

Erbil takes flight

Inside the state-of-the-art terminal building at Erbil International Airport



An interview with Talar Faiq Salih, Airport Director at Erbil International Airport

Erbil International Airport (EIA) looks like a fantastic facility. How did it happen that Erbil has what is, by any standards, an airport of international standing?

The construction and equipping of the new main airport terminal, runway, taxiways, and affiliated facilities was funded by the KRG at a cost of about \$400 million. The project began in 2004, building upon the previous limited facilities and constructing a greatly expanded, state-of-the-art airport, future-proofed for several decades. Erbil International Airport can now accommodate three million passengers a year and handle the latest aircraft, including the Airbus A380. Cargo traffic is handled in a dedicated facility that has greatly improved our overall warehousing capacity.

Our facilities have improved processes for passengers, reaching a level of quality and customer satisfaction that represents the key to success in today's world. EIA aspires to be an important port of entry not only for Kurdistan, but also for Iraq. Aside from typical aviation activities, EIA will develop an airport city, boosting the region's economy by promoting logistic centers,

tax-free zones, servicing the Erbil Industrial Zone, and promoting tourism from Europe and the Gulf.

Impressive, but just how big is EIA?

Based on 2009 statistics, we have 6,543 aircraft movements with an increase of 33 percent on 2008 traffic. Trend projection for 2010 is a further increase of 14 percent (Sept 2009–Sept 2010). EIA's growth exceeded the industry trend in the Middle East, being the only airport worldwide to have double-digit growth, according to IATA [International Air Transport Association] data. This spectacular result has to be put in the context of the economic crisis, which affected travel worldwide.

These traffic results produced a 15 percent passenger increase in 2009, followed by a 2010 trend (Sept 2009–Sept 2010) of 18 percent passenger growth. Once again, growth is higher than IATA Middle East forecasts and the EIA Master Plan forecast in its high-case scenario of growth. Concerning the cargo sector, more than 100,000 tonnes were handled in 2009. A slight, but steady, growth is forecast for 2010, considering higher-capacity cargo freighters are operating daily into Erbil and that average volume per movement has increased by more than 70 percent.

Erbil International Airport can now accommodate three million passengers a year and handle the latest aircraft

Erbil's new International Airport opened in September 2010



EIA can cope with passenger aircraft of all sizes

How well placed is EIA to cope with future demands?

EIA has the longest runway in the Middle East and the fifth longest in the world: it is 4,800 meters long by 90 meters wide. The runway is designed to handle the largest and heaviest aircraft on the hottest days of the year, when ground temperatures exceed 50°C.

The new airport infrastructure adopts the latest available technologies for air traffic control and security. EIA pursues excellence in safety and emergency response, having studied and implemented procedures based on best airport practices.

How many airlines and destinations are available from Erbil?

EIA has 13 aircraft operators flying to 24 destinations: Air Berlin, Air Sweden, Atlas Jet, Austrian Airlines, Etihad Airways, Fly Dubai, Gulf Air, Iran Air, Iraqi Airways, Lufthansa, Middle East Airlines (MEA), Royal Jordanian Airlines, and Viking Airlines. Amsterdam and Turkish Airlines are anticipated to begin passenger services to EIA soon. Air Arabia, Oman Air, and Qatar Air have also indicated interest.

Erbil is connected worldwide through the hub airports of Abu Dhabi, Amman, Bahrain, Beirut, Dubai, Frankfurt, Istanbul, and Vienna with direct daily flights. New routes and additional frequencies will improve EIA's connectivity to the world and to Europe.

EIA is in Kurdistan, but many visitors will look at the map and see it very much as being in Iraq, and will be concerned about their safety. How secure is EIA?

EIA has an exceptionally high level of security, with additional security measures found at few, if any, airports in the world. EIA is focusing on obtaining its Aerodrome Certification as per ICAO [International Civil Aviation Organization] recommendations. To do so, great efforts have been put into guaranteeing not just international standards of security, but also wider safety, airport operations, training etc. Investments in infrastructure and equipment have to be supported by proper personnel training, so as to meet, and exceed, international standards in all aspects of airport operations.

What are the challenges of running an airport in Iraq/Kurdistan?

Since day one, I was energized by having the opportunity to manage an airport and, even more so, to open a new one. Special attention was given to the operational readiness, transfer and start of operations of the new airport, which opened in September 2010. Now I am focusing my energies on developing a business and strategy plan for acquisition of new commercial carriers and cargo and logistics operators. The story of EIA is only just beginning. ■



OIL AND GAS

- Build-Operate-Transfer (BOT) Projects
- Build-Own-Operate (BOO) Projects
- Public-Private-Partnership (PPP) Transfer
- Rehabilitate-Operate-Transfer (ROT)

النفط والغاز

- مشاريع البناء والتشغيل ونقل (BOT)
- مشاريع التشغيل المخصصة بناء (BOO)
- Public-Private-Partnership Transfer (PPP)
- مشاريع إصلاح تشغيل ونقل (ROT)



CONSTRUCTION

- Military - BOT Projects
- Industrial - Turn-Key Projects
- Power - Renovations

البناء

- مشاريع (BOT)
- Turn-Key Projects
- السلطة
- تجديدات
- العسكرية
- الصناعي
- السلطة



Security

- Risk Assessment & Management
- VIP & Government Protection

الأمن

- إدارة وتقييم المخاطر
- حماية VIP و الحكومة



Logistics and Procurement

- Manpower Supply
- Transportation & Vehicle Leasing
- Materials & Equipment Supply

اللوجستيات والمشتريات

- تقديم العمال
- النقل و تأجير السيارات
- توفير المعدات و المواد



I FEX Fire Fighting System

- Sole Agent for the Middle East

I FEX Fire Fighting System

- الوكيل الوحيد في الشرق الأوسط



Sewage & Waste Mngmnt.

- Sewage System Planning and Construction
- Waste Disposal Management
- Sewage Treatment Plant

الصرف الصحي وإدارة النفايات

- تخطيط نظام الصرف الصحي والبناء وإدارة
- التخلص من النفايات
- معمل لمعالجة الصرف الصحي



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Making Kurdistan better connected



South Korea's Ambassador to Iraq, Ha Tae-Yun, and then Kurdistan Prime Minister Nechirvan Barzani share the honor of cutting the ribbon at the opening ceremony for the KRG's IT Academy in Erbil, September 2009

Botan M Osman, Head of the KRG's Department of IT, outlines the government's strategy for the development of information technology across the Region

Many governments worldwide have realized the impact of information technology (IT) and the important role that it plays in modernizing governments, in enhancing government services and, subsequently, in contributing to economic development.

In the Kurdistan Region, the growing need for IT development was seen as a priority in the fifth cabinet of the

Kurdistan Regional Government. Under the auspices of the Prime Minister, the Department of IT was established in 2007. Our task was to lead the development of IT and to modernize the KRG through a unified IT policy.

We are leading the modernization of the Kurdistan Region through the five-year KRG IT Strategy. Top experts from PricewaterhouseCoopers in India, the Middle East, Europe and the UK are dedicated to ensure that the KRG gets it right.

We believe that the development of the strategy has been one of the most participatory processes ever undertaken in Iraq.



Young people will benefit from improved IT services

More than 700 active participants from KRG institutions, NGOs and the private sector have been involved in the development of the IT strategy.

Throughout 2009, the initiative analyzed every institution in the KRG, comprehensively understanding and documenting the way the government functions as a whole. This participation, understanding and global expertise has resulted in a strategy that is innovative in nature, local in context and global in its experience. The draft KRG IT vision, mission, and objectives have been developed using the comprehensive information gathered and stakeholder and public participation.

The vision which has been developed is: “Modernising our government through the use of technology to better serve our people, enable government services, and make it easier to live, stay and do business in our Region. A transformation achieved through the participation of every individual challenging themselves to make affordable e-Government equally possible for all.”

The KRG Department of IT is tasked with achieving Kurdistan’s vision through a mission that focuses on driving technology in government to build capacity and modernize public services, with a focus on seven domains; IT capacity, infrastructure, IT governance, applications and e-services, IT private sector and IT penetration, IT funding and spending, and law and regulations.

There are 38 objectives across all the seven domains described; these are being converted to over 1,000 pages of

detailed architectures, plans and projects, which will provide a clear and detailed roadmap for the future of our development.

The KRG IT Strategy has mapped out a comprehensive development plan over the next five years that aims to invest more than \$500 million in the modernization of the KRG and the development of Kurdistan’s IT sector.

The business opportunities are vast, and we are working on finding the best private-sector partners to help us achieve our vision. We have established a vendor registration form at our website (www.krgit.org) to enable companies to register with us. Our aim is to have a fair, competitive, and transparent environment for all IT companies to innovate and succeed in the KRG.

In line with our transparent approach, we will host all our tenders online, and provide our citizens with frequent updates on project progress. When we partner with a firm to deliver a solution, the citizen is the ultimate client; we will be jointly accountable for the successes and failures of projects. This creates a level of trust between all parties that leads to the best possible results.

This is a unique opportunity to start almost from scratch; the potential to do things well and in line with best practices right from the outset is exciting. We can create something together that is fresh and does not require us to worry about legacy. Those involved in this sector over the next five years can truly lay claim to being part of establishing a model IT environment in the Kurdistan Region.

The development of a Kurdistan IT Private Sector is an imperative objective over the next five years. Fair and transparent competition, combined with the fostering of innovation, is the key to the formula that will help us one day achieve Kurdistan’s version of Silicon Valley.

We are setting up schemes to encourage and assist global IT companies enter into the Kurdistan market. We will endeavor to provide global firms with the insight necessary to hit the ground running. We ask all major IT companies to register with us at www.krgit.org and partner us in the development of the IT hub of the future. The Iraqi market is wide and deep, the opportunities are vast. Let’s make Kurdistan the future platform for IT development in Iraq, as well as the wider Middle East.

Making it easier to do business in our Region is a key element of our KRG IT vision. Over the next five years we want to continually improve the way companies interact with the government. Starting from access to information about various industries, to applying for visas and residency online, to registering companies, applying for government tenders, and much more. The ease of doing business in Kurdistan will be measured and improved year on year. ■

We know there's more to meeting demand than adding bandwidth... it's about being smart with how you use it.

We know there's more to delivering a unique customer experience than the latest technology... it's about looking at the bigger picture.

We know there's more to transforming your business than just big ideas... it's about a proven track record.



Holistic



That's **the simple truth**

Smart

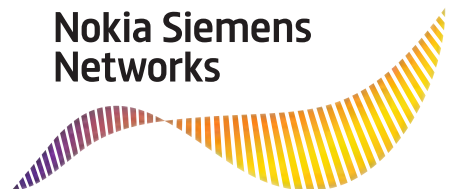


Proven

To find out why being smart, holistic and proven matters, visit www.nokiasiemensnetworks.com

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**Nokia Siemens
Networks**





Christian Boczek,
country director,
Nokia Siemens Networks Iraq

Nokia Siemens Networks



How long has Nokia Siemens Networks been present in Iraq?

Nokia Siemens Networks (NSN) has been present in Iraq since 2004 and continues to work with operators in Iraq including Asiacell, Korek and Zain. We have three main office locations in Baghdad, Erbil and Sulaimanyah with a fourth office planned in Basra soon. As of June 2011, we have more than 200 employees dedicated to our Iraq operations, either locally employed or supporting Nokia Siemens Networks customers in Iraq out of other countries in the Middle East, Africa and Europe. These employees are working across various functions such as services, sales, finance and managed services. We tap into our global experience, research capabilities and technology and solutions expertise to better serve our customers in Iraq. Managed services is a core strength of ours and we strongly support operators in this area.

Green energy and energy-saving solutions are also strengths of Nokia Siemens Networks. We offer Iraqi operators solutions that are energy-efficient, environmentally sensitive and use recyclable components wherever possible.

Elaborate on an example of your efforts in Iraq

One of our customers needed to grow its network capacity and service capability to deliver a profitable and high-quality customer experience nationally. Having acquired a competitor's assets and subscribers, that customer challenged us not only to lead the integration and modernization of the two infrastructures (one based on one of our competitor's equipment, the other on one of our parent company), but also to increase their combined capacity by 50 per cent.

Throughout the network integration process, Nokia Siemens Networks engineers took every opportunity to measure the impact of the technical changes on the quality of the end-customer experience.

Our experts also helped two of our customers in Iraq to identify general weaknesses in their networks (radio, transmission, international gateway, route optimization), to

improve customer satisfaction and generate new revenues. As a result, both customers now enjoy a seamless national service with improved key performance indicators in all areas.

The networks quality improvements enjoyed by these two customers will no doubt help in boosting their companies' top lines.

Hiring local experts is an essential HR policy of Nokia Siemens Networks. And we strongly believe in investing in local talent in whatever country we operate in. Similarly, in Iraq our endeavors are on similar lines.

What is the telecoms and internet situation in Iraq?

With three GSM operators operating in Iraq, there is competition in this sector, which ultimately benefits the Iraqi people. However, the mobile sector is almost exclusively dependent on prepaid services. Hence, mobile average revenue per user rates are consequently low (as of Q110, blended country ARPU for Iraq was US\$14, while the average for the Middle East was US\$22). Currently, all mobile operators in Iraq operate only a 2G network. 3G licenses are expected to be issued in 2011. A fourth mobile operator launch is also expected in 2011. However, high security costs weigh in on operators' investments.

The Iraqi government is looking at deploying a new fiber network across the country, because the original core fiber backbone was heavily damaged during the war. Plans are underway but no timeframe has been finalized. Internet services were introduced to Iraq in 2002. Since the war, internet take-up has grown significantly because of increased availability of broadband wireless access (BWA) services by WLL operators, and also by the unregulated use of VSATs. There are an estimated 500,000 internet users in Iraq at present, which is a little less than two per cent of the country's population, giving plenty of room for internet growth in Iraq.

We have a deep understanding of telecom customers in Iraq and the economic and business challenges faced by operators. We bring technology and solutions, global knowledge and vast experience that will benefit the telecom landscape in Iraq.

The power of information



Botan M Osman

Embracing the rapid advancements of the electronic information age is vital for keeping the Region and its people in touch with a new world, says Botan M Osman

The end of the 20th century marked a period of preparation for something that none of us imagined. It was the foundation for an information and technological explosion fueled by the advent of the internet and advancements in computing.

The rapid technological changes that took place at the start of the 21st century have altered the way we do everything. Governments are rethinking their governance models; companies are reshaping their global presence; and traditional media is trying to catch up with an information flow fueled by blogs and social networks. Increasingly, the individual is realizing that, without an online footprint, your relevance to this new world is reduced.

This electronic information age has changed the survival tactics of the human race. It is no longer viable to make significant progress in any field without truly embracing information and communications technology (ICT). Even democracy has seen a significant change in the way the public participates. Public officials are increasingly signing up to Twitter and Facebook, as the public demands almost daily updates on how their countries are being governed. Government institutions are constantly thinking of new ways to meet the transparency demands of their stakeholders, while economies around the world have recognized

ICT as a requirement for growth. The significance of ICT is no longer a topic for debate. Those who embrace it progress, while those who don't get left behind.

An example of being left behind can be seen in Iraq. We have been isolated from global technological development since the early 1980s. Only after 2003 were we able to start thinking about how to catch up. The negative effect this has had on Iraq can be seen in all sectors of the economy and in all parts of society.

The Kurdistan Region has made great strides in ICT since 2003. The setting up of the KRG Department of IT in 2007, tasked with the establishment of an 'e-KRG', was a clear sign that we are ready to embrace the future. However, there is much more to do. Through the KRG IT Strategy, the next five years have been mapped out, with hundreds of projects and detailed initiatives, and an ambitious spending plan that is set to achieve much of what we have been hoping for.

There are still many people who fear information, because in our history it has been mostly used against our people. Where information was once a source of authority and power for suppressing and harming the people of Kurdistan, today and in the future it will be used for the development of our government institutions to ensure they deliver better services to our citizens.

After many years of seclusion, the Kurdistan information society is interfacing with the rest of the world. Transparency, information sharing, and civic engagement are at the forefront in the modernization of our Region.

Internet penetration is another important area that is in need of serious improvement, as we realize that having a connected Region enables us to increase the pace of our development. There must be increased competition in the internet and broadband sectors in Iraq in order to drive down prices, and we believe that this can be done with smart regulations and privatization. To enable the growth of internet access over the coming years, we must let the private sector flourish, and allow the government to intervene only when necessary.

Censorship and maintaining an open internet are other important areas that must be approached with extreme caution.



Social networks, such as Facebook, have revolutionized the sharing of information

It has been demonstrated through many examples around the world that censorship simply does not work and holds back the prosperity of societies and economies. Censorship goes against the entire purpose of the internet, its unlimited power, and its potential.

The Kurdistan Regional Government is adamant that the internet in our Region must remain free from censorship. An open internet is the key to our future. We are aware that cultural

factors may mean that certain content is undesirable; however, we must tackle this through increased awareness for individuals and families, leaving the choice down to them.

The future of Kurdistan is now in our hands. The internet has become a fundamental part of progress. We must not allow anything to deny the people of Kurdistan an online presence worthy of their desire to join the global information society. ■

Scania is one of the world's leading manufacturers of trucks and buses for heavy transport applications

Scania is represented by approximately 100 national distributors, which organise sales and workshop services worldwide. More than 1,500 service points offer quality support to customers.

In Iraq, Scania's history dates back to the early sixties. For many years, Iraq was one of the company's most important markets worldwide. At the peak in the early eighties, sales totalled 3,900 trucks in a single year. This gave Scania the opportunity to develop products perfectly suited to Iraqi conditions, north and south.

Scania has re-entered the Iraqi market with a clear goal of regaining a strong position. The sales and service network is currently expanding at a rapid pace, and the first Scania sales and service centre in Kurdistan was inaugurated in Erbil earlier this year. The long-term goal is to have a high-quality sales and service network that provides the best operating economy and boosts the productivity of all Scania customers in Kurdistan and Iraq.



SCANIA
www.scania.com

Farming for the future



Replacing old techniques and equipment will raise the yield from Kurdistan's farms

Jamil Haider, KRG Minister of Agriculture and Water Resources, describes the Region's five-year strategy for modernizing its farming sector

The KRG Ministry of Agriculture and Water Resources is implementing a strategically significant plan in producing and preserving the arable land within the Kurdistan Region. The land is ideal for the agricultural sector and is capable of supporting food production for the Region's population and generating income from exported sales to the surrounding area. The agricultural sector is the backbone of our economy and is one of the most important factors in the current socio-economic development of the Region.

The Kurdistan Region is renowned for its arable land, fertile soil, ideal climate, and abundance of water resources, all of which are perfect for the agricultural sector. In 2009, a five-year strategic plan was initiated to achieve food security and self-sufficiency, with the main focus being the preparation and production, marketing and distribution of agricultural goods, and for the KRG to provide assistance to local farmers in getting the goods out to the market for consumers.

Firstly, the aim of the plan is to better prepare a new generation of farmers through returning the lands to them and changing their traditional role. The KRG assures farmers of ownership of their land and provides support in legal procedures. It also provides training and guidance in implementing strategically suitable plans for their land, as well as promoting methods of farming using modern technology.

Secondly, we wish to attract foreign investors toward the agricultural sector and water wealth in the Kurdistan Region through Investment Law No 4 of 2006, which grants foreign investors great privileges, such as providing land for agricultural usage. With this initiative, we want to improve the capacity of agricultural projects and increase the number of research centers, in terms of experimental laboratories and institutions, for both organic and chemically enhanced products.

The people of this land are connected by their ambition to provide and secure food requirements for the Region. With proper planning, the intervention of experts, and the incorporation of modern technology, such goals are within the KRG's reach.

The KRG supports and welcomes experts to the Region to develop new technological projects and assist the agriculture sector



This five-year strategic plan, implemented by the Ministry of Agriculture and Water Resources, will assure local farmers of interaction and partnership with foreign companies, opening doors for further partnership and, perhaps, global investment opportunities for local farmers.

While realizing that our mission is quite simple, the more complicated factor of the equation is implementing better farming practices and encouraging consumers to buy the locally harvested produce. Pricing of produced goods is a huge factor, and we hope to establish a balanced set system for this challenge.

How does KRG address some of its agricultural challenges? Perhaps a practical solution would be to examine the agricultural practices of the international community and encourage foreign companies to invest and provide expertise to local farmers. International companies can assist in finding solutions to current agricultural problems, as well as implementing better agricultural practices and initiating a producer/consumer relationship, which can contribute to the improvement of the current economic situation, both domestically and internationally; a 'from-farm-to-fork' strategy to complete the cycle.

Since agriculture is a vital factor in our economy, the KRG aims to eliminate old-fashioned agricultural practices and will focus on providing regional growers and the new generation of farmers with modern equipment and technology. Once this vision has been realized by local farmers, the proper usage of arable land will translate into improved farming opportunities. Thus far, the five-year plan has been aimed at targeting the planning, preservation, production, and promotion of locally harvested goods over imported produce.

CURRENT STRATEGIC PROJECTS OF THE MINISTRY OF AGRICULTURE AND WATER RESOURCES

1. Establishment of fruit orchards, cultivation of olive and pistachio trees;
2. Cow-breeding and construction of dairy projects, and, when necessary, establishing partnership with farmers in order to provide forage;
3. Expanding pastry factories and the preserving and drying of fruits and vegetables; establishing partnerships with local producers to provide factories with initial produce;
4. Post-harvesting guidance, including advice on grading, canning, marketing, necessary machinery, and storage requirements;
5. Establishment of irrigation projects, including the building of dams and irrigation channels, investment in machines to implement new irrigation systems, and pumps for agriculture projects.

With proper planning and the implementation of new agricultural practices, the KRG aims to achieve self-sufficiency and food security in the agricultural sector, which is playing a leading role in the socio-economic development in the Kurdistan Region. The KRG supports and welcomes experts to the Region to develop new technological projects and assist the agriculture sector with aspects in which it is lacking. Such projects can generate great commercial success for interested investors. ■

Resurrecting agriculture



Kurdistan has a range of initiatives in place to optimise the Region's agricultural sector

Improving and managing Kurdistan's abundant water supplies is a key part of revitalizing rural areas, explains Professor Gareth Stansfield

Kurdistan is a fertile land. With its rich soils, abundant winter rainfalls, and significant groundwater reserves, Kurdistan has often been described as a breadbasket capable of not only feeding the population of the Region, but also exporting to her neighbors.

Yet this represents only potential and not the reality. Currently, Kurdistan remains a net importer of products. Rural areas are still recovering from the legacies of conflict since the 1970s, which saw the systematic destruction of the rural environment by the Ba'ath regime. Combined with the effects of the embargoes and economic emergency management of the 1990s, which resulted in a collapse of the domestic agricultural sector following the emergency import of foodstuffs implemented

by the UN, Kurdistan's agriculture sector remains very much a work in progress. However, it is a crucial factor in the Region's future development. It should also be a straightforward one, as the raw materials of a vibrant, successful agricultural industry are all present: fertile soils, good water supplies, extensive local knowledge and, just as importantly, the political desire to succeed.

Visitors flying into Kurdistan cannot fail but be impressed by their first view as they descend towards Erbil. Snow-capped mountains falling into green hillsides, interspersed with broad rivers, and opening out into wide agricultural plains, all point to what should be a prosperous, extensive agricultural sector. No less than five major rivers flow through Kurdistan, each of them joining the Tigris as it flows south. The Great Zab, Khabour, Lesser Zab, Awa Spi, and Sirwan rivers are all significant resources in their own right, with each flowing through a different part of the region. Three major dams—Dohuk, Dukan, and Darbandikhan—control and

Kurdistan has often been described as a breadbasket capable of not only feeding the population of the Region, but also exporting to her neighbors

regulate these rivers, and there are a further eight dams under construction or being planned: Basra (in Kurdistan, not in the south of Iraq), Taq Taq, Kheawata (Qalacholan), Gomaspan (north-west of Erbil), Mandawa, Bakorman, Dewana, and Ashi Baram. Water is everywhere in Kurdistan, and is soon to become much more accessible to the agricultural sector.

With these developments and others in mind, the Ministry of Agriculture and Water Resources has embarked upon an extensive five-year plan, with the aim of bringing as much agricultural land into production as possible. The plans for the development of water resources have high targets. The Ministry aims to supplement the current 5,000 small earth canals that exist with a further 650 concrete irrigation projects, built to the highest international specifications. A total of 15 large irrigation projects are also being commissioned to complement the three already in place. Five hundred ponds will be made, and 19 new small dams will be constructed to bring the total to over 30. In addition, the Dohuk, Dukan, and Darbandikhan dams will be recommissioned to provide water for irrigation projects. Through this plan, the amount of irrigated land is expected to at least quadruple from 283,400 to 1,195,400 donums (a donum measures 2,500 sq m).

Why does Kurdistan, with its population of 4.9 million, need this amount of land devoted to the agricultural sector? The answer is simple: the KRG aspires to self-sufficiency of the food basket for the entire Region, with the agricultural sector also playing a leading role in the socio-economic development of Kurdistan. This aim requires the Ministry to formulate detailed plans for managing the Region's water resources (surface and subsurface), coordinating agricultural water usage with domestic supply, ensuring that groundwater supplies are managed in a sustainable manner, and putting into place measures to resurrect the agricultural sector, before developing it into a vibrant, sustainable, and extensive feature of Kurdistan's economy.

The Kurdistan Region clearly has a long way to go to fulfill its agricultural ambitions, but there is confidence locally that, with political support and the involvement of foreign investors and skilled advisors, its vision has every chance of being realised.

Plans to produce everything that Kurdistan needs require an exponential increase in the yields of the Region's crops across the board—and initiatives are in place to double the vegetable yield from 300,000 to over 600,000 tonnes, and the fruit yield from 53,000 to 250,000 tonnes by 2013. The KRG's plans also envisage a significant increase in meat, dairy, and poultry production—enough to satisfy local demand and even to export. All of these advances require an equal development in food processing, and the plans call for an additional 33 large processing factories to be built by 2013. Agriculture is of great importance to the Region, and will be even more so as the years go on. ■



There is no shortage of water for crops in Kurdistan

Working towards a citizen-centered healthcare system



Vian Rahman interviews Dr Taher A Hawrami, KRG Minister of Health

For readers who are new to Kurdistan's healthcare system, can you give an overview of how it works?

The healthcare system of the Kurdistan Region, and of the rest of Iraq, is divided between public and private doctors, clinics and hospitals. Public and private healthcare have operated in parallel for many years, so this is a well-established feature of our system. Public healthcare is free of charge. Private healthcare is paid for at the point of use, as there is almost no private health insurance.

Each governorate has its own Directorate of Health. The governorates are divided into districts, which are in charge of hospitals, primary health centers, and secondary and tertiary centers in their areas.

How is public healthcare funded?

The Kurdistan Region as a whole receives 17 percent of the Iraqi budget—though, in reality, we often receive less than this—and the KRG decides how much of our share to spend on health. So we have

quite a degree of independent decision-making over our health expenditure and planning. However, we have less control over medicines, as we receive about 40–50 percent of our medicine needs directly from the Federal Ministry of Health in Baghdad.

How would you rate the state of your healthcare system?

It's a mixed picture. If we compare it to the 1990s and early 2000s, when we were under a double embargo and the economy was in very bad shape, our system today is much better. Now we can spend more on health and, with a better security situation, the number of beds per population and hospital visitor rates in Kurdistan are higher than in the rest of Iraq. We also have enough doctors, nurses, paramedic staff and non-medical staff, so there isn't a shortage of personnel.

However, we have some basic problems that we are trying to address. We need to move the focus towards primary healthcare and preventive medicine. We have a patient-centered system, which needs to become a citizen-centered system. On average, there is one primary health centre (PHC) per some 5,700 people. While this is much better than in the rest of Iraq, many patients still go straight to hospital for primary needs, partly because of



Healthcare is split between the private and public sectors



Erbil Hospital

old habits and partly because some PHCs are not offering the level of care that they should.

How do the private and public sectors work together?

Both systems have operated simultaneously in Iraq for many years. On the one hand, private hospitals, and doctors in their private practices, offer efficiency, speed and quality, and help to take the pressure off the national healthcare system. And, recently, some new joint public-private initiatives have been benefiting both. For example, the construction of the Medya Diagnostic Center and the Erbil Cardiac Center were funded by the KRG, but they are operated by the private sector and take both private and national health cases.

However, there is also conflict between the two systems, and this has to be tackled. Many doctors work in both the public and private sectors, and this sometimes causes a conflict of interest. There is a shortage of public-sector doctors, particularly in family medicine. They have a heavy workload and very full clinics. Given the benefits and rewards that they find in their private practices, it's not surprising that many of them dedicate fewer hours to the public sector, which inevitably suffers.

The conflict is symptomatic of an over-reliance on doctors, when many of their tasks can, and should, be done by nurses, paramedics, occupational therapists, physiotherapists and mental-health workers. This would take the pressure off doctors.

So why aren't the other healthcare workers doing those tasks?

Because of the skills gap. I'm very pleased to say that, in Kurdistan, nursing has now become respected, and we have roughly equal

numbers of men and women in the profession. However, very few of our nurses have done four years of study at the College of Nursing. Most have only had some training straight after middle or secondary school, or two years at a medical institute. Bridging the skills gap for all healthcare workers is one of our priorities.

What are your main policies?

Our aims are to have a healthier population, and to offer the best possible healthcare that we can with our budget. This means strengthening preventive and primary healthcare, improving management and infrastructure, and providing continuous professional development to our doctors, nurses and other healthcare workers.

What opportunities exist for foreign organizations or companies to work in Kurdistan's health sector?

Foreign universities and training institutions can help us a great deal with ongoing training and education, not only for medical staff but also for our managers, administrators and data controllers. There may also be opportunities for public health experts who can advise us on cost efficiencies, drug-supply management, and data-management systems. We have already run some training programs with Jordanian institutions, and we are in discussions with British universities, teaching hospitals and the Royal Colleges. But we need to overcome the problem of the UK visa-application process. In the private sector, foreigners who wish to set up private hospitals, clinics or other health services could qualify for incentives under the Kurdistan Investment Law. Those opportunities are certainly worth exploring. ■



Investing in the future: a commitment to education

The Region is making rapid progress in this area, writes Safeen Dizayee, KRG Minister of Education

The KRG will find no better investment than the education of the Region's children. No capital investment can, in the long run, match the returns that will be achieved from an educated population, capable of competing in the global economy.

My colleagues have presented articles outlining the visions and plans of their ministries and departments, and I believe the accomplishments of the KRG over the past few years prove that we are, indeed, on the right track for development. There is ample reason for optimism. The role of the KRG Ministry of Education, I believe, is to facilitate system-wide improvements in teaching capacity and methodology, but also to inspire a culture of learning, to nurture an appreciation of knowledge, and to encourage the spirit of teamwork and partnership. The success of our programs will benefit KRG initiatives in various sectors, from agriculture to IT, and will provide capable and eager students ready to engage in higher education and energize our workforce.

Because our children will guide us in the years to come, education reaches across all industries and services in the public and private sectors. Creating an integrated, modern educational infrastructure is an enormous task, requiring the combined efforts of thousands of dedicated teachers, administrators, and experts.

The cost, however, pales in comparison with the benefits. The knowledge absorbed by our children does not fade, unlike buildings or roads. The investment of resources in the education of our children is far more sustainable. Also, it allows younger generations to capitalize upon their knowledge and skills to contribute to our Region and create better, more efficient, more innovative solutions. It is the sustainability, and the universal application and utility, of education that makes our task so important.

Thankfully, the KRG has proved forward-looking in this regard, and has committed itself fully to the importance, and necessity, of providing the educational skills required to compete in today's economy. I will outline briefly some of our most important initiatives, focusing chiefly on primary education.

In any society such as Kurdistan's, with its history of underinvestment and conflict, literacy is a major concern. Over the past decade, we have worked hard as a government to reduce illiteracy rates, particularly between the ages of six and 15. Our efforts have been successful. In 2000, the illiteracy rate in Kurdistan was an unacceptably high 37 percent. This has been reduced to 17 percent in 2010—still far from acceptable, but clearly improving. We also prioritize not only the teaching of English alongside Kurdish, but also, as our society is multi-ethnic, the teaching of Assyrian, Aramaic, and Turkmen for those particular communities, which we have introduced.

We have also striven to ensure that boys and girls are given equal opportunities to realize their own potential in a supportive environment. This is an important fact to emphasize—in Kurdistan, boys and girls are equal in their rights and in how they are taught. To achieve this supportive environment, we aim to train our teachers to the highest standards and ensure they have the appropriate skills for them to best develop our children's potential.

There remains much more to be done. In the past, our people were deprived of a proper system for educating and nurturing our children. We have worked fervently to create an atmosphere of learning—and to build enough schools in which to train our young students. The coming years will see further improvements and more steps forward.

Investors and entrepreneurs who are exploring opportunities naturally consider the quality of labor skills available in the local market—whether in the Kurdistan Region or elsewhere. Each year, we will produce graduates with a more robust knowledge base, sharper skills and greater global awareness.

I do not claim that our education system is on a par with those of the most advanced nations in the world, but we are improving rapidly. I am confident that private companies, both local and international, will find thousands of talented, capable, and willing young men and women eager to explore employment opportunities and put their skills to work. In the meantime, our schools will grow, our programs will develop, and Kurdistan will continue investing in the future by investing in its children. ■

Universities in Kurdistan: developing the tertiary sector



Reliable, high-speed internet connectivity is one of the targets of the Region's investment in universities

Professor Dlawer Ala'Aldeen highlights the programs designed to improve the prospects of the Region's students and provide benefits for global partners

The Ministry of Higher Education and Scientific Research (MHE-KRG) has initiated a major reform program for modernizing and decentralizing the higher-education system. It is the vision of the people of Kurdistan, including government officials, administrators, and faculty members to improve the quality of the institutions of higher education and have them counted among the best in Iraq,

the Middle East, and the world. To ensure this vision, the Ministry has begun the transfer of power to university administrators so that they can control their own institutions financially and academically. The Ministry's role will focus on strategic planning, funding, and auditing, while ensuring quality and equality. To stabilize the vision, laws relating to higher education will soon be realigned in collaboration with KRG parliamentary officials.

Several mechanisms enabling partnering relationships to improve and develop human capacity through higher education have been put in place:

- **THE NEW PHD PATHWAY** calls for split-site PhD supervision in which doctoral students from Kurdistan will complete their research with a professor in a foreign centre of excellence, in collaboration with a professor from Kurdistan;
- **THE HUMAN CAPACITY DEVELOPMENT PROGRAM (HCDP)** is a major scholarship initiative that was launched this year for students from the Kurdistan region to study in foreign countries. HCDP is committed to providing \$1 million a year in scholarships to send Kurdistan Master's and Doctoral students to the best universities around the world;
- **STUDENT AND FACULTY EXCHANGE PROGRAMS** are ready to be instituted now that Kurdistan enjoys a stable environment and daily flights from Europe;
- **TEACHING OPPORTUNITIES** for expatriates in Kurdistan abound in both public and private universities;
- **SABBATICALS TO TEACHING STAFF** will be offered by the Ministry to allow them to collaborate and carry out joint research with international university colleagues.

Programs such as these will ensure rapid improvement in research production, teaching methodologies, and curriculum content, all of which are critical for the rapid improvement of higher education. Kurdistan is also making a major investment in higher education, totaling nearly \$2.3 billion with the construction of campuses.

Despite massive expansion of its communications infrastructure, Kurdistan has yet to realize the goal of constant, dependable, high-speed internet connectivity—absolutely necessary for academic growth and a modern requirement for research activity. Kurdistan's universities will require laboratories and equipment with all the accoutrements of modern technology, as well as the ability to apply new knowledge and skills.

The Ministry of Higher Education is looking for solutions, joint ventures, and outsourcing from global partners to provide the mutual benefits of the high demand and inadequate provision of post-secondary education; an environment where there are more students than the universities can accommodate.

Encouraging branch campuses of selected international universities brings an immediate increase in the quality of higher education. In Erbil, the private French-Lebanese University has met with major success and is in the process of expansion.

Twelve private universities have been established since 2006, the year in which the Ministry of Higher Education and Scientific Research was established by the KRG. In addition, private universities are investing in Kurdistan; these include the

American University of Iraq in Sulaimania, which has raised over \$100 million to complete a new campus and serve its current enrollment of 500 students.

The Ministry is committed to these goals, and hosted an annual international conference in December 2010 that brought together ministers, presidents, and professors of higher education from around the world to enable collaboration, networking, and opportunities of mutual benefit.

Kurdistan is experiencing an educational boom fueled by an economic boom, evidenced by \$5 billion spent in construction over the last five years. Opportunities exist for investors to install systems, centers, and campuses. We remain confident that, with global partners, we can manifest the highest quality for higher education for the people of the Region. ■

ESTABLISHED UNIVERSITIES

- Hawler Medical University
- University of Dohok
- University of Koya
- University of Salahaddin
- University of Soran
- University of Sulaimania

NEW UNIVERSITIES OPENING 2010-11

- University of Garmian
- University of Halabjah
- University of Raparin
- University of Zakho

THE VISION FOR SCIENTIFIC RESEARCH

- Connecting scientists of the Region with the world;
- Sending professors on scientific scholarships;
- Establishing an international system for PhD degrees;
- Hosting annual international conferences for scientific research

THE VISION TO INCREASE THE QUALITY OF HIGHER EDUCATION

- Quality-assurance systems;
- Continuing education programs for academics;
- Broad curriculum upgrades;
- Undated Master's degree programs;
- English-language programs;
- New student-admission systems

Kurdish culture: modernity versus tradition

After generations of suppression, Kurdish culture is changing due to the combined effects of technology and global influences, says Hashem Ahmadzadeh

As a people existing in a varied land and with many neighbors, the Kurds have a rich and varied culture, imbued with deep traditions and now colored increasingly by the impact of modernity. Far from

the influences of modern lifestyles, the cultural productions of Kurdish societies were mainly oral. Ballads and songs reflected the various aspects of Kurdish social and cultural peculiarities, while poetry was, until the 19th century, the only manifestation of Kurdish culture in the field of written literature. The rich oral literature, alongside the classical poetry, promoted the distinctiveness of the Kurdish ethno-linguistic group.



Traditional aspects of Kurdish culture coexist alongside modern forms of artistic expression and entertainment

Profound changes in the social life of the Region and the ambitions of a highly educated and modernized society have opened new horizons for Kurdish culture

Owing to various geographical, political and cultural reasons, the Kurds were not radically affected by the modernization policies adopted by the Ottoman and Qajar empires that governed Kurdistan in the 19th century, and traditional ways of life continued uninterrupted. But this was to change in the early decades of the 20th century. The formation of the new nation states of Iraq, Turkey, and Syria, alongside Iran, caused a spread of nationalism among the Kurdish elite, who also demanded a new Kurdish state.

REGIONAL RESISTANCE The aim of the new states was to establish ethnically based nations at the expense of denying other ethnic groups, including the Kurds, and their linguistic and cultural features. This caused a backlash, paving the way for radical changes in Kurdish cultural life. Kurdish journalism, modern poetry, short stories and novels were among those cultural productions that demonstrated the arrival of a new era in the Kurdish societies.

But the oppressive politics of the new states did not allow harmonious development of the new Kurdish culture. In fact, the policy of modernization conducted by these highly centralised states, especially in the field of culture, made the Kurdish language a political phenomenon that was considered a threat against the center. After being banned from the field of education and administrative departments, the Kurdish language struggled to survive and reach the late decades of the 20th century.

CULTURAL REAWAKENING The political changes in the Middle East towards the end of the 20th century contributed to the modernization of Kurdish culture more than ever before. The 1991 Kurdish uprising in Iraqi Kurdistan, and, consequently, the establishment of a de facto independent entity, radically changed presuppositions for the resurgence of Kurdish culture.

Having now been the language of education and administration for about two decades, the Kurdish language has reached an unprecedented level in its development. The presence of five daily newspapers, numerous weekly and monthly journals, and more than 20 satellite TV channels both in Kurdistan and in diaspora have modernized Kurdish culture significantly. The existence of advanced publishing houses in Kurdistan and their prolific publication of books, the increasing number of universities

The Region's burgeoning media sector produces a wide variety of Kurdish-language publications



with their tens of thousands of students, alongside modern means of communication, have all helped to transform Kurdish culture.

The growing expectations in social and cultural life, due to greater security in Kurdistan and the economic development of the Region, have opened new cultural horizons. This modern culture, having absorbed many global influences, has challenged Kurdish traditions. However, the traces of traditional culture, especially in the social domain, are in their turn a challenge to the effects of modern culture. The heavy presence of the latest communication technology in Kurdistan, and its conflict with traditional values, requires well-planned social and cultural engineering to provide a more harmonious way of life.

The profound changes in the social life of the Region and the ambitions of a highly educated and modernized society have opened new horizons for Kurdish culture, which is in search of new ways of being articulated. This new situation encourages investment in various fields of cultural life, such as modern technologies of language-teaching, publishing, translation, education, film and television, sports, and tourism. The rapid modernization of the Kurdish societies is not only challenging traditional collective cultural patterns, it is promising an exciting future for all those involved in Kurdistan. ■

Kurdistan's multi-ethnic society



With the majority of the population being Muslim, mosques are a frequently seen feature of Kurdistan's landscape

Hamit Bozarlan, director of studies at EHESS in Paris, explains how and why differing communities have brought religious and linguistic plurality to the Region

The overwhelming majority of Kurdistan's inhabitants are Kurdish-speaking Muslims; still, Arab and Ottoman imperial pasts—as well as the mandate, Republican and Ba'athist legacies—have shaped a religiously and linguistically diversified “Kurdistani” society, a term which is often used by Kurdish intellectuals and politicians. These different groups have complementary, yet specific, historical trajectories, group identities and memories, and, naturally, also distinct religious hierarchies or secular representatives.

As Ora Shwartz-Be'eri's magnificent book *The Jews of Kurdistan: Daily Life, Customs, Arts and Crafts* (Jerusalem, The Israel Museum, 2000) attests, historically, the Jews constituted one of the most important components of the Kurdistan society, before their migration from Iraq in the 1950s and 60s. Many of them kept alive the nostalgia of their original home, and some members of this diaspora realized an emotional pilgrimage to Kurdistan after the fall of the Ba'ath regime in 2003.

The material collected by Mirella Galletti (*Cristiani del Kurdistan*, Rome, Jouvence, 2003) shows that the Assyrians and Chaldeans, who belong to the oldest Christian communities in the world, have always occupied an important place in Kurdistan's urban and rural landscapes. Many members of these communities,

Arab and Ottoman imperial pasts have shaped a religiously and linguistically diversified “Kurdistani” society

which were victims of massive repressions during the late Ottoman period and in the aftermath of Iraq’s independence in 1932, have participated in the Kurdish struggles. The legendary peshmerga fighter Margaret George, who was killed in the 1960s, and François Hariri, who perished in a terror attack in 2001, are remembered as important patriotic figures of Iraqi Kurdish history. Today, these communities have become theaters of a genuine cultural and intellectual renewal.

One should also underline the importance of the Kurdish Shi’a minority, known as Faylis. Barely exceeding 250,000 people, this community was among the first victims of Saddam Hussein’s presidency, which started in 1979, and many were deported to neighboring Iran shortly before the 1980-88 Iran-Iraq War. Some members of this community remained in Iran after the 2003 Gulf War; the others came back to Iraq and decided to live either in Baghdad or in Kurdistan.

The Yezidis constitute yet another distinct religious community, in spite of the fact that they are exclusively Kurdish speakers. Although Yezidism has existed as a separate religion only since the 12th century, many scholars consider that its Manichean sources go back to pre-Islamic periods. Historical documents attest that they were sporadically repressed under the Ottoman rule and sold as slaves, and their participation in the 1932 revolt alongside the Christians cost them dearly. This community, whose picturesque shrine in Lalish is known worldwide, has been recently been the victim of terror attacks, the most dramatic being those during summer 2007 in Sindjar, their second most holy place, which killed some 500 people.

Finally, the Kurdish society is also a linguistically plural one, a feature that one can explain by a conflicted, yet shared, legacy of different empires, but also by the evolution of recent decades. Many Arabs sought a de facto asylum in Kurdistan after the 2003 war in order to escape from violence in the Arab parts of Iraq. But the Kurdish-Arab coexistence is mainly visible in Kirkuk, a city and a governorate that was Arabized under Ba’ath rule through deportation of Kurdish inhabitants and, in some cases, forced installation of Arabs in the south.

Obviously, relations between the two communities, Arabs and Kurdish returnees, have not always been easy. However, in spite of many predictions—made mainly by the International Crisis Group, which feared large-scale inter-communitarian conflict—Kirkuk suffered much less than Mosul, Basra and Baghdad from the Iraq-wide violence.

The tensions between the Kurds and the Turcomans, yet another linguistic component of Kurdistan’s demographic landscape, have been rather well managed through skillful mechanisms of mediation. The Turcoman Front’s pan-Turkist and pro-Ankara strategy has produced rather poor results, both in Kirkuk and in Erbil, capital of Kurdish Region. In fact, many Turcoman politicians have decided to cooperate either with the Kurdish political parties or with the Iraq-wide political forces. This Turkish-speaking community has its own political parties, as well as primary and secondary schools and a de facto cultural autonomy.

The multi-confessional and multi-ethnic features of Kurdistan have contributed to the very shaping of the political class of Iraqi Kurdistan. In the 2005-2009 Regional Assembly, religious minorities and Turcomans were offered eight seats. Of those elected in 2009, five Turcomans have been elected as representatives of their community, and the religious communities have been offered six seats out of 111. ■



Yezidis from all over the region gather and picnic around the Lalish temples