock income, a milk-processing facility was seen as priority (20%), together with support for animal breeding (20%).

Most tenants heard about the proposed land expropriation through field teams visiting the village, and they have concerns since they had trouble with land expropriation in the past. About 24% of tenants have had past experience with land expropriation, and 80% of them had problems with the expropriation process; most of those were delays in payment. As a result, 68% of tenants are very interested in obtaining more information on the expropriation process. Their information requests focus on how much money will be given to land, what the effects on agriculture will be, and how the expropriation process will be conducted.

4.8.1 Absentee Owners

DSA/BOTAS compiled extensive data on land ownership, identifying the location all owners and co-owners of the affected plots (Table 4.6). These data were then entered into a GIS database together with other characteristics of Project affected plots, owners and users along the BTC Pipeline and AGIs. The GIS data helped identify each plot with one or more absentee owners. These plots numbered about 4,500. A random sample of 510 such plots was selected owners. Envelopes containing extensive Project information, an introductory letter, a questionnaire, and a stamped envelope were sent to one absentee owner per 510 plots included in the sample. Less than one-fifth of the questionnaires were returned with an answer; a large number of the absentee owners could not be located and even a larger number did not respond to the survey. Each envelope mailed included basic information about the plot size, number of co-owners, location of the plot and other indicators in the GIS database. Also, each envelope was registered so that whether the addresses actually signed for the envelope or not was tracked through the post office. To analyse the data, the following categories have been created to analyse responses:

- Those who received the mail and responded to the survey;
- Those who received the mail but did not respond;
- Those who the post office could not locate; and
- Those to whom the post office had not yet delivered the survey but could not state whether the address is wrong.

Table 4.6: Ownership and Plot Characteristics by Type of Response (% of Respondents)

	Group A	Group B	Group C	Group D	Overall
Cultivable Land	88.2	89.8	94	63.6	88.6
Pasture	2.2	3.9	2.4	2.3	3.0
Residential Land	1.1	0.5	0.6	4.5	1.0
House	2.2	0.5	--	2.3	0.8
Timberland	--	--	0.6	4.5	0.6
Canal	1.1	--	--	--	0.2
Other	5.4	5.3	2.4	22.7	5.9
Total	**93**	**206**	**167**	**44**	**510**

Source: BTC Mail Survey, 2002.

The response rate was somewhat low; only 18% of mail survey participants responded and 40% received the survey but did not respond[9]. More importantly, 33% of the surveys were

[9] This indicates that some 40% of absentee owners may take no interest in returning to the area and participating in negotiations. The Project will have to seek the support of courts in approving valuation

undeliverable due to incorrect address, and an additional 9% of addressees were still being searched by the post office 4 weeks after the initial letters were mailed. These results indicate that the addresses and/or names of well over a third of those randomly selected to participate in the mail survey were possibly reported incorrectly in the GIS database.

The mail survey revealed some interesting points. One of the results that really stuck out was that 89% of the 510 owners and users own fields that are used for producing agricultural products. The group who had the highest proportion of productive field land vs. the other types of land was B, those who received but did not send back their survey, with 40.4%. Group C, those to whom the post office could not deliver because of incorrect address, with 32.7%, held the second highest proportion of field land vs. other land. Those who sent back their surveys, group A, had a proportion of 18.3% field vs. other land, and group D (survey not yet delivered) had 8.7% field land. As a result, the mail survey appears to have been unsuccessful in correctly gathering the addresses of a significant group whose productive field land comprises on the whole almost a third of the group's total land holdings. This group cannot be overlooked if BTC CO. is to successfully resettle and/or compensate the affected owners and users.

The mail survey recorded how many owners each affected plot had on average. Combined with the findings of the mail survey an interesting trend begins to surface. Group C has the most owners per plot, with an average of 4.29 owners. This is significant paired with the fact that the more owners each plot has the more complicated it will be to organise the restitution process, and in order to effectively negotiate with owners. The second highest group was B, with an average of 3.45 owners per plot, which also indicates that there may be a potential problem getting people to actively participate in the expropriation process.

One issue that must be kept in the foreground is that of female owners. Of the 510 mail surveys that were sent out, group A responded to the survey but it was also the group with the lowest average number of female owners. Group C had the highest average number of female owners, and as stated before that was the group whose addresses were incorrect and therefore the surveys were undeliverable. It is important to reach owners so that they can be represented properly during the expropriation process.

Through the mail survey results it may be possible to pinpoint the regions that have the most inaccurate GIS absentee owner address data. The provinces of Erzurum, Kahramanmaras, and Sivas had particularly high numbers of mail surveys that were undeliverable or group C. In Erzurum 35% were classified as group C. In Kahramanmaras this figure was close to 24%. Also in Sivas, 21% of the mail surveys were undeliverable due to incorrect address. In those three provinces the number of people who received but did not fill out their mail survey was also particularly high. In Erzurum 56 out of 108 declined to fill in the survey; this is close to 52%. In Kahramanmaras 36% declined and Sivas had 47% failure to fill in the survey.

decisions for this group so that their compensations are kept in trust. It is therefore important not to conclude that the valuation was unfair or the Project and the absentee owners had a conflict. Rather, the absentee shares on the land coupled with the small size of the area to be expropriated would provide little incentive for this group to take any time seeking compensation. In other words, the opportunity cost of getting involved with the expropriation of their share of the affected plot might be higher than the time and energy expanded in travel to the affected area for negotiations and receipt of the compensation.

Table 4.7: Province of Affected Plot (%)

Province	Group A	Group B	Group C	Group D	Overall
ERZURUM	11.8	27.2	22.8	6.8	21.2
KAHRAMANMARAS	14	18.4	15	65.9	20.6
SIVAS	14	19.9	18.6	6.8	17.3
KAYSERI	20.4	11.2	12	4.5	12.5
ARDAHAN	20.4	9.7	7.2	6.8	10.6
ERZINCAN	7.5	9.2	13.2	6.8	10
KARS	8.6	1.5	7.8	2.3	4.9
OSMANIYE	3.2	2.9	3	----	2.7
GUMUSHANE	--	--	0.6	--	0.2
TOTAL NUMBER	93	206	167	44	510

Source: Mail Survey, 2002.

4.8.2 Survey Results Group "A"

Examining the absentee owners also yields valuable information. Of the owners who live in the same region, as their land is located 18 % fell into group A. Group C, who live in the same region, received mail surveys but did not fill them out, was comprised of 197 out of 479, or 41%. 32% (156/479) were owners who did not receive a mail survey because of incorrect mailing address, or group C and group D was 9%.

In terms of the affects on income stream the following results have surfaced from the mail survey answers: close to 79% of plot owners admit that there is someone working their land, while 16% answer that nobody is working their land and 5% admit that they do not know whether anyone is working their land. Therefore it appears that 21% of owners do not receive and income from their land since it is not used to produce any goods.

Another important issue that has come to light is the ability of owners to give power of attorney to someone in their village in case they need to; close to 39% of group A answered that they do not have such a person to whom they would give power of attorney. This is an issue which may delay and stall the land acquisition process given that the results examined are for group A alone; once the owners who did not answer (out of choice or out of circumstance) have been added to the group the %age may conceivably increase and it will be difficult to find a solution if there is no owner or owner-representative at the discussion table. 47% of the owners in Ardahan and Kayseri answered that they did not have somebody in their town to whom they could give power of attorney, and in Kahramanmaras this figure was 54%. It is then conceivable that certain regions may present a greater hurdle to the land acquisition process than other regions.

A possible solution to the power of attorney issue would be to find relatives of the owners who live in a nearby village. Of the group A answers, 37% of owners answered that they did not have relatives nearby therefore reiterating the possible problem that the lack of power of attorney may present in the future. However, 62% answered that they did have relatives nearby. Of the group A respondents, 69% said that they would give power of attorney to a nearby relative or close friend, 21% said that they would not give power of attorney and 10% declined to answer. This indicated that in one fifth of cases even when the owner is a relative of or close friend with someone near the land they would still decline to give power of attorney.

When asked whether the land would be worked by the same people in the upcoming year as in the previous year, 84% said yes. This indicated a high level of continuity in the ways in which the land is being used. The yearly rent tenants pay to owners averaged out to US$180 per year. In addition, 30% of owners answered that they had more than one plot that would be affected by the pipeline Project. 46% said that they only had one plot and 24% stated that they did not know whether more than one of their plots would be affected.

Owners were told that they would be sent an invitation to meet with BOTAS and discuss the land acquisition price, and they were asked whether they would accept the invitation. 78% answered that they would accept and would meet with BOTAS representatives. 5% said that they would not meet with BOTAS and 16% answered that it depended on the situation. 1% of respondents stated that for the amount of money they would receive it did not make sense for them to spend the travel money required to meet with BOTAS.

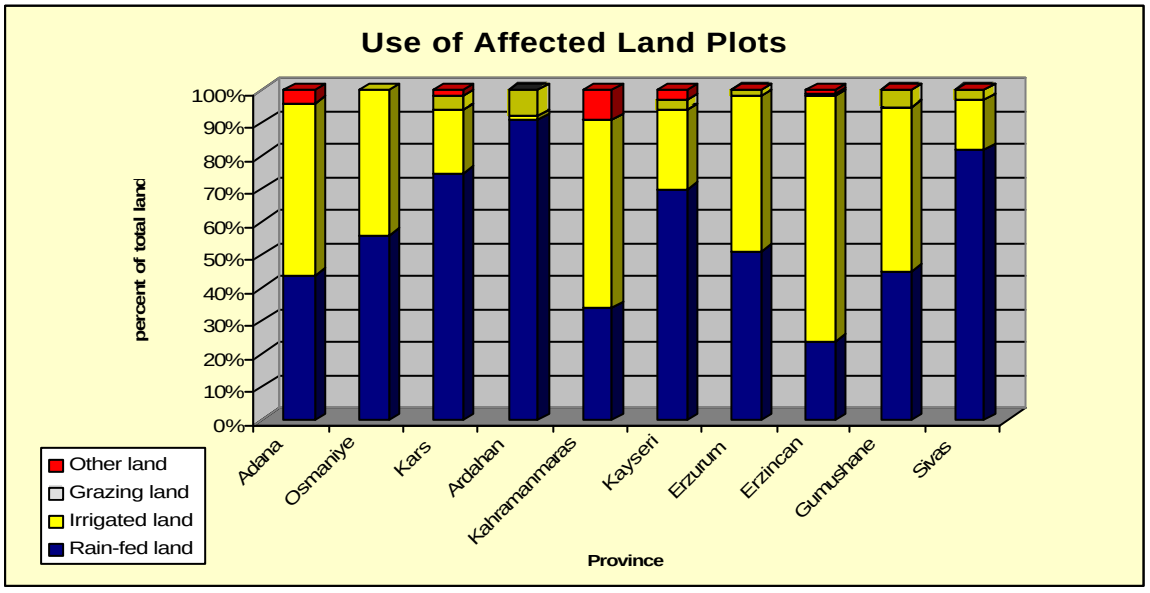
One of the questions group A answered asked whether owners were aware that part of their land would be expropriated before any invitation was sent out from BOTAS to discuss the details of the acquisition. Close to a half answered yes, and the same number answered no. This indicated that all information must be sent out to owners in a timely manner so that they will not be faced with any surprises. BOTAS initiated a further mail survey to reach all affected owners in August.

4.9 AGRICULTURAL ACTIVITIES

The affected plots are used primarily for cultivation (Figure 4.12). As a large portion of the affected plots are not irrigated, stable crops constitute much of the produce. Of the plots that will be expropriated only a marginal portion is used for grazing purposes. This attests to the relatively high quality of the affected lands. Rain-fed agriculture is practiced on the majority of the affected land plots. This is especially true in Kars, Ardahan and Sivas provinces. In Kahramanmaraº and Erzincan, irrigated agriculture is especially important.

In addition to irrigation infrastructure, 14% of the affected plots (and 12% of those who have rain-fed lands) have an artesian well that they can use for irrigation. Measures have been agreed upon with the DSI and the expropriation agency on the adequate handling of irrigation infrastructure.

Figure 4.12 Use of Affected Plots



Most landowners use all their land, including the portion affected, for direct income generation. About 90% use their plots for income generation. The types of crops that they raise in these plots are given in Table 4.8.

Table 4.8: Major Crops Grown on Affected Land

Crop	% of farmers growing crop*
Wheat	82
Barley	40
Feed	14
Sugar beets	11
Corn	7
Beans	6
Nuts	5
Potatoes	4

*Percentages add up to more than 100 because most farmers raise more than one type of crop on affected plots.

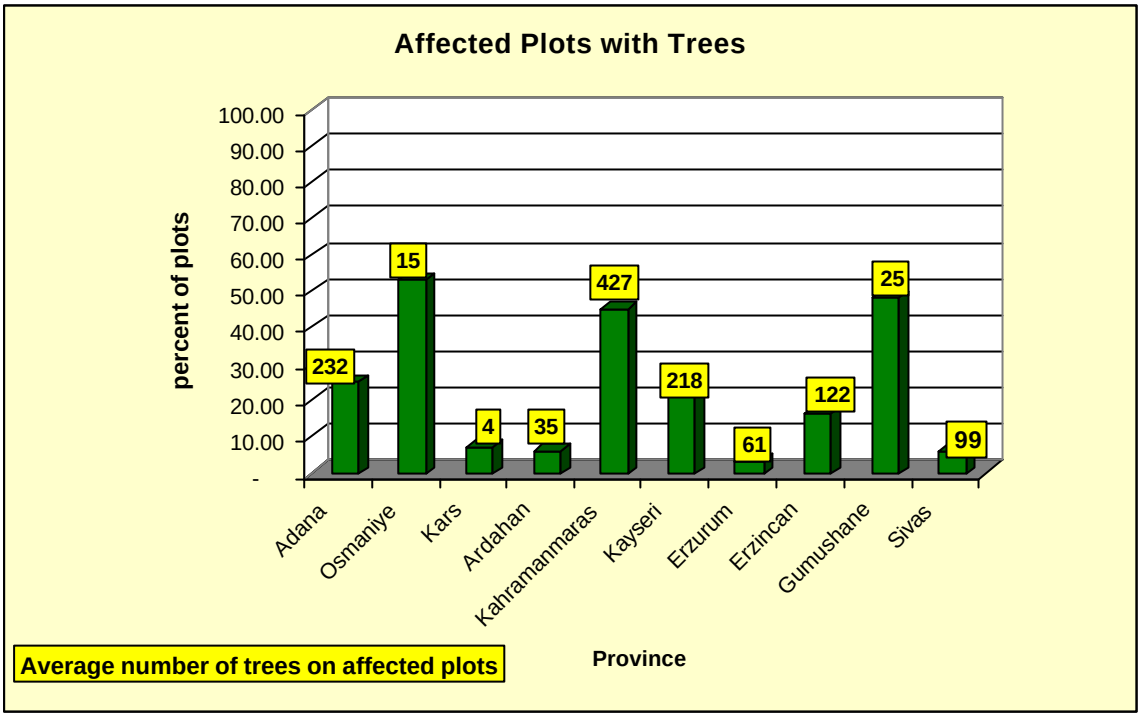
4.10 AFFECTED ASSETS

Several types of assets are usually considered and will have to be compensated for in an expropriation process: immovable productive assets and infrastructure as well as homes, barns, etc. Through a careful process of route selection for pipeline construction, homes and other structures have been largely avoided. However, there will be trees on the affected plots. The owners and users of trees will also have to be compensated.

Many plots have trees on them. On average, 17% of the plots have trees on them (Figure 4.13). Extrapolating from this to the total affected area, about 1,530 land plots in the pipeline path would have trees on them. These plots would total 2,500 hectares, but only a small portion of this total will be actually expropriated.

Trees on affected plots are a source of income and wealth for a small, but significant portion of plot owners; the expropriation costs will be higher for plots with trees as the loss is permanent, with no replanting allowed within the 28-metre pipeline corridor. Most plots with trees are concentrated in a few provinces. In Osmaniye, 53% have trees while in Kahramanmaraº, 45% have trees. The benefits accruing to plot owners from the trees are varied; these range from direct income from sales of fruits and other tree products to economic benefits such as provision of firewood and more intangible, yet real, environmental benefits of erosion control and climate regulation. On average, there are 188 trees on affected plots while in Kahramanmaraº this average is 427 trees.

Figure 4.13 Affected Plots With Trees



Cash income from trees constitutes a relatively minor portion of total incomes (Figure 4.14), although trees provide other benefits such as erosion prevention, especially in mountainous areas. Average annual estimated income from trees on affected plots is US$50, although this does not take into account the environmental benefits residents derive from trees. Poplar is the most common tree; it exists on 46% of the affected plots with trees.[10] (Figure 4.15)

[10] Poplar could be an important source of income for plot owners; it commands prices of up to US$60 per ton in timber value and between $25-50 per m^3 as firewood.

Figure 4.14 Income Derived From Trees

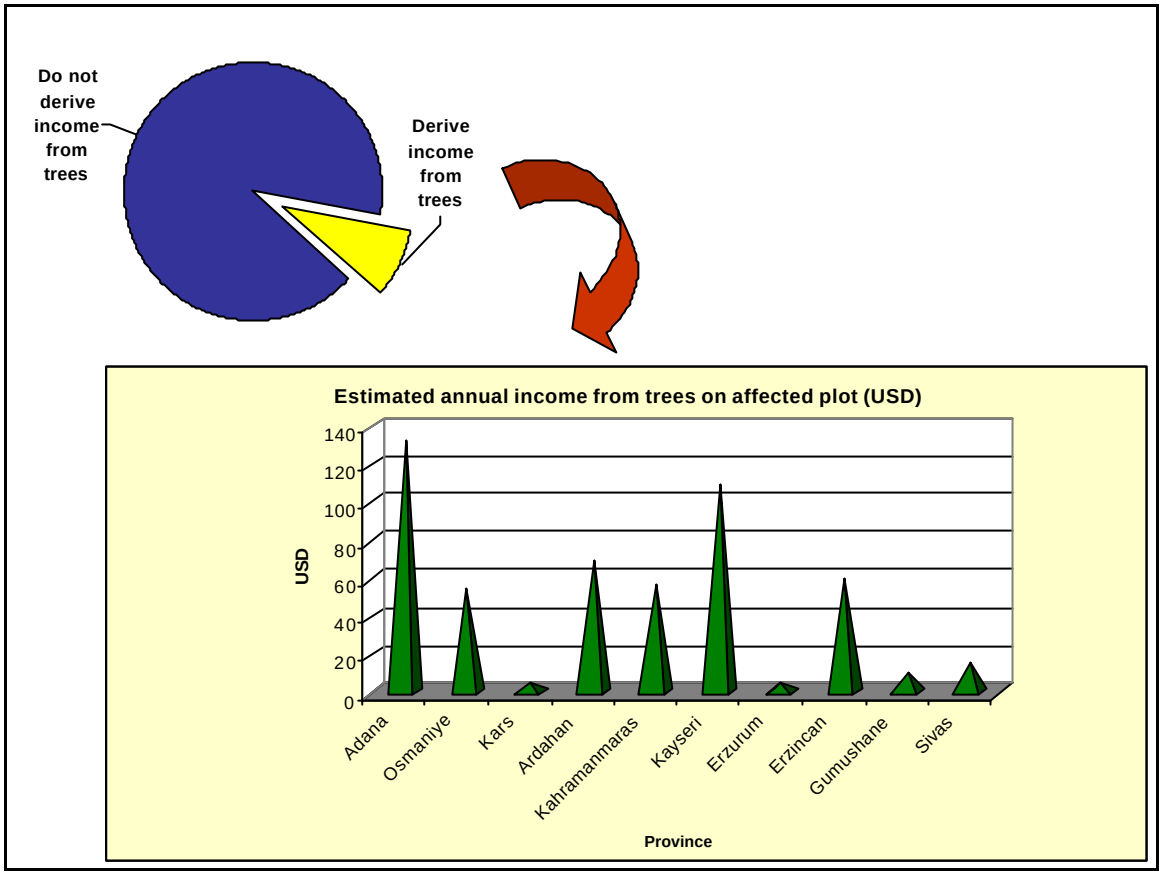
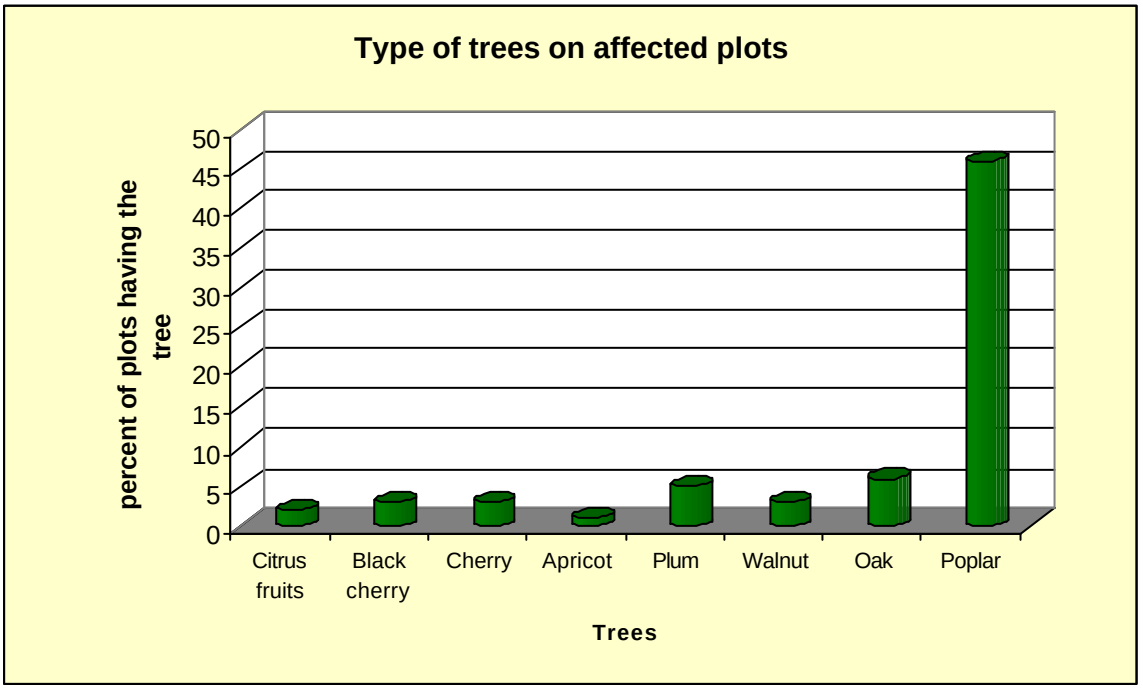


Figure 4.15 Type of Trees on Affected Plots



4.11 USE OF COMMUNAL LAND AND RESOURCES

Separate sources of information are used to clarify the forest status of Project affected communities. Not all villages using forest resources are necessarily identified as "forest villages." (Figure 4.16)

- According to precise calculations based on all affected plots in the BOTA[a] database, forestlands that will be expropriated constitute 188.6ha, or about 18% of the expropriation for the 28m corridor.

- According to ORKOY[11] (The General Directorate of Village and Forest Relations) and the General Directorate of Forestry (OGM), 30% and 15% of affected communities, respectively, are to be classified as "forest villages" (Annex 4.3, Table 17).

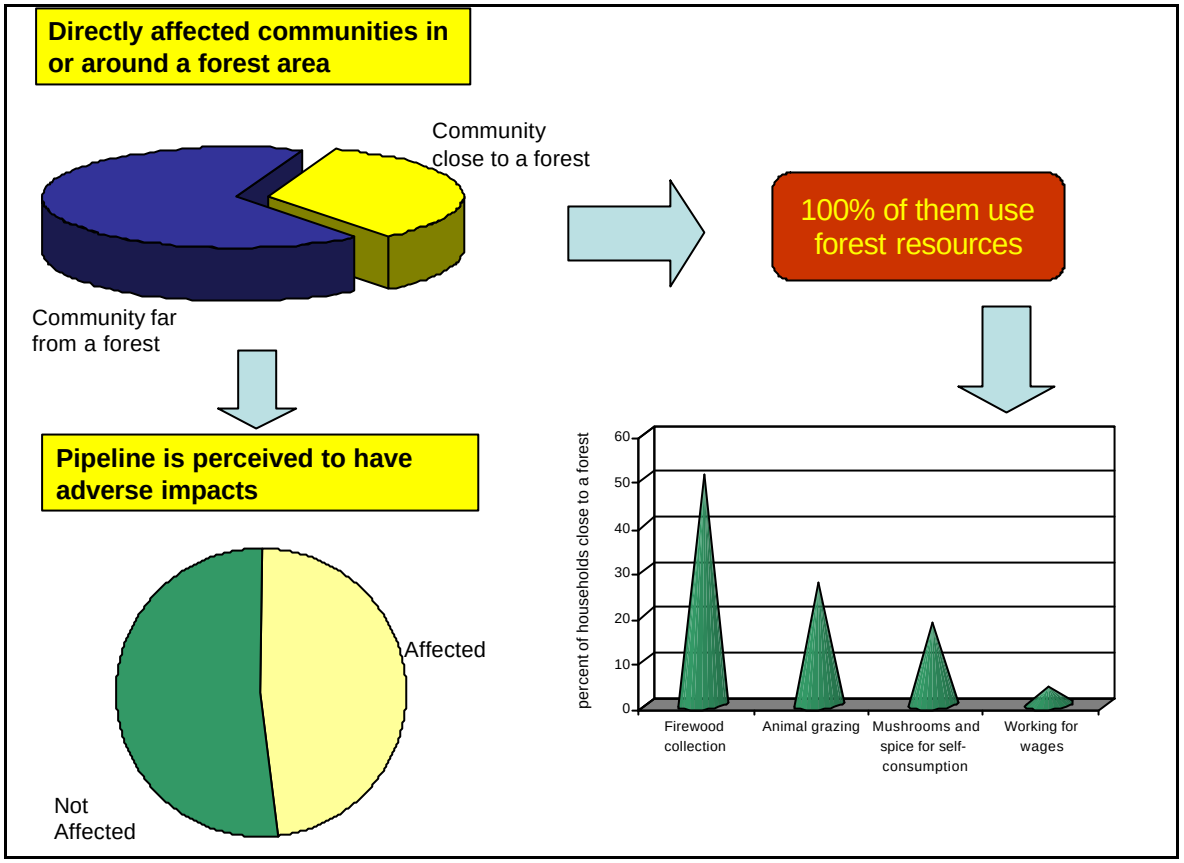
- According to the PAPs, about a third of the communities are situated close to or within forest areas. According to this last source, the RAP survey, even though a village may be close to a forest, for administrative purposes, it might not have been registered as a forest village.

Forests are an important common property for those villages close to them, regardless of their classification. Most households in areas close to forests use forests as a source of firewood. Nonetheless, these households are not solely dependent on forest resources for their income and they use a variety of mix-and-match tactics to use forest income to augment their main income, which is agricultural.

Impacts of the pipeline crossing through forests will be small but long lasting on PAPs. Households in forest areas have the perception that pipeline construction in the forest will somewhat affect their use of the forest in terms of collection of firewood and the use of other forest resources. However, the survey indicates that since actual reliance on the forest for these items is relatively low, the impact of loss of a portion of these resources would also be marginal. The next section on the budget explains potential impact on households using forests and proposes a budget for a community fund to ameliorate these impacts.

11 The General Directorate of Village and Forest Relations (ORKOY) was established with the aim of reducing the conflicts between forestry sector and forest villages by assisting them through credits, loans facilities for income generating and small-scale enteprises. The ultimate function of the ORKOY's activities are to increase the life standards of forest villages and so as to reduce forest-dependence and pressure on the state forests.

Figure 4.16 Directly Affected Communities in or Around a Forest Area



Even in cases where PAPs heavily rely on forests, the expropriation compensation is given to the Ministry of Forestry, and not to PAPs (see Chapter 3). Thus, community-based development programs will have to be formulated to compensate for losses in benefits obtained from common property resources. The fund can be used in keeping with the preferences of the PAPs discussed below.

A high proportion of the affected households maintain livestock. They rely on common property resources (pastures and open water resources) for animal maintenance. On average, 83% of these households have livestock: of these, 82% have cattle, 12% have sheep, 17% have horses and donkeys and 76% have poultry. Hence, livestock keeping is an important source of income for the affected households.

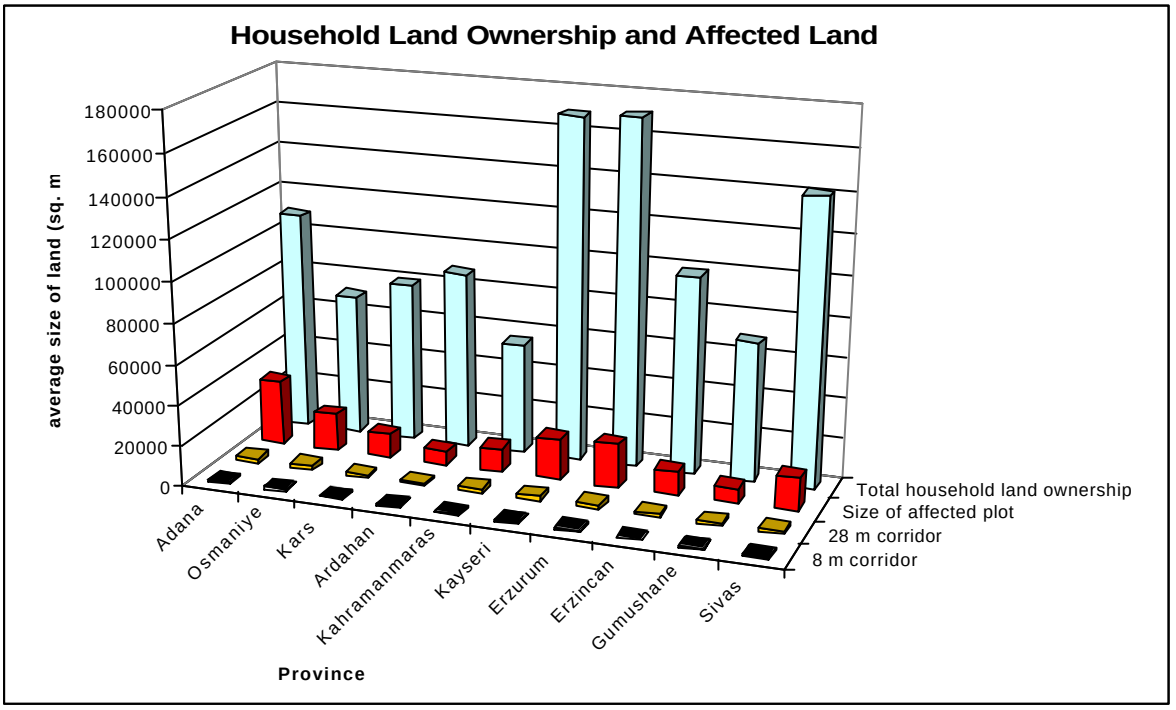
Grazing on common lands is the only way for these households to afford their livestock. They use common lands for about 6 months a year, as weather permits; 94% of the households use Treasury lands for grazing their animals while about 13% use specific communal lands. About 17% indicate that if they cannot use Treasury Lands, the cost of keeping animals would be prohibitively expensive. On average, households estimate that they would have to spend US$2,210 per annum to keep their livestock if they could not use Treasury lands.

4.12 PROJECT IMPACTS

In the previous sections, a number of Project impacts have been discussed, including with respect to common property resources. This section adds to the observations made in the previous sections.

A relatively small portion of land owned by affected households will be expropriated. The average size of land plots to be affected by expropriation is about 1.5 hectares; on average, about 19% of the affected plots (and a much smaller portion of total land) will be taken for construction activities. Permanent expropriation for the 8m. corridor, on the other hand, constitutes a smaller portion of the plots (6%). In other words, the level of expropriation is substantive in terms of total hectares, but it is modest in terms of the impact on each family (Figure 4.17).

Figure 4.17 Household Ownership and Affected Land



Land expropriation is likely to have only a marginal effect on the livelihoods of most tenants. However, the data indicate that a slightly larger part of tenants' overall land holdings would be expropriated, and lost income from expropriation will be notably higher in plateau villages. See Table 4.9 for impacts of expropriation on tenant households.

The survey also indicates that age-based disadvantages are unlikely to occur. It is worth noting, for instance, that the tenants or sharecroppers are, on average, only slightly younger than landowners, thus largely eliminating the potential for age-based discrimination in expropriation. Sharecroppers' average age was 46.3 as opposed to 52.2 for landowners. The average age of individuals in affected households is 29.8, with highest average age found in Adana (34) and the lowest average age found in Erzurum (26.9). Similarly, the oldest landowner respondents are also found in Adana; on average, their age was 60.6in Adana while the youngest ones were in Erzurum with the average age of 48.5.

Table 4.9: Impacts of Expropriation on Tenants

Location of village	Proportion of overall plot taken (28m.) to all land holdings (% of total land)	Overall lost monthly income from agriculture due to expropriation (USD)	Proportion of lost income to total income (% of total income)*	No of respondents
Forest village	5	13	0.2	27
Area connected to urban district	8	5	0.01	6
Mountain village	3	10	0.04	15
Plateau village	10	69	0.03	29
Overall	**7**	**32**	**0.01**	**82**

*Total Income is measured by expenditures.

A significant portion of affected land has more than one owner, thereby increasing chances of complications in the expropriation process. Slightly more than half of the plots (56%) have one owner; the rest of the plots have more than one owner, with a few plots having a very large number of owners. The number of female owners is much lower in some provinces.

The projected losses of income from expropriation constitute a modest proportion of land-based incomes (Table 4.10). On average, only about 5% of the total land holdings of households would be affected by expropriation, and it is likely to cause a marginal decrease in incomes. Lost land-based income from expropriation is calculated, on average, as 1.17% of all land-based income and only about 0.5% of all household income (calculated by expenditures). Regional variability exists, although even in the Erzurum region where the highest proportional loss would occur, these losses do not exceed 2.4% of land-based income.

Table 4.10: Projected Lost Income from Expropriation

Province	Proportion of lost income to total income household income	Proportion of lost income to land-based income
Adana	0.23	1.03
Osmaniye	0.41	1.36
Kars	0.18	0.61
Ardahan	0.52	1.18
Kahramanmaras	0.27	1.33
Kayseri	0.20	0.72
Erzurum	1.14	2.37
Erzincan	0.33	0.81
Gümüshane	0.20	0.57
Sivas	0.27	0.58
Total	**0.47**	**1.17**

Grazing lands will be affected by expropriation, but the effects will be marginal and temporary. Overall, grazing and communal lands make up about 13% of the total land that will be expropriated for the 28m corridor used during the pipeline construction, and considering that grazing will still be possible in most areas during construction, effects are likely to be marginal. The next section on the budget explains potential impact on grazing areas and proposes a budget for a community fund to ameliorate these impacts.

4.13 VULNERABLE GROUPS

The Project carefully examined possible sources of vulnerabilities (i.e. gender, age, ethnicity, religion and economic-based vulnerabilities) through the comprehensive socio-economic studies and consultation meetings conducted for the EIA and RAP along the pipeline route. These results and a discussion on potentially disadvantaged groups in the context of BTC Project are presented in Annex 4.6.

4.14 ATTITUDES TOWARDS THE PROJECT

Most respondents are aware of the proposed pipeline construction, although their sources of information vary as seen in Table 4.12. Visiting officials are the primary source of information, followed by field teams determining the path of the pipeline. Around 35% of the respondents also participated in one of the informational meetings concerning expropriation and construction.

Table 4.12: How Did You Hear About The Pipeline?

	% of households*
Visiting Officials	33
Field survey teams determining affected plots	30
Public meetings	20
Local authorities/headman	4
Media	11
Other people	20

* The totals may add up to more than 100 since respondents could give more than one answer.

The vast majority (95%) of the respondents are not aware of the recent changes in Expropriation Law and thus, are not sure about their entitlements under the law. They are also concerned about potential for mistreatment and high loss of income; 27% experienced land expropriation in the past and 78% of them had problems with various aspects of the process (Table 4.13). Based on these May 2002 findings, the Project has already taken many steps. First, disclosure materials have been prepared and extensively distributed starting early in July to familiarise the PAPs with the modifications in the Expropriation Law and, more importantly to inform different categories of affected people of their specific entitlements. For instance, the addresses of the absentee owners have been identified and letters have been sent to them to inform them of the Project, of their entitlements and of the course of action they need to follow in order to gain timely access to compensation payments. Similarly, landowners experiencing ownership disputes as well as those who have not yet registered their inheritance rights have been approached to inform them of the course of action they need to take. Secondly, an analysis of the past land acquisition practices have been made, new approaches and measures have been designed and the land teams trained to avoid any hardship to the PAPs. The institutional arrangements developed to ensure a fair and transparent land acquisition process are described in Chapter 5.

Table 4.13: Past Problems in Expropriation

	% of households*
Underpayment	61
No reinstatement	56
Late payment	44
No payment	10
Ownership disputes	6

* The totals may add up to more than 100 since respondents could give more than one answer.

Most respondents would like to obtain more information on the expropriation process according to Table 4.14. They are especially concerned about the valuation process, the exact size and nature of their land to be affected, and when they can resume cultivation of this land. Starting in July these issues have been specifically addressed in the various disclose processes and answers to the above questions where taken into consideration when preparing the Guide to Land Acquisition and Compensation (GLAC). In addition, a specialised NGO is providing support to the Project to ensure that the valuation methodology is robust and that the whole land acquisition process is undertaken in a transparent and fair manner.

Table 4.14: Information Requests during Expropriation

	% of households*
Valuation methods	59.9
Length and extent of disruption to cultivation	25.4
Size of land to be affected	12.3
Entitlements	18.9
Safety concerns	1.3
Other	13.4
Total	134.6

* The totals may add up to more than 100 since respondents could give more than one answer.

4.15 PRIORITIES FOR LOCAL ASSISTANCE

The socio-economic survey attempts to identify the preferences of affected populations for household and community level investments to enhance cultivation and livestock income. The international experience with resettlement shows that much of the compensation people receive for expropriation compensation is wasted unless guidance is provided to the Project Affected Populations (PAPs). In the case of linear projects, project managers tend to assume that compensation levels would be far too small to be overly concerned with this issue. Nevertheless, the RAP survey attempted to uncover investment preferences both at the household and at community levels.

Specifically, the PAPs were asked what agricultural and livestock related investments they would make as a family to improve their incomes if they had additional cash. With respect of agricultural income, a majority said they would like to invest in new land or a productive asset such as a tractor or a truck as seen in Table 4.15 . With respect to improved livestock income, the vast majority prefers investment in purchasing new, better quality animals as seen in Table 4.16.

Table 4.15: Individual Priorities for Improving Agricultural Income

	% of households*
Buy or rent new agricultural land	79
Buy a tractor, truck, or a minibus	72
Cultivate new crops	21
Use better inputs more efficiently	4
Get better agricultural equipment	4
Other	7

* The totals may add up to more than 100 since respondents could give more than one answer.

Table 4.16: Individual Priorities for Livestock Improvements

Livestock Improvement Priorities	% of households*
Purchase new animals	97
Purchase new land	23
Invest in a barn and other improvements	15
Invest in beekeeping	12
Purchase transportation	7
Other	9

* The totals may add up to more than 100 since respondents could give more than one answer.

Not all adverse impacts of the Project accrue to individuals and families. Rather, a substantial portion of the expropriation activity hinders access to and full utilisation of common property resources. In such cases, it is the community rather than individual families that will have to be compensated. This would require supporting community based programs responding to the preferences of the PAPs. To establish these preferences, the affected plot owners/users were asked "what they would invest in as a community to enhance agricultural production if they had access to a modest level of resources?". About 63% of the respondents would like to have irrigation infrastructure improvements according to Table 4.17. The second most popular answer to the same question was that cooperatives should be established (30%). A small but significant portion of the priorities focused on the provision of support for agricultural inputs and changes to crop mix in the village.

Table 4.17: Priorities for Increasing Agricultural Income in the Village

	% of households*
Irrigation improvements	63
Establish cooperatives	31
Provision of support for agricultural inputs and credit	14
Changes and improvements in harvested crops	8
Establishing various crop processing plants	5
Other	12

* The totals may add up to more than 100 since respondents could give more than one answer.

Table 4.18: Priorities for Increasing Livestock Income in the Village

	% of households*
Provide better, more efficient animals	30
Provide support for livestock activities	25
Establish dairy shops	23
Enhance barns, grazing lands, and pastures	14
Establish cooperative and animal marketplaces	14
Establish processing plants	9
Other	13

* The totals may add up to more than 100 since respondents could give more than one answer.

The second part of the question, "what is your first level priority for increasing livestock income?", was answered with two suggestions: (i) provide better animals for breeding; and (ii) establish dairy shops (as in Table 4.18). Respondents also wanted to have access to marketplaces and to establish processing plants. Annex (4.3) provides the detailed answers to these two questions.

4.16 CONCLUSION

The RAP for the Turkish section of the BTC Pipeline project consists primarily of an action plan for land acquisition. The Project will not cause physical resettlement both because settlements and dwellings have been avoided in route selection and in the siting of Above Ground Installations (AGIs) and because the magnitude of economic impacts are too small to induce physical displacements. Only a small fraction of the total land holdings of the affected populations will be acquired for the Project, and will be returned to the ex-owners for their re-use. The impacts of the construction activity on incomes will be minimal and fully restored through cash compensation. Despite the use of the land for a short period of time, a life-time payment is made for the 8 metre corridor and 3 years for the remaining 20 metres. Thus, the compensation will exceed the associated income losses.

The mitigation measures for the issues of concern discussed in this section such as affected land owners lack of certainty about legal and customary ownership terms, denial of women's entitlements to land, multiple owner plots and tenants etc. are presented in Chapter 6.