

SOUTH CAUCASUS PIPELINE EXPANSION (SCPX) PROJECT



Field location:
Azerbaijan and Georgia

Peak of personnel engaged in project activities

2,977

Pipeline through Azerbaijan and Georgia

487 km

Including SAJV¹ subcontractors the overall number reached up to

4,189

Total system capacity

23 bcma²

New diameter pipeline through Azerbaijan and Georgia

48"

PROJECT DESCRIPTION

The South Caucasus Pipeline (SCP) is a gas pipeline that transports gas from Sangachal Terminal to the Georgian-Turkish border. The construction process commenced in 2004 and was completed by the end of 2006. The South Caucasus Pipeline Expansion (SCPX) Project, along with the Shah Deniz Stage 2 (SD2), are part of the Shah Deniz Full Field Development (FFD), which aims to bring gas from Azerbaijan to Europe and Turkey. The objective of the SCPX Project is to expand the capacity of the existing SCP system to accommodate additional gas throughput from the SD2 expansion development in the Caspian. The Project base-case design is to facilitate an increase in gas transmission capacity in the existing SCP pipeline system by an additional 16 bcma. This expansion will be achieved by the installation of two new compressor stations and two pipeline loops.

The project is also linked with the initial section of the TANAP (Trans Anatolian Pipeline) on the border between Georgia and Turkey. The completion of the project is scheduled for 2018.

SCPX is the first stretch of the so-called Southern Gas Corridor, the system that is designed to export gas from the offshore field of Shah Deniz from Azerbaijan to Puglia (Italy), via the TANAP and TAP (Trans Adriatic Pipeline), also to be constructed in the future.

A final investment decision on the SCPX project was taken on December 17, 2013, coinciding with SD2.



(1) SAJV is a joint venture formed by Saipem and Azfen, a local Oil & Gas contractor.

(2) Billion cubic metres of natural gas per annum.



On May 15, 2014, BP Exploration (Shah Deniz) Ltd awarded Saipem, in joint venture with Azfen JV, a major Azerbaijani local contractor, its first onshore E&C contract in the Caucasus on behalf of the South Caucasus Pipeline Company Ltd.

The contract itself involves detailed engineering for crossings, construction and commissioning support of 487 km of a 48" pipeline, 424 km of which is in Azerbaijan and 63 km in Georgia. It also includes the installation of block valves, pigging facilities, tie-ins, horizontal directionally drilled crossings and two microtunnels, all forming part of the SCPX Project.

PROJECT STATUS

In 2016, SCPX activities continued successfully along the pipeline route across Azerbaijan and Georgia.

In Azerbaijan, mainline construction continued with approximately 247 km of pipe welded, 217 km of pipe coated and 207 km of pipe lowered into trenches. Trenching, lowering, laying and backfilling activities are progressing.

In Georgia, trenching, lowering and laying activities continued during the third quarter. Mainline construction continued with nearly 62 km of pipe welded and coated, and about 61 km of pipe lowered into trenches. As part of the tunnelling activities at the Kura East location the pipe installation was completed and other activities were planned to be finalised by May 2017.

HSE INITIATIVES

Frontend Essential Workers (FEW)

Translated and rolled out in Azerbaijan and Georgia in cooperation with BP, the Frontend Essential Workers (FEW) initiative eliminates unnecessary or unauthorised workers from entering the danger zones during preparation and welding stages of the pipeline, therefore reducing the risk of Line of Fire associated incidents (Line Of Fire persons are the individuals placing themselves between the pipeline and moving equipment). This is done by:

1. marking hazardous zones with red and white boxes;
2. not permitting anyone during plant movement;
3. allowing only nominated FEW inside the chalk line during plant movement.

'One team' campaign

SAJV together with BP, have rolled out a 'One team' approach, a system of joint communication and site visits.

The aim is to ensure that all health & safety information and required work standards are agreed and implemented by all Project Personnel.

The 'One team' campaign culminated in a joint celebration for achieving a project with 10,000,000 worked man-hours without incurring a Lost Time Incident (LTI).

Safety is not the effort of just one person, it is the focus and determination of the entire team working towards a common goal.

SAJV HSS Coordinator - Tabriz Davudov

Performing in different temperature conditions

In Azerbaijan and Georgia temperatures vary from +38 °C in the summer months to -2/3 °C in the winter months. For this reason both Heat and Cold stress awareness campaigns are organised. These campaigns aim to inform of the hazards and detrimental health effects of working in high heat index or cold conditions. During summer months, HSE teams are equipped with portable weather monitoring stations to ensure workers are not exposed to working excessive hours in extreme heat. Likewise in winter months, medical teams provide information to workers on the importance of wearing correct clothing, keeping warm and eating the right food. Furthermore, additional winter PPE is issued to site workers.

Promoting safety among school children

One of the main risks the SCPX Project-Affected Communities (PACs) have to face is truck and car traffic and, consequently, potential accidents. The School Safety Project, organised in coordination with the Ministry of Education of Azerbaijan and Georgia, school administration and local municipalities, aims to increase safety knowledge in the communities, especially among pupils and students from primary and secondary schools, providing awareness, basic skills and knowledge on safety issues to avoid potential accidents and other negative impacts during the project execution. The project uses interactive and 'learn through art' approaches that stimulate learning, concluding in the submission of artwork in a safety-themed competition highlighting what the school children learned.

Number of schools involved

86

Number of regions involved

14

Number of participated pupils

+1,600

Environmental Awareness Sessions

Project teams were involved in different environmental awareness sessions throughout 2016 on sensitive project issues. Some examples of awareness sessions addressed to all project teams include: waste management; spill response; sediment erosion control/flume crossings;

protection measures from poisonous animals; soil erosion and control mitigation measures.

Pre-construction surveys out of 85 planned	85
Number of spill drills out of 13 planned	13
Social initiatives (engagement of the Client and the national authorities and institutions)	184
Reduction of waste generated in the camps after equipment installation	-90%

Up to the end of November 2016

REUSE OF DRILLING CUTTINGS

The main waste streams arising from the HDD (Horizontal Directional Drilling) works are drilling mud and cuttings. These cuttings include clay and/or sand material obtained from the ground, water and bentonite. Different solutions to reuse the cuttings were proposed but, in the end, it was decided to offer the cuttings to local landowners. The spoil material will be transported, spread and plowed by tractors on agricultural land.

COMMITTED TO LOCAL DEVELOPMENT

People development

SAJV can count on a reliable workforce by attracting the most suitable and professional people to perform the job with no limitations to gender and nationality.

% of locals in SAJV	85
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Up to the end of November 2016

The combination of a comprehensive training plan, world class experienced professionals and strong commitment by SAJV to develop national content so far has resulted in gaining specific knowledge by a significant number of local staff and in general career growth.

Training sessions and inductions for SAJV and subcontractor employees	47
Workers reached	+15,700
Training man-hours	+29,000

Up to the end of November 2016

Local supplier development

With the ultimate aim of enhancing local subcontractors, a significant part of the project activities and services were assigned to local companies. Exceptions concern cases of very complex works that are normally awarded to highly-skilled foreign subcontractors.

To guarantee their alignment to project standards and procedures, specific contractual commitments for subcontractors (and their sub-suppliers and subcontractors as well) were included by SAJV. These requirements concern the 'Local Recruitment and Training Plan', 'Grievance Management Procedure' and 'Community Liaison Implementation Plan'.

COMMUNITY RELATIONS

Among the many different challenges the SCPX project activities have to face, the impact on a high number of local communities plays a crucial role.

The overall objective for the community engagement strategy is to build a positive, non-dependent relationship between the SAJV, BP and the local communities.

The aims of the community engagement activities are to:

- ensure construction is managed in a way that reduces/minimises impacts to nearby communities;
- ensure that impacted communities are aware of construction activities, possible impacts, and mitigation actions that will be taken to manage impacts;
- provide safety awareness to nearby communities;
- ensure communities are aware of how to contact the project to ask questions or raise grievances;
- ensure grievances are investigated and receive a response in a fair and timely manner.

To guarantee a transparent and open dialogue between project and local stakeholders, Project Information Centres (PICs) were established at defined locations and remain operational during construction. SAJV employed a recruitment officer for each PIC to help process job



A HOPE TRAINING SESSION FOR SCPX MANAGEMENT

2016 saw the implementation in Baku (Azerbaijan) of the third HOPE edition, customised this time for two projects with different challenges, peculiarities and contexts.

Following the first workshop involving Shah Deniz 2 project management on November 17, the second one was given to SCPX project management. As a high impact project from a social point of view, it brings along with it many different peculiarities and points worthy of attention which participants had to consider and manage during the workshop.

Participants

18

Positive feedback was collected: participants appreciated the right mix of an organic

framework and practical training where real situations were discussed during the group work section.

Furthermore, the focus on the Oil & Gas industry and the close link and interaction between site activities and the surrounding environment gave an added value to the workshop. The workshop was also an occasion to discuss human rights and share knowledge among participants.

For further information on the HOPE Training Programme see page 44.



applications. Dialogue is also guaranteed by the function of the Community Liaison Officer, who maintains regular contacts with community and local authorities, provides adequate information and becomes aware of any concerns or issues they may have.

Functioning Project Information Centres established

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Another way to maintain a dialogue with local communities is the public meeting, organised to provide overall information about the project, key activities, construction schedule, available jobs, inductions and awareness campaigns, HSE issues related to construction activities, social procedures, etc.

A constant dialogue is also important when it comes to local job opportunities, since all available job positions are communicated to local communities through public meetings, job announcements and the mass-media.

Applications are collected by the Community Liaison Officer and Human Resources representatives.

In the same way, also SAJV subcontractors are informed of specific project needs and business opportunities.

Grievance Management

SAJV provides clear information to local communities about formal grievance mechanisms while liaising with them, during public meetings and on a routine basis.

Grievances can either be presented in writing or verbally: in the first case, community members get a copy of a grievance form, fill it in and return it. Complaints can also be received verbally, with the Community Liaison Officer writing the grievance for them. All the forms received are entered and registered in the Grievance Log, analysed and forwarded to the relevant department. Local residents receive an acknowledgment letter within

7 calendar days while the SAJV response is provided no later than 30 days.

ENVIRONMENTAL AND SOCIAL GRIEVANCES

Closed	186
Under investigation	3

Up to the end of February 2017

In a proactive approach to contributing to a positive relationship, community activities and their corrective actions or impacts are always monitored. Feedback on SAJV relations with the community is likewise monitored.