

7. Socio-Economic Description

Contents

| | | |
|--------|---|----|
| 7.1 | Introduction..... | 3 |
| 7.2 | Data Sources..... | 3 |
| 7.2.1 | Stakeholder and Socio-Economic Survey..... | 4 |
| 7.3 | Geographic Context | 5 |
| 7.4 | Socio-Economic Context..... | 6 |
| 7.5 | General Profile of the Local Communities..... | 6 |
| 7.5.1 | Sangachal Town | 6 |
| 7.5.2 | Umid..... | 7 |
| 7.5.3 | Azim Kend and Masiv 3 | 7 |
| 7.6 | Overview of Onshore Socio-Economic Conditions | 7 |
| 7.6.1 | Population, Demographic Structure and Ethnicity | 7 |
| 7.6.2 | Land Use and Ownership..... | 9 |
| 7.6.3 | Infrastructure | 10 |
| 7.6.4 | Local Utilities | 10 |
| 7.6.5 | Youth and General Recreational Facilities..... | 12 |
| 7.6.6 | Education and Training | 12 |
| 7.6.7 | Health..... | 13 |
| 7.6.8 | Employment, Unemployment and Livelihoods..... | 14 |
| 7.6.9 | Gender Equality | 19 |
| 7.6.10 | Living Conditions, Household Income and Expenditure | 19 |
| 7.6.11 | Local Perceptions towards Industrial Operations and BP..... | 21 |
| 7.6.12 | Social Organisation and Local Social Issues..... | 22 |
| 7.7 | Vulnerable Groups | 23 |
| 7.7.1 | Income-Poor Households..... | 23 |
| 7.7.2 | Female-Headed Households Living Without Remittances from the Husband...23 | |
| 7.7.3 | The Elderly and Those Living with Disabilities..... | 23 |
| 7.7.4 | Herders..... | 24 |
| 7.7.5 | IDPs and Refugees | 24 |
| 7.8 | Regional Industrial Developments | 25 |
| 7.9 | Commercial Fishing Operations..... | 26 |
| 7.9.1 | Regulatory Bodies and Licensing | 26 |
| 7.9.2 | Companies and Individuals Involved | 27 |
| 7.9.3 | Direct Employment with Vessel Owners and Crew | 28 |
| 7.9.4 | Commercial Species, Fishing Locations and Seasonal Variation..... | 28 |
| 7.9.5 | Recent Trends in Commercial Fishing Operations | 30 |
| 7.9.6 | Indirect Employment from Fish Processing Companies | 30 |
| 7.9.7 | Illegal Fishing | 30 |
| 7.9.8 | Scientific Research | 31 |
| 7.10 | Commercial Shipping Movements | 33 |
| 7.11 | Construction Yard Operations..... | 33 |
| 7.12 | Community Investment Programmes..... | 34 |
| 7.13 | Local Content Development Initiatives..... | 35 |

List of Figures

| | | |
|------------|--|----|
| Figure 7.1 | Garadagh District, the Terminal and Surrounding Communities | 5 |
| Figure 7.2 | Land Use within Vicinity of the Terminal..... | 9 |
| Figure 7.3 | BP Projects Construction Workforce, 2002 to 2007 | 14 |
| Figure 7.4 | Type of Employment within the Garadagh District..... | 16 |
| Figure 7.5 | Unemployment Status of Each Community | 17 |
| Figure 7.6 | Photos of Herder Settlements..... | 18 |
| Figure 7.7 | Level of Satisfaction Associated with Living Standards..... | 20 |
| Figure 7.8 | Frequency of Perceived Environmental Impacts from Industrial Operations..... | 22 |
| Figure 7.9 | Locations of Favoured Fishing Grounds and Locations of Landing Ports and Harbours..... | 29 |

| | | |
|-------------|---|----|
| Figure 7.10 | Locations of Scientific Research Trawl Sampling Locations | 32 |
| Figure 7.11 | Shipping Routes in the Vicinity of the SD Contract Area | 33 |

List of Tables

| | | |
|-----------|---|----|
| Table 7.1 | Relevant Data Sources | 4 |
| Table 7.2 | National Age Profile, Urban and Rural, 2010 | 8 |
| Table 7.3 | District Population, In-Migration, Death and Fertility Rates, 2005-2010..... | 8 |
| Table 7.4 | Source of Potable Water in the Communities within the Terminal Vicinity | 11 |
| Table 7.5 | Monthly Household Expenditure (AZN) | 21 |
| Table 7.6 | Companies and Individuals Who Hold a Commercial Licence to Fish in 2012 .. | 27 |
| Table 7.7 | BP/AIOC Social Spend 2002 to 2011 (US\$M)..... | 35 |
| Table 7.8 | Local Content Spend 2006 to 2011 (US\$M) | 35 |

7.1 Introduction

This Chapter describes the socio-economic baseline conditions relevant to the SD2 Project. The scoping process identified the following socio-economic interactions as a result of SD2 Project activities:

- Disruption or restriction of fishing and commercial shipping operations' access to coastal, nearshore and offshore resources;
- Employment creation and de-manning;
- Training and skills development;
- Procurement of goods and services (including construction yard operations and their workers); and
- Offsite construction vehicle movements and an associated increased risk to community health and safety.

The key socio-economic receptors that may be impacted by the SD2 Project are described in this Chapter and include:

- The local communities of Sangachal Town, Umid, Masiv 3 and Azim Kend;
- Recreational, small-scale and artisanal fishermen, commercial fishermen and recreational users of the shoreline;
- Users of regional road infrastructure;
- Local, regional and national businesses and their staff (including the contractors and workers at construction yard operations); and
- Owners and the crew of vessels engaged in commercial shipping operations and local government authorities responsible for regulating such activities.

Where relevant, information is presented at the following geographical levels:

- **National** - relevant to the Republic of Azerbaijan;
- **District** - relevant to the Garadagh District; and
- **Local** - relevant to local communities living in the vicinity of Sangachal Terminal (ST) which are: Sangachal Town, Umid, Azim Kend and Masiv 3.

7.2 Data Sources

Socio-economic data presented in this Chapter have been taken from the following primary and secondary sources:

- **Primary data** - collected during the Stakeholder and Socio-economic Survey (SSES) (undertaken in 2011); and
- **Secondary data** - collected from recognised institutions including the United Nations, International Monetary Fund, Statistical Committee of the Republic of Azerbaijan and the Garadagh ExComm (Table 7.1).

Table 7.1 Relevant Data Sources

| Date | Title of Document/Survey |
|------|---|
| 2006 | ACQUIRE, Reproductive Health & Services in Azerbaijan 2005: Results of a Baseline Survey in Five Districts, E&R Study #6 |
| 2006 | USAID, Country Profile |
| 2007 | UNDP, Gender Attitudes in Azerbaijan: Trends and Challenges, Azerbaijan Human Development Report |
| 2007 | USAID, Country Health Statistical Report Azerbaijan |
| 2008 | International Monetary Fund, Republic of Azerbaijan: Statistical Appendix 2007 |
| 2008 | State Statistical Committee of the Republic of Azerbaijan, Demographic & Health Survey 2006 |
| 2009 | Garadagh Cement Project New Dry Kiln 6 ESIA 2009 |
| 2009 | Gizildash (Qizildas) Cement Factory ESIA, NORM, 2009 |
| 2010 | United Nations Azerbaijan, United Nations Development Assistance Framework 2011-2015 |
| 2010 | AIOC Chirag Oil Project ESIA, 2010 |
| 2010 | International Crisis Group (ICG) Global 2010 Report |
| 2010 | State Statistical Committee of the Republic of Azerbaijan, Socio-economic Development of the Settlements of Baku City |
| 2010 | ICG, Azerbaijan: Vulnerable Stability Europe Report No.27 |
| 2010 | Agents of Change: Reflections on a working partnership between BP Azerbaijan and the International Institute for Environment and Development (IIED) |
| 2011 | Data provided to BP from Garadagh ExComm |
| 2011 | SD2 Project Stakeholder and Socio-Economic Survey (SSES) |

The majority of population and demographic data is provided by the State Statistical Committee of the Republic of Azerbaijan. At the time of preparing the ESIA chapter, 2011 and 2012 statistical data was not always available and in some cases 2010 data has been used.

7.2.1 Stakeholder and Socio-Economic Survey

The SSES addressed three critical gaps in BP's knowledge base in relation to stakeholder relations and socio-economic conditions in the region, and in communities surrounding the Terminal. The data gaps were:

- **Stakeholder information:** The limited information on stakeholder groups' focus areas and activities; operational capacities and resources; and future opportunities for partnership, organisational and capacity development;
- **Socio-economic data:** The lack of quantitative data on local area household composition; housing conditions; household income; expenditure and assets; land ownership and production; economic activities; health; education and other social services; and social organisation; and
- **Attitudinal data:** The limited data on local communities' attitudes and perceptions in relation to industrial operations in the area; BP's community relations and community investment programmes (CIPs); and critical development needs and priorities.

The SSES applied a mixture of quantitative and qualitative data collection methodologies and collected data from a wide range of sources to inform the socio-economic baseline characterisation presented in this Chapter. The SSES involved the following:

- A review of secondary data using official sources, authoritative donor, institutional and academic reports and previous ESIA's prepared for BP and other regional industrial developments;
- 63 semi-structured interviews with key stakeholders representing regional government, business and community interests;
- 200 household surveys conducted in the four local communities: 100 in Sangachal Town, 50 in Umid, 25 in Masiv 3 and 25 in Azim Kend. The household surveys enabled an in-depth evaluation of socio-economic and household conditions within the area to be made, and collected quantitative and attitudinal data on 1,026 household members;
- 12 structured focus group discussions, including meetings with general population, women and youth groups in each of the four local communities. Overall, 141 people participated in the focus groups; 58% were female, 21% had Internally Displaced

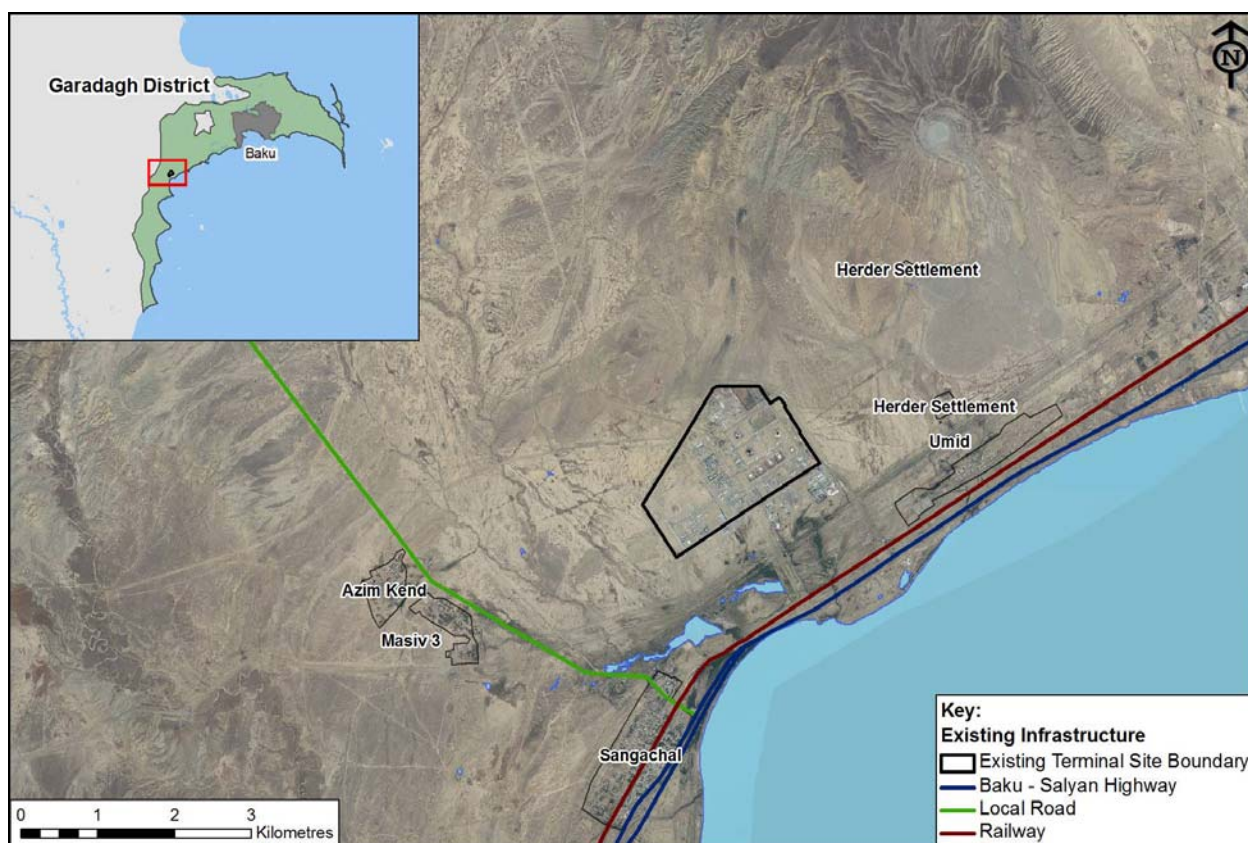
- Person (IDP) status, 85% had lived in their community for 11 years or more; more than half were unemployed; and
- Site walkover surveys to informally investigate the current status of two herder settlements, and fishing activities occurring in the coastal area between Sangachal Town and Umid.

The findings from the SSES are currently being used by BP to monitor socio-economic impacts associated with BP's current operations and in the design and implementation of BP's CIPs.

7.3 Geographic Context

The SD2 Project is located adjacent to the Sangachal Terminal and lies within the Garadagh District, which includes Baku and then extends south along the Caspian coast to the south of Alyat. The Garadagh District was established in 1923 and comprises five city settlements including Lokbatan which is the District's administrative centre. The four communities in the immediate vicinity of the Terminal (Sangachal Town, Umid, Masiv 3 and Azim Kend), are likely to be the most directly affected by the socio-economic impacts of the SD2 Project, although increased traffic, employment and procurement will affect a larger area. The extent of the Garadagh District and the position of the four local communities in relation to the Terminal are shown in Figure 7.1.

Figure 7.1 Garadagh District, the Terminal and Surrounding Communities



The Garadagh District Executive Committee (Garadagh ExComm) is the authority responsible for administration within the District¹. Garadagh ExComm manages the Garadagh District's education, culture, and public health and sports institutions. Sangachal Town and Umid are both municipalities and administer their own service provision in relation to housing, roads, electricity, water, sanitation, waste collection, heating infrastructure and gas supply. The community of Masiv 3 falls under the municipality of Sangachal Town. Whilst Azim Kend falls

¹ ERM (2009) Garadagh Cement Project New Dry Kiln 6: ESIA.

under the adjacent Absheron District, residents typically use public infrastructure and services in Sangachal Town. Data from Garadagh ExComm has therefore been used exclusively to compare (benchmark) local socio-economic conditions.

The four communities in the vicinity of the Terminal are located in a predominately rural setting of Garadagh District. The area is becoming increasingly industrialised, however, due to the availability of land and fast access to major transport infrastructure provided by the Baku-Salyan Highway and adjacent railway. Economically-induced internal migration flows identified by the SSES indicated that 45% of surveyed households within the four communities had moved to their present location to seek more favourable economic conditions.

7.4 Socio-Economic Context

Expansion in the oil and natural gas sectors has led to rapid economic growth with the national economy increasing at an average rate of 13.3% between 2001 and 2011². This growth was at least partially driven by previous Azerbaijan International Operating Company (AIOC), BP and partners investments, which started in 1995, and construction of the Baku-Tbilisi-Ceyhan (BTC) pipeline and South Caucasus Gas Pipeline (SCP) which came on stream in 2006. In contrast, the manufacturing sector is small and most of the country's exports and sources of Government revenue are energy-based².

Annual inflation is currently 7.9% (October 2012) which has increased from 5.7% in 2010³. However, the headline inflation figures disguise some significant variations: for example, the annual increase in food prices recorded in September 2011 was 11.4%, which is likely to have had a significant impact on household welfare, while the cost of non-food items annually decreased by 2.8% and the cost of services annually fell by 4.5%.

There are a number of Government initiatives for economic diversification, including those supported by the World Bank (WB) Group's Country Partnership Strategy (CPS). Current focus areas of the CPS are to:

- Strengthen non-energy sectors by improving business environments, enhance infrastructure and investment in the agricultural sector; and
- Improve the effectiveness of social and community services such as health, education, social protection and water supply with the aim of enhancing human and social capital development.

Economic activities in the Garadagh District are dominated by the industrial sector, primarily oil and gas. There are approximately 180 registered companies, firms and co-operatives in the Garadagh District, including 15 foreign and joint venture companies.

7.5 General Profile of the Local Communities

The four communities in the vicinity of the Terminal are typical of rural Azerbaijan which is characterised by occasional clusters of IDPs, sub-standard local roads and limited public infrastructure and social services. A general profile of each community is provided below.

7.5.1 Sangachal Town

Sangachal Town was originally a location for workers of a small fishing plant linked to the Sangachal Railway station which operated from 1936. After World War II, two military units were stationed at Sangachal Town and a military camp was established for the servicemen's families. From the 1940s, the settlement rapidly grew as people migrated from other areas of Azerbaijan seeking employment and more favourable socio-economic conditions. Following the establishment of the Sangachal Terminal and expansion associated with Azeri Chirag Guneshli (ACG) Phases 1, 2 and 3, and Shah Deniz Stage 1 (SD1), the Sangachal Town

² eStandards Forum Country Brief (April 2011) Azerbaijan.

³ World Bank - Inflation and Consumer Price Indicators as Annual Percentage (2013).

population increased through continued in-migration. This has placed significant pressure on existing public infrastructure.

Sangachal Town is currently the largest community in the vicinity of the Terminal with an estimated population of 5,300⁴ and an average household size of 4.9 people. The estimated number of households is 1,081. Military personnel are provided with garrison accommodation and benefit from free utilities (gas and electricity). Military personnel now comprise a relatively small proportion (approximately 15%) of the local population. The main sources of employment are in private industry (including at the Terminal), private enterprise and employment in the public sector.

7.5.2 Umid

Umid has an estimated population of 2,000⁴, an estimated 370 households and an average household size of 5.4 people. Umid was established in 1999 as an IDP settlement, subsequently expanded with an influx of Garadagh Cement Plant workers and was awarded administrative status as a municipality in 2000. Similar to Sangachal Town, the recent expansion in population has strained existing public infrastructure and services. The main sources of employment are in private industry and the public sector.

7.5.3 Azim Kend and Masiv 3

Azim Kend is located in the Absheron District and is not an officially registered entity. It has an estimated population of 370⁴ and an average household size of 5.7 people, the highest of the four communities neighbouring the Terminal. The estimated number of households is 65. This community currently has no sewage infrastructure, although a piped potable water supply is available.

Masiv 3, part of the Sangachal municipality, has an estimated population of 280⁴, an average household composition size of 4.9 people. The estimated number of households is 57. Masiv 3 has the least developed community infrastructure, reflected in the lack of a piped water supply and sewage infrastructure.

It is planned to combine these two settlements into one entity to be named 'Jingirdag' settlement in the near future.

7.6 Overview of Onshore Socio-Economic Conditions

7.6.1 Population, Demographic Structure and Ethnicity

In 2011, the population of Azerbaijan was 9,111,100 with a gender distribution of 49.6% male and 50.4% female⁵. The proportion of the population resident in urban areas has remained relatively constant at around 50% over the past 20 years. There are some indications, however, that the population of urban areas may be under-recorded as many people who move to Baku for employment on a temporary or permanent basis may retain their registration in their place of origin. Authoritative sources have suggested that the greater Baku metropolitan area may be home to approximately three million people, or 35% of the national population⁶.

The national age profile and balance between rural and urban populations is shown in Table 7.2. The dependency ratio (the proportion of the population which is not in economically active age groups relative to that which is in economically active age groups), is higher in rural areas (33%) than in urban areas (29%)⁶.

⁴ Garadagh ExComm (2011)

⁵ State Statistical Committee of the Republic of Azerbaijan (2011).

⁶ United Nations Development Programme (UNDP) Azerbaijan (2007). Converting Black Gold into Human Gold: Using oil Revenues to Achieve Sustainable Development.

Table 7.2 National Age Profile, Urban and Rural, 2010

| Age Range | Total | | Urban | | Rural | |
|-------------------|--------|------|--------|------|--------|------|
| | ('000) | % | ('000) | % | ('000) | % |
| 0-14 years | 1987.9 | 22% | 964.7 | 20% | 1023.2 | 25% |
| 15-24 years | 1839.8 | 20% | 977.3 | 20% | 862.5 | 21% |
| 25-49 years | 3458.1 | 38% | 1903.7 | 39% | 1554.4 | 37% |
| 50-69 years | 1275.7 | 14% | 792.4 | 16% | 483.3 | 12% |
| 70 years and over | 435.9 | 6% | 228.5 | 5% | 207.4 | 5% |
| Total | 8997.4 | 100% | 4866.6 | 100% | 4130.8 | 100% |

Azerbaijan is characterised by a relatively high birth rate, a population structure dominated by young people, and active (external and internal) migration flows. Between 2004 and 2010, birth rates and the natural fertility rate increased in parallel with a decline in maternal and infant mortality rates⁷. By 2011, average life expectancy was 73.6 years (70.9 years for men and 76.2 years for women) which reflected a significant, positive change since 1990 when average life expectancy was 71.1 years (67.0 for men and 74.8 years for women). Migration patterns have changed from a 20-year period of net outward migration between 1970 and 2007, to a net increase in immigration, which in 2011 was 1,700 persons.

The population of the Garadagh District increased by 10% between 2005 and 2010, although this increase may in fact be higher, given possible under-reporting of residencies in Baku (Table 7.3⁸). This is due to a moderate increase in net-migration, a significant increase in the number of births (31% higher in 2010 compared with 2005) and a correspondingly smaller increase in the number of deaths (5%). The SSES indicated that the population of the four target communities was significantly younger than the national average.

Table 7.3 District Population, In-Migration, Death and Fertility Rates, 2005-2010

| | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 |
|--------------------------|---------|---------|---------|---------|---------|---------|
| Estimated Population | 100,300 | 101,500 | 103,300 | 105,100 | 106,900 | 109,400 |
| Registered net migration | 82 | 59 | 34 | 116 | 50 | 85 |
| Number of Deaths | 539 | 574 | 618 | 520 | 545 | 563 |
| Number of Births | 1,839 | 2,346 | 2,323 | 2,313 | 2,251 | 2,410 |
| Birth rate Male (%) | 54 | 53 | 55 | 55 | 54 | 56 |
| Birth rate Female (%) | 46 | 47 | 45 | 45 | 46 | 44 |

The national gender ratio for 2011 births was estimated to be 1.116 which equates to a balance of 54% males to 46% females⁷. After the collapse of the Soviet Union, there was an upsurge in the ratio of boys to girls in Azerbaijan and sex ratios have become increasingly unbalanced in the country⁹. The data for Garadagh District indicates that the gender ratio in 2009 was identical to the national picture, with the gender imbalance increasing further in 2011 with 56% males to 44% females.

In the early 1990s, IDPs were displaced as a result of the conflict with Armenia within the Nagorno Karabakh region of Azerbaijan, which ended with a ceasefire in 1994. It is estimated that there were in 2010 a total of 10,487 IDPs living in Garadagh District⁸. In addition there were 2,400 refugees (i.e. people who had been displaced from areas outside Azerbaijan, generally from Armenia, during the conflict) present in 2010. The number of IDPs in Garadagh District has not changed significantly since 2006 and in 2010 represented approximately 10% of the District population; this is typical of other districts in Azerbaijan.

⁷ State Statistical Committee of the Republic of Azerbaijan (2010).

⁸ Garadagh Executive Power (2011).

⁹ The Economist: The worldwide war on baby girls (2011).

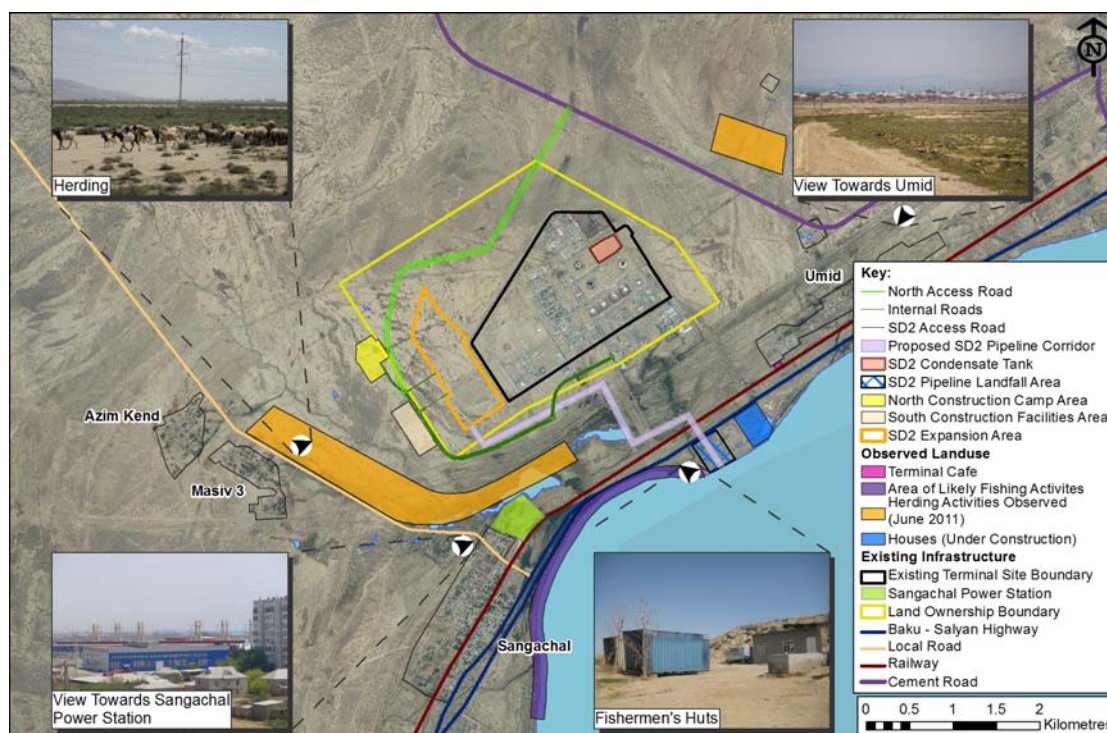
Based on the 2009 census¹⁰ (which provides the latest data available), the majority of the national population (91.6%) is ethnically 'Azerbaijani', with the remaining 8% made up of a range of ethnic groups including: 'Lesgis', 'Armenians', 'Russians', 'Talış', 'Avars', 'Turks', 'Tatars', 'Tats', and 'Ukrainians'.

The religious distribution in Azerbaijan is relatively homogenous, with the majority of the population defined as Muslim. Other religions include Orthodox Christianity, Judaism, Catholicism and Protestantism.

7.6.2 Land Use and Ownership

Land use within the vicinity of the Terminal is dominated by the four local communities, the Baku-Salyan Highway, the railway, the presence of industrial facilities and two herder settlements located to the northeast of the Terminal (refer to Figure 7.2). Open land is generally used for animal herding activities (primarily cattle, goats and sheep) and local roads are mostly unsealed. A distinct wetland area is present near the highway and railway line, south of the Terminal. Along the shoreline area between Sangachal Town and Umid, recreational and commercial fishing activities occur, along with informal use such as recreational walking.

Figure 7.2 Land Use Within the Vicinity of the Terminal



There are significant differences in land ownership and agricultural production between the communities, with 8% of households in Sangachal Town owning a plot of land, compared with 96% in Azim Kend. The majority of households (65%) who have land do not use it for any economic activity. Where households do use their land, 19% keep poultry and 16% keep both livestock and poultry. The main restrictions associated with expanding agricultural activities relate to the presence of poor quality soil and a lack of available land and difficulties associated with installing and maintaining irrigation networks. There are also differences in the density of housing, with Sangachal Town featuring a higher density (with the presence of apartment buildings) than the other three local communities.

Between the coastline and highway to the east of the Pipeline Landfall Area, approximately seven holiday homes are under construction. The majority of the construction sites comprise

¹⁰ State Statistical Committee of the Republic of Azerbaijan (2011).

one, or more, buildings that are partially complete and some that are without roofs or finished walls.

Under the terms of the SD2 Production Sharing Agreement (PSA), the State Oil Company of Azerbaijan Republic (SOCAR) is responsible for land acquisition in connection with ST. Permanent land acquisition associated with the ST Expansion and access road is discussed within the SD2 Infrastructure Project ESIA. In addition, temporary access will be required to an area of approximately 40 hectares along the onshore section of the SD2 pipeline corridor, which, according to data from the Baku Mayor's office, is state land. The Land Acquisition and Access Programme for both the SD2 Early Infrastructure Works (EIW) and the main SD2 Project will be executed in line with relevant PSA requirements and in close coordination with Baku Executive Authorities (via SOCAR).

7.6.3 Infrastructure

7.6.3.1 Road Transport

In some areas across Azerbaijan, local roads are in a poor physical condition. The Baku-Salyan Highway is however, well-maintained and provides a rapid link from Baku to Astara, Iran. Existing traffic flows along the highway are estimated to be from 10,000 to 20,000 vehicles per day¹¹.

The local roads within the four communities are generally graded and in poor condition. Following heavy rain, local roads typically become impassable. The construction and repair of regional and inter-settlement roads are included in the: *State Programme on Socio-Economic Development of Baku City and its Settlements 2011-2013*¹² (hereafter referred to as the “*Baku City Programme*”). However, the exact scope of the planned construction and repair activities, and whether they include any local roads within the communities near to the Terminal, is unclear.

Data gathered by the SSES indicates that the majority of residents interviewed in Azim Kend and Masiv 3 (88% and 64%, respectively) considers the condition of local access roads as ‘poor’. Roads connecting the communities of Sangachal Town and Umid were perceived more favourably by local residents with 75% and 62%, respectively, considering road conditions to be ‘good’.

7.6.3.2 Public Transport

There are several bus routes that provide public transport between the local communities and regional centres. With the exception of Sangachal Town, there are no direct bus services to Baku. The Baku to Hajigabul passenger train stops twice per day (9am and 4.30pm) at the Sangachal Train Station.

Data gathered by the SSES indicates that the condition of existing public transport was perceived to be ‘poor’ with the exception of Umid which was rated as ‘excellent’ (62%); this may reflect extensive use of bus transport. The main problem associated with public buses was reported to be overcrowding, as buses do not always stop as they are already full.

7.6.4 Local Utilities

7.6.4.1 Access to Electricity, Gas and Telecommunications

Data collected by the SSES indicates that all households surveyed have access to electricity 24 hours a day. However, access to a main gas supply varies with the following levels reported: Sangachal Town (100%); Umid (98%); Masiv 3 (80%); and Azim Kend (8%).

¹¹ Azerbaijan Highway Authority (2010). Per comms, Head of the Technical Division.

¹² Approved by the Decree No 1940 dated 4 May, 2011 by the President of the Republic of Azerbaijan.

Under the *Baku City Programme*, construction of a piped gas supply is planned in Azim Kend for 2011-2013.

Telecommunications are available within all the communities. This is above the 2010 national household level of 69% and telecommunication infrastructure is scheduled to be upgraded further in Umid during 2012-2013 as part of the *Baku City Programme*.

7.6.4.2 Potable Water and Sanitation

Nationally, there have been a number of recent initiatives to improve water supply and sanitation infrastructure. A World Bank loan of US \$230 million was approved in June 2007¹³ to build on the Greater Baku Water Supply Project and continue the Bank's long-term support of improvement in the water and sanitation sector. The project focuses on the rehabilitation of water supply and sanitation facilities in urban areas of the country. The project also supports key reforms to modernise sector institutions in order to improve their capacity, institutional and operational effectiveness, and commercial and financial viability.

Table 7.4 shows the current sources of potable water supply in the four communities.

Table 7.4 Source of Potable Water in the Communities within the Terminal Vicinity

| Source of Potable Water | Sangachal Town | Umid | Azim Kend | Masiv 3 |
|--|----------------|------|-----------|---------|
| Water available inside the house | 76% | 52% | 0% | 12% |
| Water available from a distribution point in the yard | 24% | 48% | 88% | 72% |
| Water available from elsewhere (neighbour or other location) | 0% | 0% | 8% | 4% |
| Water purchased in containers from vendors | 0% | 0% | 4% | 12% |

Potable water is piped directly to all the local communities and is available either from inside the home, or from the yard. However, some households in Masiv 3 (12%) are forced, due to a lack of a household connection, to purchase potable water from vendors who use horse and carts. These households are part of the 1% of households in the Garadagh District in 2011¹⁴ that do not have access to improved drinking water sources¹⁵. This is reflected in the outcomes of the SSES, in which 68% of respondents in Masiv 3 reported that the reliability of their water supply was 'poor'. In contrast, respondents in Sangachal Town, Umid and, to a lesser degree Azim Kend, considered the reliability of their water supply to be at least 'satisfactory'.

There are long-standing issues associated with the low water pressure of the regional supply network, with some households (particularly in Sangachal Town and Umid) forced to use pumps to increase water pressures.

In terms of water quality, the SSES reported the highest levels of satisfaction with water quality in Azim Kend, where nearly half of all respondents reported that their water quality was 'good'. Between 24% and 36% of respondents in all local communities, however, reported that their water quality was 'poor'.

The proportion of households at a national level with access to a sewage network has steadily increased from 86% in 2002 to 95% in 2010. Within Garadagh District, the percentage of the population who have access to improved sanitation facilities¹⁶ increased from 55% in 2002, to 80% in 2010¹⁵ indicating it has historically been below the national level. In Sangachal Town

¹³ World Bank Loan ID P096213 (June 2007).

¹⁴ Garadagh Executive Power (2011).

¹⁵ Defined by the UN as a household connection, public standpipe, borehole, protected dug well, protected spring, or rainwater collection system.

¹⁶ Defined by the UN to comprise flush/pour flush toilets or latrines connected to a sewer; septic tank; or improved pit latrines.

enclosed drainage channels transport sewage to a central collection point near to the Caspian Sea where it is subsequently discharged without treatment. There is no sewage infrastructure at Azim Kend or Masiv 3: sewage is either manually placed into open ditches, or discharged directly into local streets. Existing municipal waste disposal arrangements are also particularly poor in these two communities.

7.6.5 Youth and General Recreational Facilities

There are few youth and recreational facilities available within the four communities. BP and partners previously funded the rehabilitation of a sports facility for Secondary School No. 222 in Sangachal Town which was completed in February 2004; this is currently maintained in excellent condition. Under the *Baku City Programme*, a mini-football stadium and gym in Sangachal Town is planned for 2012-2013. There are no planned developments for recreational facilities within any of the other settlements.

7.6.6 Education and Training

The Azerbaijan education law guarantees the right to education for all its citizens irrespective of race, nationality or gender.

The majority of school age children and teenagers in the Garadagh District attend school, or undertake vocational training/education¹⁷. Approximately 23,500 children and students study at 22 secondary schools and 3,400 children and students study at five specialist schools. There are 24 primary schools in the Garadagh District and one boarding school with 370 pupils¹⁸. A total of 28 students from Sangachal Town and 10 students in Umid are studying in higher educational institutions in Baku.

The schools and kindergartens in the vicinity of the Terminal include:

- Sangachal Town: one secondary school (No. 222), two kindergartens (No. 299 and 20);
- Umid: one secondary school (No. 294); and
- Masiv 3 and Azim Kend: one secondary school which serves both communities (the Absheron Aligulugishlag Secondary School).

Data on the ratio of teachers per 10,000 pupils indicate that the education system in Sangachal and Umid (both 153/10,000) is significantly below the 2011 average across Garadagh District of 194/10,000¹⁹. Average school attendance at Sangachal and Umid is 98%, the same level for the Garadagh District. There are no designated transport arrangements provided to schoolchildren and the poor condition of local roads reportedly reduces school attendance during winter months, especially at Azim Kend secondary school.

Residents surveyed at all four communities placed a high priority on the quality of education provided to their children, indicating that there is strong parental support for school attendance and, potentially, further education if the financial means were available. Kindergarten attendance was low, however, despite 57% of respondents stating that they would like their child to attend.

The secondary school in Sangachal Town completes two shifts of pupils a day due to limited classroom capacity. This school is due to be expanded by 20 new classrooms under the *Baku City Programme*. The secondary school at Umid will also be expanded by 10 classrooms and Kindergarten No. 299 is to be renovated and fitted with new heating systems by 2013.

The gender distribution of secondary school attendance in the Garadagh District for 2010 is 55% female; this is greater than the 2008 national level of 48% female¹⁹. There were no significant differences reported during the SSES in the proportion of males and females attending school within the four communities, or in the highest levels of education achieved.

¹⁷ Asian Development Bank (2009) Garadagh Cement Project New Dry Kiln 6: ESIA

¹⁸ Garadagh Executive Power (2011).

7.6.7 Health

Azerbaijan has high child mortality rates when compared with other countries in Eastern Europe and the Former Soviet Union,¹⁹ although this gradually improved between 2000 and 2010. The healthcare system was inherited from Soviet times and is gradually being rebuilt from a generally low level of provision, in terms of access and quality. Private healthcare is available in Azerbaijan although is generally prohibitively expensive to the majority of the population.

At a national level, infant mortality has reduced from 16.4 per 1,000 live births in 2000, down to 11.2 per 1,000 live births in 2010²⁰. At a district level, infant mortality in 2010 was 5.2 per 1,000 live births which is significantly below the national level²¹.

Recent research conducted by Habibov (2011) on the socio-economic determinants of child mortality in Azerbaijan, identified significant regional disparities in the level of utilisation, timing and quality of antenatal care provided to women. The differences were due to the extent of female education and also their socio-economic status.

All residents in the Garadagh District have access to free medical facilities, although specialised diagnostic services and treatment require payment which can be prohibitively expensive. Medical facilities available in the Garadagh District include²²:

- Seven public hospitals;
- Two General Practitioner (GP) clinics;
- Two emergency medical stations, operating eleven ambulances; and
- Seven first aid posts.

In relation to healthcare staffing, in 2011 there were a total of 381 doctors and 915 paramedic staff working in the medical institutions throughout the Garadagh District. This equates to 34.5 doctors and 82.9 other medical staff per 10,000 people²² which is slightly above the 2010 national average.

The level of access to healthcare resources at a local level is generally low and features prohibitively high cost of medicines. Healthcare resources, which are available in Sangachal Town and Umid, are also used by residents of Azim Kend and Masiv 3, and comprise²²:

- Sangachal Town: An outpatient department (No. 23) of Baku City Hospital and an emergency station (No. 20) with one ambulance based in Sangachal Town; and
- Umid: A medical station (No. 23) of Baku City Hospital (No. 20), a pharmacy and a new medical station which is not yet open.

More than 60% of householders surveyed by the SSES felt that their health had recently deteriorated, with only 28% reporting no change in health status and 8% reporting an improvement. The reasons associated with the negative change in health were perceived to be air pollution and poor nutrition intake levels (90% of surveyed households believed that their current nutritional intake levels were inadequate).

The most frequently reported health problems experienced in the four weeks prior to the SSES survey in June 2011 included respiratory, gastrointestinal, cardiological and nervous system disorders. These were similar to the health problems presented more generally in Garadagh District and nationally. In 2010, the most frequent healthcare problems in Azerbaijan were disorders of the respiratory, circulatory (hypertension) and digestive systems²¹.

¹⁹ Habibov, N.N (2011) On the socio-economic determinants of antenatal care utilization in Azerbaijan: evidence and policy implications for reforms. 2011 Apr;6(2):175-203.

²⁰ State Statistical Committee of the Republic of Azerbaijan (2010).

²¹ Garadagh ExComm (2011).

²² Asian Development Bank (2009) Garadagh Cement Project New Dry Kiln 6: ESIA.

There is a lack of healthcare resources available at a local level to provide reproductive health and maternal health services to women. The nearest state hospital is located in Sahil which has a maternity delivery ward, but does not currently provide antenatal care. A specialised maternity hospital is based in Lokbatan, a 30-40 minute drive from Sangachal Town. Data from the SSES, however, indicate that 87% of women who had recently given birth had received some antenatal care and 75% had given birth in a state hospital. Post-natal care is provided through the activities of regional outpatient clinics.

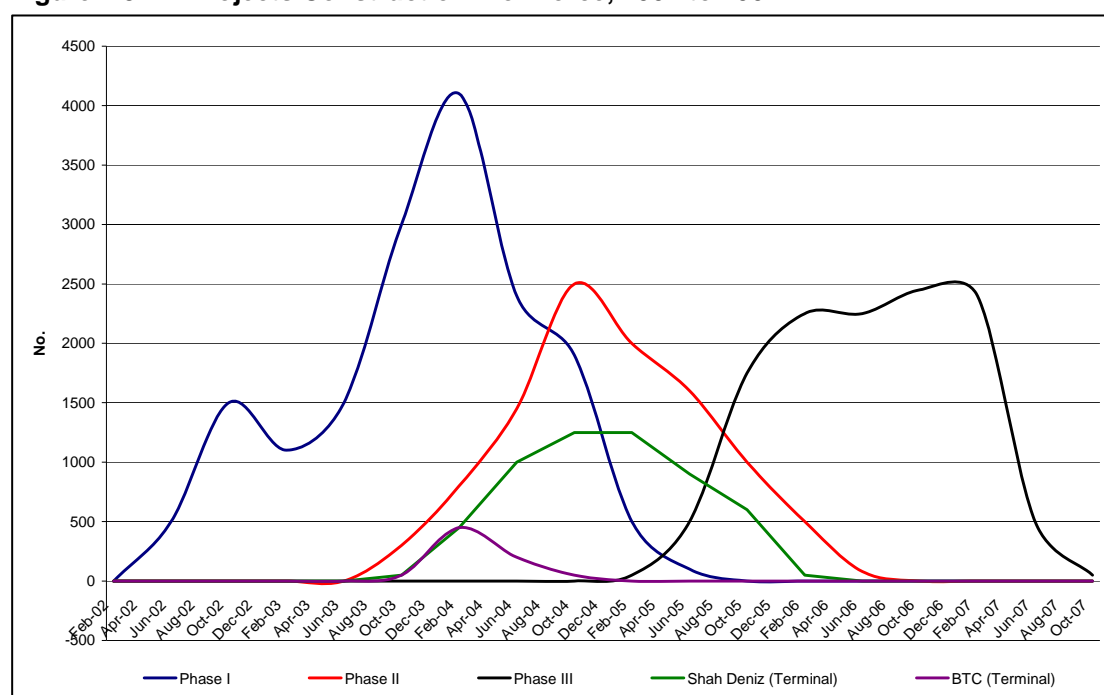
7.6.8 Employment, Unemployment and Livelihoods

7.6.8.1 Previous BP Projects Employment

Historically, BP projects (construction and operations) have had a significant impact on local and regional employment levels²³. Total construction employment from combined projects peaked at approximately 5,500 workers in mid-2004. Total employment for the ACG Phase 3 project peaked during 2006 with 2,500 jobs (onshore and offshore construction)²⁴. Following completion of these previous projects, there has been a significant increase in unemployment. Individuals surveyed by the SSES who had previously worked on BP contracts consistently reported positive experiences, particularly in terms of increasing their household income, developing their skills and improving future career prospects.

Figure 7.3 illustrates the construction workforce for ACG Phase 1, 2 and 3, SD1 (Terminal only) and BTC (Terminal only) projects.

Figure 7.3 BP Projects Construction Workforce, 2002 to 2007



To maximise positive impacts from employment, the ACG Phase 1, 2 and 3, SD1 and BTC construction projects adopted the following measures:

- **Targets:** BP was contractually committed to specific national content targets through each of the projects. By September 2003, 85% of the construction workforce was Azerbaijani;

²³ BP Azerbaijan Sustainability Reports (2006 – 2007).

²⁴ As reported by the ACG Phase 1-3 construction contractors (2007).

- **Preference in Recruitment:** BP recruitment policy gave priority to local residents in the Garadagh District and by September 2003, 53% of the construction workforce was from the Garadagh District;
- **Information Centres:** Local community information centres were established in Sangachal Town, Umid and Sahil to enable local people to register for employment and the centres developed a database of approximately 18,000 potential employees by September 2003; and
- **Training:** Extensive training programmes were implemented both prior to and during employment of the construction workforce. Training focused on Health, Safety and Environment (HSE), language and computer skills, driving and certified courses including painting, lifting, scaffolding and welding. In one yard alone more than 270,000 training hours of HSE training; more than 244,000 hours of craft training; and nearly 28,000 hours training in management, administration and computing skills were provided. Approximately 1,200 externally recognised qualifications were awarded to the yard's workforce during the period.

It is possible that many of the workforce employed and trained in the ACG Phase 1, 2 and 3, SD1 and BTC construction projects, are now employed elsewhere in Azerbaijan and abroad. Anecdotal evidence suggests that many have used their skills and experience to gain employment in State-run construction yards, in the Baku construction industry, the oil and gas sector in Kazakhstan and elsewhere. This represents a significant benefit in terms of increasing technical skills and experience within the Azerbaijani workforce.

National Level

The effective use of labour resources remains a serious problem in Azerbaijan which has relatively high internal flows of workers seeking employment, and particularly high levels of youth unemployment. For example, unemployment in rural areas in 2012 within the age group of 15-19 years was recorded to be 27.3% amongst men and 18.2% amongst women²⁵. Informal employment (individuals working without contracts that describe the applicable pay and conditions) is widespread in Azerbaijan and the State is currently taking active steps to legalise unofficial labour relations. Nationally, the unemployment rate declined from 8.4% in 2004 to 6.1% in 2010²⁶.

Regional Level

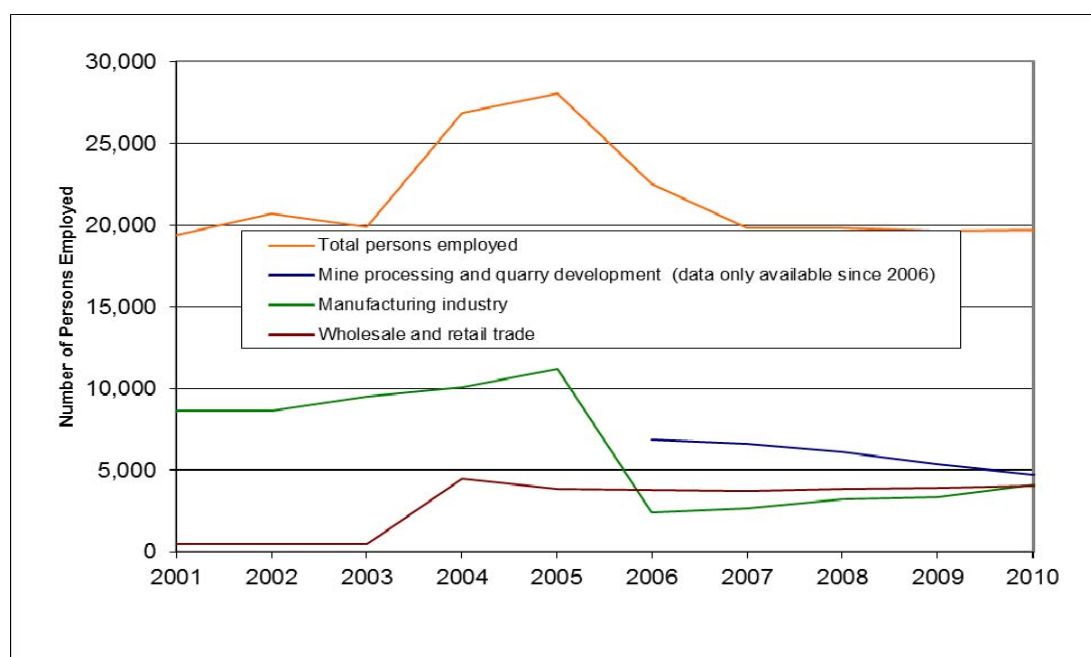
The total number of persons employed in Garadagh District and employment levels within the three largest industries is illustrated in Figure 7.4²⁷.

²⁵ The State Statistical Committee of the Republic of Azerbaijan (2013).

²⁶ State Statistical Committee of the Republic of Azerbaijan (2010).

²⁷ Garadagh ExComm (2011).

Figure 7.4 Type of Employment within the Garadagh District



The figures indicate that the total number of people employed in Garadagh District peaked from 2004 to 2006. This coincided with the peak of BP-related employment in Figure 7.3 and reflects the importance of BP's activities in the region. The number of people employed within the manufacturing industry fell dramatically after 2005, and has since slowly recovered. The numbers employed by fishing and agriculture are very low and have not changed significantly in the past five years. Data obtained from Garadagh ExComm in 2008 indicated that the total number of unemployed persons in the Garadagh region was 400.

Since 2008, it is likely that the employment situation at a regional level has changed significantly as a result of the development of various industrial developments and retail centres (refer to Section 7.8).

Local Level

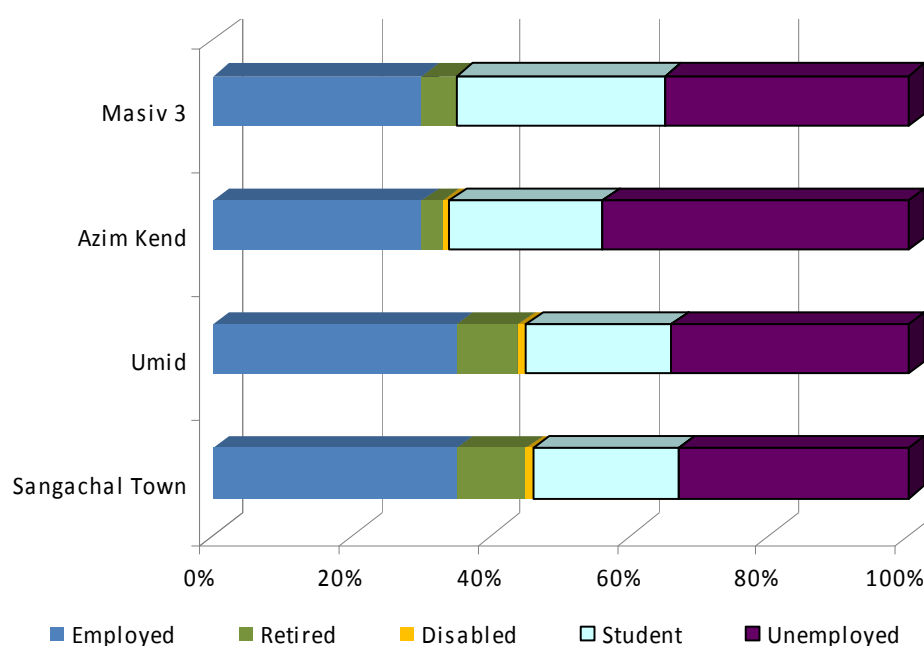
The SSES collected data on employment and livelihood status of household members. In general, the rural location of the four communities provides few employment opportunities to either men or women, which may be exacerbated by limited public transport which reduces access to job markets elsewhere.

The status of employed people varied significantly between the communities: Sangachal Town had the greatest proportion of state employees (59%), followed by Azim Kend (48%) and Masiv 3 (44%). Given that the majority of state employees had completed general secondary and secondary vocational education, there was a clear link between education and employment status. The second largest employment sector in Sangachal Town and Umid was the private sector (17% of those in employment), including the oil and gas sector (10% of employment), services (5%) and livestock raising (2%).

The SSES results indicate that the majority (57%) of people in employment are employed within their community and a further 18% are employed in Sahil. Fewer than 1% were employed in Baku. Only 3% of surveyed household members were currently employed by BP.

The SSES collected unemployment data among surveyed household members in each of the four local communities. These are presented in Figure 7.5.

Figure 7.5 Employment Status of Each Community



The data indicates that unemployment is considerably greater locally than reported at national levels (6% for 2010) and highest at 44% in Azim Kend, reaching 60% within the 18-29 year age group. Unemployment is also higher among women. The result of such high unemployment is that many households do not receive a regular income through paid employment.

There are no significant differences in unemployment levels between households with IDP status and non-IDP households, indicating that the reasons behind high unemployment levels are shared equally among the local population.

There is a strong and consistent expectation that BP should provide local residents with jobs preferentially, to address the lack of jobs locally available.

The SSES suggested a wide range of factors contributing to unemployment in the Survey area. These included:

- A lack of job vacancies in the immediate area of the four communities and limited public transport to enable access to regional job markets; and
- Low level of skills, experience and qualifications among job seekers.

Those who were unemployed reported that they had been out of employment for periods from six months to 15 years. Structural unemployment occurs where the skill-base of labour available locally does not match the local demand for labour, resulting in jobs being filled by individuals located elsewhere. Structural unemployment was mentioned during stakeholder interviews. Local industrial enterprises indicated that they often had to recruit from the broader regional area, as local people did not have the necessary skills to fill the advertised vacancies.

7.6.8.2 Local Livelihoods

Local livelihoods include herding and artisanal fishing. There has been a 22% reduction in the number of registered small farms from 2005 to 2010²⁸. In contrast, the number of cattle increased by 21% in the same period. Reasons for this change are not clear, and may reflect

²⁸ Garadagh ExComm (2011).

a trend by small farms to focus their efforts on producing milk and meat, combined with a general increase in the price of meat which is occurring at a national and global level.

The results of a site walkover survey at the two herder settlements located to the north east of the Terminal revealed the following:

- Herder Settlement 1 is characterised by empty buildings, some of which are occupied during the winter grazing period by a single family. At the time of the survey, they had moved to summer grazing lands to the north. This family were historically resettled by BP within the Terminal vicinity during the previous ACG Phase 1; and
- Herder Settlement 2 is characterised by a number of buildings, some of which are occupied by a family of seven. This family have been granted legal rights to five hectares of surrounding land by the Baku City Executive Committee.

Photos from the two herder settlements (refer to Figure 7.6) indicate buildings (left, from Herder Settlement 1) some of which are in a poor state of repair. A two-storey house is currently under construction (right, Herder Settlement 2).

Figure 7.6 Photos of Herder Settlements



A site walkover was also undertaken along the shoreline area between Sangachal Town and Umid to investigate the status of artisanal fishing activities²⁹. The key findings were:

- Fishing activities (both commercial and recreational) were observed on the shoreline to the south of the Terminal and Sangachal Town;
- Approximately 20-30 people are involved in artisanal fishing using small vessels fitted with outboard motors. Some fishermen have a contract with two public companies (Caspian Fish and a Fish-breeding Plant in Sahil) and fishing is their primary source of income. Fish are also, on occasion, sold to local markets;
- Fishing huts and gear were observed along the beach area; and
- Fishing activities tend to decrease during the winter period when weather conditions are less favourable.

Although there appeared to be evidence of some fishing activities in the beach area at the time of the SSES survey, more recent reports suggest that the fishing huts in the area are not currently being used³⁰. Further investigation may be required to assess whether livelihood activities are in fact being conducted in this area.

²⁹ Artisan fishing refers to any kind of small-scale, low-technology, commercial or subsistence fishing practices using traditional techniques such as rod and tackle, throw nets and drag nets, and traditionally designed fishing boats. Artisan fishing contrasts with large-scale modern commercial fishing practices in that it is typically less intensive and less stressful on fish populations.

³⁰ W Boulton, pers comm. (2013).

7.6.9 Gender Equality

Across Azerbaijan, women enjoy the same legal rights as men although gender discrimination does occur, particularly in rural communities³¹. A 2008 UNICEF Report³² stated that early marriages were widespread in Azerbaijan and a bill is currently being passed through Parliament to strengthen legislation in this area. Work undertaken by UNICEF indicated that only 3% of girls subjected to early marriage subsequently continued their education, which prevented them from achieving their full economic and social potential.

There is low level of knowledge about women's reproductive health within rural areas of Azerbaijan, with many women not seeking assistance for health complaints which they perceive to be 'unimportant'³³. There are no designated women's health resources available within the four communities.

National statistical data³⁴ indicates that there are no significant differences in the gender balance for enrolment in primary or secondary education, given the unbalanced sex ratio. In 2009, the female share of the workforce was 45% in urban areas, and 42% in rural areas. The proportion of seats in Parliament held by women was 12% in 1995 and 11.2% in 2009. 2009 data indicates that there are no differences in the gender ratio of literacy rates or infant mortality.

The status of women in relation to their employment status, level of maximum education attained and participation in society was discussed during women's focus groups held in each community. There were no problems in seeking women to participate in the SSES focus groups from any of the communities, indicating that there are no cultural barriers to joining such events. The results of focus groups indicated that there are currently no organisations dedicated to the interests of women, and that many (80%) women would not know who to approach if their human rights were infringed by harassment or gender-based violence.

Within households surveyed during the SSES, males were more likely to be employed (79%) than women (19%) and this ratio was similar across all four communities. Women were also less likely to be interested in undertaking technical training (82%) compared with men (68%). While there is a general lack of job vacancies available locally, there are particularly few opportunities that are (perceived to be) suitable for women. A lack of available childcare facilities was also mentioned during the SSES to be a significant barrier in obtaining employment.

7.6.10 Living Conditions, Household Income and Expenditure

According to the World Bank (WB) 2010 Living Conditions Assessment Report³⁵ (LCAR) which uses 2008 data, Azerbaijan has experienced a substantial reduction in poverty and associated improvement in living conditions since 2000. National data³⁶ indicates that the percentage of the population below the national poverty line gradually decreased from 49% in 2001, to 11% in 2009, and decreased significantly faster in urban areas. However, there is evidence³⁸ to suggest that in 2009, poverty increased by 1% due to the consequences of the global financial crisis.

The reduction in poverty is linked to strong economic growth and implementation of pro-poor growth and poverty reduction policies that have improved the distribution of wealth. Such policies are outlined in the *State Program on Poverty Reduction and Sustainable Development in the Republic of Azerbaijan for 2008-2015*. Policy changes have included an increase in monthly minimum wages from 75 manat (AZN) (2008) to 85 AZN (2011). The Ministry of Labour and Social Protection is expected in 2013, to introduce a minimum monthly wage that will vary depending upon the economic sector of employment.

³¹ (2007) U.S. Department of State Country Report on Human Rights Practices: Azerbaijan.

³² (2008) United Nations Children's Fund (UNICEF) Report: Education in Azerbaijan.

³³ UNPFA (2011). Supporting Young People in Azerbaijan.

³⁴ State Statistical Committee of the Republic of Azerbaijan (2010).

³⁵ World Bank (2010). Azerbaijan: Living Conditions Assessment Report. Report No. 52801-AZ.

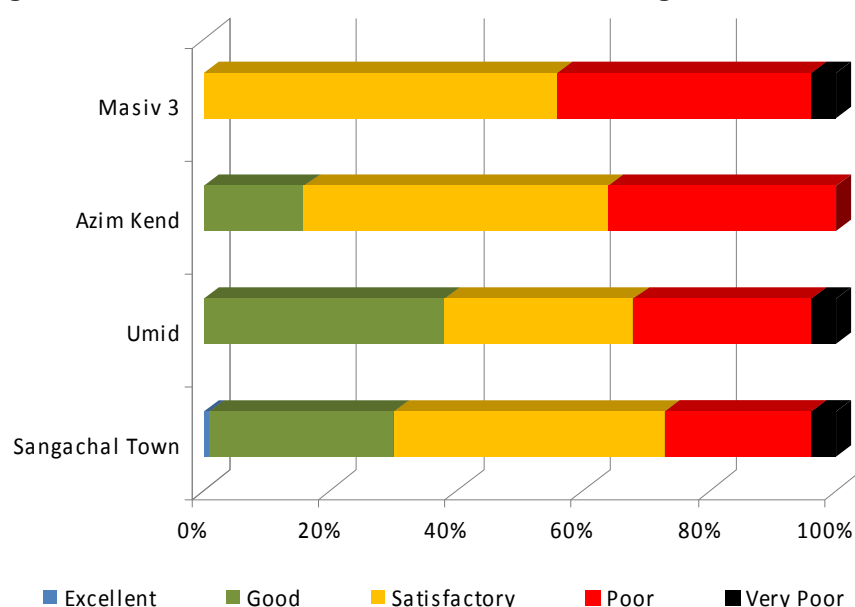
³⁶ State Statistical Committee of the Republic of Azerbaijan (2010).

Data from LCAR indicates that poverty rates are highest among households which are female-headed, lack basic sanitation infrastructure, have multiple children and include disabled and elderly members. According to LCAR, poverty levels are similar between genders at a national level and are strongly inter-generational. At a district level, poverty levels (and an associated rise in living conditions) have gradually reduced from 47% in 2001; to 26% in 2005; to 9% in 2010³⁷. In 2009, the poverty rate in the Garadagh District was 9% which is the same level as recorded nationally. The reduction in poverty has been supported by an increase in social spending by Garadagh District, which has increased in coverage from 3,789 households in 2008, to more than 8,912 households in 2011³⁹.

7.6.10.1 Local Living Conditions

Data from the SSES indicates that only 6% of surveyed households consider their current living standards to be 'good' (Figure 7.7). The lowest rating ('poor') was recorded in Masiv 3 (40%) and Azim Kend (36%).

Figure 7.7 Level of Satisfaction Associated with Living Standards



Participants in the household survey from Sangachal Town and Umid stated that their living conditions had significantly improved following BP's previous intervention in 2004 to install sewage infrastructure within their community, highlighting the link between public infrastructure and living conditions.

The main problems associated with housing included damp caused by leaking roofs, poor conditions of walls and roofs, lack of a sewage infrastructure and the presence of vermin and insects. Damp problems were particularly high from surveyed households located in Sangachal Town and Umid.

7.6.10.2 Household Income

At a national level, household incomes have risen alongside the reduction in poverty and improvement in living conditions. Locally, Sangachal Town and Azim Kend are heavily reliant on public sector employment. Raising livestock is a source of primary and secondary income at Azim Kend and casual earnings from informal employment are important at both Umid and Azim Kend. Secondary income sources include pensions and other social allowances, casual earnings and (for Azim Kend) raising livestock (12%). However, more than half of households did not have a secondary income.

³⁷ Garadagh Executive Power (2011).

The average household income in Sangachal Town (439 AZN) and Umid (418 AZN) is higher than the average for the Garadagh District (400 AZN). In contrast, average monthly household incomes in Azim Kend (228 AZN) and Masiv 3 (297) are significantly below the District average³⁸.

Data shows that there are relatively few well-off households with the majority of households clustered in three income groups: 100 to 199 AZN; 300 to 399 AZN; and 400 to 499 AZN. Fifty-four percent of households have a monthly income of 400 AZN or lower; 18% have a monthly household income of less than 200 AZN.

7.6.10.3 Household Expenditure

Information associated with monthly household expenditure patterns (in AZN) is presented in Table 7.5 using data collected by the SSES in 2011.

Table 7.5 Monthly Household Expenditure (AZN)

| Monthly Household Expenditure (AZN) | Food | Utilities | Land and/or house rental | Healthcare | Education | Transport |
|-------------------------------------|------|-----------|--------------------------|------------|-----------|-----------|
| Minimum local level | 50 | 2 | 1 | 5 | 5 | 2 |
| Maximum local level | 750 | 150 | 220 | 800 | 350 | 300 |
| Average local level | 237 | 48 | 27 | 63 | 51 | 57 |

The data shows that relatively equal proportions of average monthly household expenditure are allocated to utilities, healthcare, education and transport. The average amount spent on food (237 AZN) is relatively high, considering average and median household incomes.

The proportion of surveyed households that go into debt or rely on friends and relatives to purchase food, ranged from 12% in Sangachal Town to a maximum of 32% in Masiv 3. In such circumstances, monthly household income is less than expenditure and there is an inability to meet basic needs.

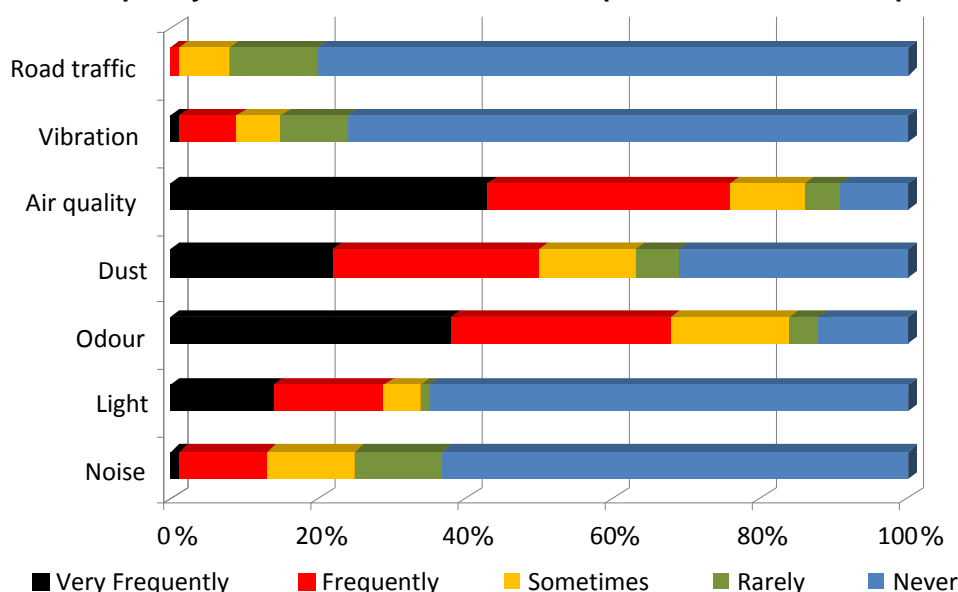
7.6.11 Local Perceptions towards Industrial Operations and BP

The SSES surveyed local perceptions towards third-party industrial operations and BP's activities. When surveyed households were asked to name the main types of industrial enterprises operating in the area, 79% identified Sangachal Terminal in their first response. Other industrial enterprises included Sangachal Power Plant, Garadagh Cement Plant, Sangachal Water Treatment Plant, AzPetrol Terminal and regional quarry companies. The overwhelming majority of respondents (77%) did not see any significant differences in the way in which different industrial enterprises (including BP) operate in the area, generally viewing such activities as a 'single form' of operation.

The perceived environmental impacts from industrial operations are presented in Figure 7.8. When surveyed households were asked specifically about BP's activities, their responses indicated that they did not distinguish between the effects of BP activities and other industrial activities in the area.

³⁸ ERM (2009) Garadagh Cement Project New Dry Kiln 6: ESIA.

Figure 7.8 Frequency of Perceived Environmental Impacts from Industrial Operations



Public meetings held at Sangachal Town, Azim Kend and Umid during October 2011 associated with the SD2 Infrastructure Project ESIA indicated community concerns about the operation of existing elevated flares at the Terminal. Community members questioned why the flame height varied and whether a change in height represented dangerous conditions at the Terminal. Local community participants also questioned whether flaring at the Terminal could result in negative impacts to health due to the inhalation of emissions, and whether it was the cause of the strong hydrocarbon odours that are known to occur.

As described in Chapter 6 Environmental Description, Section 6.4.6, these odours, which are transported to communities under certain winds conditions, are considered to be due to the produced water ponds at the Terminal. In general, the meetings demonstrated that there were strong negative perceptions associated with existing flaring activities at the Terminal within the communities, with the presence of hydrocarbon odours reinforcing the perception that existing flaring was causing health impacts.

7.6.12 Social Organisation and Local Social Issues

At a national level, the World Bank Country Office in Azerbaijan and State Government jointly support the development of civil society groups through a Civil Society Fund (CSF). Each year a different focus area for new NGOs is chosen; in 2009 the focus was on youth interests and equal opportunities.

There were in 2011 36 officially registered NGOs in the Garadagh District³⁹, although not all of these were necessarily active. The registered NGOs focused on the following interests:

- The elderly, young, students and families;
- People with disabilities, including the blind, women, children and war veterans;
- The armed forces and war veterans (general);
- The interests of women (includes a female oil workers society);
- Ukrainian and Russian communities;
- Entrepreneurship, science, intellectuals;
- Consumer and free trade associations; and
- Country offices of international organisations such as 'Red Crescent' which form part of the International Red Cross humanitarian movement.

³⁹ Garadagh ExComm (2011).

At a local level, there are three NGOs active in the local communities (one in Sangachal Town and two at Umid). The level of awareness of NGO activities is low. During community focus group discussions, local residents repeatedly expressed their desire to form new groups to address specific problems experienced in their community.

The SSES indicated that there were no significant issues associated with substance abuse or anti-social behaviour within any of the four communities, although this may simply reflect a cultural reluctance to discuss such issues. Minor cases of crime, drug and alcohol abuse were linked during focus groups to high unemployment and poverty. A participant from the Women's Group in Umid linked unemployment to recent increases in family conflicts and crime, which was associated with youths returning from military service who could not find employment.

7.7 Vulnerable Groups

7.7.1 Income-Poor Households

Income-poor households may experience a variety of financial problems which include difficulties in paying utility bills on time, purchasing educational resources (school uniforms and text books), purchasing medicines or paying for specialist diagnostic healthcare. They are also likely to be reliant on informal credit arrangements to purchase essential household items, such as food.

The survey of households' ability to pay public utilities on time revealed that more than half of households make payments without delay (51%) with 30% making payments after a small delay. A proportion of households in Sangachal Town (10%), Umid (12%) and Masiv 3 (16%) make payments after a long delay. Due to the cost of gas and electricity, 12% of households in Azim Kend are forced to use cattle dung as a source of heating fuel and asphalt is used in a few households. Both choices of fuel may reflect fuel poverty in these vulnerable households.

Considering the household expenditure pattern of households surveyed by the SSES, income-poor households will be especially vulnerable to future increases in food prices, utilities (especially heating fuels) and changes in housing condition. Without a rise in household income, the low quality housing conditions experienced by many households will continue as the costs of capital repairs are prohibitively expensive.

7.7.2 Female-Headed Households Living Without Remittances from the Husband

Female-headed households are a vulnerable group as they are more likely to be poor, be reliant on one income (which may pay less than their male counterparts for the same role), and have dependent children. Child benefit payments in Azerbaijan are too small to make a significant difference to single-parent households' expenditure patterns: a single payment of 75 AZN is issued for each newborn child, and the poorest families are entitled to an additional 30 AZN a month until the child's first birthday⁴⁰. The prevalence of poverty within female-headed households has implications for future child development outcomes.

7.7.3 The Elderly and Those Living with Disabilities

The elderly and those living with disabilities comprise a particularly vulnerable group and are likely to have low incomes and be reliant on state transfers. People with disabilities may find difficulties in seeking suitable employment. This group is likely to have greater healthcare demands which in turn increases household expenditure. Households who have disabled children are particularly vulnerable, as they face higher expenditures on healthcare, childcare and educational resources and may experience problems in obtaining the (generally higher) level of social services they need.

⁴⁰ Institute for War and Peace Reporting: Plight of Single Mothers in Azerbaijan (2011).

7.7.4 Herders

During archaeological and wetland surveys completed in June and September 2011 within the SD2 Expansion Area, surveyors observed that the area was regularly frequented by herders. The herders are often unaccompanied and male, ranging in age from under 18 to the elderly. It is understood that some herders live in Azim Kend and Masiv 3 and graze animals all year round, even though land in the vicinity of the Terminal is generally considered to be winter pastureland.

Herders may be characterised by low levels of education, low access to healthcare and may comprise a distinct social group within the wider society. Some herders may be IDPs who were involved in animal pastoralist activities before displacement, and continue to use their skills and experience. The herders' legal right to graze animals in the vicinity of the Terminal is unknown and these informal land users may be particularly vulnerable to changes in land access and other external factors, such as the incidence of animal disease, harsh winter conditions that can rapidly reduce headcounts and food price inflation. Herders may also be particularly vulnerable from the expansion of regional, third-party industrial operations (cumulative impacts) which reduce access to grazing areas in the future.

7.7.5 IDPs and Refugees

Across Azerbaijan, more than 586,000 people remain internally displaced due to the Nagorno-Karabakh conflict and the status of many IDPs and refugee groups has never been resolved. Despite a combination of efforts from both State Government and international aid organisations, many IDPs live in dilapidated public buildings, makeshift accommodation or temporary accommodation⁴¹. The source of their vulnerability is linked to their original displacement, as they no longer have access to their original housing stock, livelihoods (some of which were agricultural-based and dependent on land access rights) and previous social support networks. At a national level, the incidence of poverty within IDP households based in rural areas is higher when compared to any other group in the country⁴².

Azerbaijani citizens must register their residence under an internal system known as the *Propiska* regime and many IDPs who moved away from the location where they initially settled, have struggled to re-register themselves at their current location. Typical problems encountered with re-registration include overly-bureaucratic processes and loss of original documentation during the war. Without formal registration, IDPs find it hard to access social allowances specifically designed for this group.

Registered IDPs receive monthly food allowances of 18 AZN per month and do not have to pay for utilities. Since the ceasefire in 1994, many IDPs have had their own children at their new locations. Children of IDP parents only qualify for IDP status (and associated social benefits) if they are either born to parents who both have IDP status, or if their father is an IDP. In the event that only the mother is an IDP then the child does not qualify for Targeted Social Assistance (TSA) which increases the probability of them becoming poor⁴³.

The majority of IDPs in the vicinity of the Terminal have lived in their communities for 11 to 20 years, are based in Umid and Sangachal Town and appear to have integrated into local society. The fact that the majority of IDPs within the four communities live in state-provided housing, may indicate that they are comparatively less at risk from poverty compared to others, who have had to find their own accommodation⁴³. However, the quality of IDP housing remains a serious concern. The main developmental priority for IDP households is the condition of housing as many are in poorly constructed buildings. Data from the SSES report indicates that IDPs living in Umid had the highest proportion of housing complaints that were associated with damp and vermin.

⁴¹ Internal Displacement Monitoring Centre (2010). Azerbaijan After some 20 years: IDPs still face barriers to self-reliance.

⁴² World Bank (2010). Azerbaijan: Living Conditions Assessment Report. Report No. 52801-AZ.

Focus Groups conducted during the SSES contained a mixture of IDPs and non-IDPs and there was no mention of past conflicts or any emphasis upon social distinctions between these two groups. Instead, there appeared to be a common understanding that residents of the communities faced similar socio-economic conditions, irrespective of their background, and needed to join together to form social organisations to address the challenges of unemployment, poor housing conditions and lack of public transport.

IDPs present within the vicinity of the Terminal have been settled by State Government into accommodation at Umid, which was recently expanded from the presence of workers from the Garadagh Cement Plant at Sahil. IDPs are also present at Sangachal Town. Many IDPs were originally (in their pre-conflict geographical location) involved in agricultural-based livelihoods which were sustained through a combination of good agricultural soil and adequate rainfall patterns. IDPs settling into Umid and Sangachal Town were not automatically granted land access rights and were limited by unfavourable soil conditions. Consequently, some IDPs will have struggled to adjust their livelihoods away from agricultural-based activities, into formal employment within the public or private sector.

There are no significant differences between unemployed household numbers of IDPs and non-IDPs, and access to high-quality educational, healthcare and infrastructure is limited across all of the four communities. Consequently, the vulnerability of IDPs is instead specifically linked to poor housing conditions, gender discrimination in the provision of TSA payments to children and difficulties associated with obtaining registration documentation which provides equal access to economic and social services.

7.8 Regional Industrial Developments

A review of industrial developments that are either currently under construction or have recently started operation across the Garadagh region was completed in October 2012. The aim of the review was to identify, and quantify, where possible, new employment opportunities that could benefit the local communities in the vicinity of the Sangachal Terminal and across the wider Garadagh region in the near future. The review identified that the following industrial developments within the Garadagh region are currently under construction:

- The Khazar development – this project comprises the construction of a mini-city upon coastal land which is extended up to 8km into the Caspian Sea by an artificial island which is to be gradually developed over the next 25 years, with 10% estimated to be completed by the end of 2016⁴³. The project covers a total area of 30,000m³ land allocated for housing, commercial properties, offices, sporting events and entertainment venues. There is no information available associated with predicted employment numbers during the construction and operation phases.
- Qizildas Cement Plant – located approximately 2km north of the Terminal, this plant extracts lime and clay from quarries that are located to the north and west of the plant at a distance of two to 40km⁴⁴. The number of jobs generated by the construction and operational phases of the plant is not known. However, a construction workforce camp is located within the construction site to provide temporary accommodation which may indicate the use of labour from outside the immediate geographical area. Construction works are expected to be completed by 2014.
- Garadagh District Umbaki (Jeyildagh) Jailhouse – this development comprises a prison which holds up to 1,500 people. Construction work started in 2007 and is expected to be complete by December 2013⁴⁵.
- New Baku Port – the location of the new port is close to Alyat settlement, 25km to the south of the Terminal, and is being undertaken by the Ministry of Transport. The port covers an area of 400 hectares and includes the construction of two bridges for ferry boat movements, three freight bridges for container vessels, provision of infrastructure for the movement of roll-on and roll-off cargo, and a large dry cargo storage area.

⁴³ <http://khazarislands.com>.

⁴⁴ Garadagh Cement Project New Dry Kiln 6 ESIA 2009

⁴⁵ <http://az.trend.az/news/society/1154679.html>

Construction works started in November 2012 and are expected to be complete by 2015⁴⁶.

- Baku Shipyard Company – this development is located 23km from the Terminal adjacent to an existing deep water plant and comprises a modern shipyard facility. This project is being implemented by SOCAR in partnership with Keppel Offshore and Marine (Singaporean company). Construction works started in 2011 and are due to be complete by 2013⁴⁷.
- Navy and Military camp for Navy Officers – located close to Sahil settlement, this development aims to provide residential housing for officers' families and is being undertaken by the Ministry of Defence. Construction works are underway and some housing units have already been built.

The review identified that the following industrial developments within the Garadagh region have recently started operation:

- Development of retail centres – three large retail centres (Bina, Sadarak and Karvansaray) have been constructed close to the settlement of Lokbatan after the existing airport market was relocated. These retail outlets started operation during 2012. There is no information available to reflect the number of jobs created by the operation of these retail centres⁴⁸.
- Garadagh Cement Company (now 'Holcim Company') was recently expanded and restarted operations in June 2012 with an enlarged capacity of 1.7 million tonnes per year as a result of the investment⁴⁹.
- "Azeri Steel" Metal Construction Factory near Sahil settlement – operation of this new facility, which has a capacity of 1,500 tonnes per month, commenced in July 2012 with a workforce of 120 people. The majority of workers are based in Sahil⁵⁰.
- "AAC" Modern Construction Materials Factory – operation of this cement production company, which has a capacity of 600m³/day and 100 tonnes/day of lime, started in December 2011. The factory is located 10km from the Terminal towards the settlement of Alyat⁵¹.

The results of the review indicate that there are a variety of employment opportunities being generated from the ongoing socio-economic development of the Garadagh District.

7.9 Commercial Fishing Operations

Information presented within this Section is taken from a review prepared by Professor Mehman M Akhundov (Doctor of Biological Science, Azerbaijan National Academy of Sciences) in 2011.

7.9.1 Regulatory Bodies and Licensing

The following regulatory bodies control commercial fishing activity in the Azerbaijan sector of the Caspian Sea:

- State Marine Administration (SMA) - issue documents confirming the official identity and ownership of vessels, crew composition and the country of vessel registration;
- Ministry of Emergency Situations (MChS) - checks the seaworthiness of vessels;
- Department on Protection and Reproduction of Aquatic Bioresources (DPRAB) which forms part of the Ministry of Ecology and Natural Resources (MENR) - issues permits and quotas to Azerbaijani citizens that state the annual, species-specific, total allowable catch (TAC) measured by weight;

⁴⁶ <http://www.dredgingtoday.com/2012/10/15/azerbaijan-dredging-at-new-baku-port-nears-end/>

⁴⁷ http://www.ebrd.com/downloads/news/annual_meeting/pres/Azerbaijan_Lawrence_Quah_Presentation_21_May.pdf

⁴⁸ Synergetics, pers comm. (2013)

⁴⁹ <http://www.contact.az/docs/2012/Economics&Finance/071000005057en.htm>

⁵⁰ <http://www.contact.az/docs/2012/Economics&Finance/071000005047az.htm>

⁵¹ <http://news.lent.az/news/99483>

- Marine Transport Police (MTP) which forms part of the Ministry of Internal Affairs (MIA) - enforces the use of sea worthy vessels (only) and whether fishermen are acting in compliance with their license and quotas; and
- Coastguard – responsible for marine security.

All individuals (vessel owners, crew and owners of companies) involved in commercial fishing within the Azerbaijan sector of the Caspian Sea must be Azerbaijani nationals. At the end of each month, the individual holding the commercial fishing permit is required to submit a report to DPRAB that indicates the results of their fishing effort (number of vessels and time spent at sea) and total weight caught.

7.9.2 Companies and Individuals Involved

The companies and individuals who currently hold a licence to fish for 2012 use a variety of vessels registered in five ports and harbours. The largest company involved is “Khazarbalig” which operates five vessels from Lenkoran (refer to Table 7.6).

Table 7.6 Companies and Individuals Who Hold a Commercial Licence to Fish in 2012

| Company Name / Individual | Vessel Type and Name | Registered Vessel Harbour |
|---|------------------------|----------------------------|
| Closed joint-stock company (ZAP) “Khazarbalig” | SB - “Delfin” | Lenkoran |
| | SB - “Azeri” | Lenkoran |
| | SB - “Fortuna” | Lenkoran |
| | LTV - “Dalga” | Lenkoran |
| | LTV - “Bayaz” | Lenkoran |
| Closed joint-stock company “Gartal” | LTV - #29 | Neftchala |
| Closed joint-stock company “Caspian Fish Co Azerbaijan” | LTFV - #50 “Shahriyar” | Shuvelyan |
| Open joint-stock company (OAO) Z. Tagiyev Fish Curing Plant | SB - “Nardaran” | Artyom (Pirallakhi Island) |
| Individual Agalar Mammadov | LTV - “Kompas” | Bayil |
| Individual Azer Guliyev | LTV - “Mirmohammed-96” | Bayil |
| Individual Vilayat Aliyev | LTV - #208 | Bayil |
| Individual Rustam Garakhanly | LTV - “Khazar” | Bayil |
| Individual Ramiz Hajiyev | LTV - #90 | Artyom (Pirallakhi Island) |
| NOTES: SB = Seine Boat. LTV = Lifting Transportation Vessel. LTFV = Lifting Transportation Freezer Vessel. | | |

A description of each type of vessel used is provided below:

- **Seine Boat (SB)** – typically has an overall length (LOA) of 8 to 10m (small size vessel) or 14 to 18m (medium size). The use of seine boats to catch anchovy is a popular method in the Caspian Sea and a mid-water pelagic fishing method is commonly used. Two cone-shaped nets are released into the water surrounding the school of fish at a depth of 20 to 90m, and closed by pulling on a string at the bottom of the net (called the purse line) before lifting onto the boat. The nets are fitted with electric lights to attract kilka;
- **Lifting Transportation Vessel (LTV)** – boat length is typically 14 to 18m (LOA) and typically use cone-shaped nets similar to seine boats; and
- **Lifting Transportation Freezer Vessel (LTFV)** – this is similar to an LTV vessel and fitted with an onboard freezer so that fish is processed onboard and immediately transferred into boxes using ice from an onboard ice generating machine.

7.9.3 Direct Employment with Vessel Owners and Crew

All licensed owners of fishing vessels and accompanying crew are of Azerbaijan nationality and male. Crew are typically recruited from the coastal regions of Azerbaijan such as Neftchala, Lenkoran, Astara, Salyan, Garadag, Absheron, Shabran and Khachmaz. Typical crew numbers onboard are, for each type of fishing vessel:

- Seine Boat – four persons;
- Lifting Transportation Vessel – four persons; and
- Lifting Transportation Freezer Vessel – five persons.

Based on the number and types of vessels granted permission to undertake fishing operations in 2012, the maximum total number of crew is estimated to be 53 persons. The average salary of a crew member is 150 to 200 AZN per month, indicating that economic flows from direct employment of vessel crews reach a maximum 9,000 AZN a month.

The majority of crew members work without any formal written contract and are typically paid either in cash, or a mixture of cash and fish for household consumption. During the low season fishermen typically seek alternative sources of income which may include work in the construction, agriculture and retail industry.

There is no formal social organisation established for fishermen.

7.9.4 Commercial Species, Fishing Locations and Seasonal Variation

There has been a rapid decline in fish stocks within the entire Caspian Sea (see Chapter 6 Environmental Description, Section 6.6.4). Historically vessel owners requested permits from DPRAB to catch the following types of commercial species:

- Lamprey;
- Sturgeons;
- Salmon;
- Shad;
- Herring;
- Carps;
- Catfish;
- Gray mullet; and
- Perch.

The above species are now listed in the Red Data Book of Azerbaijan (1989) and are illegal to commercially fish. The following types of kilka are targeted as commercial species in the Azerbaijan sector of the Caspian Sea:

- Anchovy kilka – *Clupeonella engrauliformis* (Borodin);
- Big-eyed kilka – *Clupeonella grimmi* (Kessler); and
- Caspian ordinary kilka – *Clupeonella delicatula caspia* (Stetovidov).

The only commercial species currently included in licence quotas issued in 2012 by DPRAB was big-eyed kilka (*Clupeonella grimmi*).

The locations of favoured fishing grounds for 2011 are shown in Figure 7.9. The nearest fishing location is Andreev bank which lies 15 to 20km west of the SD2 Contract Area. The locations of landing ports and harbours for vessels are also illustrated.

November 2013
Final

The seasonal variation in commercial fishing activity within the Azerbaijan sector of the Caspian Sea is summarised below:

- **December to February** – low season when 50% of fishing vessels are used due to unfavourable winter weather conditions;
- **March to April** – peak high season with fishing particularly favourable during dull, cloudy weather conditions when electric lighting is particularly effective;
- **May to June** – low season when kilka species are spawning and migrate to the Northern and Middle Caspian Sea; fishing is not productive in this period, as kilka do not swarm to form schools;
- **July to August** – low season period due to clear, cloudless weather; and
- **September to November** – high season.

7.9.5 Recent Trends in Commercial Fishing Operations

Anchovy kilka is the most abundant fish in the Caspian Sea. Scientific research undertaken by Daskalov and Mamedov (2007)⁵² calculated relative abundance indices of fish using the results of surveys completed between 1991 to 2004. The data indicates that from 1991 to 2000 anchovy kilka was present in the Caspian Sea in high abundance, sustained by a high number of new young fish entering the fish population annually (level of recruitment) and a high mass of spawning stock. From 2001 to 2004, the abundance of anchovy kilka virtually collapsed with recruitment levels falling to a record-low alongside a significance reduction in total catch weight. The availability of other commercial species in the past 10 years, particularly sturgeon and caviar, has also collapsed. Across the entire Caspian Sea, the decline in kilka has reduced from 271,000 tonnes in 1999 to 54,000 tonnes in 2003, according to Sedov, *et al.* (2004)⁵³. In addition to a decline in kilka, the species composition of a typical catch has changed from being dominated by anchovy kilka (*Clupeonella engrauliformis*), to the Caspian kilka (*Clupeonella cultriventris*). This change in composition is due to the disproportionate impact the change in near-surface temperature layer of the Caspian Sea has had on different kilka species, affecting the abundance of anchovy kilka to a greater extent when compared with ordinary kilka.

Data from DPRAB indicates that the total quantity of kilka landed in the Azerbaijan Sector of the Caspian Sea has consistently reduced by 96% from 2002 (10,950 tonnes) to 2011 (485 tonnes).

7.9.6 Indirect Employment from Fish Processing Companies

Fish landed at ports and harbours in Azerbaijan is directly sold on to consumers or fish retailers, or processed by the company: “Caspian Fish Co Azerbaijan”. Historically, 2-3 different companies were involved in fish processing with some exported to the Russian Federation. Approximately 100 people are employed by “Caspian Fish Co Azerbaijan” (in 2012) on short-term contracts, with 90% being female workers. Employment levels at “Caspian Fish Co Azerbaijan” are seasonal and follow the fishing season. Monthly incomes of workers are approximately 120 AZN. The maximum monthly economic flows from fish processing (from indirect employment) are 12,000 AZN a month.

7.9.7 Illegal Fishing

Data provided by the DPRAB on the number of people charged with illegal fishing offences show a reduction from 264 persons in 2007 to 54 persons in 2011. The numbers of confiscated vessels and seized catch has also decreased. The decline in illegal fishing may be linked to the general reduction in fish resources within the Azerbaijani Sector of the

⁵² Daskalov, G. M., and Mamedov, E. V. 2007. Integrated fisheries assessment and possible causes for the collapse of anchovy kilka in the Caspian Sea – *ICES Journal of Marine Sciences*, 64: 503 – 511.

⁵³ Sedov, S. I., Paritskiy, Yu. A., Zikov, L. A., Kolosyuk, G. G., Aseyanova, A. A., Andrianova, S. B., Kanatiev, S. V. et al. 2004. The states of stocks of Caspian marine fish and prospects for their commercial utilization. In: *Fisheries Researches in the Caspian: Scientific-Research Works Results for 2003*, pp. 360–368. KaspNIRKH Publishing, Astrakhan. 570 pp. (in Russian).

Caspian Sea, increased fishing costs, and DPRAB's greater effectiveness in halting such practices.

7.9.8 Scientific Research

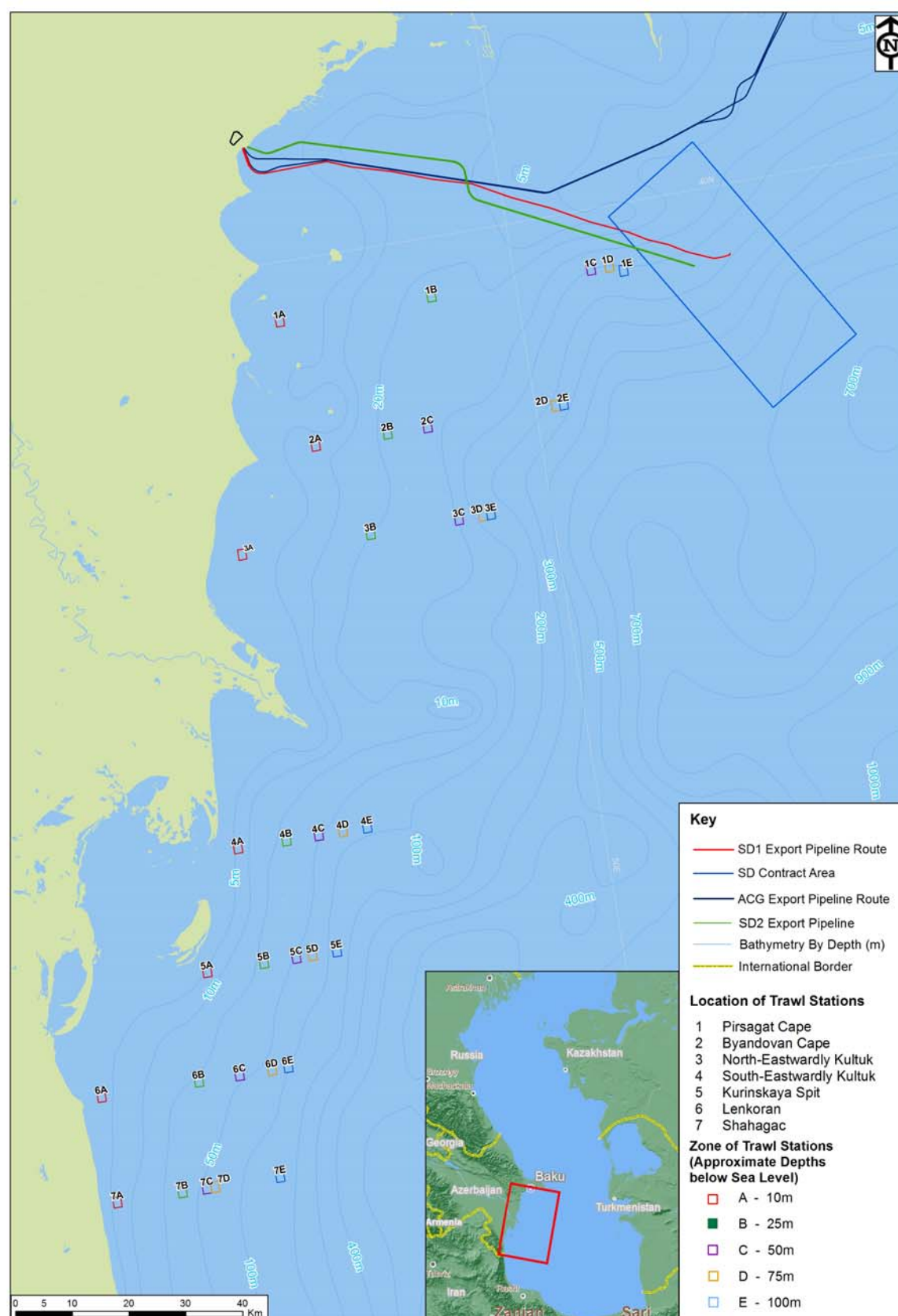
Scientific research of sturgeon (*Acipenseridae*) is undertaken within the Azerbaijani Sector of the Caspian Sea using seven experimental trawling locations (refer to Figure 7.10). In March 2012, BP requested the Ministry of Ecology and Natural Resources (MENR) to relocate experimental trawling locations 1D and 1E outside the SD Contract Area from 01 January 2015 indefinitely. This has subsequently been agreed.

The purpose of ongoing scientific research into the distribution of sturgeon is to:

- Identify changes in recruitment levels and population ratios between sturgeon species while monitoring seasonal change;
- Evaluate the quantity reserves and track their spatial distribution over time; and
- Continue scientific study of their forage base and their prevailing trophic conditions.

Licences issued for catching sturgeon are restricted by DPRAB to scientific research and for broodstock in fish farms, with strict quotas applying to all catches. The areas where aquaculture broodstock are caught lie a significant distance away from the SD Contract Area. Research expeditions are undertaken by the Azerbaijan Scientific Research Institute of the Fishing Industry (AzerNIIRKh).

Figure 7.10 Locations of Scientific Research Trawl Sampling Locations

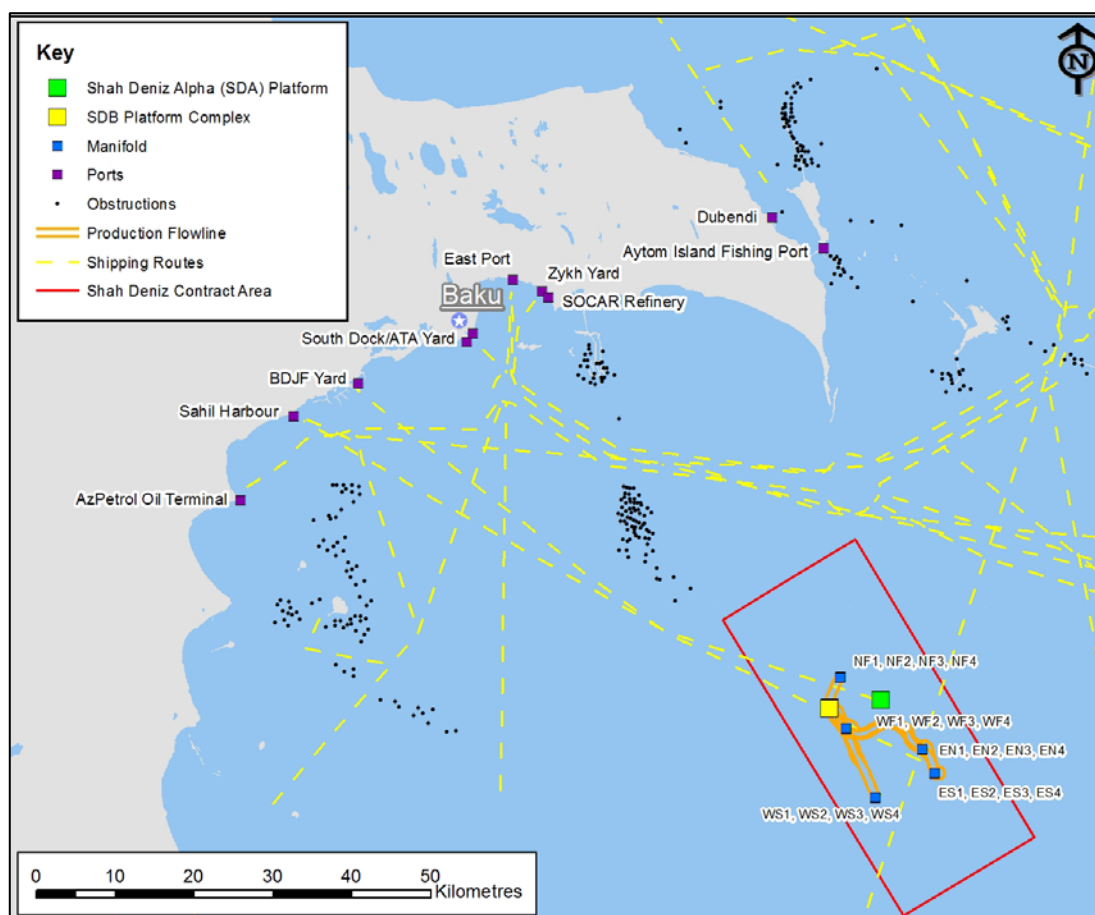


Source: Professor Mehman M Akhundov (Doctor of Biological Science, Azerbaijan National Academy of Sciences) (2011).

7.10 Commercial Shipping Movements

The primary commercial ports of Azerbaijan are situated on the Absheron Peninsula and ports in the vicinity of Baku. Shipping activities in the waters of the Central and Southern Caspian include commercial trade, passenger, scientific and supply vessel operations to the offshore oil and gas industry. The main shipping routes, ports and obstructions are illustrated in Figure 7.11. There are three shipping routes that pass through the SD Contract Area and are associated with supply and scientific vessels which undertake regular scheduled trips to the SD Contract Area.

Figure 7.11 Shipping Routes in the Vicinity of the SD Contract Area⁵⁴



7.11 Construction Yard Operations

The Baku Deepwater Jacket Factory (BDJF) Yard (formally the Shelfprojectsroi (SPS) Yard) was used for onshore construction, assembly and pre-commissioning during the ACG Phases 1, 2 and 3 projects. The yard lies approximately 20km south of Baku on the western coastline of the Caspian Sea. There is no informal use of the land (such as small vendors for example) immediately outside the yard's site boundary.

The Bibi Heybet (former Amec-Tekfen-Azfen (ATA)) Yard was used for platform topside onshore construction and pre-commissioning during the ACG Phases 1, 2 and 3 projects. The yard is located within the Bibi Heybet Oilfield approximately 8km to the south of Baku and is bound to the east and south by the Caspian Sea.

⁵⁴ Figure 6.13 is derived from The Caspian Hydrographic Chart No. 32001.

A data gathering questionnaire was submitted to the ATA yard in July 2012 to gather socio-economic data on the existing workforce. The results of the questionnaire indicate the following:

- The workforce at the ATA yard currently comprises a total of 3,690 workers (1,031 professionals and 2,659 non-professionals), of which only 1-2% are temporary workers;
- The total monthly spend on the workforce is approximately 1.9 million AZN⁵⁵;
- The majority of workers are aged between 30-55 (92% of males and 75% of females);
- All workers are provided with written employment contracts and the minimum contract duration for new workers is 3 months;
- 95% of the workforce are from the communities within Baku with the remaining 5% from the communities of Alyat, Sahil and Qobustan; and
- No members of the ATA workforce are members of a union.

A Socio-Economic Baseline Study for the Bibi Heybet Yard was prepared in 2003. The survey identified 122 people living within 1.5km of the yard. A site reconnaissance visit undertaken in 2008 (and reconfirmed in June 2011) suggested that there were no longer any residential premises within close proximity to the yard.

7.12 Community Investment Programmes

In 2012, a BP AGT (Azerbaijan, Georgia and Turkey) Community Investment Strategy for 2012-2016 was approved. The strategy includes the provision of support to community development programs, the development of enterprise, energy efficiency initiatives and stakeholder capacity building activities. A variety of national and local institutions will be used to implement the strategy which will be supported by international organisations tasked with transferring technical training and knowledge. The strategy will be implemented alongside a robust Monitoring and Evaluation (M&E) framework to track the progress made and quarterly/annual progress reports will also be prepared.

The Community development initiatives for Azerbaijan focus on the following:

- Improving BP's community relations to involve young people and create effective working relationships with local government, community residents and business representatives;
- Enhancing the capacity of local communities through the provision of support to income and revenue generating activities; and
- Vocational training support to enhance the skill level of local community residents to make them suitable for employment by BP's major construction and installation contractors.

The ACG, SD, BTC, SCP and associated projects have played an important role in social development within the region. In addition to the direct economic benefit gained through local employment and the use of regional (Garadagh district) and other national businesses by BP, these previous projects were implemented in parallel with substantial community development projects. These projects aim to support socio-economic development in the local communities, strengthening civil society through the active participation of local NGOs and community-based organisations, and improve the relationship between local government and local populations.

BP reported a gross social spend in Azerbaijan, by BP and its co-ventures, of approximately US\$M 50.1 between 2002 and 2010 (refer to Table 7.7)⁵⁶.

⁵⁵ The monthly spend on the workforce was calculated by multiplying the numbers of workers under each type of occupation against 75% of the maximum salary band.

⁵⁶ BP Azerbaijan Sustainability Reports (2002-2011).

Table 7.7 BP / AIOC Social Spend 2002 to 2011 (US\$M)

| 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|------|------|------|------|------|------|------|------|------|------|
| 0.60 | 2.71 | 8.64 | 6.29 | 6.75 | 7.39 | 6.43 | 3.40 | 4.78 | 3.12 |

The BP-led CIP “*The Youth Employment and the Expansion of Economic Opportunities Expansion Initiative*” completed in 2010, covered Sahil, Umid and Sangachal Town and focused on training young people in practical employment skills. The initiative lasted three years. A total of 214 young people completed training courses. From this total, 145 were subsequently employed and 45 were enabled by Jump Start Economic Project grants to set up their own business. The budget of the project was US\$439,090.

Participants in SSES focus group discussions stated that their communities relied on BP for socio-economic investment. Stakeholders interviewed supported this view and indicated that BP was the only large industrial enterprise that provided significant support to its local communities.

7.13 Local Content Development Initiatives

BP and its co-ventures’ Enterprise Development and Training Programme (EDTP) in Azerbaijan was launched in 2007. Its aim is to help local hydrocarbon sector companies achieve international standards and increase the amount of local content in BP’s projects. EDTP activities included market surveys, the identification of potential local suppliers, detailed gap analysis and the creation and implementation of relevant development plans.

A total of 93 companies have completed the programme successfully since 2007 out of some 1,000 companies that have been appraised by the project. More than 360 action plans and gap analyses have been produced to support participating companies in delivering improvements. Since EDTP’s inception participating local companies have invested about \$8.8 million in new capital equipment and hired approximately 527 employees. The programme has assisted local companies in securing contracts valued at more than \$184 million with other local and international companies of which more than \$125 million have been with BP in Azerbaijan.

BP and its partners’ operations and projects expenditure in Azerbaijan in 2011 is shown in Table 7.8⁵⁷. (Table 7.8). As the table shows direct expenditure with local small and medium enterprises (SME) increased by 73% as compared to 2010.., Spend with state-owned companies increased to \$36 million and to \$285 million with joint ventures. Indirect local spend through foreign suppliers working in Azerbaijan was \$368.5 million in 2011.

Table 7.8 Local Content Spend 2006 to 2011 (US\$M)

| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|--------------|--------------|--------------|--------------|--------------|------------|
| Small and Medium-Sized Enterprises (SMEs) | 77 | 111 | 128 | 132 | 147 | 255 |
| State-Owned Enterprises | 60 | 43 | 37 | 29 | 28 | 36 |
| Joint Venturers | 520 | 450 | 408 | 320 | 366 | 285 |
| Foreign Suppliers In-Country | 826 | 891 | 737 | 547 | 486 | 369 |
| Total | 1,483 | 1,495 | 1,310 | 1,028 | 1,027 | 945 |

⁵⁷ BP Azerbaijan Sustainability Reports (2004-2011).