Land Acquisition Plan

Tuz Gölü Underground Gas Storage Project

June 2005
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1 Introduction

BACKGROUND

The Land Acquisition Plan (LAP) describes the framework and procedures that the Project will follow for the acquisition and compensation of land and assets, both permanent and temporary, for the Tuz Gölü Underground Natural Gas Storage Project.

LAND ACQUISITION PLAN (LAP) OBJECTIVES

The LAP describes the framework and procedures that the Project will follow for the acquisition and compensation of land and assets for the Project.

The Project primarily involves economic, rather than physical, displacement. It involves the acquisition of permanent and temporary land for project uses and thus has the potential affect people’s livelihoods. Nevertheless, it requires the preparation of a LAP.

The construction of the natural gas, water and brine pipelines, the pumping stations and gas storage areas all require acquisition of about 251 hectares (ha) of land in the Project, either temporarily or permanently. In order to avoid physical dislocation and to minimise economic dislocation for affected populations, the Project has adopted several measures, including:

- Minimising Project land use, reclaiming land after construction, and reinstating the land, with minimum restrictions following construction, for use by the original land owners and users;
- Designing the routing to avoid any physical resettlement and to minimise expropriation both permanently and temporarily; no physical relocation or resettlement of households will result from project interventions;
- Determining compensation values based on extensive data collection and net income evaluation methodology;

The objective of the LAP is to outline these measures, provide details and show that the Project follows the Turkish legal framework and OP 4.12.

PURPOSE of the PROJECT

The energy industry, including gas companies, must warrant secure energy supplies to residential, commercial and industrial customers.

Gaseous fuels must often be transported hundreds or even thousands of miles before they reach the markets served by energy suppliers. To optimise the economics of such projects, transportation systems are usually operated at high load factors, while demand load factors vary with energy needs in different seasons, on different days of the week and at different times of the day. Energy suppliers therefore need tools for peak shaving and handling disruptions in supplies.

Energy must therefore be stored sometimes for short and sometimes for long periods of time. A storage requirement in the gas industry is a typical example. Residential, commercial and industrial gas users take gas in accordance with their patterns of demand, while gas suppliers receive gas at an almost uniform rate. Underground
storage facilities, into which gas is injected during off peak periods, help utilities to provide a reliable service satisfying customer demand. These facilities are sited close to centres of demand or at the end of a major transmission line as geological conditions allow.

Requirements for the storage of gas are increasing day by day. Experience and research and development work have demonstrated that underground storage is superior to aboveground storage. Underground storage facilities are highly reliable installations, which have almost no impact on the environment and are usually less costly than above ground plants.

Studies are in progress for storing natural gas in underground in order to regulate, the seasonal, daily and hourly fluctuations in consumption, to meet the increased winter demand, with the excess amount of gas emerging from the reduced demand for heating in summer as a result of seasonal temperature differences and to meet the natural gas supply deficit in the future. The underground storage of natural gas is regarded as an important issue in Turkey. In connection with fast-rising gas consumption, underground storage is needed to effectively balance peak demand with approximately constant gas supplies provided by long-distance pipelines. The pipeline route is depicted in Figure 2.1.

ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOTA</td>
<td>BOTA-Petroleum Pipeline Transportation Corporation</td>
</tr>
<tr>
<td>LAP</td>
<td>Land Acquisition Plan</td>
</tr>
<tr>
<td>AKB</td>
<td>Department of Land Survey and Expropriation</td>
</tr>
<tr>
<td>EPC</td>
<td>Engineering, Procurement and Construction</td>
</tr>
<tr>
<td>AGI</td>
<td>Above Ground Installation</td>
</tr>
<tr>
<td>DE</td>
<td>Detailed Engineering</td>
</tr>
<tr>
<td>CR</td>
<td>Community Relations</td>
</tr>
<tr>
<td>EIA</td>
<td>Environmental Impact Assessment</td>
</tr>
</tbody>
</table>
TUZ GOLU
UNDERGROUND GAS STORAGE PROJECT
LAND ACQUISITION PLAN

Tuz Gölü Natural Gas Storage Project
SUMMARY of THE Project
For the purpose of gas storage, an Engineering Study in Tuz Gölü Basin has carried out. Tuz Gölü Basin is one of the most suitable places for storing natural gas in salt domes.

According to the geological possibility of underground storage in Turkey, a geological screening leads the Tuz Gölü Basin at the top where large leached salt caverns could be accommodated. It is a favourable location for a peak shaving storage (not far from Ankara) and close to the 40” Kayseri-Konya-Seydişehir Gas Pipeline, (19 km.) and also, the existence of pure rock salt is proved at a suitable depth.

In order to assess the technical feasibility of the Tuz Gölü salt structure, BOTA followed a step-by-step procedure. Each step was based on the knowledge gained from the preceding step. The evaluation consisted of a review of existing data, 3-D seismic, drilling of two exploration wells, laboratory tests on salt cores, hydrological study for brine disposal, seismicity study and environmental impact assessment study.
## SPECIFICATIONS

<table>
<thead>
<tr>
<th>Location</th>
<th>South of Tuz Gölü, Sultanhan-Aksaray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Storage Type</td>
<td>Salt formation (Dome type)</td>
</tr>
<tr>
<td>Number of Drilled Wells</td>
<td>2 (UGS-1 and UGS-2)</td>
</tr>
<tr>
<td>Number of wells to be drilled</td>
<td>12</td>
</tr>
<tr>
<td>Entrance depth to salt</td>
<td>UGS-1: 583 m, UGS-2: 635 m</td>
</tr>
<tr>
<td>Salt dome depth</td>
<td>&gt; 750 m.</td>
</tr>
<tr>
<td>Dimensions of the Body</td>
<td>Height: 15 km, Width: 2.5 km</td>
</tr>
<tr>
<td>Salt area suitable for storage</td>
<td>App. 30 km²</td>
</tr>
<tr>
<td>Fresh water supply (for leaching process)</td>
<td>Groundwater resources (5+1 wells) and/or via pipeline from Hirfanlı Dam-160 km from Project area</td>
</tr>
<tr>
<td>Total fresh water demand</td>
<td>1.120 m$^3$ hour (Totally: 60 million m$^3$)</td>
</tr>
<tr>
<td>Brine discharge location</td>
<td>via 39 km pipeline to Tuz Gölü</td>
</tr>
<tr>
<td>Distance to Kayseri-Konya Natural Gas Pipeline (In operation)</td>
<td>19 km.</td>
</tr>
<tr>
<td>Volume of one cavern</td>
<td>500,000 m$^3$</td>
</tr>
<tr>
<td>Working gas volume (for 12 caverns)</td>
<td>960 MMCM</td>
</tr>
<tr>
<td>Cushion gas volume (for 12 caverns)</td>
<td>518 MMCM</td>
</tr>
<tr>
<td>Total gas volume (working+cushion)</td>
<td>1.478 BCM</td>
</tr>
<tr>
<td>Maximum (Total) Withdrawal Rate (10 caverns)</td>
<td>40 MMCM/day</td>
</tr>
<tr>
<td>Maximum Injection Rate (10 caverns)</td>
<td>30 MMCM/day</td>
</tr>
<tr>
<td>Maximum cavern pressure</td>
<td>App. 220 bar</td>
</tr>
<tr>
<td>Minimum cavern pressure</td>
<td>80 bars</td>
</tr>
<tr>
<td>Wells+Leaching construction period</td>
<td>17 months</td>
</tr>
</tbody>
</table>

The salt body of the Tuz Gölü area has an average width of 2-2.5 km. and length of 15 km. resulting in a salt-bearing area of about 30 km². This huge area is sufficient enough in size to construct more than ten caverns. The average salt thickness was mapped to about 1500 m. with two maximums, reaching more than 2000 m.
Freshwater Supply

Fresh water will be used to leach caverns within the salt domes. The freshwater demand of the project will be covered from Hirfanlı Dam Lake.

The groundwater utilisation rate allowed by the Turkish General Directorate of State Hydraulic Works (DS) is $5 \times 10^6 \text{ m}^3/\text{year}$. In this regard, the total water supply requirement of the project will be as follows:

Considering the leaching water demand of one cavern is $280 \text{ m}^3/\text{h}$, the fresh water allowed for the project by SHW (State Hydraulic Works) is $560 \text{ m}^3/\text{h}$, which is only sufficient for leaching of two caverns simultaneously. On the other hand, to speed up the project to meet increasing storage demand within years, the leaching operations are considered to be performed in groups of 4, instead of 2. In such case, the fresh water demand of project will increase up to $1120 \text{ m}^3/\text{h}$. Due to the environmental risks associated with supply of this amount of water from groundwater resources, it is proposed to supply water from Hirfanlı Dam reservoir located approximate 160 km north of project area.

Brine Disposal

Brine originated due to the leaching process ($560 \text{ m}^3/\text{h}$) will be collected in a pond with a capacity of approximately $1200 \text{ m}^3$ located in the leaching unit. It will be transmitted to Tuz Gölü through $39 \text{ km. long pipeline}$. The flow will be gravitational since topography is suitable for this purpose.

In order to create a homogeneous dispersion in the lake, brine will be discharged into Tuz Gölü using diffusers fixed at the end of the brine discharge transmission pipeline. The length of the diffuser structure will be approximately $18 \text{ m. with six diffuser outlets located crosswise}$.

Main Units of Surface Facilities of Salt Cavern Storage

The area (400m. x 800 m.) for the surface leaching and gas facilities is planned. The area is sufficient for the leaching plant and gas plant at the same location. The facility will be connected to the existing $40''$ Kayseri-Konya-Seydişehir Gas Pipeline with a $19 \text{ km. branch line}$.

The leaching plant will be designed for parallel leaching of the first two caverns step by step up to the final extension stage. The leaching plant has to be provided with fresh water, electrical energy and nitrogen. (Explain where the comes in)

The gas plant will be built up in a modular arrangement of the main equipment according to the numbers of caverns in operation. The as plant has to be connected to the Turkish gas pipeline network and provided with electrical energy and fresh water.
LAND ACQUISITION

Estimated lands subject to acquisition for the project have been given in the below tables.

**Section 1 – Hirfanlı Dam – Natural Gas Pipeline**

Total length of the fresh water pipeline: 35.90 km

<table>
<thead>
<tr>
<th>Facility</th>
<th>~Kp</th>
<th>Width / Area</th>
<th>Expropriation Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipeline (Fresh Water)</td>
<td>-</td>
<td>16 m (57.6 ha)</td>
<td>Long Term Easement</td>
</tr>
<tr>
<td>Pump Station (TY 1)</td>
<td>0+000</td>
<td>410 m²</td>
<td>Permanent Acquisition</td>
</tr>
<tr>
<td>Pump Station (TY 2)</td>
<td>10+840</td>
<td>3546 m²</td>
<td>Permanent Acquisition</td>
</tr>
<tr>
<td>Water Storage Tank (DY 1)</td>
<td></td>
<td>3546 m²</td>
<td>Permanent Acquisition</td>
</tr>
<tr>
<td>Pump Station (TY 3)</td>
<td>21+695</td>
<td>3546 m²</td>
<td>Permanent Acquisition</td>
</tr>
<tr>
<td>Water Storage Tank (DY 2)</td>
<td></td>
<td>3546 m²</td>
<td>Permanent Acquisition</td>
</tr>
<tr>
<td>Water Storage Tank (DY 3)</td>
<td>31+020</td>
<td>1278 m²</td>
<td>Permanent Acquisition</td>
</tr>
</tbody>
</table>

**Section 2 – Natural Gas Pipeline (Parallel Section)**

Total length of the fresh water pipeline: 60.07 km

<table>
<thead>
<tr>
<th>Facility</th>
<th>Kp</th>
<th>Width / Area</th>
<th>Expropriation Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipeline (Fresh Water)</td>
<td>-</td>
<td>10 m (61 ha)</td>
<td>Long Term Easement</td>
</tr>
<tr>
<td>Water Storage Tank (DY 4)</td>
<td>49+385</td>
<td>Inside Row. No expropriation required.</td>
<td>Outside Row. No expropriation required.</td>
</tr>
</tbody>
</table>

**Section 3 – Natural Gas Pipeline – Storage Area**

Total length of the fresh water and natural gas pipeline: 23.2 km,
Length of the brine line: 23.2 km, three pipelines will be buried in one corridor

<table>
<thead>
<tr>
<th>Facility</th>
<th>Kp</th>
<th>Width / Area</th>
<th>Expropriation Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipeline (Fresh Water)</td>
<td>-</td>
<td>28 m (65 ha)</td>
<td>Long Term Easement</td>
</tr>
<tr>
<td>Pipeline (Brine Line)</td>
<td>-</td>
<td>28 m</td>
<td>Long Term Easement</td>
</tr>
<tr>
<td>Pipeline (Natural Gas)</td>
<td>-</td>
<td>28 m</td>
<td>Long Term Easement</td>
</tr>
</tbody>
</table>

**Section 4 – Storage Area – Disposal Area**

Length of the brine line: 16.72 km,
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UNDERGROUND GAS STORAGE PROJECT
LAND ACQUISITION PLAN

<table>
<thead>
<tr>
<th>Facility</th>
<th>Kp</th>
<th>Width / Area</th>
<th>Expropriation Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipeline (Brine Line)</td>
<td>-</td>
<td>16 m (26.75 ha)</td>
<td>Long Term Easement</td>
</tr>
<tr>
<td>Pump Station (TY 4)</td>
<td>0+000</td>
<td>will be determined</td>
<td>Permanent Acquisition</td>
</tr>
<tr>
<td>Loading Tank</td>
<td>5+085</td>
<td>will be determined</td>
<td>Permanent Acquisition</td>
</tr>
</tbody>
</table>

AFFECTED REGIONS AND POPULATION

The plots which are subject to land acquisition for the freshwater supply line from Hirfanlı Dam to Storage Area and Brine Line from storage area to Tuz Gölü and Pump Station and water tank areas are within the territorial jurisdiction of approximately 20 villages. All of the villages are in the boundary of Aksaray province. Population information about Aksaray Province according to 2004 statistics has been shown in table 4.1 below.

<table>
<thead>
<tr>
<th>Province</th>
<th>Number of Rural Villages in Province</th>
<th>Rural Population (2000 census data)</th>
<th>Number of Urban Areas in Province</th>
<th>Urban Population (2000 census data)</th>
<th>Districts</th>
<th>Number of Villages Through Which The Pipeline Will Pass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aksaray</td>
<td>146</td>
<td>197,710</td>
<td>6</td>
<td>202,435</td>
<td>Evren</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sarıyahı</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ağaçören</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Ortaköy</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Merkez</td>
<td>10</td>
</tr>
</tbody>
</table>

Source: BOTA and State Institute of Statistics 2005

Table 4.1 Population of Affected Communities by the Tuz Gölü Project

Detailed ownership status shown below table is produced and estimated from existing parallel gas line land acquisition data:

SECTION 2 – NATURAL GAS PIPELINE (PARALLEL SECTION)

<table>
<thead>
<tr>
<th>Parcel Type</th>
<th>Length (m)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Lands</td>
<td>34.98</td>
<td>58.3</td>
</tr>
<tr>
<td>Unregistered Lands</td>
<td>17.18</td>
<td>28.6</td>
</tr>
<tr>
<td>Treasury Lands</td>
<td>7.56</td>
<td>12.6</td>
</tr>
<tr>
<td>State Lands</td>
<td>0.35</td>
<td>0.5</td>
</tr>
<tr>
<td>Total</td>
<td>60.07</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Chart 4.2: Land Types according to ownership
As it can be seen from the chart, the route generally pass through lands which are subject to private ownership. During the land acquisition phase of the pipeline, BOTA will mostly deal with expropriation of these plots.

Long term easement for pipeline Right of Way and permanent expropriation for Above Ground Installations (AGIs) such as line valves, pump stations, storage tanks will be implemented in the privately owned lands. In both cases the rights of BOTAS will be registered in the relevant title deed records.

Plot distribution of the route is shown in Box 4.1 where the information is depicted from existing natural gas pipeline data. Both privately and publicly owned lands are affected by the Project. About 1655 parcels will be permanently expropriated and purchased. The project will affect lands only; no physical relocation or resettlement of households will take place as the result of project interventions.

<table>
<thead>
<tr>
<th>Usage Type</th>
<th>Length of Land Usage (Km)</th>
<th>Percentage of Land Usage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry Agriculture (Followed)</td>
<td>65.39</td>
<td>48.32%</td>
</tr>
<tr>
<td>Pastureland</td>
<td>51.88</td>
<td>38.34%</td>
</tr>
</tbody>
</table>

Box 4.1: General Land Acquisition Characteristics of the Tuz Gölü Project

AGRICULTURAL ACTIVITIES

The affected plots are used primarily for cultivation (Figure 4.2). Dry agriculture is practiced on the majority of the affected land parcels. The following statistics have been generated, according to 1:100,000 scale land usage maps. Most landowners use all their land, including the portion affected, for direct income generation.

The agricultural activities around the underground storage facilities are rather insufficient due to the infertility of the land. The farmers can only receive one crop in one season and the land has to be fallow in next season. In this respect the land to be used for the Above Ground Installations in the storage areas is physically inappropriate.

1 All calculations are estimated from 60 km of Kayseri-Konya Natural Gas Pipeline data.
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UNDERGROUND GAS STORAGE PROJECT
LAND ACQUISITION PLAN

<table>
<thead>
<tr>
<th></th>
<th>Irrigated Agriculture</th>
<th>Horticulture (Dry)</th>
<th>Horticulture (Irrigated)</th>
<th>Hirfanli Dam Lake</th>
<th>Unclassified Area</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>14.29</td>
<td>0.84</td>
<td>0.64</td>
<td>0.56</td>
<td>1.73</td>
<td>135.33</td>
</tr>
<tr>
<td></td>
<td>10.56%</td>
<td>0.62%</td>
<td>0.47%</td>
<td>0.41%</td>
<td>1.28%</td>
<td>100.00%</td>
</tr>
</tbody>
</table>

Table 4.2 Land Usage Table

Legal Framework

The following section outlines the principal policy and legislative framework that pertains to land acquisition and resettlement issues in Turkey. The analysis presented in this section demonstrates that the local legislative framework provides adequate compensation to affected private and public parties in a fair and transparent manner. The Turkish Law compensates the public generally for the expropriation of public lands while World Bank policies provide a process for compensating the specific private parties who actually use the public lands.

In respect of Turkish legislation BOTA is responsible for the implementation of all land acquisition and resettlement activities of the Project.

THE EXPROPRIATION LAW

The Expropriation Law (No. 2942) as amended in 2001 regulates:
• The proceedings to be carried out for the expropriation of immovable objects under the ownership of real persons and legal entities subject to private law, by the State and public legal entities;
• Calculation of the cost of expropriation;
• Registration of the immovable property and the right of easement thereto, in the name of the administration;
• Return of the unused portion of the immovable property;
• Transfer of the immovable properties between the administrations;
• Matters regarding reciprocal rights and liabilities and the settlement procedures and methods of the disputes arising there from, in cases so required in the public interest.

The main elements of the legislation concern:

**Finalisation of the expropriation process:** One of the most important changes in the expropriation law concerns the time limits imposed upon various key actors’ decisions or actions. For instance, the courts are expected to reach a final decision within a month. Various other agencies are expected to provide documentation to the expropriation agency within relatively short periods of time. However, the limited capacity of the local instrumentalities has made it difficult for other state agencies to implement the law. For instance, the local courts have been unable to process sufficiently cases as specified by the law when they receive a large number of cases all at once.

**Expropriation process:** The law states that the BOTA will “develop or have others develop a scaled plan demonstrating the borders, surface area and type of the immovable properties or resources to be expropriated or on which right of easement be established through expropriation, and shall define and document the owners of the immovable property being expropriated, possessors of such properties in case there exist no registered title deed and their addresses with the help of records kept at the title deed offices, tax offices and the registries or by means of an external investigation to be conducted. The related tax office shall present the tax statement and values of the immovable properties and the resources or the value appraised in lieu of statement in cases where there does not exist any tax statement utmost within one month upon the request of the administration.”

In the event that there is no registration or cadastral records at the title deed and land registration office, BOTA will apply to the highest local government administration and request “the selection of four experts, two principal and two substitute members, at the place where expropriation is to be carried out. The civil administrator will ensure within eight days as from such request of the administrator that the experts are selected, oaths are given before the court of justice of the peace and names are notified to the administrator to carry out the expropriation.”

**Timing of compensation:** The law states, “As for the lands expropriated, the portion of amounts belonging to the individuals cultivating land by themselves and carrying out minor agricultural activities shall at all times be paid in advance. The value of land includes income loss for land temporarily acquired for which an
easement is then granted, which would be the case for much of the land associated with a pipeline. Easements can be obtained for up to 99 years.

**Expropriation during a period of challenge:** BOTA can seek court permission to allow expropriation if land ownership is challenged, provided payment for the land is held by a trustee (a bank) and continues to earn interest at a commercial rate. This may happen in cases where owners, including heirs, challenge their ownership shares among themselves.

**Legal framework for land valuation:** Land valuation will be established by BOTA following a pattern of identification of areas, establishment of productive uses and prices, and consultation with a broad and specific list of agencies. In the event of dispute between landowners and BOTA regarding valuation, a court will appoint another valuation commission from agreed lists of experts. The court costs of disputing valuation are borne entirely by BOTA and not by the landowner or user.

In case the parties fail to reach an agreement on the appropriate compensation for the taking at the hearing held before the court, the judge shall set a date of estimation at the latest within ten days and a day of hearing for thirty days thereafter and shall make an on-site estimation for determining the value of the immovable property with the help of experts mentioned under article 15 (of the Law) and before all related parties.

**URGENT/IMMEDIATE EXPROPRIATION**

The Expropriation Law (Article 27) states that, subject to a Council of Ministers Decree for national defence or in case of emergency, any immovable property may be expropriated by the administration undertaking expropriation for public interest. Such a Council of Ministers Decree has already been obtained by BOTA with respect to the Project. To apply the emergency clause of the law and to urgently acquire land through this mechanism, the value of the immovable property and asset (crop values are determined and paid prior to land entry) in question must be appraised by the valuation commission (established within the expropriation agency consist of relevant discipline experts) according to the article 11 of the Expropriation Law within seven days. The expropriation shall be made after the appraised value of the immovable is fully deposited by the administration in the name of the owner.

Article 27 of the law allows the expropriation body to enter the field earlier as compared to the timing of entry under the standard expropriation procedures, but the article does not limit the claims of the owner on valuation of land and fixed assets. The valuation process is done by the

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2 The expert group takes into account: (i) the type and quality of the property or resource; (ii) the surface area; (iii) all the qualities and properties that can affect the value of the property and the values of every quality and property; (iv) tax statements, if any; (v) an estimate made by official authorities on the date of expropriation; (vi) net revenue of the land, immovable property or resource according to the locations and conditions valid on the date of expropriation and the determination of its value based on its original condition; (vii) the sales value of similar land sold before the date of expropriation; (viii) official unit prices, construction cost estimates and depreciation of buildings on the date of expropriation; and (ix) other objective measurements that influence the determination of the valuation.

3 The legislation also provides for the case in which the group of experts cannot reach a consensus on the valuation.
court or court nominated experts within one week. This article will only be used when other avenues have failed.

WORLD BANK POLICIES

Involuntary resettlement may cause severe long-term hardship, impoverishment, and environmental damage unless appropriate measures are carefully planned and carried out. For these reasons, the overall objectives of the Bank’s policy on involuntary resettlement are the following:

(a) Involuntary resettlement should be avoided where feasible, or minimized, exploring all viable alternative project designs.

(b) Where it is not feasible to avoid resettlement, resettlement activities should be conceived and executed as sustainable development programs, providing sufficient investment resources to enable the persons displaced by the project to share in project benefits. Displaced persons should be meaningfully consulted and should have opportunities to participate in planning and implementing resettlement programs.

(c) Displaced persons should be assisted in their efforts to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation, whichever is higher.

Required measures:

To address the impacts covered under involuntary settlements of this policy, the borrower (BOTA) prepares a resettlement plan or a resettlement policy framework that covers the following:

(a) The resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are

(i) informed about their options and rights pertaining to resettlement;

(ii) consulted on, offered choices among, and provided with technically and economically feasible resettlement alternatives; and

(iii) provided prompt and effective compensation at full replacement cost for losses of assets attributable directly to the project.

(b) If the impacts include physical relocation, the resettlement plan or resettlement policy framework includes measures to ensure that the displaced persons are

(i) provided assistance (such as moving allowances) during relocation; and

4 While the Expropriation Law imposes deadlines for court decisions, there may be difficulties in practice. Many local courts have limited capacities in dealing with a large number of cases all at once.
(ii) provided with residential housing, or housing sites, or, as required, agricultural sites for which a combination of productive potential, locational advantages, and other factors is at least equivalent to the advantages of the old site, compensation for their losses at full replacement cost and assistance in improving their former living standards, income earning capacity and production levels or at least restoring them.

Moreover, OP 4.12 requires the Project to create and implement a resettlement plan, the preparation of which involves the involuntary resettles and hosts in planning. In this regard, OP 4.12 requires the Project to systematically inform and consult resettles about their options and rights during the preparation of the resettlement plan.

“Replacement cost” is the method of valuing assets endorsed by OP 4.12, which sets out the following criteria for valuation:

- Paying special attention to the adequacy of the legal arrangements concerning land title, registration, and site occupation;
- Publicising among people to be displaced the laws and regulations on valuation and compensation;
- Establishing criteria for determining the resettlement eligibility of affected households; and
- The grievance procedures available for dispute over land acquisition.

OP 4.12 also recognizes that some types of loss, such as access to public services, customers and suppliers, grazing or forest areas, cannot easily be compensated for in monetary terms and, therefore, requires the Project to attempt to make or establish access to equivalent and culturally acceptable resources and earning opportunities.

While OP 4.12 covers all affected people, it calls on the Project to pay particular attention to the needs of the poorest groups to be resettled and specifically states that the absence of legal title to land should not bar compensation to the population adversely affected by the Project, indigenous groups, ethnic minorities and pastoralists who may have usufruct or customary rights to the land or resources taken for the project. Additionally, OP 4.12 provides that the LAP must include land allocation or culturally acceptable alternative income-earning strategies to protect the livelihood of vulnerable groups, such as indigenous people, the landless, and semi-landless and households headed by females who, though displace, may not be protected through national land compensation legislation.

The borrower under a WB funding agreement, in this case BOTA, is responsible for preparing the LAP, which presents among other things, a statement of objectives and policies and detailed provision for the planning and implementation of resettlement, meeting the goals of OP 4.12. The scope and level of detail of the LAP varies with the magnitude and complexity of the land acquisition and compensation issues. BOTA has the responsibility to ensure that Project implementation plan is fully consistent with the LAP and also to provide for adequate monitoring and evaluation of the activities set out in the LAP. The WB regularly supervises LAP implementation to determine compliance with OP 4.12.

PROJECT IMPACTS AND MITIGATION MEASURES

Chapter Six outlines the project’s impacts and the mitigation measures for both permanent and temporary expropriations on various categories and uses of land and resources. 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 loses.

APPRAISAL

Appraisal for Expropriation

Appraisal can be defined as a branch of science that teaches principles and criteria regarding properties, incomes and rights, to be followed on the basis of scientific methods.

The measures used for appraisal are called appraisal criteria. Appraisal criteria vary according to the type, purpose and marketing status of the property subject to appraisal.

There are 2 criteria used for appraisal:

- Market price criterion,
- Income capitalization criterion,

Both of criteria’s are jointly used for appraisal during expropriation and partial expropriation proceedings. The appraisal expert will use a direct comparison method and take account of the latest purchasing/sales prices of plots similar to that subject to appraisal.

Factors affecting the value of a plot include:

- location,
- shape,
- physical structure of the soil,
- road frontage;
- width of the road by the plot,
- Restraining provisions of the city plan.

Appraisal experts should evaluate the average price per square metre – to be calculated on the basis of purchasing/sales prices of similar plots- by taking account of all the positive and negative features affecting the value of the plot subject to appraisal.

A key factor determining land prices in small towns and city centers is their proximity to the city centre or a road. Land or land parcels close to the city center or a road are more expensive than the others. In metropolitan areas, the value of a plot will be influenced by its location and, in particular its visibility and exposure to traffic. A plot situated at an intersection or featuring a broader angel of vision will be more valuable. Shape is also important, on the basis that well-shaped plots are more convenient for construction and soil characteristics will influence costs associated with preparing the land for foundations. Soil characteristics will also determine the need for the construction of an entrance floor and basement.
Income Capitalization Criterion:

According to this criterion, the value of a property is calculated as the accumulation of the capitalization of net income or the total of average future incomes from that property up until the time of appraisal. Income capitalization criterion is often used for appraisal of agricultural lands. The most significant issue in conjunction with this criterion is the accurate determination of the yield of the land (net income) subject to appraisal and of the capitalization interest rate.

Net income (yield); is generally defined as the financial returns gained from the use of production items having a natural characteristic over a defined period of time. In other words, it is the revenue from a certain amount of money invested in works or rented lands over a defined period of time.

During the calculation of net income from agricultural lands, production value is determined on the basis of the yield of cultivated crops per decare and unit price of the crop. Net income is calculated by deducting total expenses necessary for the production of that crop from the resulting production value.

According to the existing rotational cultivation system applied in the land subject to appraisal; gross production value is calculated by multiplying crop output with the prices prevalent in the relevant year; net income is calculated by subtracting expenses associated with the product (annual operating expenses + 10% unknown expenses + 3% administration share + agricultural capital interest provision) from gross production value; annual net income is calculated by dividing the total net income by number of crops in the rotational cultivation system and the bare land value is calculated by capitalizing the net income (dividing by capitalization interest rate).

Since expropriation proceedings are realized over each parcel, land yield is calculated instead of farm yield. In relation to annual plants, land expropriation value is calculated over annual yield, and over total periodical yield gained throughout their economic lives for perennial plants.

The formula used for capitalizing the net income from annual plants is

\[ S_o = \frac{s}{f} \]

The formula used for capitalizing perennial periodical fixed income is

\[ P_o = \frac{p}{q^n-1} \]

The right to use unit capital invested in the land is called capitalization interest rate.

In order to determine the actual land yield; data on crop output, unit prices and costs should be collected from the producers in the region and Official Institutions. This way, after the land prices and yields close to actual values are determined, average capitalization interest rate will be calculated by dividing land yields by land sales prices (the same number of yields and land sales prices). Since land value and capitalization interest rate are in inverse proportion, land value will increase as capitalization interest rate decreases, provided that yield is stable. According to the Decision of Court of
Appeals 18th Civil Panel, of July 01, 1993 No: 1993/262-531, capitalization interest rate ranges from 3% to 15% nationwide.

**Land capitalization interest rate** is significantly lower than the interest rates of Industrial and Commercial investments due to the fact that land is more reliable in yielding long-lasting revenue.

In order to determine a healthy, reliable and accurate capitalization interest rate, sales prices and yields of many lands should be known.

The calculated capitalization interest rate is the average interest rate and the appraiser will decide on increases or decreases by taking account of the positive and negative effects on capitalization interest rate of the land. Positive aspects of the land will decrease the capitalization interest rate while negative aspects will increase the same.

Factors positively affecting capitalization interest rate and therefore decreasing the interest rate are as follows:

- Proximity to a city or town,
- Proximity to access roads (land, railway, airway),
- Favourable health conditions,
- Favourable transportation conditions,
- Buildings (if any) in good condition,
- Undivided land,
- Well-shaped land,
- Property safety,
- Ease of purchasing and selling,
- Safety of landowner,
- Land registered before the cadastral office,
- High population densities,
- Easily changeable rotational cultivation system,
- Favourable irrigation conditions if it is an irrigated land,
- Small surface area.

To ensure accurate calculations, appraisers should firstly visit the expropriation area and in taking account of its current status of use, determine all the factors (soil structure, status of use, topography, climate, proximity to settlements and roads, favorable transportation conditions, location, current pattern of rotating plants in the region and whether or not irrigated and dry agricultural activities are carried out) that may affect the value of the relevant immovable property in accordance with Article 11 of the Expropriation Law.
LOSS OF LAND FOR AGRICULTURAL CULTIVATION

Land for the Pipeline Corridors

Impacts

During construction, different wide for pipeline will be used. As a result, landowners and/or land users will lose use of the affected land, temporarily.

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. 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.

Land Affected by AGIs

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. 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.

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.

LOSS OF GRAZING AND PASTURE LAND

Impacts

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.

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. State organizations will be compensated through interagency dialogue.
TUZ GOLU
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The brine line will not affect the activities of any company around the Tuz Gölü which are dealing with salt production. In fact brine line will increase the productivity of these companies.

RESTRICTIONS

For fresh and brine water lines, there will be some restrictions in order to protect of lines. These restrictions will also be marked up to relevant title deeds which are subject to expropriation.

Land owners and users will continue cultivating activities on their lands but they will be restricted to do following activities.

- Any activity which could cause or lead to damage to the pipeline.
- Construction of buildings or assets over the ROW
- Planting trees with deep and strong roots
- Construction of new deep irrigation or drainage ditches
- Boreholes, for any reason whatsoever
- Any alteration to the ground profile
- Any material alteration to the zone affecting support of the surrounding soil to the pipeline.
- Any decrease in the cover on the pipeline however caused (including agricultural activity)
- Any placement of substances, including general rubbish, wastes or detritus

ANSI 31.8 restriction standard will be applied for natural gas pipeline.

PUBLIC CONSULTATION AND DISCLOSURE

A key step in World Bank policies on resettlement, land acquisition and compensation is a framework for public consultation, participation, and the establishment of a process to redress the grievances of affected people. Consultation with the affected population and with officials of local government, civil society and other representatives of the affected population is essential for gaining a comprehensive understanding of the types and degrees of adverse effects.

CONSULTATION AND PARTICIPATION ACTIVITIES

Stakeholder identification and consultations were initiated early in the process of EIA and directly affected land owners will be completed during land acquisition activities. National NGOs will be informed and their feedback will be sought on various occasions.

Of the local level meetings in March 2005, those of the sub-governors (kaymakam) and the village consultations focused on land issues.

Some of the issues raised by the sub-governors and village legal entity (muhtar) include the following:

- Land expropriation and compensation (private, pasture lands, crops and assets etc)
TUZ GÖLU
UNDERGROUND GAS STORAGE PROJECT
LAND ACQUISITION PLAN

- Damage to infrastructure (roads, irrigation channels, etc)
- Reinstatement (this was raised especially by the Muhtars of the villages which are on the gas line route)
- Impacts on livelihoods (i.e. animal husbandry; access to grazing lands)

This LAP is designed to prevent repetition of the concerns listed above issues.

The LAP was distributed to governors, sub-governors and Village legal entity (Muhtars), who were requested to review the document and transfer questions and comments to BOTAS. The officials were also requested to make the document available in a place accessible to the public at each location. BOTAS received no comments during this disclosure process.

VILLAGE LEVEL CONSULTATIONS

The objective of village level consultation is to share information about the Project, to solicit the views and attitudes of villagers towards the pipeline and storage area construction, and to identify the key issues of concern to them.

Community level meetings will be held in village settlements along the pipeline route, the storage area and construction camps at the beginning of the land acquisition process. The main issues related to land acquisition and construction process will be explained to villagers at the meetings as listed below:

- Land acquisition process;
- Sufficient information about the process and how it would work;
- Payments of compensation;
- Loss of communal pasture land;
- Appropriate compensation and timely payment;
- Degradation of roads and irrigation channels during construction;
- Reinstatement of infrastructure such as roads to pre-construction levels;

MONITORING and evaluation

OBJECTIVES

The purpose of resettlement monitoring will be to verify that:

- Actions and commitments described in the LAP are implemented fully and on time
- Eligible affected people receive their full compensation entitlements within agreed timeframes
- Complaints and grievances lodged by project affected people are followed up and that where necessary, appropriate corrective actions are implemented
- If necessary, changes in LAP procedure are made to improve delivery of entitlements to project affected people

For the Tuz Gölü Underground Gas Storage Project, primary monitoring responsibility will rest with BOTAŞ. BOTAŞ Surveying and Land Acquisition Department will monitor and report all land acquisition activities in the framework of LAP.
REPORTING

LAP monitoring report will be prepared in accordance with Table 8.1. The findings of the six monthly Monitoring Reports will be made to World Bank.

<table>
<thead>
<tr>
<th>Monitoring Report Type</th>
<th>Frequency</th>
<th>Prepared By</th>
<th>For</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal LAP Monitoring Report</td>
<td>Six Monthly</td>
<td>BOTA Surveying &amp; Land Acquisition Department.</td>
<td>World Bank</td>
<td>10-15 page report (plus supporting documentation) summarising progress against the LAP; outline of any issues and agreed related actions; summary schedule of grievance status; minutes of any stakeholder or affected people consultations or meetings</td>
</tr>
</tbody>
</table>

Table 8.1: Summary of LAP Monitoring Report

BUDGET

Chapter 9 details the LAP costs and the budget for its implementation. The budget includes costs to date for LAP development and future cost projections for LAP implementation. The activities with the highest cost implications are the compensation awards for land expropriation and damage to, or loss of, assets and crops.

COST FOR LAP IMPLEMENTATION

The costs for implementation of the LAP will include:

- Compensation that will be awarded to project affected private landowners and land users;
- Compensation that will be awarded to the Treasury and other public authorities for state owned lands;
- Transportation costs for negotiation teams;
- Costs for Court proceedings and expenses;
- Expenses for producing and distributing the letters of notification;
- Costs for making public announcements, in particular to absentee landowners;
- Costs for registering title deeds for expropriated lands;
- Costs for consultations

The total budget for LAP implementation is foreseen to be about $1,149,500. The budget includes the following cost items:

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost (US$)</th>
<th>Source of Funds</th>
<th>Channel of Disbursement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Acquisition (Permanent Lands)</td>
<td>100,000</td>
<td>BOTA</td>
<td>BOTA</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Land Acquisition (Temporary Lands)</th>
<th>50,000</th>
<th>BOTA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land Acquisition (State Lands)</td>
<td>50,000</td>
<td>BOTA</td>
</tr>
<tr>
<td>Land Acquisition (Legal Expenses)</td>
<td>100,000</td>
<td>BOTA</td>
</tr>
<tr>
<td>Compensation to landowners for agricultural land</td>
<td>200,000</td>
<td>WB</td>
</tr>
<tr>
<td>Compensation for lost crop production for landowners / land users</td>
<td>80,000</td>
<td>WB</td>
</tr>
<tr>
<td>Compensation for structures</td>
<td>40,000</td>
<td>WB</td>
</tr>
<tr>
<td>Compensation for trees</td>
<td>75,000</td>
<td>WB</td>
</tr>
<tr>
<td>Administrative Expenses (Staff, Office, Transport)</td>
<td>200,000</td>
<td>WB</td>
</tr>
<tr>
<td>Consultation</td>
<td>100,000</td>
<td>WB</td>
</tr>
<tr>
<td>Monitoring</td>
<td>50,000</td>
<td>WB</td>
</tr>
<tr>
<td>Sub-total all Items</td>
<td>1,045,000</td>
<td></td>
</tr>
<tr>
<td>Contingency</td>
<td>104,500</td>
<td>10%</td>
</tr>
<tr>
<td>Total</td>
<td>1,149,500</td>
<td></td>
</tr>
</tbody>
</table>

Figure 9.1 Budgets for LAP Preparation and Land Acquisition Implementation

IMPLEMENTATION schedule

INTRODUCTION

The LAP implementation schedule spans the period from mid-2005 to mid-2007, culminating the construction activities. The LAP implementation schedule defines the duration and timing of the key milestones and tasks for the following activities:

- Preparation of the LAP;
- Consultation and disclosure of the LAP;
- Asset and land acquisition and compensation parallel to project construction;
- Re-instatement of land following the construction of each section of the project;
- Commencement of Project operations.

PREPARATION OF THE LAP

Development of the LAP for the Project began in March 2005. The draft LAP will be submitted to World Bank by the end of the April 2005. After completion of the LAP for the Project, LAP will be submitted to the World Bank.

CONSULTATION AND DISCLOSURE

This process, summarised in Chapter 5, has resulted in participatory site selection that will avoid or minimise adverse project impacts on people’s livelihoods. With the assistance of rounds of feedback solicited from communities, the route of the pipeline corridor has been selected.
A broader range of LAP issues have received greater coverage in the Project’s disclosure efforts. Also, a broad range of stakeholders including state authorities, governors and vice-governors and villagers along the pipeline route have been contacted.

**LAND ACQUISITION AND CONSTRUCTION**

The pipeline construction itself will begin in end of 2005. Payments for land and assets will be made after relevant agreements have been reached and legal proceedings for title deed registrations have been concluded. Payments for crops will be made prior to accessing the land.

Land for the Project will be acquired and handed over in distinct phases corresponding to the requirements of the construction schedule and actual progress made. It is anticipated that the principal land acquisition activities will be concluded within the year 2006.

**MONITORING AND EVALUATION**

Monitoring and evaluation will be carried out throughout the land acquisition process and the construction phase.

In addition, two aspects of monitoring and evaluation will continue during the operational phase of the Project. These include the grievance procedures and third party monitoring of the impacts of the Project on livelihoods.

**LAND ACQUISITION STEPS**

Land must be acquired and made available for the Project before construction can begin. No construction can take place unless the valuation is completed, certified attempts are made to negotiate the transfer of ownership or usage rights from the private owners, and full payment is made to the accounts of owners.

Key steps that are necessary before the land acquisition can begin with notification to the landowner of the intended expropriation are explained following paragraphs. These key steps are carried out during and after sitting, route selection and route narrowing.

**Identification of the Cadastral Parcels (Plots) Through Which the Pipeline Passes**

This includes obtaining cadastral (land registration) records and transferring them to a digital platform, coordinating the conversion for graphical and local cadastral sheets, and marking up the pipeline corridors on cadastral maps.

**Identification of Landowners and Title Deed Records**
This includes obtaining title deed records from relevant Title Deed offices in order to determine land owners to be subject to land acquisition studies.

Approval of the Land Acquisition Plan by the Appropriate Cadastral Office

This is a formal step in informing the local stakeholders of the definite intent of the Project to proceed with expropriation as specifically planned and mapped.

Preparation and Verification of Land Acquisition Files for Individual Villages

At this stage, BOTA is ready to proceed with negotiations and expropriation, subject to a later stage during which valuation is carried out in consultation with a large number of local relevant stakeholders.

Land acquisition files contain:

- Approval Cover page
- Decision of Public Interest
- Technical Report and Summary
- Ground Check Points-SOME Coordinates Summary Chart and Curve Calculations
- Approved Title Deed
- Assets List
- Address List
- Immovable Property List
- Coordinates of Parcel Corners and Intersection Points
- Ownership Area Calculations
- Additional Damage and Loss Area Calculations
- Measurement Sketches
- Registration Notifications
- Expropriation Plan.

Decision of Public Interest for the Parcels to Be Acquired

The decision of Public Interest has been taken by the Ministry of Energy for the Tuz Gölü Natural Gas Storage Project. The decision allows the application of the Expropriation Law.
Once all steps have been completed for identification and location of affected plots, assets and owners, the key land valuation steps can begin in the case of private land with undisputed ownership, with four steps:

- **Establishment of the valuation commission.** Established within BOTA, the valuation commission (together with several local agencies) gathers information to determine the value of each plot of affected land. After the decision for expropriation is taken, the Administrations carrying out the expropriation shall assign one or more than one value appraisal commissions, comprising of at least three individuals, under its own body for the purpose of determining the estimated cost of the immovable property, on the basis of article 11 of this Law and by taking reports from experts, institutions and organisations specialised in this field and if necessary by using the information to be taken from the Chambers of Industry and Trade and the local real estate agencies.

- **Letter of Notification.** Landowners will receive a notification letter informing them of the decision to expropriate their lands. The letter specifies the date when a Negotiations Commission will visit the village of the affected landowner to disclose the principles of the valuation and to seek agreement with the landowner.

- **Official Reply Period.** As described by law, the landowner has a 15-day period during which he or she may contact the expropriation agency (the local BOTA branch office) to express his or her opinion, rejection or willingness to negotiate in view of the communicated expropriation decision. To facilitate discussions, the relevant BOTA officers will visit each affected village after sending the letter of notification.

- **Establishment of the Negotiations Commission.** Established by BOTA, the Negotiations Commission begins discussions with landowners based on the range of land values established by the Valuation Commission. The “negotiation” process does not consist of bargaining. Indeed, as mentioned in Chapter 2, the negotiation commission has no room for bargaining. Rather, this commission explains the basis of valuation to affected communities and each of the affected titled deed owners. It provides detailed information obtained from each source specified under the Law and shows how valuation decisions have been reached.

**Mutual Agreement**

In the event of agreement between the Negotiations Commission and the landowner, the land price is paid to the owner’s private bank account, and the deed is obtained by the BOTA and registered in the name of BOTA. Mutual agreement cases are illustrated in the Figure 10.1 below.

**Non-Agreement**

In this event, BOTA applies to the court for land appraisal and registration of the land in the name of BOTA with rights of use. Public announcement of the process is made through the media and the court summons the landowner. Hearing date is set within a 30-day period. If the landowner and BOTA do not agree before the court on the land price, the court assigns independent experts to appraise the land within 10 days. The court then sets a new hearing date within 30 days and submits the results of the appraisal to BOTA and to the landowner. In the event of non-agreement on this court-supervised appraisal, the court can appoint other appraisers within a 15-day period.
The court, following the second appraisal, will establish a final expropriation value. The following steps will then be taken:

- Determined prices will be deposited in a national bank account in the name of the land owner;
- A bank receipt for the deposit will be submitted to the court; and
- Upon completion of all court documentation, court decision on transfer or right to the expropriation agency including establishing certain rights to the title is given. This completes the registration in the name of BOTA with rights of use. The landowner still has the right to appeal the valuation decided in the court, but not the expropriation of the land (Figure 10.2).
All Steps for plot and ownership identification completed

All assets on plots identified and inventory prepared

Addresses of all owners for each plot obtained

Valuation commission established, each plot is visited, all agencies contacted as specified by the Law to provide information relevant for land valuation

Negotiation commission established

Land owners contacted to attend negotiations

Land owners non-responsive

Land owners attend negotiations

No agreement possible

Agreement on land transition reached

Land owner certifies disagreement

Land owner refuses to certify disagreement

Owner is notified that case will be submitted to Court

Court

Road to acquisition open

Figure 10.1: Private Land Acquisition: Mutual Agreement Cases
Figure 10.2: Land Acquisition Steps

1. Public Acquisition Law No 2942 (D. 4650)

2. Owners certifies disagreement
   - Authority Prepares File
   - Invitation for negotiation

3. Owners does not certify disagreement
   - Authority Prepares File
   - Invitation for negotiation

4. 1st Court
   - 30 days
   - 1st Inspection by the Court
   - Appointed Valuation
   - Disagreement

5. 2nd Court
   - 15 days
   - Valuation
   - Disagreement

6. 3rd Court
   - 15 days
   - Valuation
   - Appeals to the decision of this session can be made only to the High Court
   - If necessary, additional time for

7. Value of Land Deposited in the Bank
   - 15 days
   - Deed transfer
   - Road to Land Acquisition