

Gazaintep Integrated Health Campus  
Non-Technical Summary (NTS)

The composite image illustrates the Non-Technical Summary (NTS) process and project context. It features a circular process flow diagram with 'Design Interaction' at the center, surrounded by 'Re-Assess Residual Impacts', 'Prediction of Magnitude', 'Evaluation of Significance', and 'Mitigation Options'. The process is framed by 'Stakeholder Engagement' at the top and 'Reporting' at the bottom. Other elements include a site plan, logos for Samsung C&T, salini impregilo, and KAYI, and an aerial rendering of the health campus.

Non-Technical Summary of ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT  
September 2016



## 1.0 INTRODUCTION

### 1.1 Project Background

Samsung C&T Corporation, Salini Impregilo and Kayi are the Special Purpose Vehicle (the SPV) responsible for the development of the Gaziantep Integrated Healthcare Campus ('the Project'). The Project is located in Şahinbey District of Gaziantep, southwest of Gaziantep in southern Turkey and covers an area of 330,091 m<sup>2</sup>.

The SPV is seeking financing from multinational financial institutions to fund the development of the Project and is in discussions with commercial banks and financial institutions including, but not limited to the European Investment Bank (EIB), the European Bank for Reconstruction and Development (EBRD) and The Export and Import Bank of Korea (Korean Exim Bank).

### 1.2 The ESIA Process

The ESIA has been undertaken in accordance with Turkish legislative requirements, EBRD, EIB, International Finance Corporation (IFC) requirements and internal corporate standards. The ESIA process included the following steps:

<b>Scoping</b>	This phase presented the proposed Project, perceived issues and an outline of the Terms of Reference (ToR) for the specialist topics to be included in the ESIA. Key stakeholders, including interested and affected parties, were identified during this phase and provided with an opportunity to raise any interim comments, concerns, and/or queries that they may have had on the proposed Project.
<b>ESIA</b>	This study functions as the main document for the ESIA and provides a detailed analysis of the potential environmental and social impacts, supported by objective and defensible specialist scientific studies.
<b>ESMMP</b>	The framework Environmental and Social Management and Monitoring Plan (ESMMP) provides a concise tabular framework of all mitigation measures, key performance indicators, responsibilities and reporting requirements aligned with the assessment of environmental and social impacts.
<b>Stakeholder Engagemen</b>	Stakeholders have been engaged throughout the ESIA process. Key findings from the Scoping process have been presented to government officials, local communities and key interest groups.

### 1.3 Structure of the ESIA Report

The ESIA is divided in two volumes:

**Volume I:** the main Environmental and Social Impact Assessment (ESIA) Report, which outlines the key findings and significant conclusions of the ESIA process.

**Volume II:** Technical Annexes that provide the extensive detail covering each technical disciplines. This Volume supports the conclusions summarised in Volume I.

This section is the Non-Technical Summary (NTS) provides an overview of the full ESIA and can be used as a stand-alone document during the stakeholder engagement process.

The NTS is a short document in non-technical language wherein the findings can more readily be disseminated to the general public, and that the conclusions can be easily understood by non-experts as well as decision makers.



Children from Kahvelipinar neighbourhood. After finishing their Quran lessons for the day they met the ESIA team outside the Muhtar's office. They asked questions about the Project and took information about it back to their families.

## 2.0 PROJECT DESCRIPTION

### 2.1 Introduction

The Project involves the construction of a 1,875 bed Healthcare Campus over an area of 330,091 m<sup>2</sup>. The Project will include four tower buildings and a main hospital core with a total bed capacity of 1,625; a 100 bed High- Security Forensic Hospital; and a 150 bed Rehabilitation Hospital. In addition, there will be administrative buildings, car parking areas, a helipad and a tri-generation plant. Construction will take approximately three years to complete.

The Healthcare Campus will be managed for an initial 25 years by the SPV while medical staff will be provided by the Ministry of Health (MoH). The Ministry of Justice (MoJ) will also play a role in managing the High Security Forensic Unit.

To meet the growing demand for healthcare provision in Turkey, the MoH initiated the Health Transformation Program (HTP), which has brought about improvements in healthcare delivery in recent years. One of the objectives of the HTP was to strengthen primary healthcare services and to support this, the Family Medicine Programme was introduced in 2010 assigning a specific doctor to each patient. Community Health Centres were also established to provide free-of-charge priority services such as vaccinations, maternity and child health care, and family planning services.

### 2.2 Need for the Project

Gaziantep Province has a population of 1,889,466. The province currently has a combined hospital bed capacity of 4,027 consisting of 2,945 beds in government and university hospitals and the remaining 1,082 beds in private hospitals. The city currently has one of the highest in-migration rates in Turkey at 1.26 percent per annum. Şahinbey District, where the Project is located, covers the southern part of Gaziantep city and has an estimated population of 845,528.

Gaziantep also has a very high population density of 277 people/km<sup>2</sup> compared with the national average of 100 people/km<sup>2</sup> and has experienced highly significant influx of Syrian refugees.

The Provincial Directorate of Health estimates <sup>(1)</sup> that there is currently a hospital bed shortage of between 1,200 and 1,800 in the province and pressure on hospitals is expected to increase.

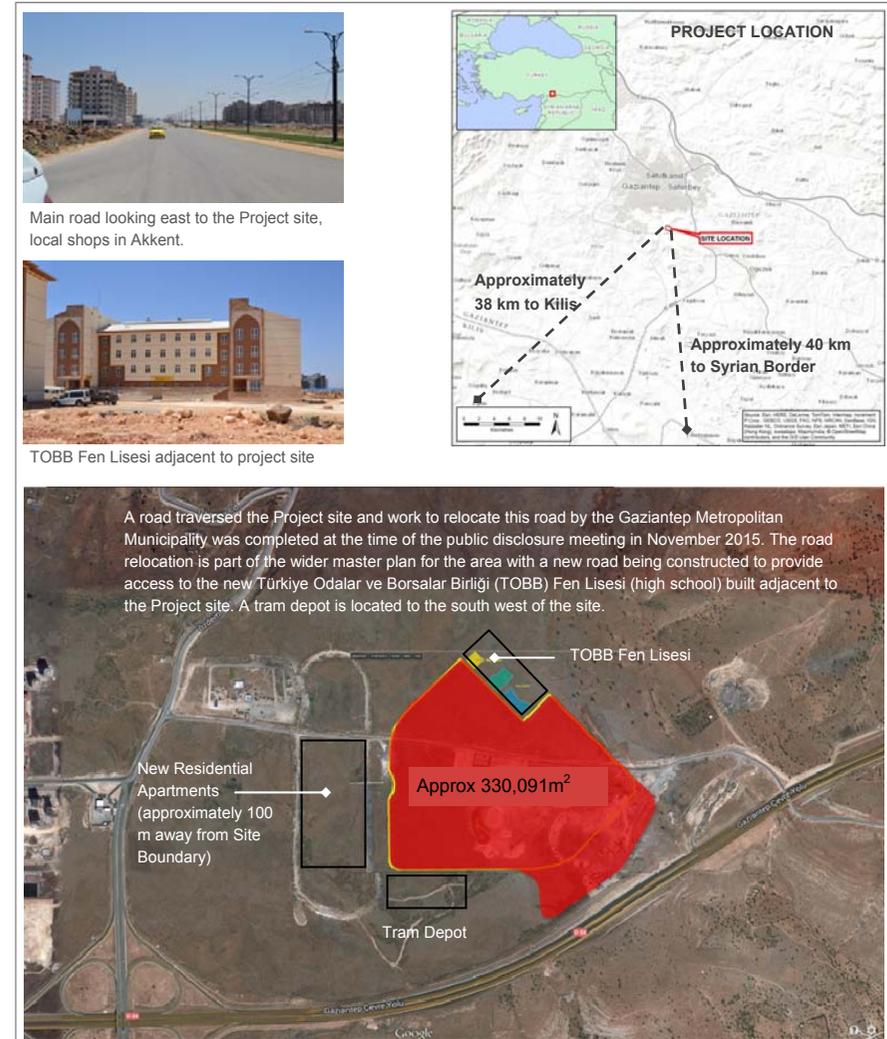
Gaziantep is already expanding existing hospital infrastructure by 800 beds but still needs the additional bed capacity that the Project will provide. Additionally, only around 40 percent of existing government hospitals and 60 percent of university hospitals meet relevant EU standards. There is also an urgent need to expand and upgrade hospital infrastructure and services in Gaziantep Province.

### 2.3 Project Location

The Project is located in Şahinbey District, one of nine districts in Gaziantep Province, southwest of Gaziantep City in southeast Turkey. The Project area is surrounded by several neighbourhoods including Akkent, Karataş, Güneş, 75 Yıl and Dumlupınar.

The Project location and the neighbourhoods in the Şahinbey District are illustrated in Figure 1

Fig 1 Project Location



(1) Information provided by the Director of the Provincial Directorate of Health during the Scoping site visit on 21 April, 2015.

## 2.4 Project Site

The Project Site is shown in Figure 1. The parcels of land used for the Project were previously administered by the Treasury, with ownership for the entire site being passed on to the MoH to lease to the SPV on the 4th September 2015. The SPV now has a lease for these parcels.

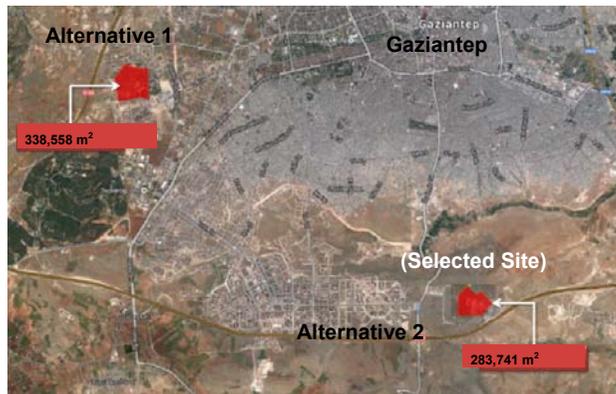
## 2.5 Project Alternatives - 'No Project' Scenario, Site and Design Alternatives

The 'no project' scenario considered not developing the Project at all. This would mean no investment in the healthcare system and no improvement in health services. Given the demand for improved and modern healthcare facilities in Gaziantep, the 'no project' scenario has not been considered further. Two potential Project sites were identified in Gaziantep and are illustrated and described in Figure 2.

Four tri-generation and boiler alternatives were also assessed as part of the ESIA with alternatives including single flue stacks, combined flue stacks and different stack heights. The recommended design incorporates a reduction in nitrogen oxide (NOx) emission concentrations from the tri-generation boiler unit, combined emission point flues into single stacks and an increased stack height. This ensures impacts to air quality are minimised to as low as reasonably practicable. The schematic design for the Project was amended to improve accessibility, maximise green space and allow more natural daylight into buildings.

Fig 2 Alternatives

**Alternative 1: Osmangazi, Şehitkamil District:** The Project was originally planned to be located in Şehitkamil District of Gaziantep Metropolitan Municipality, on the eastern side of the city. However, access was challenging at this site. While the hospital could be accessed via the Gaziantep Ring Road, access from the centre of town was considered to be very difficult. The eastern side of the city currently has one university hospital and a maternity and children's hospital.



Significant changes were made to the schematic design of the Project in January / February 2016.

The revised schematic design was changed in order to improve accessibility, enhance open space and green areas and improve daylight reaching inside hospital buildings.

**Alternative 2: Akkent, Şahinbey District:** This is the current Project site, which was chosen because of the opportunities created by planned large scale urban development in the area. The Hospital will benefit from access road networks into central Gaziantep and around the city, its proximity to the airport and the additional infrastructure such as water and electricity provision that is planned as part of the new development. The Ministry of Health, jointly with Gaziantep Metropolitan Municipality were responsible for decision the decision to move to the new site.

## 2.6 Project Design & Layout

The Project will have a total capacity of 1,875 beds. In addition to the main hospital core and four towers with a total bed capacity of 1,625, the healthcare campus will have a 100 bed High- Security Forensic Hospital and a 150 bed Rehabilitation Hospital. The health campus will house administrative buildings (including the Provincial Directorate of Health), car parking areas and a helipad located to the south of the Main Hospital. The helipad will service ambulance helicopters currently under the direct service of the MoH. The concept design and hospital details have been illustrated in Figure 3 below.

- MH Main Hospital:**  
Four towers & a core building with a bed capacity of 1,625 beds
- FRH Forensic Hospital:**  
Bed capacity of 100 beds (3 Floors)
- RH Rehabilitation Hospital:**  
Bed capacity of 150 beds (4 Floors)
- ADM Administration**



### ISM Provincial Directorate of Health (ISM)

The **Provincial Directorate of Health (ISM)** will be located in the south west of the Project Site and will house various services and have several functions across eleven floors including one ground floor and a basement.

### P Car Park

Total 3852 Spaces  
 Indoor 3175 Spaces  
 Outdoor 677 Spaces

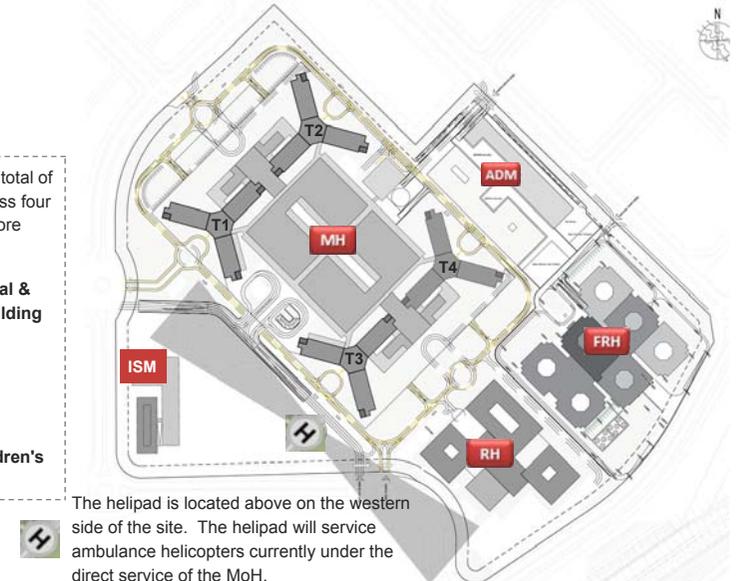
The **Main Hospital** will have a total of 1,625 beds (1,592 spread across four 10-floor towers and 33 in the core building).

Tower one - **Oncology Hospital & Cardiovascular Diseases Building**

Tower two - **General Hospital**

Tower three - **General and Psychiatric Hospital**

Tower four - **Women's & Children's Hospital**



The helipad is located above on the western side of the site. The helipad will service ambulance helicopters currently under the direct service of the MoH.

Fig 3 Project Design

## 2.7 Utilities

The Project will incorporate well designed and integrated utilities which will comprise of the following components;

- Water supply;
- Site drainage and run off;
- Wastewater;
- Waste disposal;
- Tri-generation system;
- Electrical system;
- Mechanical design and
- Fire safety.

## 2.8 Construction Phase

Construction is due to start in in the second quarter of 2016 and will last for approximately three years.

Construction activities are planned to run for 10 hours per day. The SPV will seek necessary approval from the Gaziantep Directorate for Environment if night time construction activities are required and will have an approval letter in place before commencing night time activities. Construction activities will take place from Monday to Saturdays with peak travel times between 07.00 - 08.00 and 15.00 - 16.00. If a night time shift is required, peak travel times will be between 15.00-16.00 and 23.00-24.00.

During construction, water will be taken from an existing pipeline which will be connected in the north west of the site. Groundwater will not be extracted for the Project.

### Security Arrangements

Appropriate security arrangements will be made during construction phase and will be split into four zones for management. The four zones are;

*Main Entrance/Reception Areas:* transition from public zones to restricted access areas.

*Operational Areas:* access will be limited to personnel who work there or properly escorted visitors. These areas will be marked and monitored periodically by security guards.

*Security Area:* accessed limited to authorised personnel and properly escorted visitors. These areas will be marked and monitored continuously 24hrs a day 7 days a week.

*High Security Area:* areas where selected personnel handle high-value assets and access is limited to authorised, appropriately screened personnel and properly escorted visitors. These areas will be marked and monitored continuously 24hrs a day 7 days a week. Access to these areas will also be recorded and audited.

## 2.9 Management During Operation

During operation the SPV will share the management of the Project with the MoH. The MoH will be responsible for medical services and provision of clinical staff including doctors, nurses and other support health personnel. The MoH is also responsible for the general management of clinical hospital activities.

### Emergency Procedures

An Occupational Health and Safety Plan will be prepared in advance of operation as part of the Environmental and Social Management System (ESMS). This will provide the plan for the prevention of accidents, injuries and illness resulting from foreseeable workplace hazards and risks. The Plan will adhere to the international accredited standard OHSAS 18001 and comply with the guideline of the agency of the Turkish Ministry of Labour and Social Security and will be updated and reviewed at regular intervals.

In addition, an Emergency Preparedness and Response Plan (EPRP) will be prepared as part of the ESMS which will cover unplanned events such as fire, fuel and chemical spills, natural disasters such as flooding and earthquakes and will consider the forensic hospital in detail for all types of incidents, accidents and disasters.

### Security Arrangements During Operation

The MoH and SPV is committed to the provision of a medical complex driven with an emphasis on patients' security and safety as well as the security and safety of all visitors and staff. Site security will be provided by a private company contracted directly to the SPV. The MoJ will be responsible for security at the High Security Forensic Hospital and the provision of military police (gendarme), guards and other officers.

### Operational Workforce

During operation, the workforce is anticipated to be approximately 6,100, of which approximately 3,600 will be healthcare professionals and 2,500 operational and maintenance staff. Operational and maintenance staff will be recruited specifically for the Project; however a proportion of healthcare professionals are likely to be transferred by the MoH from other hospitals.

The SPV will be responsible for recruiting all non-clinical staff, of which approximately 50 percent will be employed locally.

### 3.0 ADMINISTRATIVE FRAMEWORK

#### 3.1 Overview

This Project is considered to be a Category B project, under the EBRD Performance Requirements. Category B projects or operations are those where “potential adverse future environmental and/or social impacts that are typically site-specific, and/or readily identified and addressed through mitigation measures”. Environmental and social appraisal requirements vary depending on the project.

The SPV have decided to undertake a full ESIA for the Project, which has been accepted by the principal lenders as it goes beyond EBRD requirements. The Project conforms to the following domestic/international Legal Frameworks and Directives.

- Turkish legislative requirements
- European Directives and International Conventions
- Lender requirements (eg EBRD , EIB , IFC , EHS Guidelines, OECD )
- Internal Corporate Standards

#### 3.2 Turkish Legislative Requirements

The Environment Law <sup>(1)</sup> is Turkey’s primary framework for environmental legislation and is supported by a series of regulations. Article 10 of the Environment Law sets the framework for the EIA Regulation <sup>(2)</sup>. It is understood that the Project does not fall within the scope (Annex 1 or 2) of the current EIA Regulations and the SPV is engaging with the Ministry of Environment and Urban Planning (MEUP) and other competent authorities to seek their formal opinion and confirmation. Due to their scale and nature, it is expected that the tri-generation plant and concrete batching plant will be classified as ‘Annex 2’ projects under the regulation and will therefore need a local EIA. A summary of the national legislation relevant to the Project is detailed in *Volume II, Annex A – Administrative Framework* with the primary legislation of relevance being:

- Environmental Law (No. 2872) as amended in 2006 (by No. 5491)
- EIA Regulation
- Regulation on Environmental Permits and Licenses
- Labour Law (No. 4857)
- Occupational Health and Safety Law (No. 6331)
- Basic Law on Healthcare Services (No. 3359)

(1) Environment Law (No. 2872), as amended in 2006 (by No. 5491) (Official Gazette Date/Number: 16.08.1983/18132;last amended on 29.05.2013).

(2) EIA Regulation (Official Gazette Date/Number: 25.11.2014/29186).

#### 3.3 European Directives & International Conventions

As a Candidate Country for Membership into the European Union, the Project will need to comply with a number of European Directives and International Conventions.

In addition, Turkey has ratified a number of conventions that are of relevance to the Project.

A summary of each Directive, and a description of why they are relevant to the Project, is provided in *Volume II, Annex A – Administrative Framework*.

#### 3.4 Lender Requirements

This ESIA has been developed in accordance with recognised international financing requirements, namely the EBRD Performance Requirements, the IFC Performance Standards, EIB Environmental and Social Standards, OECD Common Approaches <sup>(3)</sup> on Environmental and Social Due Diligence and the World Bank EHS Guidelines, including those specifically for Health Care Facilities<sup>(4)</sup>.

A summary of each requirement, and a description of why they are relevant to the Project, is provided in *Volume II, Annex A – Administrative Framework*.

#### 3.5 Internal Corporate Standards

The SPV is developing a range of corporate standards to support environmental and social performance. A Health, Safety and Environment Plan (HSE Plan) has also been developed. The HSE Plan describes the Management System for health, safety, security and environmental issues. It has been developed in agreement with the Turkish Ministry of Health and incorporates: Turkish HSE requirements such as Workers Health and Job Safety Regulations in Construction Works, published in the Official Gazette No. 28786 (07/10/2013); and is based on the HSE Law No. 6331.

The document outlines roles and responsibilities of key personnel with respect to HSE, including sub-contractors.

This document, along with a full suite of environment, health, safety and security plans have been developed as part of the SPV Environmental and Social Management System (ESMS).

(3) The OECD Common Approaches refer to the IFC Performance Standards and so information has been provided on these Standards, rather than the details of the Common Approaches themselves.

(4) <http://www.ifc.org/wps/wcm/connect/bc554d80488658b6b6e6f66a6515bb18/Final%2B-%2BHealth%2BCare%2BFacilities.pdf?MOD=AJPERES&id=1323161961169>.

## 4.0 STAKEHOLDER ENGAGEMENT

### 4.1 Introduction

Stakeholder engagement activities for the Project have been planned and implemented in line with the requirements of the EBRD Performance Requirements (PR10), EIB Environmental and Social Standards including the Stakeholder Engagement Standard and IFC Performance Standards (PS1). Stakeholder engagement requirements are also included in the Turkish EIA Regulation (2014) but as the Project does not fall within the scope of current EIA Regulation, stakeholder engagement for the Project is not mandatory under Turkish Law.

It is anticipated, however, that the tri-generation and concrete batching plants for the Project will be subject to EIA Regulation; as such they will likely be subject to stakeholder disclosure requirements.

Full details of consultation with regulatory authorities, local communities and other key stakeholders are presented in the Stakeholder Engagement Plan (SEP) located in Volume II, Annex I. The objectives of engagement process has been illustrated in Figure 4.

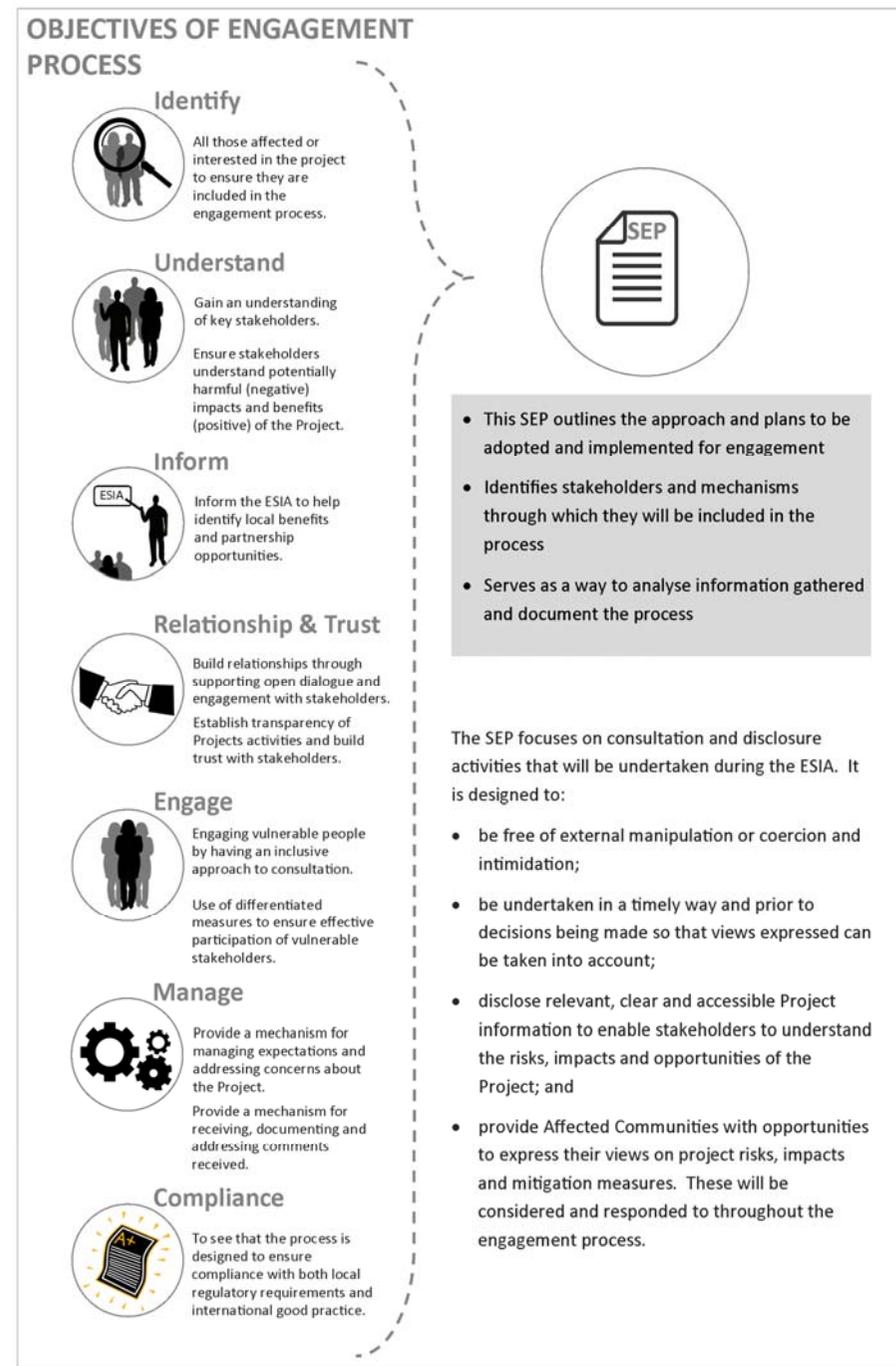
### 4.2 Stakeholder Identification & Analysis

Prior to undertaking engagement activities, stakeholders were identified and subsequently categorised according to their interests and interaction with the Project. This analysis was used to ensure engagement activities were tailored appropriately to the needs and interests of different stakeholder groups.

In order to ensure that the engagement process was as inclusive as possible, the ESIA team carefully identified individuals and groups that could be deemed as 'vulnerable' i.e. those who may find it more difficult to participate and those who may be differentially or disproportionately affected by the Project because of their marginalised or vulnerable status.

The stakeholder analysis also looked to identify those stakeholders that are likely to be affected by Project impacts (actual or perceived) to ensure that the SEP and planned communication are appropriately tailored. Stakeholders identified were from the following groups (see full list in Volume II, Annex I).

- National Government Stakeholders;
- Local / Provincial Government Stakeholders ;
- Community Stakeholders;
- NGOs and Associations; and
- Hospital users and staff.



#### 4.3 Stakeholder Engagement Activities - Scoping Stage

Stakeholder engagement was commenced by the ESIA project team during the Scoping site visit in April 2015, although discussions with various Government departments have been ongoing since Project inception.

During the Scoping site visit, meetings were held with the Ministry of Health, Gaziantep Metropolitan Municipality and Şahinbey District Municipality, along with the Provincial Directorate of Health and the Muhtar of Güneş neighbourhood.

Further stakeholder engagement meetings were held in July 2015 to present the findings of the Scoping Report. As part of this process a public meeting was held at the Provincial Directorate of Health and was attended by 52 participants. The meeting was announced twice in both a national newspaper (Hürriyet Daily News) and a local newspaper (The Güneş).

Project Information Documents (PIDs), flyers and comment forms were made available during the meeting. Meetings were also organised with Muhtars and community members from neighbourhoods such as Akkent, Karataş, Güneş, 75 Yıl, Dumlupınar, Bağlarbaşı village and Kahvelipınar. Focus group discussions were arranged, along with key informant interviews at local schools, health sector NGOs and local authorities, to obtain baseline data and discuss the Project.

At all of the meetings, details of the Project were presented and stakeholders were invited to ask questions and comment on potential impacts and mitigation measures. Project Information Documents and flyers translated into Turkish were left with all stakeholders as well as comment / feedback forms. These documents included Project contact details to allow stakeholders to submit any further comments after the meetings. In addition to handing them out during meetings, these documents were sent to approximately 200 stakeholders including Government Ministries, NGOs and Associations in Gaziantep, Istanbul and Ankara.

The full list of stakeholders receiving documentation is presented in Stakeholder Engagement Plan (Volume II, Annex I).

##### Draft ESIA Engagement

Stakeholder engagement on the draft ESIA report was undertaken in November 2015 to:

- introduce the Project to stakeholders and inform them of the ESIA process;
- present the findings of the draft ESIA Report;
- discuss potential environmental and social impacts associated with the Project and seek feedback on proposed management and mitigation/ enhancement measures;

- identify and discuss any issues of concern;
- explain the grievance mechanism for the Project; and
- provide stakeholders with an opportunity to ask questions.

The meeting was held at the Provincial Directorate of Health and was also attended by 52 participants. The meeting was also announced in both a national newspaper (Hürriyet Daily News) and a local newspaper (The Güneş). Unlike the public meeting on the draft Scoping report, this meeting focused on each of the identified impacts associated with the Project and the proposed management and mitigation/enhancement measures in order to seek feedback.

An additional meeting was held with Türkiye Odalar ve Borsalar Birliği (TOBB) High School, which is adjacent to the Project site. This provided an opportunity for the school to raise any concerns and comment on specific mitigation measures relating to the impacts they may experience.

Focus group discussions were also held with Syrian refugees (one with men and one with women) to understand any vulnerabilities around employment and using hospital services. Options for engaging with Syrians using the Healthcare Campus were also discussed with the Association for Solidarity with Asylum Seekers and Migrants (SGDD).

#### 4.4 Outcomes of Engagement

The response to the Project has on the whole, been very positive with strong support expressed in all the meetings held. The women consulted expressed their hopes for a better healthcare service for children in a cleaner environment.

The main concerns regarding the Project were raised by TOBB High School located adjacent to the Project site. The location and environment of the school is considered to be a very important factor for parents when deciding where to register their children.

The School was made aware of the grievance mechanism and is now in direct contact with the Project to raise any concerns they may have during construction. It was suggested that formal and regular meetings with the hospital management would be helpful in reassuring parents and teachers once the Project is operational.

The minutes of the public meetings are presented in the SEP, along with an overview of engagement during the operation of the healthcare campus. Methods for engagement during Project operation are outlined in Volume II, Annex I.

#### 4.5 Grievance Mechanism & Feedback

A grievance mechanism for the ESIA has been established to respond to and resolve concerns expressed by stakeholders. Grievances may take the form of specific complaints or concerns or perceived incidents and impacts. The process involves the following steps:

- record the grievance;
- acknowledge the grievance;
- investigate the grievance;
- develop a response;
- communicate the response and establish agreement on next steps; and
- close-out process.

The SPV will appoint a representative (a Community Liaison Officer) for the Project, who will be responsible for grievance management. Grievances will be passed through the Community Liaison Officer in the first instance, who will be responsible for passing the grievance on to the appropriate person in line with the Project grievance mechanism.

Full details of the grievance mechanism for the Project are provided in the SEP. The SPV will also establish a mechanism for engagement and feedback for users of the healthcare facility during operation.

The following feedback channels have been available to stakeholders throughout the ESIA process:

- Public meetings;
- Focus group discussions and key informant interviews;
- Telephone to SPV Chief Operating Officer: +90 212 2846080/1
- In writing to the SPV at the following address: Esentepe Mah. Atom Sok. No: 18 King Plaza Gültepe/Sisli/ISTANBUL; and
- E-mail to [spv@gaziantepspv.com](mailto:spv@gaziantepspv.com)

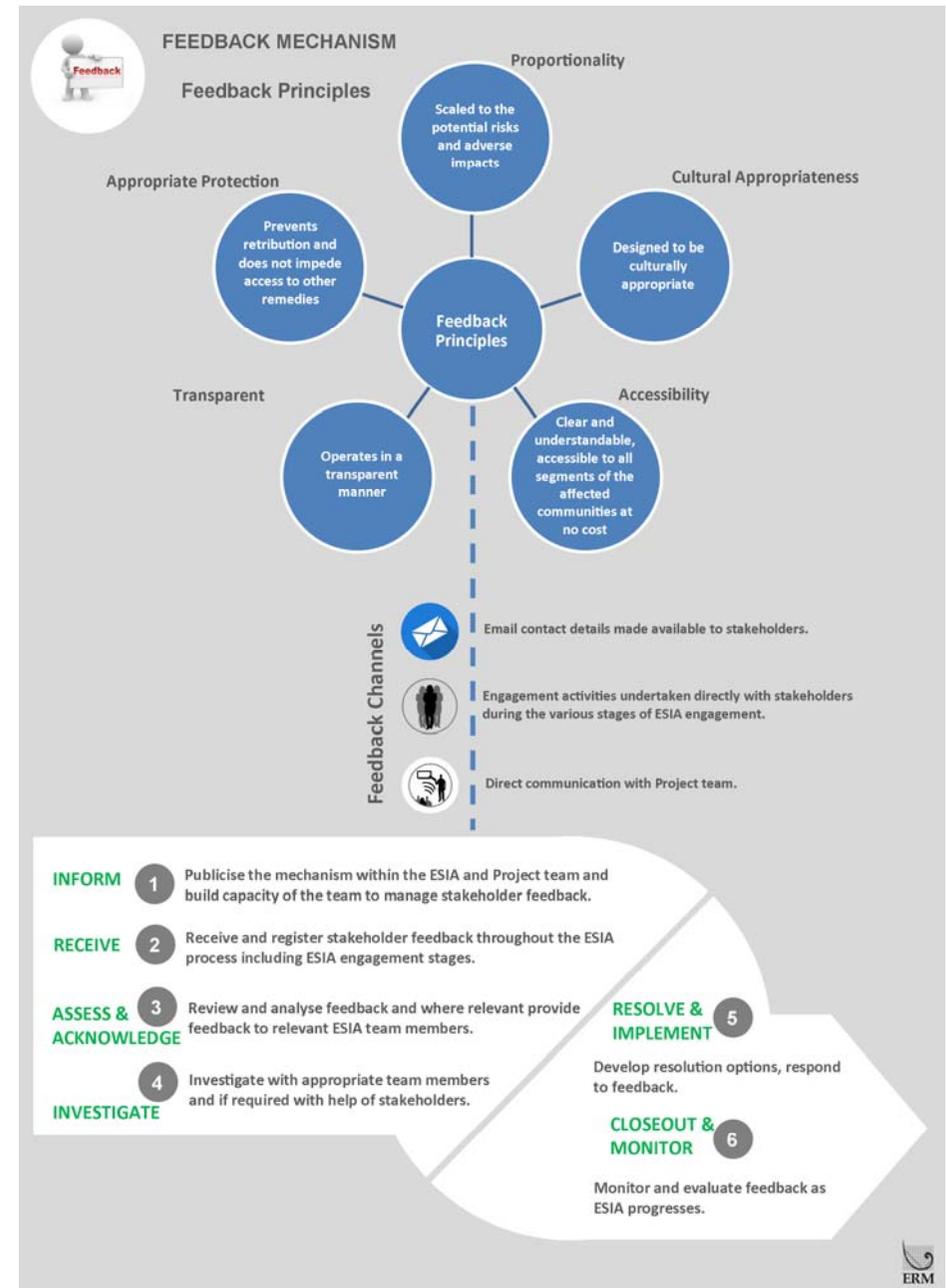


Fig 5 Feedback Mechanism

## 5.0 ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT METHODOLOGY

### 5.1 Introduction

The key objectives of the ESIA are to assess the potential environmental and social impacts associated with the construction and operation of the Project, and to identify measures that can be adopted to avoid, minimise or offset adverse impacts and enhance beneficial impacts.

### 5.2 Overview of ESIA Process

The SPV is seeking funding from international finance institutions, which have categorised the Project as Category B. Category B projects or operations are those where an environmental analysis must be prepared. The Environmental and Social Impact Assessment (ESIA) for this Project was initiated before project categorisation by the Lenders, and it was decided by the SPV to continue to undertake a full ESIA. This approach has been accepted by the principal lenders as it goes beyond EBRD requirements for Category B projects.

### 5.3 Scoping

The aim of the scoping process was to identify the effects that have the potential to be significant and to exclude (scope out) from the assessment those effects that are unlikely to be significant. During the scoping phase a summary of high level baseline information was provided, key potential environmental and social impacts and sensitive receptors and resources were identified, the impact assessment methodology was defined and the Terms of Reference (ToR) for the ESIA were developed.

### 5.4 Collection of Baseline Data

The baseline describes the existing environmental and social conditions of the Project. It is this baseline against which the effects of the Project can be assessed. Primary and secondary environmental and social data were collected in order to enhance understanding of the receiving environment. The baseline forms the background against which impacts were identified and evaluated.

The baselines for each assessment topic is contained in the specialist Annexes in Volume II of this report.

### 5.5 Stakeholder Engagement

Periodic engagement has been undertaken with stakeholders throughout the ESIA process and stakeholders' views were incorporated into the assessment process. The engagement process conformed to the IFC's Performance Standards and is described in more detail in Annex 9. The stakeholder engagement plan developed for the Project provides a list of stakeholders that were consulted throughout the ESIA process.

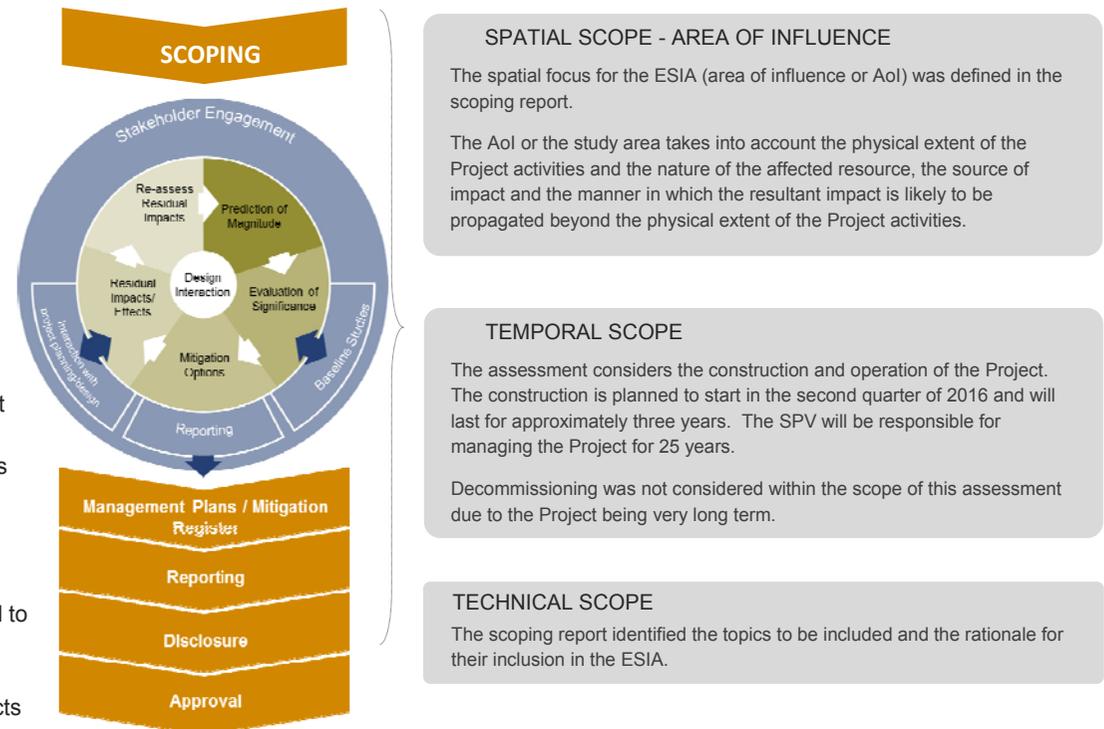


Fig 6 Overview of the ESIA Process

### 5.6 Assessment of Impacts

The assessment methodology is set out in Figure 7. This is based on ERM's global standard for completing impact assessments (the IA Standard). The overall objectives of the IA Standard are to ensure that ERM IAs:

- Follow the same principal approach;
- Capture ERM's best practices;
- Use the same key terminology; and
- Are presented in the same principal format.

Further to the methodology presented in Figure 6, as appropriate, more detailed methodology and significance criteria are set out in the assessment Technical Annexes in Volume II.

An activity or impact may result in a variety of types of effects. In identifying these, the ESIA takes into account their nature, duration and other factors. These are the definitions used within the assessment of environmental and social health effects (see Table 5.1 of the Vol 1).

## ENVIRONMENTAL & SOCIAL IMPACT ASESMENT METHODOLOGY

Fig 7 ESIA Methodology

### Impact Assessment Process

#### 1. Identify Impact

The scoping process identifies the potentially most important/significant impacts and effects for the assessment to address. This is done through a combination of:

- looking at the nature of the project activities and the impacts they will give rise to;
- looking at the project's environmental and social setting and its aspects which are likely to be most sensitive/vulnerable to impacts from the project;
- applying professional understanding gained from the evidence base; and
- considering inputs from stakeholders through consultation.

Decisions are then made on which impacts and effects to assess or to prioritise in the assessment (scoping in and scoping out) and how to assess them (proposed methodology).

#### 2. Predict Magnitude

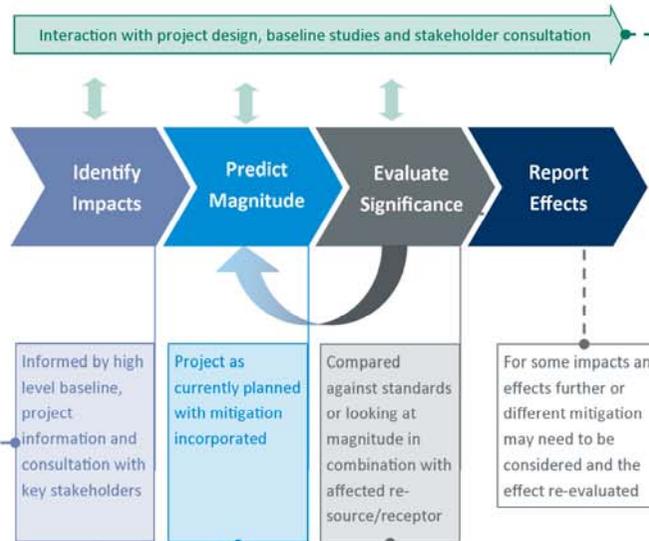
The project's impacts are quantified in terms of, for example:

- change in noise levels at a residence;
- level of interaction of Project construction and operational vessels with shipping and navigation and other marine users;
- dust and PM<sub>10</sub> exposure to nearby sensitive receptors including residents, tourists at the cruise terminal and nearby schools; and
- numbers of jobs generated in the local economy.

In predicting magnitude the effect of all the project mitigation in place is taken into account. For some impacts, especially noise and air pollution, significance can be assessed directly against numerical criteria and standards. For exceedances further mitigation must be incorporated by the Project to reduce the magnitude of the impact (and significance of its effect).

For other impacts nominal levels of magnitude (eg small, medium, large) may be adopted based on widely recognised factors such as: the nature of a change (what is affected and how); its size, scale or intensity; its geographical extent and distribution; its duration, frequency, reversibility.

Some activities will result in changes to the environment that may be immeasurable or undetectable or within the range of normal natural variation. Such changes will be assessed as having no impact or to be of negligible magnitude and will not lead to significant effects.



#### Describe Baseline

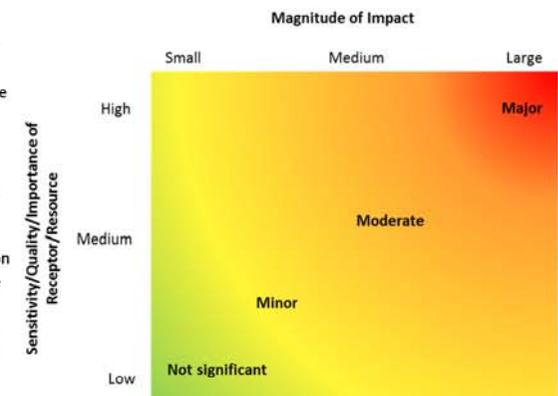
Baseline data are collected to better understand the potentially most important impacts and effects identified in scoping. Baseline data may quantify existing exposure levels (eg for noise and air pollution), identify sensitive receptors such as residents, nearby schools and marine species.

Where a baseline aspect cannot be quantified then nominal levels of importance, quality or value (low, medium, high) are assigned based on widely accepted criteria in fields such as ecology, cultural heritage, landscape and socioeconomic assessment. Levels of sensitivity may also be assigned in a similar way, but noting that sensitivity is a characteristic linked to how a receptor responds to an impact (and the magnitude of that impact). For example a dolphin population may be of high importance (protected), highly sensitive to loss of food sources, moderately sensitive to seismic noise and of low sensitivity to vessel movements.

#### 3. Evaluate Significance

In evaluating significance, the EIA process is seeking to inform regulators and stakeholders about the effects of the Project in a way that helps them make decisions on whether to approve and allows them to develop suitable conditions to attach to an approval. The evaluation of significance should ideally demonstrate legal compliance at least (eg compliance with quantified standards, avoidance of effects on legally protected resources).

In the absence of quantified standards, impacts/effects can be evaluated through considering the magnitude of an impact in combination with the importance/quality/value (and sometimes sensitivity) of the receptor or resource that is affected. Moderate or major impacts/effects may warrant re-examination to see if an impact magnitude can be reduced further. Different mitigation options may be examined and the reasons for selecting one and rejecting others explained. Some impacts/effects that cannot be adequately mitigated may need to be addressed through the consideration of offsets or compensation. The evaluation process may go through more than one iteration of working with project design to develop suitable mitigation and re-evaluating impacts and effects.



While the above provides a general framework for identifying impacts and assessing effects, in practice the approaches and criteria applied across different environmental and socio-economic topics vary.

## 5.6 Assessment of Impacts - Mitigation

Measures to mitigate Project impacts are identified in this ESIA. This hierarchy is used:

- **Avoid at source** – remove the source of the impact.
- **Abate at source** – reduce the source of the impact.
- **Attenuate** – reduce the impact between the source and the receptor.
- **Abate at the receptor** – reduce the impact at the receptor.
- **Remedy** – repair the damage after it has occurred.
- **Compensate / Offset** – replace in kind or with a different resource of equal quality or value.

Mitigation measures agreed by the Project are integrated into the Environmental and Social Management and Monitoring Plan (ESMMP).

## 5.7 Assessment of Residual Impacts

Following the identification of (additional) mitigation measures, impacts are re-assessed to determine their residual impact. This is essentially a repeat of the impact assessment steps discussed above, albeit with a consideration of the assumed implementation of the mitigation measures.

## 5.8 Alternatives

Lenders require project alternatives to be considered and the rationale for selecting the particular way forward to be documented. As outlined in Chapter 2, two potential Project sites were identified in Gaziantep; one in Osmaniye in the Şehitkamil District, and another, the chosen Project location of Akkent in the Şahinbey District. The Project Site was chosen because of the opportunities created by planned large scale urban development in the area. Design alternatives were also considered by the SPV to meet MoH requirements.

The Project will benefit from the access road network into central Gaziantep and around the city, its proximity to the airport and the additional infrastructure such as water and electricity provision that is planned as a part of the new development.

Alternative stack configurations and parameters for the tri-generation plant and boilers were considered. The design selected reduces the air quality impacts to as low as reasonably practicable.

## 5.9 Assessment of Cumulative Impacts

The assessment of cumulative effects is an integral part of the ESIA process and ensures that all aspects of potential effects from the Project have been addressed. Cumulative effects result from incremental changes caused by other past, present or reasonably foreseeable development together with the cumulative effect and those from the Project.

In most instances past and present development will have been captured in the baseline for the Project (eg through noise measurements, traffic counts) and the normal practice of 'adding' impacts from the Project to the baseline will assess. The cumulative assessment approach is based on a consideration of the approval status or existence of the 'other' activity and the nature of information available to inform the prediction of the magnitude of impact from the other activity.

## 5.10 Management Plans

Following the assessment of impacts, management plans are developed by the SPV for each topic area eg air quality management plan, noise management plan, social management plan, etc. These set out how the mitigation measures will be put into practice, monitored and upheld. This includes defining the responsibility, timing and reporting requirements associated with each measure.

## 5.11 Disclosure

This ESIA report will be disclosed to interested stakeholders for at least 28 days to allow enough time for comment. The ESIA report will be disclosed on the SPV website from July 2016.

## 5.12 Assumption & Technical Difficulties

Every effort has been made to obtain data concerning the existing environment and to accurately predict the effects of the Project. The Project-specific aspects of this ESIA have drawn upon existing literature, Project-specific documentation, personal communication with consultees, stakeholders and local experts.

Assumptions adopted in the evaluation of effects are reported in the relevant chapters. However, these assumptions are often implicit, relying on expert judgement. Where technical deficiencies are known, or it has been necessary to make assumptions, these are documented.

The ESIA has been undertaken during the design phase of the Project and therefore some of the technical aspects of the Project have yet to be determined. Should a change in design of the Project occur with potential effects to the environment or society then stakeholders will be consulted and amendment(s) to the ESIA prepared as deemed appropriate.

## 6.0 SUMMARY OF RESIDUAL IMPACT ASSESSMENT

### 5.1 Introduction

This chapter provides a summary of the residual impacts identified during the ESIA study for the construction and operation of the Project. Summary of mitigation measures have been provided alongside potential impacts for each of the topic areas in the full ESIA report.

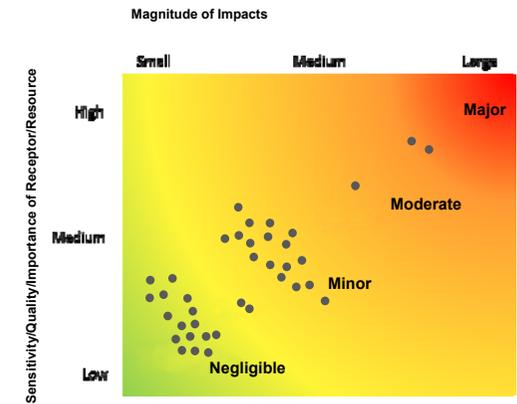
Key Environmental Impacts (Operation)	
Tri-generation plant	NEGLIGIBLE
Road traffic emissions	NEGLIGIBLE
Increased noise	NEGLIGIBLE
Traffic noise	MODERATE to MAJOR
Healthcare waste	MINOR
Domestic waste	MINOR
Contaminated waste	MINOR
Special wastes	MINOR
Traffic	MODERATE
Contamination of water	NEGLIGIBLE
Seismic risk	NEGLIGIBLE
Impact on soils	NEGLIGIBLE

Key Environmental Impacts (Construction)	
Construction dust	MINOR
Traffic emissions	MINOR
Construction noise	MINOR
Blasting	NEGLIGIBLE
Traffic noise	NEGLIGIBLE
Solid waste generation	MINOR
Accidental spills, contaminated soils & hazardous waste	MINOR
Special waste	MINOR
Domestic wastewater	MINOR
Medical waste	MINOR
Traffic	MINOR
Run-off from construction	NEGLIGIBLE
Contamination of water	NEGLIGIBLE
Seismic risk	NEGLIGIBLE
Impact on soils	NEGLIGIBLE

SIGNIFICANCE CRITERIA	
Significance	Significance Context
<b>Negligible</b>	A resource/receptor (including people) will essentially not be affected in any way by a particular activity or the predicted effect is deemed to be 'imperceptible' or is indistinguishable from natural background variations.
<b>Minor</b>	A resource/receptor will experience a noticeable effect, but the impact magnitude is sufficiently small (with or without mitigation) and/or the resource/receptor is of low sensitivity/ vulnerability/ importance. In either case, the magnitude should be well within applicable standards.
<b>Moderate</b>	Has an impact magnitude that is within applicable standards, but falls somewhere in the range from a threshold below which the impact is minor, up to a level that might be just short of breaching a legal limit.
<b>Major</b>	An accepted limit or standard may be exceeded, or large magnitude impacts occur to highly valued/sensitive resource/receptors.
<b>Positive</b>	There will be a beneficial impact to a resource/receptor. (note: no magnitude is assigned for positive impacts).

Key Social Impacts (Construction)	
Loss of jobs	NEGLIGIBLE to MINOR
Employment opportunities	POSITIVE
Economy	POSITIVE
Traffic	MINOR
Risk of accidents - trespassing	NEGLIGIBLE
Conflict with security providers	NEGLIGIBLE
Interactions with workers	MINOR
Occupational health & safety	MINOR
Worker accommodation camp	NEGLIGIBLE

Key Social Impacts (Operation)	
Health impacts	POSITIVE
Employment & economy	POSITIVE
Patient rights	NEGLIGIBLE
Traffic	MINOR
Security management	NEGLIGIBLE
Exposure to infections/diseases	MINOR
Exposure to hazardous materials, waste and radiation	NEGLIGIBLE
Emergency events: fire	MINOR



## 6.0 SUMMARY OF IMPACTS AND MITIGATION - Environmental

This section provides a summary of environmental benefits, potential adverse impacts, mitigation and management measures.

### Soils

A series of measures will be embedded in the Project design including:

- Compliance with IFC EHS Guidelines.
- Use of protective impervious bases and bunds for storage of fuels, oils and chemicals.
- Spoil and surplus materials will be recovered.

Additional mitigation measures include the implementation of a Hazardous Material Management Plan to be prepared by the SPV and the implementation of an Emergency Preparedness and Response Plan with provisions for the event of spills.

Construction activities and storage of construction equipment and materials have the potential to affect soil through compaction and spills of hazardous materials. During operation, soils could become contaminated from accidental spills of hazardous materials and accidental leakage of sanitary wastewater discharge.

### Surface and Water

Good construction management practices will be employed as outlined in the Construction Management Plan. Measures will be included for storage of materials, monitoring and inspection, training and placement of sediment traps.

Fuelling of vehicles or equipment will only take place in designated areas and not take place in excavated areas to protect soils. An existing groundwater well will be decommissioned.

During construction and operation, a Hazardous Material Handling Procedure will be implemented to ensure the appropriate handling of hazardous materials. Storm water will be discharged into the municipal storm water collection system.

Regular periodic integrity testing for hazardous materials will be undertaken and an Emergency Preparedness and Response Plan will have provisions for the appropriate management of spills.

Without adequate measures in place, run-off during construction has the potential to impact the quality of nearby surface water through increased suspended solids and bottom siltation. Spills of hazardous materials during construction and operation can lead to contamination of ground and surface water.

### Traffic

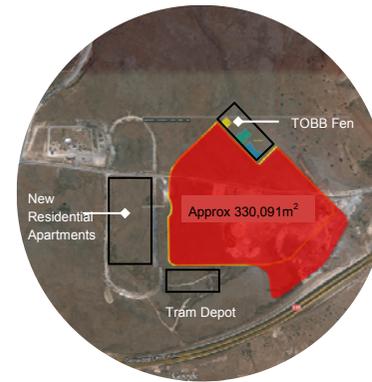
The SPV will implement a Traffic Management Plan during construction, which will include measures for safety in internal road networks, traffic signals, site access control, personnel working on site, traffic control mitigation measures, internal traffic management, off-site traffic management, training for drivers and staff and vehicle maintenance. The SPV will undertake internal road maintenance.

A Health Campus Internal Traffic Management Plan will be implemented during operation taking account of vehicle traffic, emergency conditions, pedestrians and existing traffic. Safety awareness campaigns will be undertaken with local residents and with the neighbouring TOBB School. Ongoing stakeholder engagement will be undertaken to monitor how Project-related traffic is affecting local residents.

The SPV will also coordinate with the Transport Coordination Centre of Gaziantep Metropolitan Municipality to the extent possible on traffic management and route selection.

The Project will result in a significant increase in traffic volumes during construction and operation. During construction there will be use of heavy vehicles such as excavation trucks and concrete mixers as well as staff vehicles.

During operation, it is expected that the Project will have over 50,000 daily users generating traffic. Additional traffic loads may also impact on health and safety.



### KEY

- Residual Impacts
- Mitigation/ Management Measures

### Emissions to Air

An Air Quality Management Plan will be implemented to control construction dust emissions and include a range of measures to reduce dust generation.

During operation, emissions from the tri-generation plant and boiler plant will be controlled through optimising design, increasing stack heights and use of combined stacks for the tri-generation plant and boiler plant and a reduction / improvement in the oxides of nitrogen emission concentration.

Impacts associated with emissions during the construction phase will result from dust caused by construction activities such as vehicle movements, earth movement and concrete batching.

During operation, impacts associated with emissions will result from the operation of the tri-generation plant and boiler plant and an increase in traffic volumes.

### Noise and Vibration

A general code of Construction Management rules will be followed to reduce noise impacts which consider: scheduling of activities, orientating noisy equipment away from TOBB High School and residents, making use of hydraulic or electric controlled units where possible and the use of noise barriers. An advanced warning system will be used for blasting to reduce noise and vibration.

Traffic noise will be managed by use of buffers, strict speed limits, earthen bunds and noise barriers and road surface modification and maintenance.

Construction activities are expected to generate noise through use of heavy machinery, excavation and blasting. Noise will also be generated by construction traffic.

Noise and vibration can potentially affect local residents and students studying and boarding at the neighbouring TOBB High School.

### Waste

All wastes generated during construction and operation will be collected, segregated, labelled and stored in designated storage areas. A Waste Management Plan will be implemented with provisions for waste minimisation, segregation, labelling, storage, transportation, recycling and disposal to meet national regulatory requirements and international standards. The Waste Management Plan will also include provisions for monitoring and inspection.

A Hazardous Material Management Plan will be implemented to ensure the proper handling of hazardous materials during construction and operation. An Emergency Preparedness and Response Plan will have provisions for the appropriate management of spills from hazardous materials during construction and operation. All construction workers will receive appropriate training in waste handling, fuelling of vehicles and equipment and reporting of incidents.

During operation, the Project will operate and maintain a Healthcare Waste Management System in accordance with IFC EHS Guidelines for Healthcare Facilities and comply with waste management practices specified in the Guidelines.

The Project will generate a significant amount of waste during construction and operation. Waste during construction includes solid waste from excavation, domestic waste, materials and packaging, accidental spills and contamination to soils from hazardous waste, domestic wastewater and special waste such as oils, batteries and electrical and electronic waste.

Waste during operation includes healthcare and medical waste such as pharmaceutical, genotoxic/cytotoxic, chemical and radioactive wastes from imaging. Other waste includes glassware, syringes, solutions and excreta.

During operation there will also be special waste, contaminated wastewater and domestic waste.

## 6.0 SUMMARY OF IMPACTS AND MITIGATION - Social

This section provides a summary of social benefits, potential adverse impacts, mitigation and management measures.

Loss of Jobs	
<p>The SPV will implement a Human Resources Policy with clear guidance on contracting. Contractors will clearly be informed of their contract period and contracts will provide detail on workers' rights. Workers will also have the opportunity to receive certification during their employment, which will assist in future job prospects.</p> <p>A Grievance Mechanism will be implemented for all workers and workers will be made aware of the mechanism.</p>	<p>At the end of the construction period, contracts with companies and their workers will terminate. Construction contracts are relatively short-term in nature and on completion of works, construction staff will need to find alternative employment.</p>
Patient Safety and Patient Rights	
<p>International standards of quality and patient safety will be maintained through:</p> <ul style="list-style-type: none"> <li>Annual organisational self-assessment audits focusing on governance, ethics, quality measurement and improvement, patient safety and facility safety and emergency management. This will be implemented to ensure the highest standards in hospital management.</li> <li>Stakeholder Engagement Plan with provisions for engaging with users and visitors to obtain feedback on service performance.</li> <li>An Infection Control Programme and robust waste management measures will be implemented to protect patients and staff from the spread of infectious diseases.</li> <li>A Patients' Rights Charter will be implemented, adhering to the Patients' Rights Charter established in Turkey in 1998.</li> </ul>	<p>Patient safety and rights will be the joint responsibility of the SPV and the MoH.</p> <p>Patient care is dependent on robust management systems and proactive measures to protect patient rights and to deliver and maintain high quality patient care.</p> <p>Patients' rights will also require that health information will be protected and kept confidential.</p>
Cultural Heritage	
<p>A Chance Finds Procedure has been developed for the Project. This procedure will be implemented to protect any undetected cultural heritage sites, objects, or features from Project-related damage during construction.</p>	<p>Construction activities have potential to damage or destroy as yet undiscovered archaeological remains.</p>
Health and Safety Associated with Trespass during Construction	
<p>The following management plans and associated mitigation measures will be implemented to manage impacts related to trespassing.</p> <ul style="list-style-type: none"> <li>Secure fencing and security at the Project site.</li> <li>Construction Management Plan: This will include requirements for the management and maintenance of the perimeter fence, including along the entire length of the school site boundary to prevent entry onto the site.</li> <li>Security Policy and Plan: This will include provisions for security personnel patrolling the perimeter fence to avoid trespassing.</li> <li>The SPV will hold awareness sessions with students and teachers of TOBB High School to discuss health and safety issues associated with the construction of the Project in line with the Stakeholder Engagement Plan.</li> </ul>	<p>The Project site is directly adjacent to TOBB High School, which also has student boarders on site.</p> <p>Trespass on to the site by students or members of the public may result in accident and serious injury.</p>

KEY   Residual Impacts   Mitigation/ Management Measures

Worker Accommodation	
<p>A Camp Management Plan will align with the 'Workers' Accommodation Process and Standards Guidance Note prepared by the IFC and EBRD.</p>	<p>Worker accommodation will be required to provide sanitary and acceptable living standards for construction staff to ensure staff wellbeing.</p>
Interactions with Workers	
<p>The SPV will implement a Workforce Code of Conduct which prescribes expected behaviour and will govern interactions with the public.</p> <p>The SPV will also implement a Camp Management Plan to guide behaviour of staff living on site. A Grievance Mechanism will also be implemented and local residents will be made aware of the Grievance Mechanism as part of ongoing stakeholder engagement</p>	<p>Construction will result in an influx of workers residing at the site in a Workers' Camp. There is potential for local residents to experience negative interactions with these workers.</p>
Security Management	
<p>The Project will implement a Security Plan to manage security services during construction and operation. The Project will also align with the Voluntary Principles on Security and Human Rights. The use of force will not be sanctioned unless for preventative or defensive purposes. The Project will implement a Security Policy and Plan, which will specify the SPV position with respect to the use of force and training. Residents and users will be made aware of the Grievance Mechanism, which will be implemented by the SPV.</p>	<p>Security personnel will be used during construction and operation and will be required to act responsibly and avoid harmful interactions with the general public. Security arrangements during operation, particularly for the Forensic Hospital, will require coordination with the Ministry of Justice and Ministry of Health.</p>
Labour and Working Conditions	
<p>To ensure adequate labour and working conditions are maintained, the SPV will implement the following:</p> <ul style="list-style-type: none"> <li>An Occupational Health and Safety Management Plan based on the identification and management of key hazards to which workers are exposed. Quantitative risk assessment and hazard identification will be undertaken. The Plan will include provisions for documenting and reporting occupational accidents, incidents, illness and disease.</li> <li>An Emergency Preparedness and Response Plan will outline measures and procedures to manage any traffic, transport, accident and other emergencies.</li> <li>A Human Resources Policy will detail training required for all workers and will clearly specify workers' rights.</li> </ul>	<p>The Project will ensure that all staff during construction and operation are provided with working conditions and benefits that support their welfare and are in line with national regulation and international best practice to avoid unfair treatment and exploitation.</p>
Positive Benefits	
<p>The Project will result in positive benefits to health, the economy and the creation of jobs.</p> <p>Local residents will be kept aware of job opportunities via public announcements through radio and newspapers. Information will also be placed on social service centre notice boards. Job descriptions for each category of worker will be provided outlining required qualifications, knowledge, skills and experience in line with the SPV Human Resources Policy. The Project is also committed to the principles of equal employment opportunities and anti-discrimination.</p>	<p>The Project will create between 3,500 - 4,000 jobs during construction and up to 6,100 jobs during operation. It will also provide opportunities for local businesses in the neighbourhoods surrounding the Project.</p> <p>The Project will provide a state of the art medical facility with improved health care services offering the latest technology for the residents of Gaziantep and beyond.</p>

## 7.0 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLANS

### 7.1 INTRODUCTION

In order to ensure that the social and environmental issues identified during the assessment, are effectively managed, a series of environmental and social management and monitoring plans (ESMMPs or “management plans”) will be developed. These plans will outline appropriate mitigation and management measures that are needed to ensure acceptable levels of environmental and social performance, through both construction and operation.

The key elements of the management plans are provided in an over-arching framework ESMMP, in a tabular format. The SPV, with their contractor, are expected to use this as a basis for developing the detailed management plans that will be required from the start of construction. These are expected to include, at a minimum, the following:

- Air Quality Management Plan
- Camp Management Plan
- Chance Finds Procedure
- Construction Management Plan
- Emergency Preparedness and Response Plan (EPRP)
- Grievance Mechanism
- Hazardous Material Management Plan
- Health Campus Traffic Plan
- Human Resources Policy
- Noise and Vibration Management Plan
- Occupational Health and Safety (OHS) Management Plan
- Patients’ Rights Charter
- Security Plan
- Stakeholder Engagement Plan (SEP)
- Traffic Management Plan
- Waste Management Plan

The management plans developed for the Project will be practical and fully integrated into the SPV’s Environmental and Social Management System (ESMS), which is in development. This will ensure alignment with corporate policies and procedures. The system will need to be fully integrated to enable the plans to be effective (i.e. covering environment, health, safety and security in an integrated manner). The plans will be ‘living documents’ that are regularly reviewed and updated as necessary.

In addition to the framework ESMMP, a Stakeholder Engagement Plan (SEP) for the ESIA is presented in Volume II, Annex I and an example Chance Finds Procedure which covers archaeology is presented in Volume II, Annex B.

The SPV will have ultimate responsibility for implementing the management plans and for ensuring, via contract conditions, that the EPCJV and the EPC Subcontractors are obliged to implement all mitigation measures relevant to their activities.

### 7.2 APPROACH TO MANAGEMENT AND MONITORING PLANS

The management plans for the Project will be developed to align with national regulatory requirements and Good International Industry Practice (GIIP) including that set out by IFC, EBRD, EIB, World Bank Group and EU Directives.

The plans should incorporate the following components:

- **Activity:** a short description of the activity that is expected to result in significance impacts/risks.
- **Issue / Risk:** an overview of the issue or risk that needs appropriate mitigation and/or management.
- **Action / Mitigation Measure:** a description of the mitigation/management measures that will be implemented to manage each significant impact/risk.
- **Performance Measure:** measurable indicators for each significant impact that provide an indication of the extent to which actions have been implemented and desired outcomes achieved.
- **Responsibility:** the party responsible for implementing the action.
- **Phase / Stage:** the Project phase or stage that the impact and mitigation measure is applicable, i.e. pre-construction, construction, operation and or decommissioning.

### 7.3 GUIDING PRINCIPLES

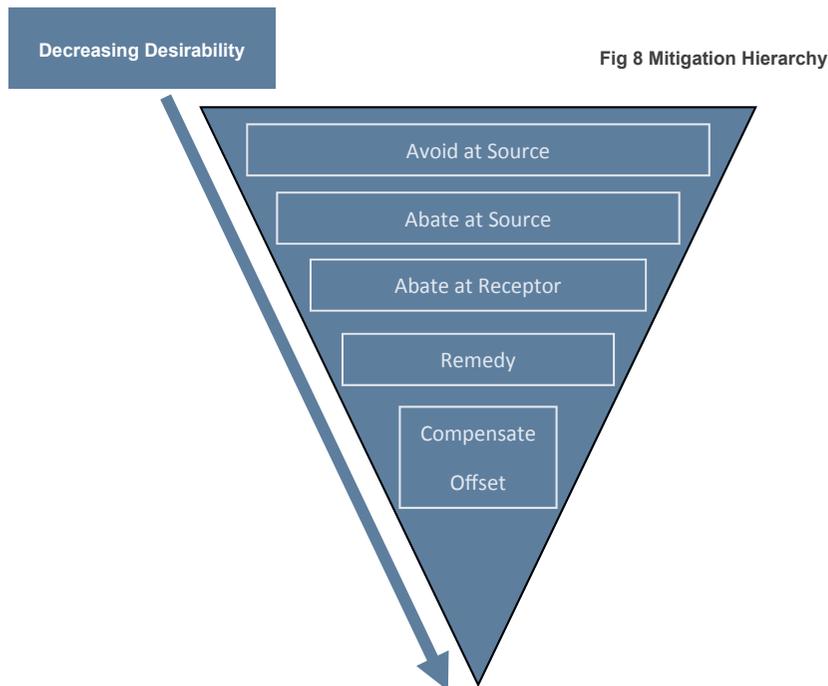
Guiding Principles used in the development of the management plans for the Project are presented below.

#### 7.3.1 Planning and Risk Identification

- Compliance with the laws and regulations of IFC, EBRD, EIB, World Bank Group, EU Directives and Turkey.
- Completion of pre-construction / works surveys proposed in the ESMPs prior to the commencement of any works and activities.

### 7.3.2 Management and Control

- Commitment to the mitigation hierarchy in Figure 8, regarding the potential issues and risks from the Project.
- Commitment to regular reporting and the completion of corrective actions (where required) under the responsibility of EHS Management.
- Application of relevant and appropriate design standards and controls.
- Use of competent and qualified staff (including sub-contractors) to undertake actions, each of whom will have the required level of responsibility and resources.
- Commitment to the provision of advance training for all works staff (including sub-contractors) as part of their induction and also in advance of all works.
- Being prepared for emergency incidents and having adequate response plans in place (including health, safety, environment and community response).



### 7.3.3 Monitoring and Improvement

- Commitment to regular monitoring and verification of the implementation of the management plans and the undertaking of remedial actions where needed. Monitoring and verification will be reported and made available for inspection upon request.
- All incidents will be reported and corrective actions will be taken as necessary according to management plan recommendations and SPV procedures. This will enable and facilitate a process of continuous improvement.
- All grievances received will be addressed and investigated. The EHS Management will be responsible for closing out all grievances.

### 7.3.4 Ownership and Maintenance

The SPV will have ultimate responsibility for implementing the management plans and for ensuring, via contract conditions, that the EPC JV Contractor is obliged to implement all mitigation measures relevant to their activities.

The management plans will be live, working documents and as such will require periodic review and updates if there are:

- changes or updates to Turkish legislation or regulations;
- changes to the Project's social or environmental impact profile as a result of Project expansion, or other aspects with the potential for significant impacts on the environment or communities;
- changes or updates to IFC Performance Standards, EBRD Performance Requirements, EIB Environmental and Social Standards, IFC Performance Standards, World Bank EHS Guidelines; and
- lessons learned from incidents, non-compliances, audits or grievances.

### 7.4 ESMMP FRAMEWORK

The framework ESMMP is presented in Chapter 7 of Volume I and includes mitigation, enhancement and management measures related to each of the impacts summarised in Chapter 6 of the report.

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