

Kurdistan Gas Project



IMPACTING COMMUNITIES



Contents



Erbil, capital of the Kurdistan Region of Iraq

Background	2
Community initiatives	6
1. Impacting villages	8
2. Impacting public services	14
3. Impacting people	20
Looking ahead	32



Background



Crescent Petroleum, the first and largest private upstream oil and gas company in the Middle East, and Dana Gas, the first and largest publicly listed natural gas company in the Middle East, have been operating in the Kurdistan Region of Iraq since 2007.



At Crescent Petroleum and Dana Gas, we impact lives across the region not only through our operations, but also through the social initiatives of our Community Action Programme (CAP).

Our CAP has impacted villages, public services and people by fulfilling critical needs that could not be met by the public sector or humanitarian associations.

Background

Kurdistan Region of Iraq overview

The Kurdistan Region of Iraq (KRI) is an autonomous region in northern Iraq. The mountainous region hosts numerous rivers, fertile lands and picturesque landscapes.

The KRI is rich in oil, gas and mineral resources such as copper and iron. Public data indicate that it has an estimated potential of 45 billion barrels of oil and up to 200 trillion cubic feet of gas reserves, or about three per cent of global proven gas reserves.*

While its economy has traditionally centred on agriculture and livestock farming, the KRI is currently witnessing increased tourism, growing cross-border trading and a flourishing oil and gas industry.

Crescent Petroleum and Dana Gas' project

In April 2007, Dana Gas PJSC entered into an agreement (the "Contract") with the Kurdistan Regional Government ("KRG") for the appraisal and development of two major gas fields in the KRI (Khor Mor and Chemchemical).

In October 2007, Dana Gas assigned 50 per cent of its interest in the Contract to Crescent Petroleum. Dana Gas and Crescent Petroleum began operations on the fields as joint operators and have remained as such ever since.

*Ministry of Natural Resources, <http://mnr.krg.org/index.php/en/component/content/?view=featured>

The terms of the Contract grant exclusive rights to appraise, develop, market and sell petroleum products from the substantial Khor Mor and Chemchemical gas fields, and to provide natural gas supplies to fuel two major domestic electric generation plants being built in Erbil and Chemchemical, as well as for local industries and export.

On 5 February 2009, Crescent Petroleum and Dana Gas' participating interests were transferred to Pearl Petroleum Company Limited ("Pearl Petroleum"), a joint venture company owned equally by Crescent Petroleum and Dana Gas. Today, Pearl Petroleum's shareholders also include three major European utilities companies: (i) OMV, Austria's largest listed industrial company, (ii) MOL, a Hungarian oil and gas company and Hungary's largest listed company, and (iii) RWE, the second largest electricity producer in Germany.

To date, Crescent Petroleum, Dana Gas and partners have invested US\$1.32 billion into the building of gas processing and transmission facilities in the KRI.

Production from the Khor Mor field commenced in October 2008, or 18 months after signing the agreement with the KRG.

Crescent Petroleum and Dana Gas currently produce over 83,800 barrels of oil equivalent per day in the KRI.

Crescent Petroleum and Dana Gas' project benefits

Crescent Petroleum and Dana Gas' operations have a measurable socio-economic impact in the KRI. We help ensure a nearly continuous power supply to over four million citizens, fueling the regional economy while enhancing local living standards.

Our operations have also enabled the KRG to save US\$19.7 billion on fuel costs from inception to 2016, following the diesel-to-gas transition. The longer-term benefits of this investment will reflect its downstream impacts through the provision of plentiful, reliable and cheap electricity to the KRI.

Crescent Petroleum and Dana Gas' project will continue to make a substantial contribution towards the KRI's economic and social development, and help the KRG meet its strategic policy and development priorities of enabling infrastructure, economic growth, social well-being and environmental protection—measured by the United Nations Millennium Development Goals, now superseded by the United Nations Sustainable Development Goals—at the national, regional and international levels.



“At Crescent Petroleum and Dana Gas, we seek to develop the energy assets of our areas of operations. Beyond oil and gas, a major energy asset of the KRI is its youthful population. We are hence committed to unlocking the potential of our surrounding communities notably by employing local talent.”

Shakir Shakir

Dana Gas' Country Manager in the KRI

“Crescent Petroleum and Dana Gas’ impact can be noticed in every household in Chemchemal through the bright lights and warm meals. Crescent Petroleum and Dana Gas always cooperate with the authorities of Chemchemal and Qadir Karam to support education, healthcare, water access, agricultural development and vulnerable communities. We are grateful for their valuable contributions and wish them success in their business and philanthropic activities.”

Ramak Ramazan

Mayor of Chemchemal





Community initiatives



In our decade of operation in the KRI, we at Crescent Petroleum and Dana Gas have spearheaded, in cooperation with the KRG and guidance from the Ministry of Natural Resources, multiple Community Action Programme (CAP) initiatives to raise the standards of living across the region.

1

Impacting villages

By offering:



Uninterrupted electricity



Clean water



2

Impacting public services

By enhancing:



Healthcare



Places of worship



3

Impacting people

By promoting:



Equal opportunities



Education



Employment



Sports



We have impacted villages, public services and people by fulfilling critical needs that could not be met by either the public sector or humanitarian associations.

Crescent Petroleum and Dana Gas' notable CAP efforts to impact people surrounding their areas of operations are documented below.

These efforts align with the United Nations Sustainable Development Goals (SDGs), a set of 17 global goals designed to end poverty, protect the planet and ensure prosperity for all by 2030.

1

Impacting villages



Despite improvements in the availability of electricity brought by Crescent Petroleum and Dana Gas' operations in the KRI, certain villages suffer from frequent electricity cuts. Moreover, due to a lack of water processing infrastructure, some rural communities in the KRI lack access to clean water.



Since 2007, we at Crescent Petroleum and Dana Gas have sought to empower our neighbouring villages by providing their residents with a regular supply of electricity and water.

Residents of Qadir Karam, a sub-district in the Chemchemical district in Sulaimani Governorate,

are the primary beneficiaries of our initiatives.

- Each year, we offer US\$1.1 million worth of complimentary electricity to the villagers.
- At their peak, our efforts to provide water reached over 70,000 people in Chemchemical and its sub-districts.

Impacting villages

Offering uninterrupted electricity



Corresponding UN SDG:
Energy

To date, the national power gridline does not reach most villages in Qadir Karam.

Since June 2011, Crescent Petroleum and Dana Gas have provided complimentary, uninterrupted electricity to around 1,225 Qadir Karam residents, or up to 75 per cent of the population of the sub-district. We provide them with electricity from our Khor Mor LPG plant at an average power of 16,000 kilowatt-hours per day.

Furthermore, Crescent Petroleum and Dana Gas have provided electric generators, along with the fuel required to power them, to over 260 people inhabiting eight remote villages in Qadir Karam.

Offering clean water



Corresponding UN SDG:
Water and Sanitation

The United Nations recognises having a consistent access to an adequate supply of water that is suitable for drinking, cooking, bathing and cleaning as a universal human right.

To obtain water, residents of Qadir Karam and neighbouring locations mostly rely on water wells and rainwater harvesting ponds, which tend to be concentrated in major villages.

Every day, residents of isolated villages need to travel for long distances to obtain water. In summer, as wells dry up, most villagers are left without a convenient access to clean water.

To provide clean and accessible water to the villagers, Crescent Petroleum and Dana Gas have constructed water wells and rainwater harvesting ponds, in addition to contracting water tankers in Qadir Karam and Chemchemical.

Drilling wells and ponds

In rural areas, water from wells and ponds is used not only for drinking and domestic purposes, but also for agriculture and livestock farming.

Crescent Petroleum and Dana Gas have drilled five water wells that currently serve potable water to over 20,000 villagers in Chemchemical.

We have also supported the construction and maintenance of rainwater harvesting ponds in five Qadir Karam villages.

People use the collected rainwater for household chores and agriculture, while animals use it to quench their thirst.

In addition and following a request from the directorates of water in both Qadir Karam and Chemchemical, Crescent Petroleum and Dana Gas signed contracts with owners of water tankers to deliver potable water to over 1,900 people residing in 21 villages in Qadir Karam.

CASE SPOTLIGHT



In the summer heat, Dada Sadia, a Qaitul resident in her sixties, mounted her mule for two hours a day to travel the arduous road from her home to the nearest water source.

Following Crescent Petroleum and Dana Gas' intervention, the widow had water delivered regularly to her doorstep thanks to water tankers. The initiative not only saved her from taking painstaking daily trips to the water source, but also allowed her to spend more time attending to her only living son, who has special needs.

“Before the arrival of Crescent Petroleum and Dana Gas in Qadir Karam, we had no electricity. Our sub-district transformed after they started offering free and uninterrupted electricity. Many families that had deserted Qadir Karam returned; they now represent around 50 per cent of our population. Crescent Petroleum and Dana Gas made Qadir Karam spring to life and I cannot imagine how desolate it would have been without them.”

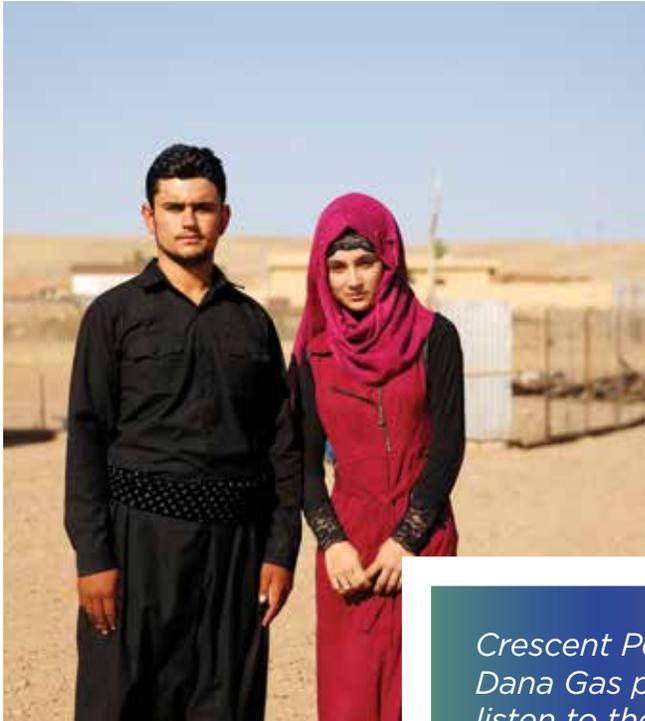
Mohammed Salih Ahmed

Director of Electricity Maintenance in Qadir Karam



Crescent Petroleum and Dana Gas' operations support major power plants in the KRI.

Impacting villages



Crescent Petroleum and Dana Gas perpetually listen to the needs of the villagers surrounding their areas of operations.





2

Impacting public services



Following the political events in Iraq and neighbouring countries, population in the KRI has increased dramatically from 2011 to present.

The influx is straining the provision of public services; and, per the Ministry



of Planning, a greater participation from partner organisations is needed to ensure an adequate public services provision in the KRI, including healthcare services and the preservation of holy sites.

Addressing the call of the ministry, Crescent Petroleum and Dana Gas are committed to enhancing public services by empowering healthcare facilities and holy sites in the KRI.

Impacting public services

Enhancing healthcare facilities



Corresponding UN SDG: Health

As the healthcare system in the KRI is mostly funded by the government, contributions by the private sector are required to enhance the quality and efficiency of care provided.

To help foster better healthcare for all, Crescent Petroleum and Dana Gas seek to deliver tangible solutions to challenges experienced by various healthcare facilities in the KRI.

Enabling injury care

According to the Ministry of Health, over 10,000 people are injured every year due to road traffic accidents in the KRI.*

For an accurate examination of injuries, physicians require X-ray imaging. The X-ray facility at Altun Kupri Health Centre, located 50 kilometres north of the city of Kirkuk, was damaged, endangering lives of accident victims due to the delay in transferring them to Kirkuk.

*Ekurd, <http://ekurd.net/traffic-deaths-iraqi-kurdistan-2017-04-29>

Crescent Petroleum, Dana Gas and the Rebaz Foundation—a non-governmental organisation that promotes health, education and community life in KRI—have supported the construction of a full-fledged X-ray examination room at the centre that helps save many lives.

Improving maternity care

In the KRI, where maternal mortality remains a public health challenge, investing in maternal health is a healthcare priority.

The 12-bed Hoshang Azad Martyr Hospital for Maternity, the only maternity hospital in Chemchamal, witnesses 15 births per day on average. The hospital used to suffer from insufficient blood bank equipment and a general lack of facilities.

To facilitate quality blood banking at the hospital, Crescent Petroleum and Dana Gas have equipped the hospital with a blood shaker that helps staff mix blood samples and anticoagulants gently and periodically.

Crescent Petroleum and Dana Gas have expanded the hospital facilities by erecting seven prefabricated cabins around its building.

The cabins currently host an outpatient clinic, an obstetric ultrasonography room and various support departments of the hospital.

The addition of the cabins has enabled the hospital's management to reduce infection rates by limiting the contact between patients, visitors and staff. The capacity of the hospital to receive patients has also doubled.

Enhancing places of worship



Corresponding UN SDG: Peace, Justice and Strong Institutions

Places of worship embody the cultural and spiritual values of their communities. Conserving them is hence necessary for maintaining community cohesion.

At the centre of Qadir Karam, a shrine and its mosque attract worshippers from all over the KRI maintained with donations from villagers and visitors.

Crescent Petroleum and Dana Gas have equipped the shrine and mosque with water tanks, water coolers, sound system, air conditioners, air coolers, ceiling fans and kerosene heaters.

The new equipment offers a more comfortable experience to the shrine visitors.



“We appreciate the support that Crescent Petroleum and Dana Gas have generously extended to our shrine and mosque; the new equipment benefits hundreds of worshippers every day. May God Almighty reward you for all your help to the people of Qadir Karam.”

Sheikh Latif Barzinji

Leader and spiritual adviser to the Qadir Karam mosque

“Health centres and hospitals differ chiefly by the sizes of their premises and workforce. Crescent Petroleum and Dana Gas’ contribution helped transform Hoshang Azad Martyr Hospital for Maternity from a health centre to a hospital, sparing many patients from seeking medical services in remote locations. The hospital’s staff, patients and their families are grateful to Crescent Petroleum and Dana Gas.”

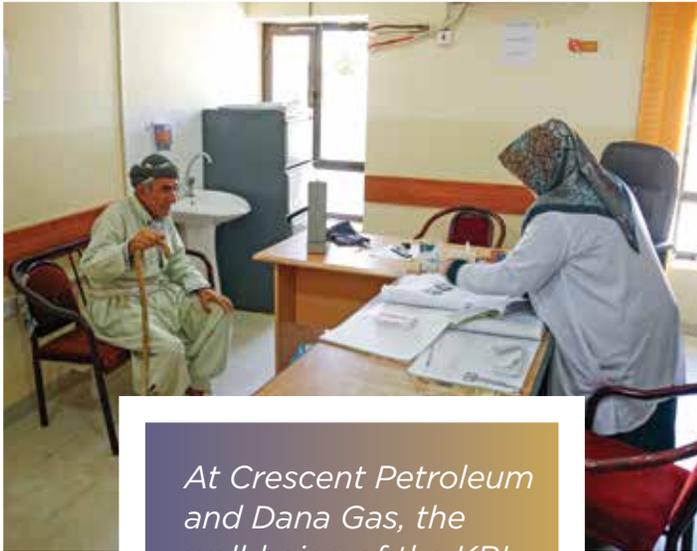
Ayub Hamad Gharib

Deputy Director of Health in Chemchemical

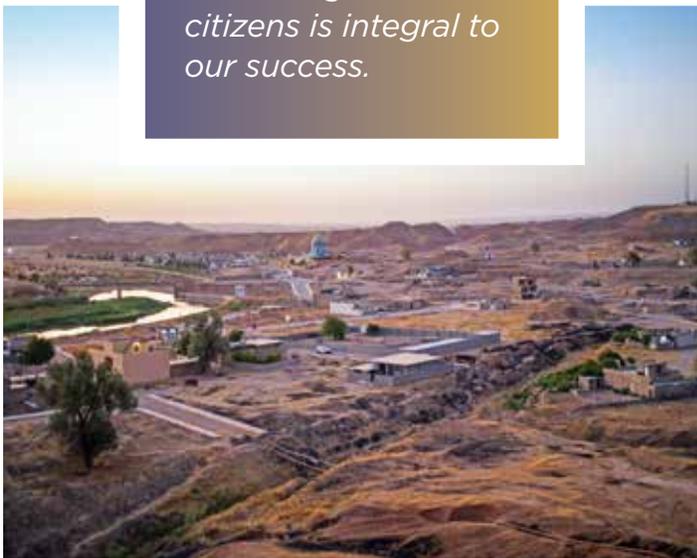


Newborn receives care at Hoshang Azad Martyr Hospital for Maternity in Chemchemical.

Impacting public services



At Crescent Petroleum and Dana Gas, the well-being of the KRI citizens is integral to our success.





3

Impacting people



Per the national Statistics Office, more than one in ten people were living below the poverty line in the KRI in September 2016.



By hindering one's access to education, healthcare, employment and recreational activities, poverty decreases quality of life and leads to increased violence rates in society.

Crescent Petroleum and Dana Gas aim to empower the Kurdish people by promoting equal opportunities, education, employment and sports.



“In our quest to generate a maximal social impact in the KRI, we at Crescent Petroleum and Dana Gas design each of our CAP initiatives to meet a critical demand by marginalised members of the community.”

Shakhawan Kamal Rashid

Head of Human Resources and Marketing,
Kurdistan operations



At a Barzani Charity Foundation office in Chemchemal, an employee distributes financial aid to orphans, supported by Crescent Petroleum and Dana Gas.

Promoting equal opportunities



Corresponding UN SDG: Poverty

In the KRI, poverty-stricken families and vulnerable orphans experience challenges in accessing healthcare, education and other basic services.

Providing equal opportunities to all community members helps bridge social gaps.

Hence, Crescent Petroleum and Dana Gas endeavour to support the impoverished and orphans in the KRI by easing their access to healthcare and education.

Supporting the impoverished

In the KRI, a lack of social health insurance programme prevents those living below the poverty line from seeking medical care.

To help the destitute receive adequate medical care in Qadir Karam and wider Chemchemical, we at Crescent Petroleum and Dana Gas run a Charity Help programme, where we award deserving individuals from US\$200 to US\$1,000 to cover their medical expenses.

Supporting orphans

Orphans are particularly vulnerable as they are prone to emotional, psychosocial and financial distress.

Following an invitation from the Barzani Charity Foundation, a non-profit organisation that supports the underprivileged of the KRI, Crescent Petroleum and Dana Gas have sponsored 1,000 orphans below 18 years of age for the year 2013.

Residing in remote locations in Chemchemical and the Garmeyan area in Sulaimani, the orphans' guardians could not bear the expenses of transporting them to school.

Crescent Petroleum and Dana Gas provided each orphan with US\$50 per month to help them cover school transportation fees and other living expenses, facilitating their education while raising their standards of living.

CASE SPOTLIGHT



Hewa Farhad Othman and his four sisters utilise Crescent Petroleum and Dana Gas' school transportation service to attend a preparatory school in Qadir Karam, which is about 20 kilometres away from their village, Sheikh Hameed.

Hewa's father, like most Sheikh Hameed locals, is a shepherd. If his children did not attend school, they would have inherited his occupation.

Promoting education



Corresponding UN SDG: Education

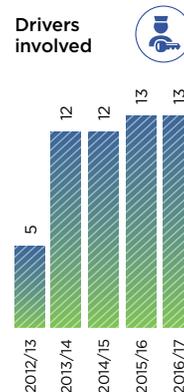
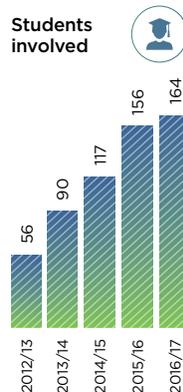
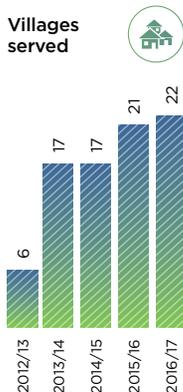
By improving knowledge and sharpening reasoning, decision-making and problem-solving skills, education improves lives and alleviates poverty.

As access to education remains a challenge in numerous parts of the KRI, the region suffers from significant illiteracy rates. In 2013, 10.3 per cent of the KRI children were out of school according to the United Nations Children’s Emergency Fund (UNICEF).*

Crescent Petroleum and Dana Gas seek to facilitate education in the KRI by providing transportation and financial support to those in need.

Transporting schoolchildren

The few Qadir Karam locals who receive a formal education rarely get to study beyond primary school. This is due to a lack of educational infrastructure in the area, a scarcity of academic staff and material challenges faced by the villagers—some parents cannot bear the expenses of transporting their children to school.



Crescent Petroleum and Dana Gas have undertaken to hire villagers who own vehicles to transport children to schools in Qadir Karam.

At the outset, the initiative involved one school child. It currently benefits 164 children and 13 drivers from 20 villages.

Encouraging higher education

Per the Ministry of Higher Education, enrolment in private universities declined by nearly 40 per cent from 2015 to 2017 in the KRI due to financial constraints experienced by young adults.**

To support the local knowledge economy, Crescent Petroleum and Dana Gas promote higher education in the KRI.

Our support to higher education in the region dates to October 2008, when we joined forces with the Rebaz Foundation to offer full scholarships for seven Master of Business Administration students at the American University of Iraq Sulaimani.

Moreover, we always welcome requests to support ambitious Chemchemical locals who wish to pursue a higher education to benefit their communities.

*All in School, http://allinschool.org/wp-content/uploads/2015/04/Iraq_Exec_Sum_En.pdf

** Rudaw, <http://www.rudaw.net/english/business/22012017>

CASE SPOTLIGHT



Mohammad Hussein Abdulqadir, a young man who was admitted to the Special Needs Education programme at Charmo University, Chemchemical, approached Crescent Petroleum and Dana Gas for assistance with the tuition fees in February 2017.

Keen on encouraging inclusive education in the region, Crescent Petroleum and Dana Gas offered a scholarship that covers the student’s four years of higher education. Mohammad is now on his path to becoming a certified special education teacher in Chemchemical.

“We, the youth of Sheikh Hameed, are indebted to Crescent Petroleum and Dana Gas—their school transportation service is simply invaluable. All students from my village are class toppers. Without the transportation service, we would not have been able to continue our education. I have two years left to graduate and I ask Crescent Petroleum and Dana Gas to kindly continue providing this wonderful service to us.”

Hewa Farhad Othman

Grade ten student at a preparatory school in Qadir Karam



Students learn English at a Qadir Karam school supported by Crescent Petroleum and Dana Gas.

Impacting people

“Before becoming an ambulance driver, I was in a pitiful situation. However, as soon as I started working, my community became proud of me. I value most the trust that I have gained from my peers and the social impact that I am making. The monthly salary that I earn has enabled me to marry and establish a family. I credit Crescent Petroleum and Dana Gas with transforming my life.”

Ahmed Latif

Qadir Karam Health Centre's ambulance driver



Promoting employment



Corresponding UN SDG: Inequality

Per the KRG, the rate of unemployment in the KRI stood at 14 per cent in 2016.*

Unemployment not only leads to poverty, but also jeopardises the social fabric of the communities it affects.

To fight unemployment in the KRI, we at Crescent Petroleum and Dana Gas regularly engage with our community partners to create economic activities for rural communities.

Training local seamstresses

As global poverty is predominantly rural, the United Nations Commission of Sustainable Development recognises sustainable rural development as essential for poverty alleviation.

*Rudaw, <http://www.rudaw.net/english/business/21092016>

To drive income growth at the grassroots level in the KRI, Crescent Petroleum and Dana Gas strive to regularly involve villagers in projects that have a lasting impact.

In April 2016 for instance, Crescent Petroleum and Dana Gas had an excess of oversized workwear. To adjust their size, we contracted four disadvantaged amateur seamstresses from Qadir Karam and hired a professional local tailor to train them.

Following the training, the seamstresses worked together over four months to alter the sizes of the 400 workwear. For each workwear they altered, they gained US\$15.

In addition to providing them with revenue, the initiative has advanced the seamstresses' professional skills. It motivated one of the beneficiaries to become a full-time seamstress in her hometown.

Fostering youth employment

According to global policy think tank RAND Corporation, the KRI population is very young, with about 50 per cent of locals aged 20 or under.

Unemployment in the KRI frustrates many youths, who turn into a source of trouble for their communities.

To create work opportunities for the young, we at Crescent Petroleum and Dana Gas have capitalised on our strong relationship with the mayor of Qadir Karam to secure employment for ten unfulfilled youths in the public sector, including at a local school, mosque and health centre.

Every month, we provide Qadir Karam Mayoralty with the funds required to pay the salaries to the young employees.

The youths now feel self-fulfilled and are the pride of their families and peers.

CASE SPOTLIGHT



Financial hardships made Qadir Karam resident Ranja Bakir consider dropping school to work as an unskilled labourer before we at Crescent Petroleum and Dana Gas convinced him to complete his education in computer science at our expense.

Having graduated from a technical institute, Ranja currently serves as a science teacher at an intermediate school in Qadir Karam. One of the rare specialised teachers in the sub-district, he is the pride of his family.

Impacting people

Promoting sports



Corresponding UN SDG: Inequality

Sports shape community identity by fostering engagement, pride and achievement. They also contribute to the holistic development of young people by stimulating the building of motor skills and the adoption of such values as fairness and teamwork.

Crescent Petroleum and Dana Gas encourage sports in the KRI by erecting soccer fields and supporting the Chemchemical taekwondo team.

Building soccer fields

Soccer defuses pre-existing hostilities in a community by fostering strong bonds among players and fans.

Crescent Petroleum, Dana Gas and the Rebaz Foundation have built soccer fields in four locations across Qadir Karam and Chemchemical.

Every day, each soccer field hosts over 90 players, including teenagers, young adults and senior citizens.

Honing taekwondo skills

Practicing taekwondo builds one's physical fitness, self-discipline and social skills in addition to promoting self-esteem, mental clarity and respect for authority.

Since August 2015, Crescent Petroleum and Dana Gas have sponsored the trainings and international participations of the Chemchemical taekwondo team, which comprises 75 dedicated players.

Our support has encouraged the team's coach to undergo extensive training in Iran, which is home to one of the world's best performing taekwondo teams. We have also empowered the team to participate in numerous regional games, including the Turkish Open Taekwondo Tournament in February 2016.

After having gained international exposure, the team members' competitiveness, self-discipline and self-confidence improved dramatically. The achievers are now considered role models in their families and schools.

According to the coach, demand to join the Chemchemical taekwondo team has increased by over 200 per cent since 2015.



“At Crescent Petroleum and Dana Gas, we consider our business and community as one ecosystem. Besides enriching society through our operations, we seek empower our neighbouring communities by extending social initiatives that transcend age and socio-cultural boundaries.”

Hoshang Mohammed Ismail

Community Development Manager, Kurdistan operations

“Although our team is 20 years old, we would not have had any achievements to share if Crescent Petroleum and Dana Gas had not supported us. Thanks to them, we have participated in national and regional trainings and competitions, and brought back home 17 regional medals and one international medal. The police and schoolteachers are proud of our players as they exhibit dedication in everything they do. Crescent Petroleum and Dana Gas have enabled us to turn our dreams into reality.”

Aras Omar Mohammed Ali

Coach of the Chemchemical taekwondo team







At Crescent Petroleum and Dana Gas, we seek to give back to those who give us strength: the diverse people of the KRI.



“Without the intervention of Crescent Petroleum and Dana Gas, Qadir Karam and Chemchemical would have been abandoned. Almost 90 per cent of families in our sub-district have at least one member working at Crescent Petroleum and Dana Gas, and they all receive their salaries and benefits regularly. Moreover, the companies help residents access electricity, water, education and other essential services. They always extend a helping hand to those in need. With the continued support of Crescent Petroleum and Dana Gas, I am confident that Qadir Karam and Chemchemical will develop and prosper for years to come.”

Ibrahim Muhyadin Aref
Mayor of Qadir Karam



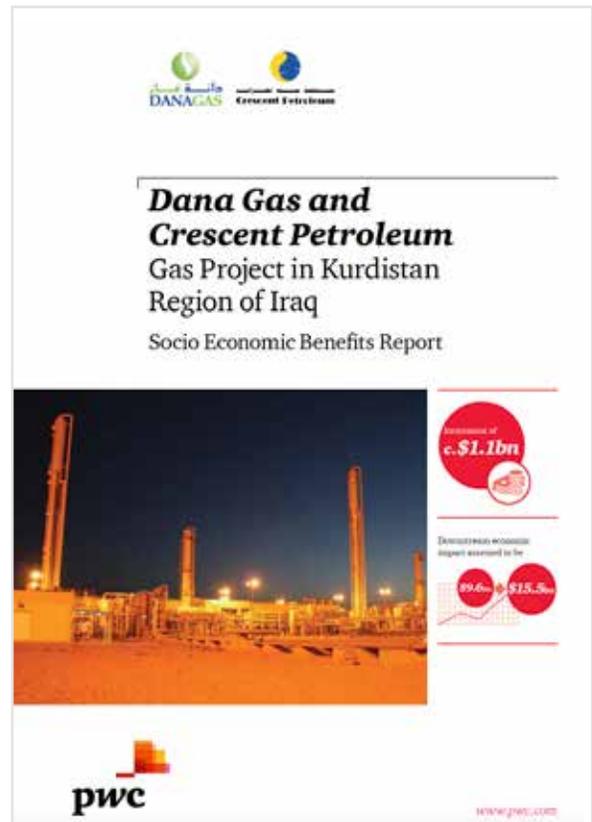
Looking ahead



At Crescent Petroleum and Dana Gas, we are committed to further impacting our neighbouring communities by maintaining and expanding our CAP activities.

We will keep devoting our resources to extend life-changing utilities, amenities and activities across the KRI.

To learn more about Crescent Petroleum's contributions to the KRI, please read PwC's socio-economic benefits report on www.kurdistangasproject.com



“Crescent Petroleum and Dana Gas have benefited the KRI more than any other company I know. Before their arrival in Qadir Karam, most villages were deserted. Many people returned to Qadir Karam to work with either Crescent Petroleum and Dana Gas or their contractors. We cannot count the improvements brought by Crescent Petroleum and Dana Gas' operations.”

Ihsan Abdulrahman Suleiman

Director of Administration and Finance at Chemchemical Mayoralty







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