

**Annex 6.2
Summary
of EIA Findings
on Fisheries**

1 SUMMARY OF EIA BASELINE REPORT ON FISHERIES

1.1 GENERAL

Primary productivity in the Mediterranean is generally low compared to other seas, but can be locally elevated where conditions permit. In the Gulf of Iskenderun, primary productivity is 2-4 times higher than the adjacent sea area, averaging 115mg C (as carbon) m⁻²d⁻¹. The Gulf is therefore an important fisheries resource with total fish production of over 21,000te yr⁻¹. Commercial fisheries in the Gulf include rainbow sardine (*Dussumeria aucta*), European anchovy (*Engraulis encrasicolus*), White Sea bream (*Diplodus sargus*), yellowstripe barracuda (*Sphyraena chrysoteania*) and common pandora (*Pagellus erythrinus*)

However, marine pollution and over-fishing are reducing fish resources. Turkey's marine waters are under pressure from heavy domestic maritime traffic, particularly in the Turkish Straits and marine pollution from land-based sources.

Important fishing grounds for a number of commercial fish species are found in this area, which are considered crucial for local fishing communities.

1.2 FISHING PATTERNS

Within the vicinity of the proposed BTC Marine Terminal, local fishermen from Golovasi / Sahil Sitesi, Incirli and Karatepe have identified (during focus group interviews) the principal fishing grounds comprising four main zones. Additional studies to identify fishing grounds with a wide range of stakeholders is on-going:

- Zone 1: between the Sugozy Thermal Power Plant and the existing BOTAŞ jetty exclusion zone (approximately 2.5 nautical miles¹ along the coast and up to 0.5 nautical miles offshore from Golovasi);
- Zone 2: between the existing BOTAŞ Jetty exclusion zone and the Sugozy Thermal Power Plant (approximately 2.5 nautical miles along the coast and from 0.5 to 2 nautical miles offshore);
- Zone 3: between the Toros Gubre Fertiliser jetty exclusion zone and the existing BOTAŞ jetty exclusion zone (approximately 0.5 nautical miles along the coast and up to 2 nautical miles offshore);
- Zone 4: over 2 nautical miles offshore.

(1)¹ 1 nautical mile is equivalent to approximately 1852 metres.

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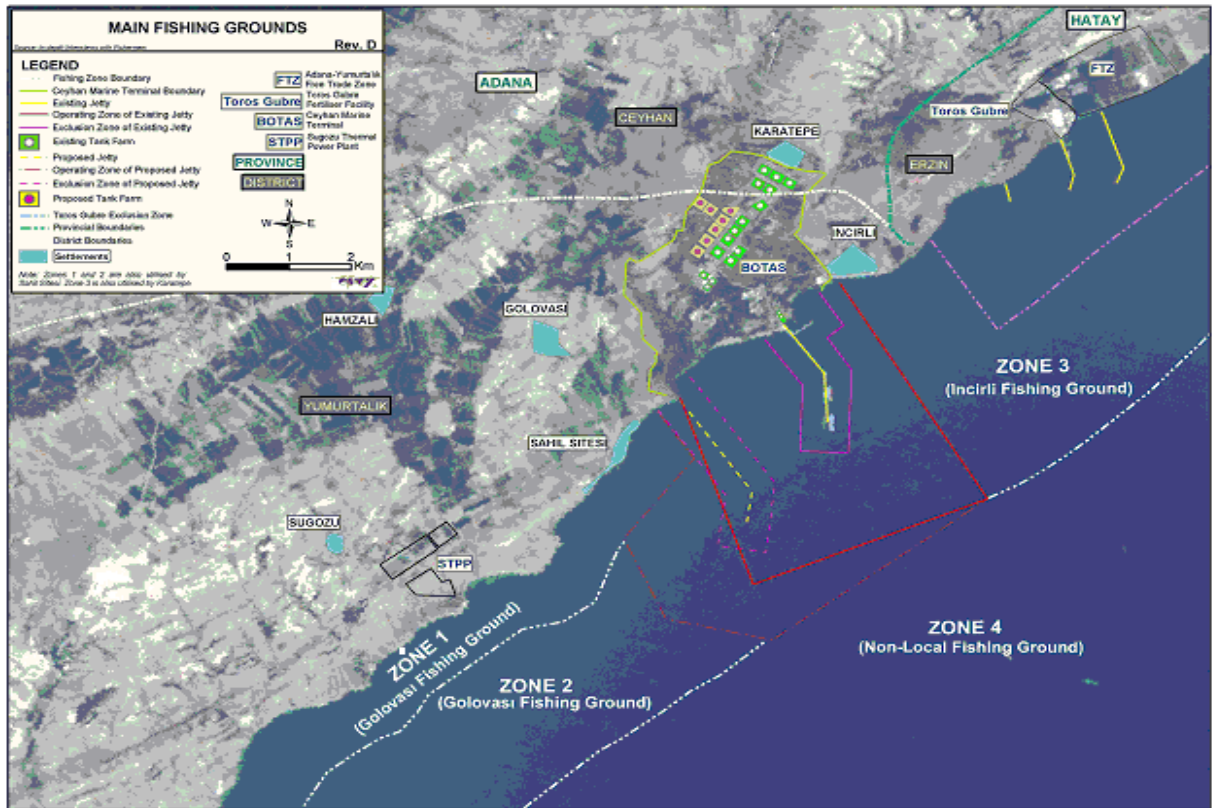


Figure 1 Main Fishing Grounds

In addition to the activities of local fishermen, fishermen are also attracted to the Iskenderun Gulf from other regions, including Iskenderun, Samandag, Karataş, Hatay and the Black Sea. It has been reported that the number of non-local fishermen has increased in the past ten years to approximately 60-70 boats, leading to elevated competition with local fishermen. Non-local fishermen tend to use more technologically advanced fishing equipment (eg radars) and have larger fishing boats. As a result, they are able to travel longer distances to fish (further than two nautical miles offshore). Non-local fishermen also typically fish using capital intensive line and radar methods, work for large fishing companies and live on their boats that dock in Yumurtalik port over night.

In addition to the legal activities of local and non-local fishermen, discussions with local fishermen indicate that illegal fishing in the estuarine areas, which are important nursery areas for a range of commercial fish species, is of increasing concern. These activities were also cited as having direct consequences for sea turtle species. Marine restrictions also apply to local fishermen including the prohibitions of net fishing within the existing BOTAŞ Marine Terminal exclusion zone. However observations indicate net fishing constitutes an important method of fishing for local fisherman.

Box.1 Illegal Fishing

The region is rich in estuarine pools and lagoons (referred to as 'fish ponds'). A recent law forbids the catching of fish from 'fish ponds'. However, local fishermen are reported to be catching small fish from these 'fish ponds' and selling them to fish farms in western Turkey.

The presence of an intense and sometimes illegal fishing effort along the south coast of Turkey is reportedly causing serious damage to fish stocks and other key species such as sea turtles.

Source: Fishermen from the Marine Terminal Survey Area

1.3 CATCH STATISTICS

Overall landings for Mediterranean fisheries in total are relatively modest (approximately 1.3 million te). However, Mediterranean fisheries resources are in a state of over-exploitation with over-fishing and fishing practices largely accounting for the impact on natural stocks and habitats.

The social survey of the fishing communities in the area indicated that shrimp (karides) is the most important marine species for all surveyed fishermen (as it is the most lucrative), followed by sea bass, blue fish, gilt-head bream and striped/ grey mullet. All these species are caught by fishermen from all five fishing settlements. However, lahos (logos), the most expensive type of fish, is only caught by fishermen from Golovasi/Sahil Sitesi. A number of fish species (eg tubara and karakulak) are caught solely by fishermen in Haylazli and Deveciusagi and other species (eg kayis and anchovies/ catal kulak) are caught solely by fishermen from Deveciusagi. Typically, shrimp is only caught in Zones 2 and 3, whereas the majority of other fish types are caught in all of the zones.

As indicated above, local fishermen use traditional nets that are cast in waters no more than 20-30m in depth; this generally equates to depths encountered within three nautical miles off the coast. The distances travelled by local fishermen is further constrained by the small size of their boats, the lack of sufficient engine power to enable long distance travel, the poor condition of the boats (often not sufficiently seaworthy), the high cost of fuel, the lack of enclosed sections on their boats, which would enable night fishing, and competition with non-local fishermen. By contrast, non-local fishermen use capital-intensive line and radar methods and are able to fish in deeper water.

Amongst the local fishermen, the average daily catches per species² per surveyed household was reported as follows:

- striped mullet (kefal) (2-10kg);
- sea bass (levrek) (1-5kg);
- gilt-head bream (cupra) (2-4kg);
- muskov (1-2kg); shrimp (karides) (1-3kg);
- blue fish (lufer) (4-5kg);
- mackerel (istavrit) (1-3kg);
- waker/lahos (logos) (7-10kg);
- sole (dilbaligi) (4-5kg);
- tubara (7-23kg);

² The names of the majority of fish species (as provided by the fishermen) represent local terminology for the species listed.

- golden mullet (sarikulak) (4-6kg);
- corb (karakulak) (1kg);
- sea bream (tranca) (2-5kg);
- kayis (2kg);
- bildircin (2kg);
- sabun baligi (5kg);
- anchovy (catal kulak) (4kg).

Respondents were noticeably hesitant to declare their catches, and it is likely that these data are underestimated for fear of taxation. Of the amount caught, each fisherman/household takes home an average of 1-2 kilograms for household consumption.

The social survey indicated that local fishermen fish for a maximum of five hours per day. Generally they release their nets in the late afternoon, between 5pm and 7pm and collect them the next morning between 7am and 10am. There are usually between 3-4 fishermen from different households on each boat catching all fish types, with the exception of shrimp farming which is usually undertaken by 2-3 fishermen from different households on each boat and 2-3 teenagers (school-age) who are involved in cleaning the nets on shore.

Box 2 Daily Catch

Most fishermen from Golovasi catch shrimp. This sells at approximately 15 million TL per kilogram. Usually one boat comprising on average three individuals (from different households) collects three kilograms of shrimp a day. Revenue is divided between the three respective households.

Source: Household Questionnaire, Marine Terminal Area

The local fishermen claim that the involvement of young people helps train them to become fishermen in the future. The wives of some of the fishermen (if they have skills useful for fishing related activities) also work to sort and arrange the nets. The average age of local fishermen ranges between 35-40 years old, whereas non-local fishermen on average tend to be slightly younger at 30 years of age.

The social survey findings suggest that the fishing season for the different marine species varies throughout the year and peak/ off peak seasons cannot easily be identified. The key months for the main species of fish caught are as follows:

- Striped mullet: all year round;
- Sea bass and blue fish: between November and January;
- Gilt-headed bream: between June and September;
- Shrimp: between March and October;
- Muskov: between December and February;
- Lahos: all year round with the exception of July and August when fishing of this species is forbidden;
- Sole: peak months between November to January.

However, fishermen from both Golovasi and Incirli stated that there had been a decline in catch size over the past five years and attributed this to the following:

- An increase in environmental pollution as a result of industrialisation along the coast of the Iskenderun Gulf;
- Trawling by non-local fishermen from the Black Sea and other regions;
- Fish being attracted to lights on the existing BOTAŞ Jetty, thus entering the exclusion zone where fishing is prohibited;
- Increased numbers of fishermen, due to a lack of alternative activities;
- Over-fishing.

Box.3 The Decreasing Profitability of Fishing

In the early 1970s, an important economic activity in Golovasi was animal husbandry. However, the settlement lost most of its land during expropriation to establish the existing industry. Therefore more residents turned to fishing. Yet profitability has decreased due to inappropriate fishing activities of non-local fishermen, over-fishing and a rise in input prices. This has contributed to the rise in debts of fishermen to fishing companies.

Source: Fishermen from Golovasi

The problems faced by fishermen are impacting upon the career choice of the younger generations. *'The sons of fishermen are not becoming fishermen'*.

Source: Mayor of Yumurtalik Municipality

1.4 COMMERCIAL SIGNIFICANCE

For those fishermen that land catches that are surplus to their domestic needs, those from Golovasi and Incirli sell their catches either within the settlement or to local traders in Yumurtalik). The local traders are registered small-scale entrepreneurs commonly functioning as a family business and composed of 1-2 people. They operate using trucks and travel everyday to Golovasi and other fishing grounds to buy fish from local fishermen. These local traders then sell the fish to fishing companies in Yumurtalik, Incirli, Adana and to larger companies in Izmir, Ankara and Istanbul. Many of the fishermen have informal contracts with local traders whereby they obtain equipment from the local traders and in return sell their catch to them. Contracts between fishermen and the local traders preclude fishermen from selling directly to fish restaurants (eg in Sahil Sitesi and Incirli).

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Table 1 below provides a summary of fishing activities for the marine terminal area.

Table 1 Summary of Fishing

| Settlement | One Of Two Main Sources Of Income (% Hh) | Major Fishing Grounds Used ³ | Average Catch* & Main Fish Type | Use Of Fish | Average Costs & Revenues /Hh/Season (M TL)** | Main Fishing Months |
|--------------|--|--|--|---|--|---|
| Golovasi | 38% | Primarily zones 1 and 2, although zone 2 is important. Infrequently in zone 3. | Waker / Logos (10) Sea bass (5) Blue fish (5) | Sold to fishing companies | Costs : 108 – 800 m TL Total revenues: between 125 and 834 m TL | March-September |
| Sahil Sitesi | 25% | Primarily zones 1 and 2, although zone 2 is important. Infrequently in zone 3. | Waker / Logos (10) Sea bass (5) Blue fish (5) | Sold to fishing companies | Costs : 108 – 800 m TL Total revenues: between 125 and 834 m TL | March-September |
| Incirli | 26% | Primarily zone 3. Infrequently in zone 1 and 2. | Mullet (2) Muskov (1.5) Bream (1.3) | Majority sold to fishing companies (some household consumption) | Total costs between: 50 and 375 m TL Total revenues between: 100 and 250 m TL | October to November (mullet all year round) |
| Karatepe | 3% | Primarily zone 3. Infrequently in zone 1 and 2. | | | | |
| Haylazli | 37% | Sarigol, Adalar, Arap bogazi, Dalyan and coasts of Yumurtalik | Kefal (10) Tubara (23) Levrek (5) Sarikulak (5) Tranca (5) | Majority sold to fishing companies (some household consumption) | Total costs between: 29 and 292 m TL Total revenues: 34 and 250 m TL | Generally all year round |
| Devecusađi | 80% | Sarigol, Adalar, Arap bogazi, Dalyan and coasts of Yumurtalik | Kefal (8) Tubara (7) Levrek (5) Lufer (5) | Majority sold to fishing companies (some household consumption) | Total costs: between 28 and 250 m TL Total revenues: between 35 and 420 m TL | Generally all year round |

*Average catches in kilograms per day

** Section 12.9.2 provides an explanation of the relationship between costs and income earned.

Source: Household Survey (HH = household)

Note: The above figures are based on estimates by individual household members and therefore there may be some inconsistencies in these estimates. Fishing activities were not reported by respondents in Sugozi, Karayilan and Hamzali as a main source of income.

³ Details of each zone is provided in the text.

1.5 FISHING AS A SOURCE OF EMPLOYMENT

- **Main employment sector:** the findings suggest that settlements can be differentiated into four groups in terms of top employment activities:
 - Fishing: 31% of respondents in Golovasi; 44% of respondents in Haylazli; 58% of respondents in Deveciusagi;
 - Agriculture: ⁴ 69% of respondents in Sugozu; 82% of respondents in Hamzali; 50% of respondents in Sahil Sitesi;
 - Animal husbandry: 36% of respondents in Karatepe; and 44% of respondents in Karayilan;
 - Utilities: 26% of respondents are employed in Incirli, (mainly at the BOTAŞ site, although this is not a main source of income for this settlement).

The second most common source of employment is: fishing in Sahil Sitesi and Incirli; agriculture in Karayilan, Haylazli and Deveciusagi; trade (eg shops/crafts) in Golovasi; and ‘other’ (eg construction, working in the Sugozu Thermal Power Plant construction) in Sugozu, Hamzali and Karatepe.

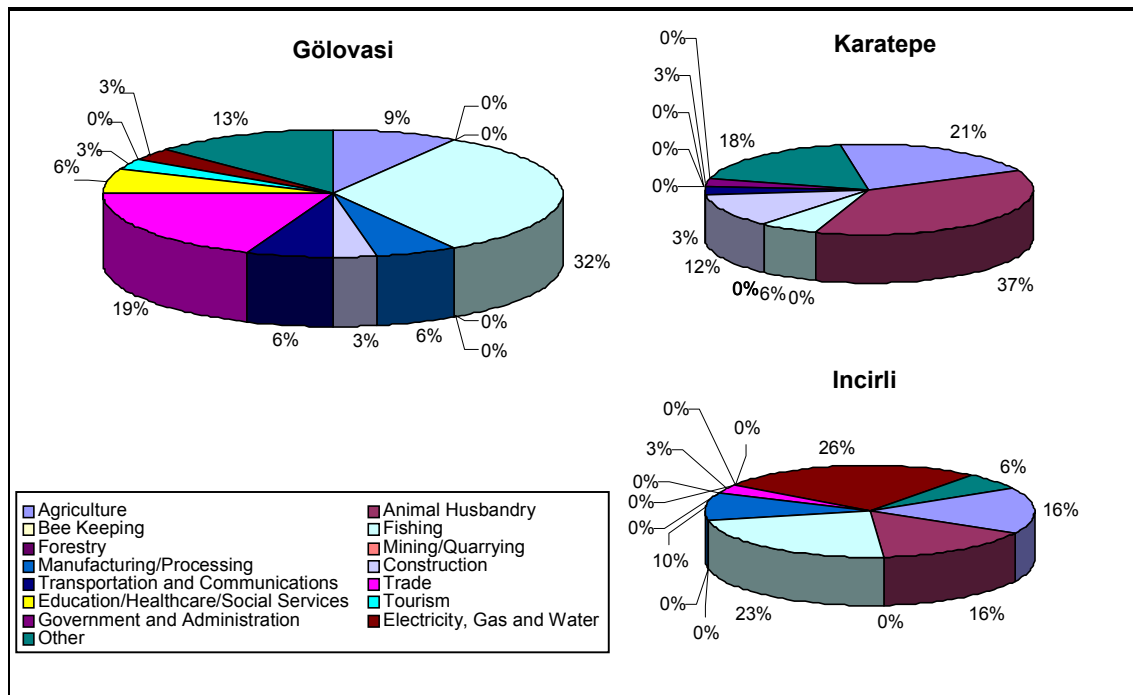


Figure 2 Main Sectors of Primary Employment for Surveyed Respondents in the Neighbouring Settlements

- **Dependency:** the findings of the survey and consultation with local fishermen suggest that settlements in the project area are highly dependent on one source of livelihood and if this livelihood opportunity was disrupted there could be severe repercussions. For example, Karatepe and Karayilan are dependent on animal husbandry, and future impacts on pastureland, compounding impacts of previous developments, would have severe implications for sustaining

levels of livelihood. In Golovasi, where agricultural land is held in the hands of the minority, a loss of fishing as a source of livelihood would leave residents with limited options for securing a livelihood.

Box 4: Fishing as a Source of Employment

Importance of Fishing: fishing is *one of two* main sources of *income* for 54 (27%) of the 200 households surveyed, a *source of income* for 60 of the 200 households surveyed and the main source of *employment* for 77 of 288 respondents. Golovasi⁵, with a harbour approximately 700 m from the proposed marine terminal jetty, has the highest number of surveyed households in the neighbouring settlements (38% or ten households) involved in fishing as one of two main sources of income, followed by Incirli⁶. Fishing is the *main* source of *income* for 33% of households in Golovasi and one of the two main sources for 80% and 37% of households in Deveciusagi and Haylazli respectively. However, the latter two are more distant from the planned marine terminal and not expected to be substantially impacted. In addition, there is indirect employment from fishing (eg unemployed youth in Golovasi are paid to repair nets and boats). Only in the non-neighbouring settlements of Karayilan, Sugoza and Hamzali were there no surveyed households involved in fishing.

Numbers of Boats Registered: according to the official records held in the Yumurtalik sub-governorship, 30 fishing boats are registered in Golovasi (although local fishermen state that there are 50 boats in the settlement) and eight boats are registered to Incirli Sea Security. Only those boats that are officially permitted are allowed to fish in the Incirli area.

Main Fishing Locations per Settlement: Focus group workshops and interviews with local fishermen from Golovasi / Sahil Sitesi, Karatepe, Incirli, Haylazli, Deveciusagi during consultation enabled a broader understanding of the most frequently used fishing grounds in the vicinity of the BTC Marine Terminal.

- *Golovasi/Sahil Sitesi:* fishermen fish daily in Zone 1 along the coast between Sugoza and the BOTAŞ exclusion zone and sometimes in Zone 2, depending on the season. Three to four times a month the fishermen fish in Zone 3 off the coast near Toros Gubre Fertiliser Facility. Zone 2 is the most important fishing ground for fishermen from Golovasi, because this is where shrimp, which sells at four times the price of other fish in the area, is caught.
- *Karatepe and Incirli:* fishermen fish daily in Zone 3 off the coast around the Toros Fertiliser facility and rarely (3-4 times a month) in Zones 1 and 2. Zone 3 is the most important fishing ground for Incirli fishermen (substantiated by an informal agreement they have with Golovasi fishermen that the latter will not use Zone 3 on a regular basis).
- *Haylazli and Deveciusagi:* fishermen fish in the vicinity of Sarigol, Adalar, Arap Bogazi, Dalyan, settlements and along the coasts of Yumurtalik and Haylazli.
- *Non-Local Fishermen:* fish daily at least 2 nautical miles offshore in Zone 4. According to local fishermen, the non-local fishermen do not fish in Zones 1-3.

Employment Status: of the eight households surveyed in Golovasi that fish, three work for fishing companies. The other five and all surveyed fishermen in Incirli and Karatepe are self-employed.

Use of Fish: generally, fishermen use 1-2 kg of fish for their own household consumption per day. Some fishermen from Golovasi and Incirli sell their catches either within the settlement or to local traders in Yumurtalik.

⁵ Includes the settlement of Sahil Sitesi.

⁶ For the purposes of this section of the baseline description, the focus will be on fishing activities in Golovasi (includes Sahil Sitesi) and Incirli, unless where information on other settlements has relevance to this assessment.

Fishing Costs and Revenues: the average fishing costs for all fishing households surveyed varies from 100 million to 667 million TL⁷ (62 to 417 USD)⁸. Average monthly costs for fishing mostly comprise fuel, the cost of which was found to vary hugely between households (from 43 million to 333 million TL [27 to 208 USD] depending on the scale of household activities). Generally, new nets cost around 100 million TL (80-90 million TL for the raw material for each net and 10 million TL for the labour, most of whom are women). Boats are imported from the Black Sea region and cost between 2-8 billion TL depending on size (1,250 to 5,000 million USD). The cost of raw materials for fishing is in general regarded as expensive, with the price of the nets indexed to the USD, but sold in Turkish Lira. Interest rates for equipment are also high. Average revenue for all fishing households surveyed varies from 100 million TL (62 USD) to 272 million TL (170 USD)⁹. Local fishermen reported to earn as profit, on average only 20-25% of what they sell annually. For the three families working for fishing companies in Golovasi, monthly wages were found to range from 83 to 150 million TL (52 to 94 USD).

These wages are below the minimum wage (222 million TL) (139 USD) for individuals above 16 years of age.

Fishing Regardless of Low Revenues Earned: despite the fact that revenues from fishing are very low, fishermen continue to rely on fishing as their main source of livelihood. The following reasons were given:

- lack of alternative livelihoods and lack of skills to undertake other activities, particularly as the majority of fishermen are middle aged;
- large debts to local traders that, according to social norms, would be undesirable to leave for their children to pay off;
- expectations that there could still be opportunities to profit from fishing in the future; and
- most fishermen enjoy fishing as a way of life. It has been a family business for generations and they do not want to change their way of life.

In view of their self-employed status, debt owed to fishing companies, dependency on expensive inputs (particularly fuel) and a decline in catches, fishermen in the survey area are particularly susceptible to additional negative impacts from future developments.

Studies to investigate the importance of fishing as a form of livelihood and to assess the potential impacts of the BTC Marine Terminal, (particularly the exclusion and manoeuvring zones of the BTC Jetty) are ongoing. To date, studies have focused primarily on the collection of data in the form of questionnaires with households and Muhtars from settlements in the vicinity of the Marine Terminal. This data collection includes the soliciting of information from local fishermen, particularly those living in the settlements of Golovasi, Sahil Sitesi and Incirli.

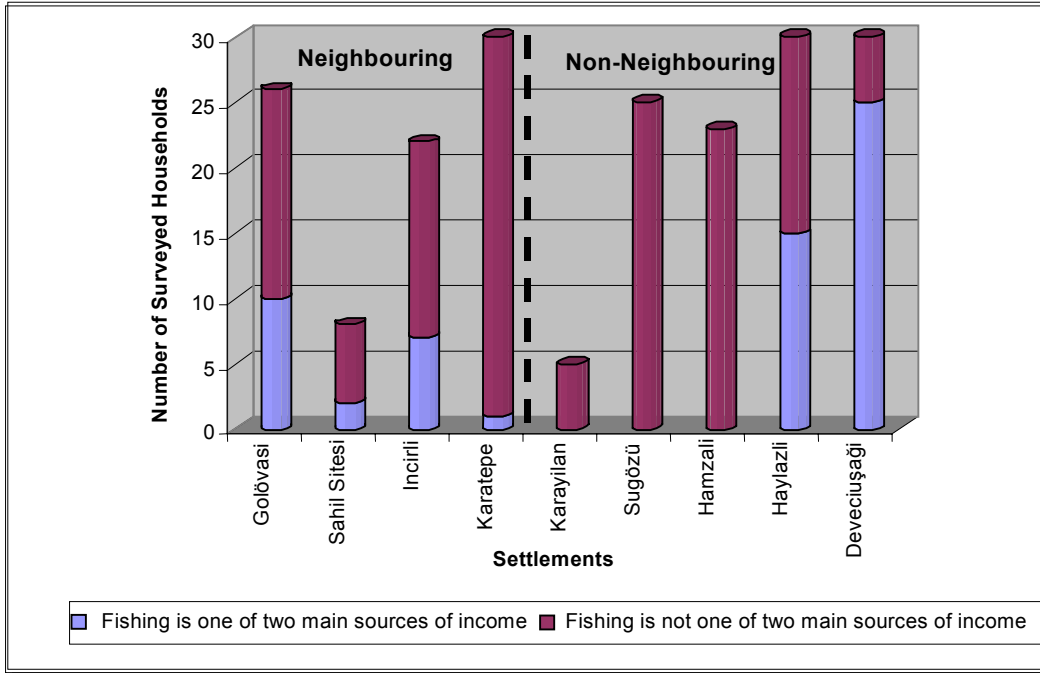
As a result, the findings reported in this section reflect the opinions and concerns of these stakeholders. This section will thus be added to as additional information becomes available. The overall studies will be completed and the results disclosed in parallel with the end of disclosure for the BTC Project.

Alternative Livelihoods for Fishermen: As an alternative income-generating activity, some of the fishermen rent their boats to amateur fishermen – but this is usually limited to summer and approximately 8-10 times per year. Fishermen also take tourists to the ancient castle (remains of Aegea ancient city) located on an island off the coast called *Kiz Kalesi*. Finally, between 10-15 fishermen in the settlement rent approximately 10 hectares of land and produce wheat and cotton as a secondary activity.

⁷ Rate of Exchange: 1 million TL = USD 1.60, January 2002

⁸ It should be noted that fishermen found it difficult to give exact figures for costs and revenues associated with fishing.

⁹ The Mayor of Yumurtalik Municipality suggested that fishermen generally earn between 100-150 million TL per month.



Source: Household Survey 2001

Figure 3: Number of Surveyed Households Where Fishing is One of Two Main Sources of Income

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Table 2: Summary of Livelihood, Employment and Skills

| SETTLEMENT | INCOME RANKING * | ASSET RANKING* | INCOME & ASSET RANKING* | MAIN LIVELIHOOD SOURCE** | WAGE INCOME (% respondents) *** | MAIN EMPLOYMENT SECTOR **** | SECOND MAIN EMPLOYMENT SECTOR **** | % UNEMPLOYED RESPONDENTS ***** | PREVIOUS CONSTRUCTION EXPERIENCE (% respondents) |
|--------------|------------------|----------------|-------------------------|---|---------------------------------|-------------------------------|-------------------------------------|--------------------------------|--|
| Golovasi | 3 | 4 | 3 | Fishing & wage income | 35 | Fishing (31%) | Trade (19%) | 11 | 46 |
| Sahil Sitesi | 2 | 6 | 2 | Pensions & agriculture | 13 | Agriculture (50%) | Fishing, utilities & other (17%) | 11 | 38 |
| Incirli | 6 | 7 | 6 | Animal husbandry & fishing | 30 | Electricity, gas, water (26%) | Fishing (23%) | 9 | 22 |
| Karatepe | 9 | 9 | 9 | Agriculture & semi skilled (eg drivers) | 20 | Animal husbandry (36%) | Other eg construction / trade (18%) | 18 | 30 |
| Karayilan | 7 | 8 | 8 | Agriculture & semi-skilled | 20 | Animal husbandry (44%) | Agriculture (22%) | 11 | 20 |
| Sugozu | 1 | 2 | 1 | Agriculture & pension allowance | 20 | Agriculture (69%) | Other (13%) | 7 | 32 |
| Hamzali | 5 | 1 | 5 | Agriculture & pension allowance | 9 | Agriculture (82%) | Other (11%) | 19 | 9 |
| Haylazli | 4 | 3 | 4 | Agriculture & fishing | 3 | Fishing (44%) | Agriculture (41%) | 6 | 7 |
| Deveciusagi | 8 | 5 | 7 | Fishing & agriculture | 7 | Fishing (58%) | Agriculture (23%) | 5 | 7 |

* Ranking of settlements: 1 denotes the highest average income and/ or asset levels and 9 the lowest levels of income and/ or assets of the surveyed settlements in the marine terminal (see Section **Error! Reference source not found.** for further details).

** Main livelihood source (includes subsistence and income earning activities).

*** % of respondents earning income from permanent non-agricultural activities.

**** % of respondents. Main employment sector is the main time employing activity for the majority of respondents and second main employment sector is the second most common main activity for the respondents. Includes both wage and subsistence based activities.

*****Unemployment is defined as 'not being employed in a permanent, wage earning capacity'. These figures should be viewed in relation to the national average of 10.5% (last quarter of 2001: SIS).

Source: Household Survey (HH = household)

1.6 ATTITUDES AND PERCEPTIONS TOWARDS THE MARINE TERMINAL

The majority of residents surveyed are in favour of the jetty and the additional oil tanks (71% or 143 respondents and 75% or 150 respondents respectively). For the jetty, this ranges from 91% of respondents in Hamzali (a non fishing settlement) to 52% of residents in Incirli (a fishing settlement). For the oil tanks, this ranges from 100% in Karayilan to 56% of respondents in Incirli. Surprisingly, 97% of respondents from Karatepe (already impacted by the existing tanks) are in favour of the tanks – although this is most likely explained by their high expectations of permanent employment.

Thirty-four respondents had no idea how the Project might impact them negatively. The remaining respondents identified both potential benefits and negative impacts.

- **Perceived benefits of proposed BTC Marine Terminal:** direct employment was raised as the most likely positive benefit by approximately 130 respondents (65%), 20 of whom came from Karatepe and 20 from Sugoza). In addition, during the consultation meetings, expectations of employment were continually voiced, particularly among the neighbouring settlements. This widespread expectation regarding employment is reflected in the low number of respondents (18%) that do not expect any benefit from the proposed project (including 29% of respondents from Deveciuşagi).
- **Perceived negative impacts of proposed BTC Marine Terminal:** 45% percent of respondents think that there will be no negative impacts associated with the proposed development (39 responses from neighbouring settlements and 53 from non- neighbouring settlements). However, a number of potential concerns were raised in all settlements. Many of these concerns are based on experiences associated with the existing developments in the area, including the BOTAŞ Marine Terminal.

Box 5: Perceived Benefits and Problems of the BTC Marine Terminal Development

PERCEIVED BENEFITS

- **Employment:** many respondents expect the marine terminal development to result in new opportunities in the region, and bring about indirect employment.
- **Regional development:** a number of respondents expect the marine terminal to contribute to industrial development and result in general economic benefits. In general, it was felt that a construction camp would increase commercial activities in the region. Regional and international publicity (as a result of the marine terminal) is also expected to attract development to the region.
- **Infrastructure:** a number of respondents raised the hope that the Project would solve infrastructure problems. For example, respondents mentioned trying to get construction companies to use equipment to improve local infrastructure.
- **Security Services:** a number of respondents commented that the Project would increase the level of regional security services.

PERCEIVED NEGATIVE IMPACTS

- **Natural Resources:** respondents feel that the marine terminal development would increase pressure on existing natural resources.
- **Traffic:** four respondents from Golovasi, Karatepe and Hamzali perceived traffic congestion during construction as an impact primarily because their roads are most likely to be impacted.
- **Pollution:** perceived pollution impacts raised by respondents included: increased odour problems in the area; increased sea pollution; increased risk of oil spills and impacts on marine species, along with adverse impacts on drinking water quality.
- **Health and safety:** respondents feel that the marine development could result in an increased risk of fire and oil explosions, which could cause material and human losses.
- **Fishing:** respondents are concerned that the increased exclusion zone would decrease access to fishing ground as well as prevent access to, and use of the fishing port at Sahil Sitesi.
- **Target:** a number of respondents feel that the region could become a target in a possible war
- **Agriculture:** some respondents commented that additional agricultural land might be expropriated as a result of the development.
- **Construction camps and workers:** a number of respondents commented that construction camps could disturb residents (eg through the establishment of relationships between local women and construction workers, through lack of respect for the local values) and as a result of possible hostility or security problems.
- **Employment:** concern was raised that the Project may not employ local people.
- **Migration:** a number of respondents commented that the marine terminal would attract in-migration by those seeking jobs, with resultant pressure on, or competition for scarce resources, including employment.
- **Decision making:** some respondents feel that important decisions would be taken by foreign states, and not by Turkey.

Source: Marine Terminal Household and Settlement Questionnaire and Consultation 2001