

# SAM Rah Shahr

Consultancy Services for Environment, OHS, Geotechnical Engineering



SAM Rah Shahr provides a broad variety of environmental, social, occupational health & safety and geotechnical services as an affiliate company of Rah Shahr International Group.

We assist our clients

# ASSESS ENVIRONMENTAL PERFORMANCE and FIND SUSTAINABLE SOLUTIONS

regarding challenges that society is confronted with, including management of finite resources, energy efficiency, emission control, water supply and waste management.

# PROUD MEMBER OF RAH SHAHR INT'L GROUP

Rah Shahr International Group is an Iranian multi-disciplinary engineering, design and consultancy company, operating as a holding entity with more than 500 staff and working across 12 provincial offices in Iran and two international offices (London, UK and Vancouver, Canada).



Based on the increasing importance of environmental issues in Iran, the Environment Department of Rah Shahr International Group commenced its activities as an independent section in 2005. In the following years, the Environment Department changed its name to HSE Department and in addition to environmental studies, expanded its activities into health and safety. In 2010, the Department was subsequently established as a legal entity SAM Rah Shahr.

*"We performed some three environmental site assessment projects comprising round a dozen sites across Iran with the SAM Rah Shahr team in 2016 who turned out to be very diligent and responsive to our client requirements. This given that we had to repeatedly re-schedule and realign due to untested ground and culture. I certainly look forward working with the SAM Rah Shahr team once politics allow us to do so again."*

**Christiana Oexle, Ramboll Environ**

*"I am writing this letter to extend my appreciation towards for successful completion of Isfahan and Mash'had airports "Environmental & Social Due Diligence" (ESDD) for the project of SAFRAN. The projects were to develop and expand airports. All facts and figures presented by SAM in the completion of this project is truly commendable. I really appreciate your efforts and professionalism by which you have completed the project well on time and with great efficacy. I, once again would like to thank you and congratulate you for your hard work and dedication. I wish that you continue your spirit in the upcoming projects also."*

**Joffrey MAI, VINCI Airports**

*"We conducted with SAM Rah Shahr as EHS due diligence assessment of two sites including one in a remote province of Iran. Working with SAM was a very satisfying experience. The company offers both the flexibility of a small consulting firm and the power of a large corporation with international presence. Communication was very smooth. We have the same professional language, their command of English is excellent and they are used to work with foreign companies. Decisions were taken fast without endless chain of command. They offered experienced professionals who were knowledgeable, proactive and easy to work with. SAM prepared on time quality reports and graphics. Follow-up questions were handled responsively and completely. I thank them warmly for their contribution to this successful project and I am eagerly waiting for another opportunity to collaborate in the future."*

**Pierre Caloz, Pöyry**

*"I would like to express our sincere appreciation for your performance to us. Work in Iran is very difficult for Japanese. We, E&E and the client are satisfied with your work. We could not conduct this project without you. I am looking forward to being with you when we have another project. Again I am grateful for your support."*

**Masahiro Shirai, E&E Solutions Inc.**

SERVICES

WITH HIGHEST QUALITY

ENVIRONMENTAL & SOCIAL ASSESSMENT,  
PLANNING AND MANAGEMENT

ENVIRONMENTAL  
BASELINE STUDIES

ENVIRONMENTAL  
ENGINEERING & MODELLING

CONSULTING AND DESIGN SERVICES

FOR OUR CLIENTS

OCCUPATIONAL  
HEALTH & SAFETY

GEOTECHNICAL  
ENGINEERING

ENVIRONMENTAL  
LABORATORY ANALYSIS

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Our services and projects in

**ENVIRONMENTAL & SOCIAL ASSESSMENT,  
PLANNING AND MANAGEMENT**

MORE THAN A DECADE OF  
ENDEAVORS TO PROVIDE BEST SERVICES IN

## ENVIRONMENTAL & SOCIAL ASSESSMENT, PLANNING & MANAGEMENT

SAM offers a wide range of advisory and environmental consulting services from the early stages of the project until completion, and further extending to post project monitoring.

We provide environmental planning, management and assessment services to our clients to preserve and restore environmental resources, develop suitable lands for proposed activities, minimize the projects' environmental, social and health impacts, distinguish between potential and actual environmental risks and manage them to reduce the negative effects.

- Environmental & Social Impact Assessment
- Strategic Environmental Assessment
- Cumulative Effects Assessment & Management
- Health Impact Assessment
- Environmental Management Planning
- Environmental Site Assessment Phases I & II
- Environmental & Social Due Diligence
- State of the Environment Report (SOER)
- Environmental Feasibility Studies
- Ecosystem Service Modelling
- Multiple Criteria Decision Making
- Environmental Site Selection
- Environmental/Ecological Capability Evaluation
- Environmental Legal Consultancy
- Waste Management Planning
- Water Management Planning
- Life Cycle Assessment

A selection of

# SUCCESSFULLY UNDERTAKEN PROJECTS

ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT, MANAGEMENT AND PLANNING



## NGL 3100 REFINERY

**Client:** Sazeh Consultants Engineering Company and I.C.O.F.C.

**Location:** Ilam Province, Iran

**Commencement:** June 2008

**Completion:** March 2009

**Project description:** Dehloran NGL3100 refinery plant will be constructed to sweeten the oil gas collected from Dehloran oil field; the product will be then delivered to Dehloran petrochemical. While creating an added value, it helps prevent the release of these gases in the atmosphere.

**Services:** SAM Rah Shahr has conducted the site selection of NGL 3100 Refinery, ESIA and DOE approval for the refinery and the gas pipeline, and environmental and crisis management plan for 13 non industrial buildings of the refinery.



## PORT, PIPE LINES AND CONVEYOR BELTS OF PERSIAN GULF STAR AND HORMOZ REFINERIES

**Client:** National Iranian Oil Engineering and Construction Co.

**Location:** Hormozgan Province, Iran

**Commencement:** March 2008

**Completion:** December 2008

**Project description:** Due to Development Plan of Bandar Abbas refinery and construction of Persian Gulf Star and Hormoz Refineries (for production of Euro 4 & 5 Fuel), a project for construction of a port with eight berths, pipelines and conveyor belt was defined for export of products and import of heavy & extra heavy crude oil.

**Services:** The services rendered by SAM Rah Shahr were environmental impact assessment of the pipelines, conveyor belt and the port with eight berths.



## ENERGY INTENSIVE INDUSTRIES SITE SELECTION

**Client:** IMIDRO

**Location:** Six provinces (Khuzestan, Bushehr, Fars, Hormozgan, Kerman, Sistan & Balouchestan), Iran

**Commencement:** May 2007

**Completion:** September 2007

**Project description:** Ownership the world's largest natural gas field, South Pars, Iranian government has decided to layout several energy intensive sites in the South Coasts of the country to create added value and avoid sell of raw fossil resources of the country. In this regard, site selection of these industries commenced in 6 southern provinces which led to selection of eight alternative sites with the priority of Lamerd and Pasrian.

**Services:** SAM Rah Shahr prepared environmental baseline and natural hazard studies in six southern provinces and conducted site selection of suitable lands for energy intensive sites.

We are proud of being engaged in several national mega-projects to perform

# ENVIRONMENTAL & SOCIAL IMPACT ASSESSMENT



## MAKU FREE ZONE-PHASE 1

**Client:** Maku Free Zone Organization

**Location:** West Azarbaijan Province, Iran

**Commencement:** June 2014

**Completion:** March 2016

**Project description:** Considering the fact that border city of Bazarjan is very close to Trabzon and Mersin Port in Turkey, Rah Shahr Int. Group completed series of studies on this region and suggested a commercial/industrial free zone with the goal of promoting trade and providing logistic services. Consequently a region with an area of 450,000 hectares was ratified by the parliament as Maku free zone.

**Services:** SAM Rah Shahr has closely collaborated with Rah Shahr Int. Group and completed studies such as EBS, site selection and Strategic Environmental Assessment (SEA) of the first phase (36,000 hectares) of Maku Free Zone \_approved by Environmental Bureau of West Azerbaijan Province.



## IKIA AIRPORT CITY

**Client:** Iran Airports & Air Navigations Company

**Location:** Tehran, Iran

**Commencement:** January 2012

**Completion:** September 2013

**Project description:** Due to geopolitical location of Iran in the region, Tehran has a great potential to become the passenger and cargo hub between Europe and East Asia. In 1968 this potential was studied and a plot of land with an area of 14,000 hectares was reserved for construction of an airport city. The concept revived in 2007 and Rah Shahr Int. Group became the prime consultant in collaboration with Nikken Sekkei from Japan.

**Services:** SAM Rah Shahr prepared EBS and natural hazards studies, environmental pollution, waste management, strategic environmental assessment (SEA), solar radiation pattern modelling and solar farm site selection, seismic and geoelectrical surveys and EHS-MS.



## REVISION OF THE MASTER PLAN OF PARSIAN ENERGY INTENSIVE INDUSTRIAL SPECIAL ECONOMIC ZONE

**Client:** IMIDRO

**Location:** Hormozgan Province, Iran

**Commencement:** September 2016

**Completion:** Ongoing

**Project Description:** First priority for development of energy intensive industries in the southern coasts of the country is Parsian Site (10,000 h) in Hormozgan province, with production goal of 18MT/Y of petrochemicals, 4.5MT/Y of steel and 300,000T/Y of Aluminium. Rah Shahr int. Group was prime consultant of this project.

**Services:** EBS and natural hazards, waste management plan, second degree buffers, defining and approving allowed sea border of the port, passive defence consultancy, risk assessment and EHS-MS.



# ENVIRONMENTAL AND SOCIAL DUE DILIGENCES

## in M&A Transactions



### MASHHAD AND ISFAHAN INT'L AIRPORTS

**Client:** VINCI Airports (France)

**Location:** Khorasan Razavi and Isfahan Provinces, Iran

**Commencement:** August 2017

**Completion:** October 2017

**Project description:** Mashhad and Isfahan airports, respectively with 8.2 million and 2.6 million passengers in 2014, serve the second and third largest cities of Iran. The Iran Airports Company (IAC) and VINCI Airports have signed a memorandum of understanding (MoU) for the development and expansion of Mashhad and Isfahan airports. Mashhad is a holy city that attracts more than 20 million pilgrims every year. Isfahan is renowned for its rich cultural heritage.

**Services:** SAM Rah shahr has carried out Environmental & Social Due Diligence Assessments (ESDD) for Mashhad and Isfahan Airports. Current and past environmental conditions and future development impacts were identified during site visits.



### SHELLFISH

**Client:** Ramboll Environ (Germany)

**Location:** Tehran, Yazd and Qazvin Provinces, Iran

**Commencement:** August 2016

**Completion:** November 2016

**Project description:** Due to confidentiality of the project, the details cannot be disclosed.

**Services:** Environmental Due Diligence Assessments (EDD) for seven sites of a compressor manufacturer were carried out upon a request from our German client, Ramboll Environ. Current and past environmental conditions, as well as a cursory overview of the current environmental compliance status of the subject sites were identified during the site visits.



### NAMASAZAN

**Client:** E&E Solutions Inc. (Japan)

**Location:** Tehran, Iran

**Commencement:** December 2016

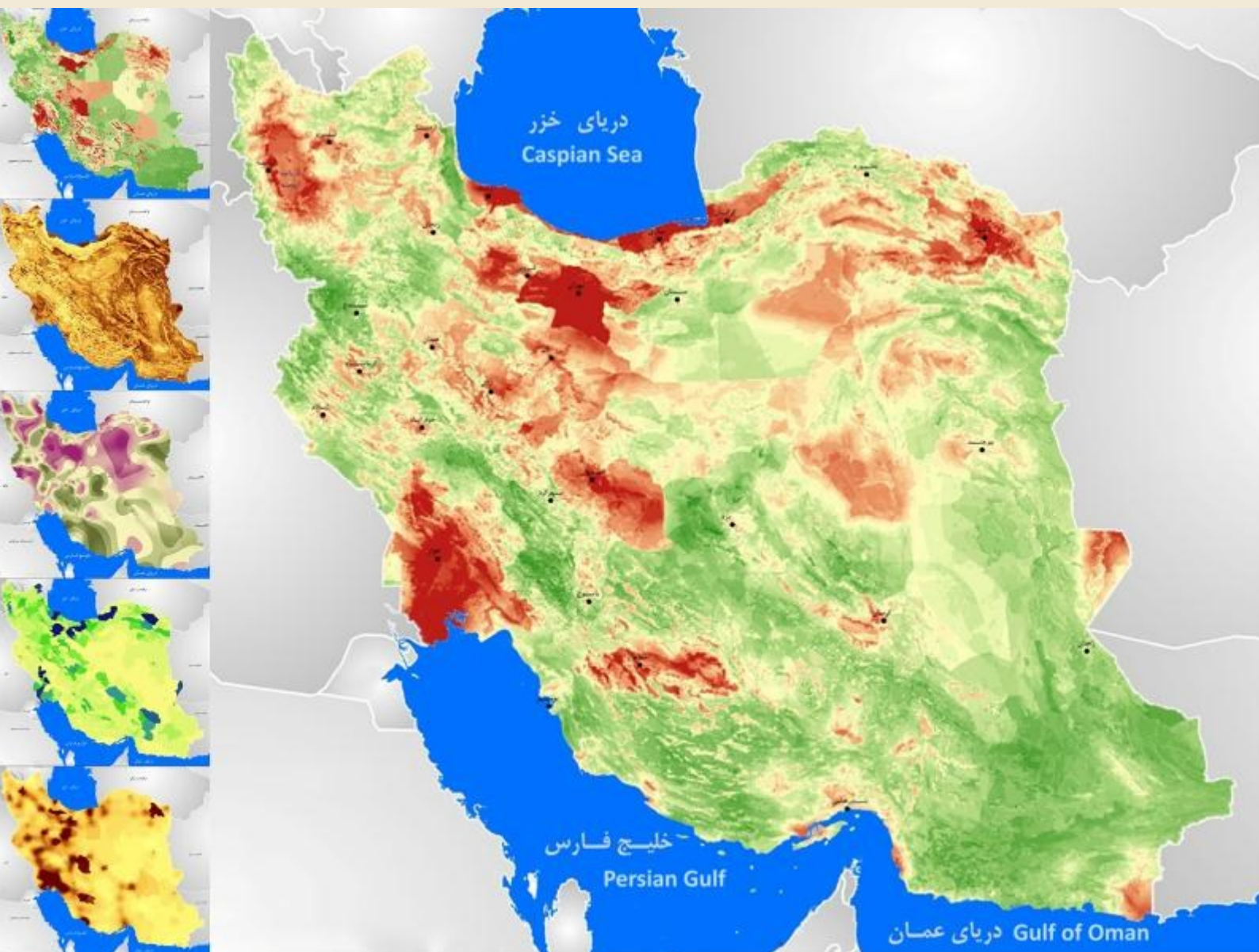
**Completion:** May 2017

**Project description:** MCNS (Japanese-Korean Company) intends to be joint venture with Namasazan Emrooz Company. Namasazan Emrooz Co. is specialized in manufacturing of Aluminium Composite Panel, Decorative Sandwich Panel, Industrial Poly Urethane Sandwich Panel and Pre-painted Galvanized Roof Sheet SAM Rah shahr was appointed to carry out the environmental assessment by its Japanese client, E&E Solutions Inc.

**Services:** Services rendered by SAM Rah Shahr for this project were Phase I and Phase II Environmental Due Diligence Assessment (EDD). Furthermore, Current and past environmental conditions of the subject site were identified and documented.

# State of Environment Report

# of IRAN



**Client:** Department of Environment of Iran

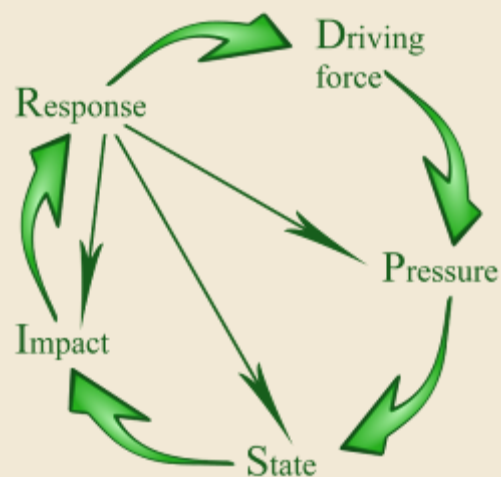
**Location:** Iran

**Commencement:** April 2007

**Completion:** October 2009

**Project Description:** State of environment report is an explanation and description of the current environmental condition of the country. It also provides the necessary information to support the decisions made for land development, planning and management and thus helps toward achieving the goals of sustainable development and management. In this regard, DPSIR model has been used for years by the countries in the world as the main approach, methodology and conceptual model. For years Department of Environment of Iran included these studies in its agenda but for various reasons could not prepare the report.

**Services:** Based on the Source book of Methods and Approaches and the conceptual model of DPSIR, SAM prepared and presented these studies. For this purpose, the required data and information was gathered from 177 organizations, institutions, public and private companies and was placed in a data bank with GIS format. These information did not exist in this format as an integrated information systems in the country and this achievement was one of the main steps of these studies.



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**ENVIRONMENTAL BASELINE STUDIES**



# PROFESSIONAL AND RELIABLE SERVICES IN ENVIRONMENTAL BASELINE STUDIES

Environmental Baseline Studies (EBS) are conducted in both desk-top studies and field surveys to understand existing environmental and social conditions at a given site prior to any site development or project implementation. The studies are undertaken in the early stages of master planning or as a part of obtaining the required permits.

SAM is able to extract the required data and provide reliable results to recognize constraints and opportunities of a target site to benchmark against future impacts resulting from environmental and social changes during the life of the project.

Surveys conducted by SAM include:

- Topography & Physiography
- Geology & Geomorphology
- Soil & Land Evaluation
- Meteorology/Climatology
- Hydrology & Hydrogeology
- Land Use & Land Cover
- Fauna & Flora
- Sensitive Area
- Coastal & Marine
- Natural Hazards
- Social Studies
- Archaeological & Traditional Land Use Studies

# ENVIRONMENTAL BASELINE STUDIES



## LAMERD ENERGY INTENSIVE INDUSTRIAL SPECIAL ECONOMIC ZONE

**Client:** IMIDRO

**Location:** Fars, Iran

**Commencement:** March 2006

**Completion:** March 2009

**Project description:** Second priority for development of energy intensive industries in the southern coasts of the country is Lamerd Site (10,000 h) in the south of Fars province. The goal for development of this site is establishment of energy intensive and low water consuming industries such as Aluminum, electricity, downstream industries and similar ones.

**Services:** Services rendered by SAM Rah Shahr in this region were baseline and natural hazard studies, SEA, HSE-MS and wide range of technical services in the field of environment and OHS.



## SHXWHA:Y VILLAGE

**Client:** Shxwha:y Eco- Village

**Location:** British Columbia, Canada

**Commencement:** March 2012

**Completion:** December 2012

**Project description:** Shxwha:y is one of the largest tribes of first nations living in British Columbia, Canada. This tribe is traditionally managed and ruled. In 2012 the tribal council and chief decided to convert part of the land controlled by their tribe, close to Chilliwack city into an ecological village. Therefore Win Green Tech consulting company was selected as their consultant and the process of studies and design began.

**Services:** SAM Rah Shahr was appointed as Win Green Tech's environmental consultant in this project. Baseline studies and site selection for defined uses of the ecological village was prepared and presented.



## MAKU FREE ZONE TOURISM MASTER PLAN

**Client:** Maku Free Zone Organization

**Location:** West Azerbaijan Province, Iran

**Commencement:** June 2014

**Completion:** November 2014

**Project description:** After Iran/Iraq war, the role of Bazargan border terminal - in the North-west of the country- ended and its potentials faded away. Considering the fact that Bazargan is very close to Trabzon and Mersin Port in Turkey, Rah Shahr Int. Group completed series of studies and suggested a commercial/industrial free zone in this region with the goal of promoting trade and providing logistic services. Consequently a region with an area of 450,000 hectares was ratified by the parliament as Maku free zone. One of the important advantages of this region is its touristic attractions.

**Services:** The ecotourism section of Maku Free Zone Tourism Master Plan was prepared entirely by SAM Rah Shahr.

We help you understand

## ENVIRONMENTAL & SOCIAL CONDITIONS



### SARAKHS SPECIAL ECONOMIC ZONE

**Client:** Sarakhs Special Economic Zone Origination

**Location:** Khorasan Razavi Province, Iran

**Commencement:** January 2014

**Completion:** January 2015

**Project description:** Due to policies of the eastern bloc, railroad connection of East and West was not possible. The reason was the difference of the widths of the rails in the eastern countries which did not match the global standards. After the collapse of the Soviet Union, Iran found this opportunity to provide the link between East and West by creating the proper infrastructures and created Sarakhs Special Economic Zone. After 15 years of activities in this region, the strategic and master plan of the region required to be reviewed and updated which was appointed to Rah Shahr International Group.

**Services:** SAM prepared EBS, air, water and noise pollution survey and aircraft noise modeling of Almas Sarakhs Int. airport.



### CHAHAR DANGEH PRODUCER GUILDS COMPLEX

**Client:** Industry Organizing Company of Tehran

**Location:** Tehran, Iran

**Commencement:** January 2013

**Completion:** January 2014

**Project description:** Producer guilds of Tehran (41 different guilds) have been working traditionally for more than 50 years. The development of these guilds have created traffic congestion as well water, air and noise pollution in Tehran and has made them face high costs which in turn increases the price of their final products. The goal of this project is to transfer 10 guilds from Tehran to a region (Chahar Dangeh) in the south of city of Tehran, in an area of 220 hectares.

**Services:** SAM Rah Shahr provided a wide range of services in this project such as management of a section of this project as well as EBS, air, water and noise pollution survey, ESIA, and solid waste and waste water management plan.



### JASK ENERGY INTENSIVE ZONE

**Client:** Iran Small Industries and Industrial Parks Organization

**Location:** Hormozgan Province, Iran

**Commencement:** March 2015

**Completion:** August 2015

**Project description:** In order to avoid sale of raw natural gas and creating added value and employment in the southern coasts of the country, eight areas were site selected for energy intensive industries. One of these areas is Jask Special Economic Zone in Hormozgan Province with production goal of 5MT/Y of steel, 600,000T/Y of Aluminium, 500,000T/Y of Ferrochrome, 5MT/Y of petrochemical products, 6,000T/Y of Magnesium, 50,000T/Y of Titanium, 2000MW of electricity and construction of a refinery and a port.

**Services:** SAM conducted EBS, environmental site selection and feasibility studies along with the layout and vicinity of the industries based on national and international EHS rules and regulations.

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Our services and projects in

**ENVIRONMENTAL ENGINEERING  
& MODELLING**



## PROVIDING SOLUTIONS WITH HIGHEST ABILITY FOR ENVIRONMENTAL ENGINEERING & MODELLING

Environmental engineering and modelling is a comprehensive and specialized service that professionals at SAM have been practicing for many years. We offer professional engineering services as follows:

### ***Pollution Monitoring & Control and System Design***

To help cities and facilities comply with emission standards regulations, SAM draws on an unrivalled range of solutions for monitoring and controlling of pollutants as well as reduction of emissions. Services such as comprehensive studies of air pollution monitoring and air quality control, comprehensive studies of noise pollution monitoring and noise pollution control, comprehensive studies of soil pollution monitoring and soil pollution control are provided by SAM in this field.

### ***Environmental Simulation and Modeling***

SAM provides specialized consulting, simulation and modeling services to customers (i.e. modeling studies for water resources and environmental transport processes and air, soil, water and noise pollution) with updated approaches, advanced technology and innovative vision to achieve a quality outcome.



Effective performance in

# ENVIRONMENTAL ENGINEERING



## POGC RESIDENTIAL COMPLEX

**Client:** Pars Special Economical Energy Zone

**Location:** Bushehr Province, Iran

**Commencement:** September 2012

**Completion:** February 2013

**Project description:** Pars Oil and Gas Company (POGC), a subsidiary of National Iranian Oil Company (NIOC), was established in 1998. POGC's mandate is the development of all phases of South Pars gas fields and North Pars gas fields, Golshan & Ferdowsi respectively. In order to construct residential and recreational complexes, POGC selected plots of land on the south of old Assalouyeh airport, located in site 1 of Pars Special Economic Energy Zone (PSEEZ). Subsequently the decision was made to develop these plots.

**Services:** SAM Rah Shahr conducted air pollution modelling in site 2 of PSEEZ and the impact of the pollutants on the plot of lands demanded by POGC.



## IMAM KHOMEINI INTERNATIONAL AIRPORT, TERMINAL 2

**Client:** Iran Airports & Air Navigation Company

**Location:** Tehran, Iran

**Commencement:** January 2012

**Completion:** August 2012

**Project description:** Due to geopolitical location of Iran in the region, Tehran has a great potential to become the passenger and cargo hub between Europe and East Asia. In this regard, Imam Khomeini Int. Airport was operated in 2005 with a terminal of 6.5 M passengers/Y. One important measure for development of this airport is construction of Terminal 2 with capacity of 20 M passengers/y.

**Services:** SAM prepared EBS, air pollution modelling, aircraft noise modelling and corrective measures, solar radiation pattern modelling and thermal comfort of the terminal, ESIA, seismic & geo-electric activities and implementation of EHS-MS.



## NEGIN MOKRAN PETROCHEMICAL COMPLEX

**Client:** Negin Mokran Development Co.

**Location:** Sistan & Balouchestan Province, Iran

**Commencement:** March 2012

**Completion:** December 2013

**Project description:** In order to avoid sale of raw natural gas and creating added value and employment in the southern coasts of the country, eight areas were site selected for energy intensive industries. One of these areas is located in the north of Chabahar Free Zone with production goal of 22MT/Y petrochemical products and 3 MT/Y of steel. Rah Shahr International Group was appointed as the prime consultant for development of Negin Petrochemical Complex.

**Services:** SAM Rah Shahr completed social and environmental baseline and natural hazards studies, environmental pollutions studies, solid waste management and crisis management plan.

# ENVIRONMENTAL MODELLING



## LAVAN SEPEHR PETROCHEMICAL COMPLEX

**Client:** Lavan Sepehr Petrochemical Hub Co.

**Location:** Hormozgan Province, Iran

**Commencement:** December 2013

**Completion:** December 2015

**Project description:** National Petrochemical Company (NPC) for developing large petrochemical complexes and increase its share in global markets planned to construct Lavan Sepehr Petrochemical Complex. Its feedstock will be provided by Lavan Gas Field which is naturally a sweet gas. In 2013, due to new priorities of Iranian Government based on the development and investment in shared oil and gas fields, the development of Lavan gas field and construction of this petrochemical complex was put to halt.

**Services:** SAM prepared EBS, aircraft noise modelling, marine pollution monitoring, site selection of petrochemical and residential areas, and environmental compliance audit of oil facilities in Lavan.



## PARS SPECIAL ECONOMIC ENERGY ZONE-SITE2

**Client:** Pars Special Economic Energy Zone Organization

**Location:** Bushehr Province, Iran

**Commencement:** December 2006

**Completion:** May 2007

**Project description:** After discovery of South Pars Gas Field, the largest gas field of the world, Pars Special Economic Energy Zone was formed. The goal of this zone was development of 28 gas phases in the form of 14 refineries, and development of petrochemical industries, in two sites. The area of site 2 is 16,000h consisting of 8 gas phases, an LNG project and various related industries such as power plant, desalination plant and etc.

**Services:** SAM has prepared EBS, environmental management and monitoring plan, crisis management plan, and site selection of temporary residences, temporary jetties, general port, SBM, water intake point, and waste management plan.



## PETROCHEMICAL SPECIAL ECONOMIC ZONE

**Client:** Mahshahr Special Economic Zone Organization

**Location:** Mahshahr, Khuzestan Province, Iran

**Commencement:** July 2005

**Completion:** March 2006

**Project description:** Petrochemical Special Economic Zone started its activities in 1998 in an area of 2850h. At present this zone produces 18MT/Y of petrochemical products. 6MT/Y of these products are used for export and the rest are used as raw material in other domestic petrochemical complexes. At start the area of this zone was smaller and in 2006 Rah Shahr International Group prepared the development plan of this region.

**Services:** Services rendered by SAM were in the scope of the primary development plan of the region. These services were environmental, social and marine baseline studies, preparation of environmental management and monitoring plan and waste management plan.

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Our services and projects in

**OCCUPATIONAL HEALTH & SAFETY**



# PROFESSIONAL SERVICES FOR

## OCCUPATIONAL HEALTH & SAFETY

Occupational Health & Safety Services concerns the safety, health and welfare of people in a work environment. Its main purpose is safety and protection of employees against potential hazards at work.

SAM provides a wide range of services to ensure the health and safety of the personnel in construction and/or operation phases, including:

### ***OHS Management System***

SAM Rah Shahr provides sustainable and integrated solutions for development of Occupational Health and Safety (OHS) management systems in accordance with national and international regulations and standards.

### ***Risk Management***

SAM Rah Shahr has a professional risk management team exclusively dedicated to improve workplace safety. Services provided in this area consist of assessment of all risks as input for designs and operations, human factors and safety culture. We work closely with operators, engineers, consultants and contractors to identify and reduce risks.

### ***Crisis Management***

Crisis management is one of the expertise of SAM Rah Shahr. In our records, we have the expertise in design and implementation of crisis management systems in various scales (e.g. preparation of the crisis management plans for industrial sites in the southern coastlines of Iran).

We understand your concerns about

# HEALTH & SAFETY IN WORKPLACE



## ROYAN HOSPITAL BUILDING

**Client:** Civil Engineering Organization of the City of Tehran

**Location:** Tehran, Iran

**Commencement:** April 2016

**Completion:** Ongoing

**Project description:** Royan Institute was established in 1991 as a limited surgery center with the aim of providing health care services to infertile couples, research and education in the field of reproductive biomedicine and infertility treatments. Since 2008 this center has been conducting researches on stem cell biology and reproductive medicine. At present this institute consists of three research institutes each focused on different fields. Due to diversity of activities, this institute decided to construct two 20 and 16 storey buildings in the east of Tehran with an area 5000m<sup>2</sup>.

**Services:** SAM is commissioned to implement the HSE system and supervise the proper execution of the system by the subcontractors.



## DUBAI INTERNATIONAL CITY-PHASE II

**Client:** Dubai Municipality

**Location:** Dubai, United Arab Emirates

**Commencement:** May 2007

**Completion:** August 2007

**Project description:** International city is one of the development projects of the city of Dubai in UAE. For construction of this city, five international consultant and several contractors have been selected.

**Services:** SAM Rah Shahr was commissioned to implement the HSE system and supervise the proper execution of the system by the subcontractors at a certain stage of construction of this city.



## TOURISM BANK CENTRAL BUILDING

**Client:** Tourism Bank

**Location:** Tehran, Iran

**Commencement:** April 2012

**Completion:** March 2016

**Project description:** Tourism Bank was established in 2010, emphasizing on tourism industry and professional use of resources in this field. The main goal of this bank is to obtain a significant share of the financial and fiscal activities by reducing costs and providing new credit and fiscal services through healthy competition with other state-owned and private banks and public credit institutions. In this regard, this bank decided to construct a building as it's headquarter, with world-class standards, in the north west of Tehran. This building consists of administrative (20 storey building) and service sections.

**Services:** SAM is commissioned to implement the HSE system and supervise the proper execution of the system by the subcontractors.

We offer **THE BEST SOLUTIONS**



## **SIDEWALK IMPROVEMENT OF SHARIATI, AZADI & ENGHELAB STREETS**

**Client:** Tehran Municipality

**Location:** Tehran, Iran

**Commencement:** March 2007

**Completion:** November 2007

**Project description:** Azadi and Enghelab streets (east-west) and Dr. Ali Sahriati street (south-north) are of the long avenues in Tehran. In 2006, Rah Shahr was commissioned for the design and supervision of sidewalk improvement of these avenues.

**Services:** In the design phase, SAM was in charge of studying surface water collection system, safety assessment, vegetation and sidewalk pollution, as well as documenting the condition of the existing sidewalks and the building views. In the execution phase, SAM supervised proper implementation of the EHS regulations both for the workshops and the operators.



## **ARVAND FREE ZONE**

**Client:** Arvand Free Zone Organization

**Location:** Khuzestan Province, Iran

**Commencement:** September 2006

**Completion:** August 2007

**Project description:** In 2003 government ratified the development of Arvand Free Zone in Khuzestan Province. At the present, the area of this zone is 37,000h, situated in the north west of the Persian Gulf in the intersection of Arvand and Karoon Rivers and contains the main cities of this area Abadan, Khorramshahr and Minushahr. Rah Shahr International Group was the consultant of Arvand Free Zone in 2006.

**Services:** SAM Rah Shahr prepared baseline and environmental pollution studies, ecotourism plan in Minoo Island, crisis management plan, environmental management and monitoring plan, safety plan for Nowruz passengers visiting the war zones, ecological capability evaluation and natural hazards studies of this zone.



## **PARS SPECIAL ECONOMIC ENERGY ZONE-SITE1**

**Client:** Pars Special Economic Energy Zone Organization

**Location:** Bushehr Province, Iran

**Commencement:** May 2005

**Completion:** March 2006


**Project description:** After discovery of South Pars Gas Field, the largest gas field of the world, Pars Special Economic Energy Zone was formed. The goal of this zone was development of 28 gas phases, in the form of 14 refineries and development of petrochemical industries. This mega national project has been planned in two sites. The area of the site 1 is 14,000h, consisting of 16 gas phases, 15 petrochemical complexes and various related industries such as power plant, desalination plant and etc.

**Services:** Services rendered by SAM Rah Shahr are environmental baseline studies, preparation of crisis management plan and waste management plan.

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Our services in

**GEOTECHNICAL ENGINEERING**



RESPONDING TO OUR CLIENTS' NEEDS

WE HAVE STARTED TO CONDUCT

## GEOTECHNICAL ENGINEERING

As a Geotechnical Engineering Consultant, our main objective is to understand the behavior of soils and rocks, to ascertain the safety and economics of construction procedures and to provide appropriate advice to control, monitor and mitigate geotechnical risks associated with the projects.

SAM offers comprehensive geotechnical services from site selection to construction through innovative investigation, analysis and design as follows:

- Site Investigation & Soil/Rock Exploration
- Evaluation of Soil/Rock Properties & Recommendations
- Analysis & Design of Geotechnical Structures

- Ground Improvement Techniques
- Instrumentation & Monitoring
- Retrofit/Repair of Existing Geotechnical Structures
- Geotechnical Construction Management

Based on our strength and engineering background at Rah Shahr International Group, we are able to provide best practice with regard to geotechnical engineering services.



*Save the future now*

Our services & projects in

**ENVIRONMENTAL LABORATORY ANALYSIS**



COLLABORATION WITH  
PIONEER LABORATORIES FOR

## ENVIRONMENTAL ANALYSES

SAM provides environmental laboratory services thru collaborative laboratories with the highest quality. The laboratories are accredited by Iranian Department of Environment and ISO17025 certified which offer comprehensive services of testing and sampling based on international standard methods as follows:

- Physicochemical and biological analysis
- Volatile and semi-volatile organic compounds analysis
- Petroleum analysis (e.g. TPH, PAH, MTBE, etc.)
- Metals and heavy metals analysis
- Waste characterization
- In-situ monitoring
- Noise monitoring
- Ambient air and stack emissions monitoring
- Occupational and industrial hygiene monitoring
- Benthos and planktons
- Asbestos analysis
- PCB congeners analysis

Multiple experience in providing ENVIRONMENTAL

## SAMPLING AND LABORATORY ANALYSES



### REVISION OF MASTER PLAN AND DEVELOPMENT PLAN FOR PERSIAN GULF'S MINERAL AND METALLIC SPECIAL ECONOMIC ZONE

**Client:** Mines and Metals Special Economic Zone

**Location:** Hormozgan, Iran

**Commencement:** July 2017

**Completion:** Ongoing

**Project description:** Persian Gulf Mineral and Metal Special Economic Zone is in the west of Bandar Abbas. In 2016 and ten years after preparation of the master plan of 3,000h of this zone and the development of it, Rah Shahr was assigned to review this plan.

**Services:** SAM prepared the EBS, environmental pollution survey, environmental development strategies, environmental and ecological capability evaluation, preliminary zoning map, SEA of the master plan and solid waste management plan.



### ANZALI FREE ZONE

**Client:** Anzali Free Zone Organization

**Location:** Gilan Province, Iran

**Commencement:** July 2014

**Completion:** December 2015

**Project Description:** Anzali Special Economic Zone was founded in 1996 for developing the relations with CIS countries. In 2003 this zone became Anzali Free Zone with an area of 3,200h. Later on in 2014, 6,500h was added to this free trade/industrial zone and Rah Shahr International group was selected as the master consultant for preparation of the strategic and master plans.

**Services:** SAM conducted baseline and natural hazards studies, environmental pollution monitoring, ecological and environmental capability evaluation as well as tourism and ecotourism development studies. Considering the environmental issues of this region, efforts were made to avoid the development of industry in this zone.



### GOLGOHAR MINING AND INDUSTRIAL SITE

**Client:** Golgohar Mining and Industrial Company

**Location:** Kerman Province, Iran

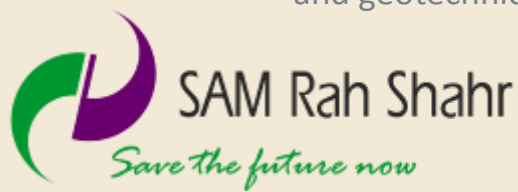
**Commencement:** March 2012

**Completion:** August 2012

**Project Description:** Golgohar Mineral region is one of the most active mineral/ industrial hubs in the Middle East, rich in Iron ore. At the first phase, 5MT/Year of Iron ore was extracted and 5.3 MT/Y Iron concentrate was produced. Later, production of another 6 MT/Y of concentrate and 10 MT/Y of pellets have been added. These developments and future developments required further environmental considerations like increasing the green space. Rah Shahr International Group was in charge of preparing the green space studies.

**Services:** The pedology was conducted by SAM Rah Shahr by determining the type and texture of the soil, soil pollution survey, feasibility study for development of the green space and soil modification.

If you are looking for environmental,  
social, occupational health & safety,  
and geotechnical services, ask



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