

Kurdistan Chronicle

KURDISTAN REGION AT COP29

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Kurdistan Region Heads to COP29



Bayan Sami
Abdul Rahman

*Senior Advisor to
Kurdistan Region
Prime Minister for
Foreign Affairs and
Climate Change.*

The Kurdistan Region is known for its rich cultural heritage, diverse ecology, towering mountains, and unique landscapes. In recent years, the region has grappled with one of the most complex and urgent problems facing the world today: climate change. Ever higher temperatures, droughts, floods, and wildfires are threatening our biodiversity, wildlife, agriculture, and water resources. We have been forced to seek innovative solutions to mitigate the effects of climate change and safeguard our ecosystems.

Prime Minister Masrour Barza-

ni is deeply concerned about the impact of climate change. Under his leadership, the Kurdistan Regional Government (KRG) has spearheaded pilot projects for mitigation through improved electricity management and residential rooftop solar power, water conservation in dams and ponds, and plans for urban parks and rural forests.

A united front has been developing across the globe to confront climate change, although the enforcement of international agreements remains uneven. The Conference of the Parties (COP) to the UN Framework Convention on Climate Change has been playing a pivotal role in this effort. Every year at COP, world leaders, scientists, government officials, non-governmental organizations (NGOs), and industrial delegates convene to evaluate the progress of addressing climate change and discuss further actions.

This year, Azerbaijan is hosting the 29th COP in Baku from November 11 to 22. The KRG has participated in several COP conferences and will do so again this year as part of the Iraq delegation.

The Kurdistan Region faces significant challenges that need funding to expand cost-effective adaptation and mitigation projects, such as water harvesting and management systems, improved electricity management, afforestation projects, and ambitious plans for renewables.

Meanwhile, significant strides in renewable energy production have been taken, with renewables accounting for more than 27% of the power supplied through the public electricity grid. The Kurdistan Region is currently on track to eclipse 31% within the next two years.

The effort to restore Kurdistan's forests is also under way. According to the World Food Program, close to 50% of the region's forests have been lost since the 1950s, which impacts all of Iraq

since 90% of Iraq's forested areas are in Kurdistan.

A project funded by the World Food Program in Sulaymaniyah has helped a nursery grow its annual production from 250,000 saplings to 1.5 million in just two years. In Erbil, two NGOs, hand in hand with the KRG, have started the Million Oaks project, with the aim of creating a forest in the heart of Kurdistan's capital, making the city more livable and sustainable.

With support from developed nations and the private sector, Kurdistan can access the necessary finance and technology to enhance its resilience. Participating in the voluntary carbon credit market would allow Kurdistan to conserve and expand our native forests and protect our biodiversity, contributing to carbon seques-

tration while fostering sustainable economic growth for the region.

We in the Kurdistan Region, like many countries, need to develop our capacity and expertise on data collection and climate change science and research to help us build the case for climate financing for both mitigation and adaptation. At COP29, we will reach out and network with counterparts to lobby for our climate plans and strengthen our capacity. We will also promote Kurdistan's young climate activists and experts as the next generation of climate champions.

With comprehensive planning as part of Iraq, international support, and shared commitment, Kurdistan's presence at COP29 is a critical step toward a resilient, sustainable future. ●

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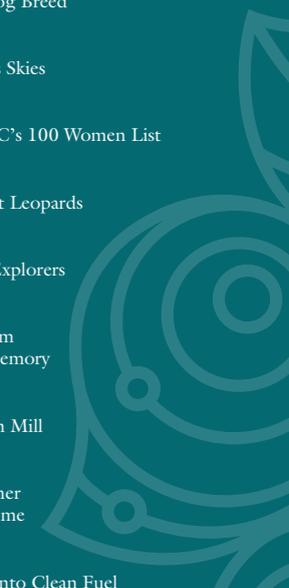
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Kurdistan Election An Evolving Democracy



Robin Bell

is a specialist in marketing, logistics and supply chains with experience in over 35 countries.

Citizens in the Kurdistan Region of Iraq went to the polls on October 20 to cast their votes and elect members of the new regional parliament. This election was considered particularly important for the Kurdistan Region, not only to maintain the democratic process, but also to restore international legitimacy, as the two-year delay in holding the sixth parliamentary elections had raised concerns among key allies such as the United States and European countries.

Key players

Similar to previous elections, the Kurdistan Democratic Party (KDP) and the Patriotic Union of Kurdistan (PUK) were the main competing players, joined by other parties and some new political groups.

Historically, the KDP and PUK have maintained their position as the two parties dominating the Kurdistan Region's political landscape. They have managed to rule the autonomous region since 1991, when a popular uprising in the Kurdish areas of Iraq expelled Saddam Hussein's regime. Despite prolonged tensions and a devastating civil war between 1994 to 1997, these two parties have remained steadfast in their popularity even at times when new opposition movements emerged from inside their highest ranks.

KDP in the forefront

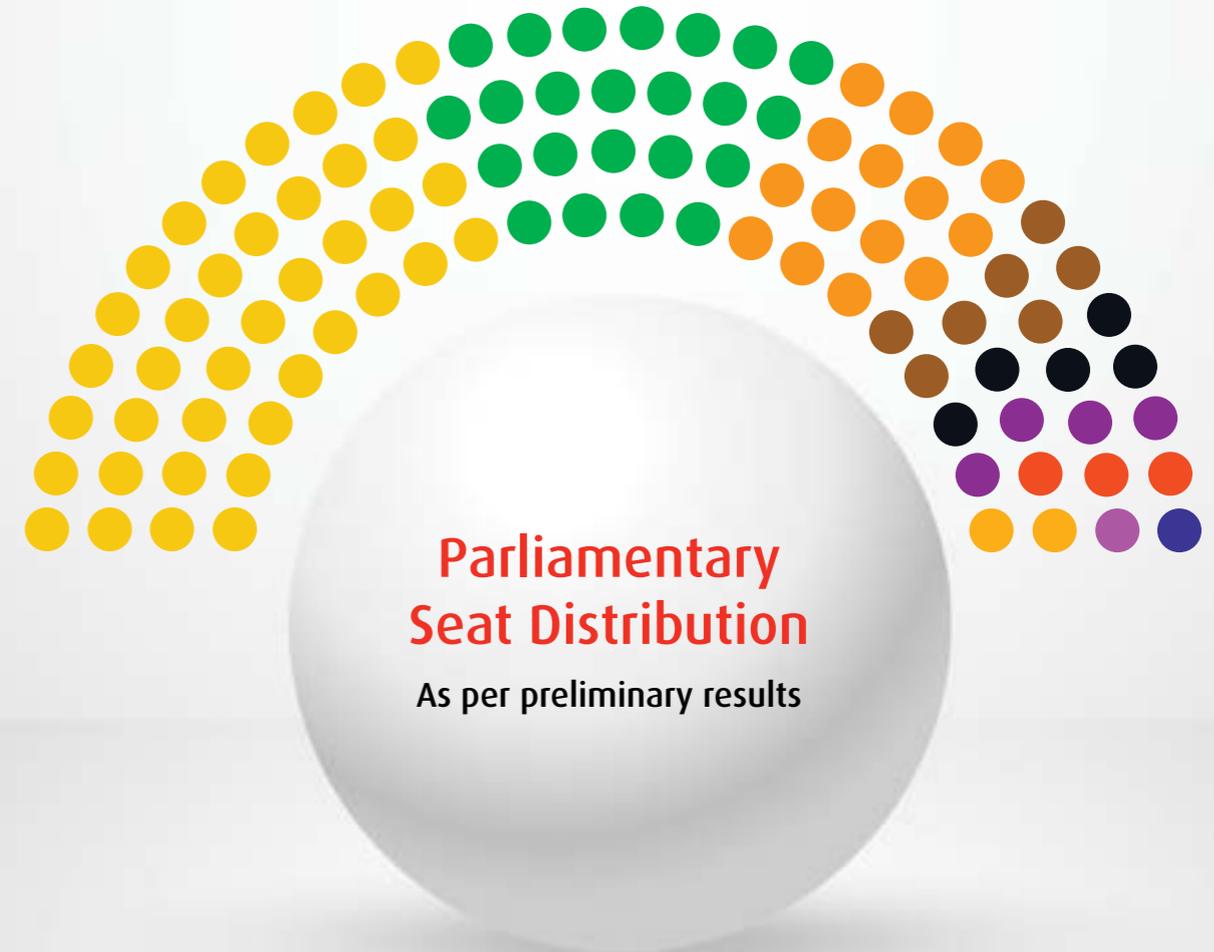
In this election, nearly 2.9 million people were eligible to vote. Compared to the previous election in 2018, this year's polls saw a significant increase in turnout, standing at 72% across all four governorates of the Kurdistan Region.

According to preliminary results announced by the Iraqi High Independent Electoral Commission (IHEC), the KDP maintained its position on the top of the list, securing 809,197 votes, which will reserve the party at least 39 parliamentary seats.

The PUK also retained its position as the second most popular party, gaining 408,141 votes to win 23 seats in the upcoming Parliament.

The party that secured third place and surprised political observers with a sharp rise in votes was New Generation. Previously holding only eight parliamentary seats, the party will now occupy 15 seats in the 100-seat legislature.

The second election surprise came with the dramatic decline in the Gorran (Change) Movement's popularity. Once the strongest opposition, capable of challenging every decision by the ruling parties in the Kurdistan Region, Gorran won only 11,621 votes in this election to



KDP: 39

PUK: 23

New Generation: 15

KIU: 7

Quota: 5

Hallwest: 4

KJG: 3

National Front: 2

KR Coalition: 1

Gorran: 1



Photo: Muhammad Shwami

■ A Kurdish woman casting her vote at a polling station during the 2024 Kurdistan parliamentary elections (20 Oct. 2024)

secure a single seat. The party was established in 2009 by Nawshirwan Mustafa, a powerful member of the PUK, who left the party due to internal disputes with party leadership. However, his passing in 2017 appears to have shaken Gorran to its core.

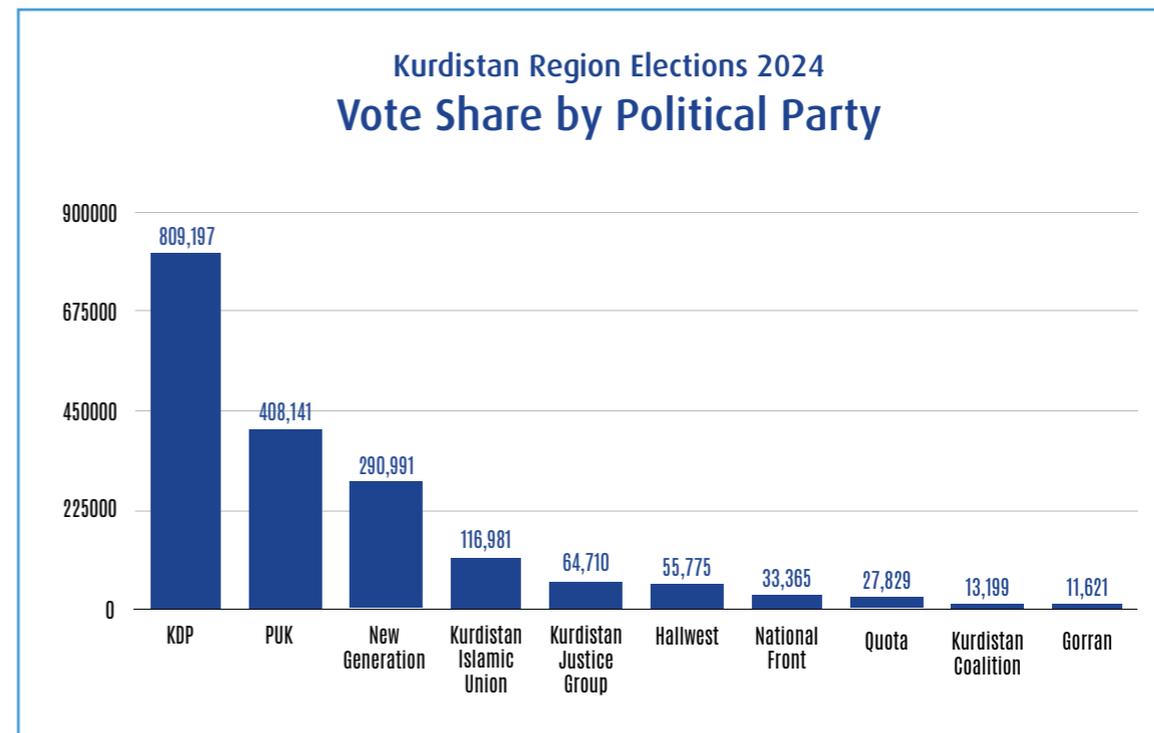
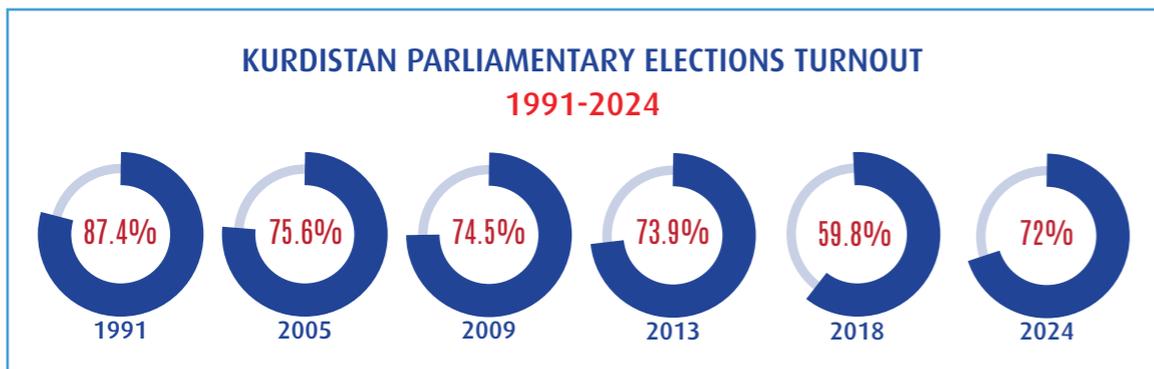
The IHEC’s role and international reactions

The 2024 parliamentary elections in the Kurdistan Region were largely accepted as a well-organized process. Iraq’s electoral commission oversaw the election, as the legal mandate of the Kurdistan Region’s High Independent

Electoral Commission had expired in 2019.

Besides representatives of political parties, at least 16 foreign diplomatic missions, 15 international non-governmental organizations, and 109 local and international media outlets monitored the polling stations.

“Volunteers from U.S. Mission Iraq will be at polling sites across the IKR and will be joined by international election experts and other diplomatic missions to observe today’s election,” U.S. Ambassador to Iraq Alina Romanowski wrote on X on October 20.



Other diplomatic missions highlighted the remarkable voter turnout, interpreting it as a strong message in support of the renewal of democratic legitimacy.

“We look forward to the resumption of the regional parliament and to the formation of a regional government as soon as possible,” the UK’s Consulate General in Erbil wrote in an online statement.

The peaceful conclusion of the election also received praise from the international community, including UN Secretary General Antonio Guterres, who encouraged all political leaders and segments of society to continue to maintain a peaceful atmosphere and resolve any electoral disputes through established legal channels.

Technical issues in polling stations

Despite the positive feedback on the IHEC’s arrangements and its relatively successful electronic system for ballot counting, most of the political

parties complained about the failure of the fingerprint registration system. IHEC utilized a cache of voter fingerprints made through a previous registration process to prevent illegitimate votes and keep the ballot boxes as clean as possible.

However, in many polling stations across the Kurdistan Region, there were reports of malfunctioning electronic devices that did not recognize voters’ fingerprints, despite them having legitimate biometric cards.

History of elections in the Kurdistan Region

On May 19, 1992, six months after the popular Kurdish uprising expelled the Saddam Hussein regime from the region, the first parliamentary elections were held in the Kurdistan Region of Iraq, with a minimum threshold of 7% set for representation in the parliament. It was the first chance for the Kurds to vote for their representatives and marked a turning point in the history of the Kurdish struggle for freedom, self-rule, and democracy.

The 1992 election led to the formation of the first Kurdistan Parliament – initially named the Kurdistan National Assembly. The leadership and people of the Kurdistan Region decided to adopt and abide by all Iraqi laws except for those that violated international human rights. The Kurdistan National Assembly convened for the first time on July 15, 1992, and passed Law No. 1, which established the Assembly as the region’s legislature. Over a decade later, in 2009, the Kurdistan National Assembly was renamed the Kurdistan Parliament.

To date there have been six region-wide parliamentary terms, following elections in 1992, 2005, 2009, 2013, 2018, and most recently 2024. In February 2009, several amendments were made to the Kurdistan election law to increase inclusiveness for all groups. The minimum age of parliamentary candidates was also lowered from 30 to 25 years old, while the legal minimum quota of female parliamentarians was raised from 25% to 30% of the legislature. ●

France and Kurdistan Unite for Women's Rights



Wladimir van Wilgenburg

is a seasoned reporter and analyst who specializes in Kurdish affairs, and holds a Master's degree in Kurdish studies from Exeter University, UK.

On September 27, Vision Education and the French Research Center on Iraq (CFRI) hosted the conference “Iraqi Women: Between Compliance, Resilience, and Emancipation” at the French Senate in Paris.

The event concluded an 18-month research project funded by Vision Education, focusing on the social conditions of women in Iraq and the Kurdistan Region.

Zainab Khaleel Ali, Deputy CEO at Vision Education, told *Kurdistan Chronicle* that “Kurdish and Iraqi women have embodied a resilience that goes beyond survival; they have been the torchbearers of progress, often leading movements for education, human rights, and freedom in the face of unimaginable challenges.

“From the towering courage of Leyla Qasim, who became a martyr for her people, to the pioneering vision of Hapsa Khan, who transformed her home into a sanctuary of learning for women, these figures represent the soul of Kurdish perseverance,” she said.

“Funding this research is essential,” she added, “as it offers valuable insights into both Kurdish and Iraqi society. Our support for this research is about making sure the data is not only accessible, but also practical, so it can lead to real, meaningful change.”

Adel Bakawan, Director of CFRI, credited Vision Education for making the project

possible. “When I launched this project on the conditions of women in Iraq and Kurdistan, we knocked on every door,” he said. “The only door that opened was that of Vision Education.”

Bakawan also said that, after the conference in Paris, a similar conference will be held in Baghdad and Erbil.

Iraq's Personal Status Law

During the conference, there was much debate about proposed amendments to Iraq's Personal Status Law, which could legalize child marriage for girls.

Nazand Begikhani, Vincent Wright Visiting Professor at Sciences Po, Paris, told *Kurdistan Chronicle* that it is very important to raise awareness about these issues and encourage public debate.

She added that the conference is an opportunity to raise such awareness in the French Senate, “in order to pressure legislators and decision-makers in Iraq, including in the Kurdistan Region, to stop going ahead with the amendments to the law.”

Safeen Dizayee, Head of the Kurdistan Regional Government Department of Foreign Relations, also told *Kurdistan Chronicle* that “Iraq is one of the founding members of the UN and has obligations to adhere to the main charter of the organization.

“Sadly, we have seen a retraction of several previous positions or achievements that Iraq had made, including those in Kurdistan.”

During the conference, Dizayee added that it is encouraging to hear diverse perspectives at these gatherings. “We must be brave enough to face challenges and take measures to address them.”

France-Kurdish Ties

Senator Remi Feraud, representing the Ile-de-France region, told *Kurdistan Chronicle* that the conference demonstrates the French Parliament's interest in Iraq and “the strength of the bond between our two countries.”

“We care about the lives of men and

women in Iraq and Kurdistan, and we aim to support civil society on this absolutely central issue of women's empowerment.”

He underlined that “the link between France and Kurdistan is historic, extremely strong, and essential. It is a connection based on shared values, a common vision of the world, and the defense of diverse identities.”



Photo Credit: Vision Education

Safeen Dizayee, Head of Kurdistan Regional Government Department of Foreign Relations, speaking at the conference “Iraqi Women: Between Compliance, Resilience, and Emancipation” in Paris on September 27, 2024



■ Participants at the conference “Iraqi Women: Between Compliance, Resilience, and Emancipation” in Paris on September 27, 2024



■ A panel held during the conference “Iraqi Women: Between Compliance, Resilience, and Emancipation” in Paris on September 27, 2024

Photo Credit: Vision Education

The Kurdistan Region and France have close ties, with France becoming one of the first countries to open a consulate in Erbil in 2018.

Moreover, France has supported the peshmerga forces in the fight against ISIS and played a crucial role in raising global awareness of Saddam Hussein’s persecution of Kurds in 1991, leading to the creation of a no-fly zone over the Kurdistan Region.

“The Kurds have always been friends of France, defending and protecting us against ISIS. It is up to France to live up to the friendship that the Kurds have shown us, as they embody values that are in line with those of France, the French people, and the Republic, including secularism, equality between women and men, and respect for religious diversity in the Middle East,” Senator Feraud said.

“Although the Kurds do not have an independent state, they are significantly present in four countries. They possess a very strong identity, and in Iraq, they have managed to demonstrate their ability to develop within the framework of the Iraqi state through an autonomous government. I believe that defending the Kurds, supporting them, and partnering with them should be a priority for French foreign policy.”

During the conference, Aurelien Chauvier, Deputy to the Deputy Director of the North Africa and Middle East Directorate in France’s Ministry for Europe emphasized that France is committed to gender equality in Iraq. To advance developments in the field, France’s Embassy in Iraq and Consulate General in Erbil include “men and women in our all programs, especially economic programs to support women entrepreneurs.

“We support women entrepreneurs in Baghdad, Mosul, and Basra, as well as in cultural sectors. Our efforts extend to supporting journalists and Iraqi artists,” Chauvier said. “We also have a program in collaboration with the French Football Federation to develop women’s football in Iraq. Additionally, our consulate general is organizing events featuring women poets in Kurdistan.”

Chauvier also underlined that France has not forgotten the genocide committed against the Yezidi community by ISIS in 2014 and underlined the importance of putting the perpetrators on trial. “We condemn this genocide by ISIS, and the systematic use of rape against women.”

Senator Feraud told *Kurdistan Chronicle* that he believes that France will continue to support the Kurds amid talks between Baghdad and Washington for the U.S.-led anti-ISIS Coalition troops to withdraw from Iraq in the future.

“I hope that the coalition against ISIS will persist despite the pressures being exerted on Iraq for misguided reasons



■ Zainab Khaleel Ali, Deputy CEO of Vision Education



■ French Senator Remi Feraud

related to the regional situation. Iraq and the Kurds must be protected from the extension of the conflict today, a conflict largely driven by Iran, to which of course the policies of Netanyahu’s government cannot be a solution either,” he said. ●

Photo Credit: Vision Education

Germany's Ongoing Commitment to Supporting Kurdistan

Kurdistan Chronicle

Max Lucks, German Member of Parliament (MP) from the Alliance 90/The Greens political party, told *Kurdistan Chronicle* in an exclusive interview that it is unimaginable that Germany would abandon their Kurdish allies in Iraq. "They are the most important allies we have in the region. We cannot abandon them."

During his visit to the Kurdistan Region in late July, Lucks shared this view amid discussions between the United States and Baghdad about withdrawing U.S.-led coalition troops from Iraq, including the Kurdistan Region, which could mean that troops from European countries would also have to leave the country.

In 2015, during the war against ISIS, Germany sent weapons, armored vehicles, and MILAN anti-tank systems, which played a significant role in enabling *peshmerga* fighters to destroy ISIS' self-made armored vehicles.

"I was responsible for the foreign politics of the Young Greens in 2014 and at this time my Green Party sadly denied the delivery of

weapons to the Kurds," Lucks said. "I was in favor of doing so and we had long discussions about it. It always makes me emotional to hear how many newborn boys in the Kurdistan Region are named Milan because we delivered MILANs for the fight against ISIS."

Lucks underlined that the Kurds are the "true allies here in the region." Nevertheless, he added that there are also issues with human rights and corruption in the Kurdistan Region.

Deep commitment

The German MP visited the Kurdistan Region in June 2022 as part of a German parliamentary delegation. During the meeting, Kurdistan Regional Government (KRG) Prime Minister Masrour Barzani expressed his gratitude for Germany's consistent support to the Kurdistan Region.

"Our military presence here is to support the Iraqi people because Germany was not part of the 2003 invasion of Iraq," Lucks added. "Germany is very willing to stabilize this state and help the Iraqi people, which is why



“

Our soldiers enjoy cooperating with the *peshmerga*

”

Max Lucks, Member of German Bundestag, visiting the Lalish Temple in the Kurdistan Region

I hope that we find a way to continue our engagement here.”

The German MP also stated that under international law, Germany requires an invitation from the federal government in Baghdad for its military presence. “There are negotiations right now between the United States and Baghdad about those invitations,

of a special relationship between the Kurdistan Region and Germany and are 100% committed to their job here. Seeing our soldiers so committed to bringing stability, cooperation, and safety makes me proud as a German politician.”

Lucks emphasized that Germany is committed to having soldiers in Er-

“We want to show that we are committing to helping the Yezidi Kurdish community, closely watching the situation, and supporting our allies here in the Kurdistan Region.”

The Yezidi genocide perpetrated by ISIS in August 2014 in Sinjar resulted in the deaths of thousands of people, with many more moving to internally



■ Max Lucks, Member of German Bundestag, meeting with Yezidi leaders at the Lalish Temple

and I look forward to having a solution,” he said.

Lucks also visited German troops during his visit, many of whom expressed their desire for a continued German troop presence in the Kurdistan Region.

“Our soldiers enjoy cooperating with the *peshmerga*. They have the feeling

bil and hoped that Baghdad would change its decision.

Yezidi connections

During Lucks’ 2022 visit, he prepared a bill to recognize the 2014 Yezidi Genocide, which was recognized by the German Parliament in 2023. “But now, 10 years after the genocide, things have not improved,” he said.

displaced persons (IDP) camps in the Kurdistan Region.

During his recent visit, Lucks was unable to visit Sinjar due to security issues. “But we met with residents from Sinjar. Safety and stability are necessary more than ever for Sinjar,” he said.

The Yezidi Kurds have a large com-



“
My visit is to underscore that we cannot abandon our Kurdish allies
”

■ Max Lucks, Member of German Bundestag, during a visit to the Kurdistan Region

munity in Germany and have their own Yezidi temple, modeled after the holy Yezidi shrine in Lalesh. “The Yezidis are a national interest for my country because their largest diaspora is in Germany.”

Although Germany publicly supports the Yezidi Kurds, many have been deported from Germany in recent years, including two children with whom Lucks met. “They only spoke German and not a word of Kurdish because they grew up in Germany. Yezidis have the feeling that they were abandoned in Iraq and now we give them the same feeling in Germany. I simply cannot understand.”

The German MP blamed German Federal Minister of the Interior and Community Nancy Fraser, for the deportations. “She does not care who she and her ministry deport. This is unacceptable. Yezidis who have been deported must have the chance to return to Germany. We as the Alliance 90/The Greens suggest adding a paragraph into our laws that allow Yezidis who are in Germany to stay,” Lucks said.

Sinjar Agreement

Baghdad initially aimed to close all of Iraq’s IDP camps, including those for displaced Yezidis from Sinjar, by July. However, the KRG opposed these forced returns. Recently, Baghdad extended the deadline and formed a commission with the KRG to study the issue.

Lucks said that many Yezidis in the camps expressed to him their desire to return to Sinjar. “I spoke to many peo-

ple who said that they we would love to go back to Sinjar but they do not have a house, functioning electricity, or jobs, only military operations coming from Türkiye and Kurdistan Workers’ Party camps.”

“It does not reflect the security situation when the Iraqi government claims that a return is possible. When they say that Sinjar is safe, they are not looking at the whole reality,” he emphasized.

In October 2020, Baghdad and Erbil signed the Sinjar Agreement in order to facilitate the return of displaced Yezidis. However, so far the agreement has not been implemented.

Lucks underlined that Germany wants Erbil and Baghdad to find a solution. “Of course, the obvious solution is to truly implement the Sinjar Agreement and find a way that brings stability, safety, and prosperity to Sinjar. We want to see results from Baghdad and Erbil in the reconstruction of Sinjar, not excuses.”

He added that Germany is willing to invest in the Sinjar District and help rebuild it and argued that the German government “needs to continue our engagement for the Yezidi people because if we don’t care, nobody will. The second reason for my visit is to underscore that we cannot abandon our Kurdish allies. They need our support more than ever, and they are more willing than ever for cooperation.” ●

The Prophet Nahum A Symbol of Religious Coexistence in Kurdistan



Hemin Baban

is a Kurdish journalist.

Kurdistan is the land of the Sun and fire and has been home to prophets from different sects and religions for thousands of years. With shrines and holy places scattered throughout the land, Kurdistan bears witness to the peaceful coexistence of different religious and cultural components.

In the historic city of Alqosh, specifically in the Qasha neighborhood northwest of the city, lies the shrine of a Jewish prophet known as Nahum the Prophet, or Nahum Alqoshi, who is respected by Muslims, Christians, and Jews alike. The shrine is a religious landmark of great significance to followers of the Jewish religion.

■ The shrine of the tomb of Prophet Nahum

Despite its simplicity, the tomb of the prophet Nahum – who is mentioned in the Old Testament and the Hebrew Bible – is distinguished by its unique architecture. It is surrounded by an eight-meter-high wall, with an inner courtyard that occupies a third of the total area of the building. The entrance is a stone door engraved with ancient symbols, and bare stones cover the floor of the building. The old wooden doors are decorated with copper and iron and retain their beauty despite the passage of time. In the middle of the building is a rectangular

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The diversity of ethnic, religious, and sectarian components in the region is a unique case and a source of pride for everyone
”

tomb covered with green fabric, and the roof is supported by 22 columns topped with crescent arches.

Inside the tomb, the walls are decorated with six panels engraved in Hebrew that narrate aspects of the prophet's life. The tomb is surrounded by a handmade metal window and the complex includes a religious school, a cellar, and cabinets for holy books, in addition to an internal cave.

Antiquity's diversity

Lara Zara, the mayor of Alqosh, confirmed in an interview with *Kurdistan Chronicle* that the shrine “is an integral part of the city's history, and the coexistence between the residents of the region represents a model to be emulated in Kurdistan and Iraq.”

“The diversity of ethnic, religious, and sectarian components in the region is a unique case and a source of

pride for everyone, as everyone lives in harmony without notable problems,” she said.

The shrine of the Prophet Nahum symbolizes the religious and cultural coexistence in Kurdistan, where believers of different religions meet in one place, emphasizing the common human values and mutual respect that have always distinguished this region from others.

Zara explained how agriculture plays a pivotal role in establishing the principles of coexistence among the town's components. “I hope that the shrine will be transformed into a major source of revitalization for the city's tourism sector,” she said.

Historically, Jewish sources define Kurdistan as the oldest homeland to which Jews were exiled after their captivity in Babylon. It is believed that the origin of Kurdish Jews dates to the ten tribes of the Children of Israel who were exiled in the eighth century BC. The number of Kurdish Jews was estimated at 50,000 or more

“
The shrine of the Prophet Nahum remains evidence of Kurdistan's rich history and cultural and religious diversity
”

before 1948, when their Iraqi citizenship was revoked and their properties confiscated.

The Prophet Nahum was the seventh of the prophets whose prophecy was recorded in the Book of the Twelve. His name in Hebrew means “counselor” or “comforter,” and he is the writer of one of the books of the Old Testament that predicted the destruction of Nineveh, the capital of the Assyrian kingdom. His prophecy was fulfilled in 612 BC by the Babylonians and Medes.

According to the 12th century AD Jewish traveler Benjamin of Tudela, Nahum lived in the early seventh century BC, and his tomb is in the village of Alqosh in the Kurdistan Region. The Book of Nahum is the 34th book of the Old Testament and consists of three chapters that predict the fall of Nineveh.

Revitalization

Modern historians say that the tomb of the Prophet Nahum was built in 1796, but was subjected to acts of vandalism and neglect, especially during the reign of the former Ba'athist regime of Iraq. Yet, thanks to the efforts of the Kurdistan Regional Government and the U.S. Consulate in Erbil, the tomb was restored and saved from complete demolition in 2020.

In recent years, the shrine has become a prominent tourist attraction, visited by people of different religions to seek blessings. “The shrine has become a symbol and an integral part of the city's history and heritage, pointing

Photo: Hemin Baban





■ A man reading the Bible at the shrine of the tomb of the Prophet Nahum

Photos: Henna Baban

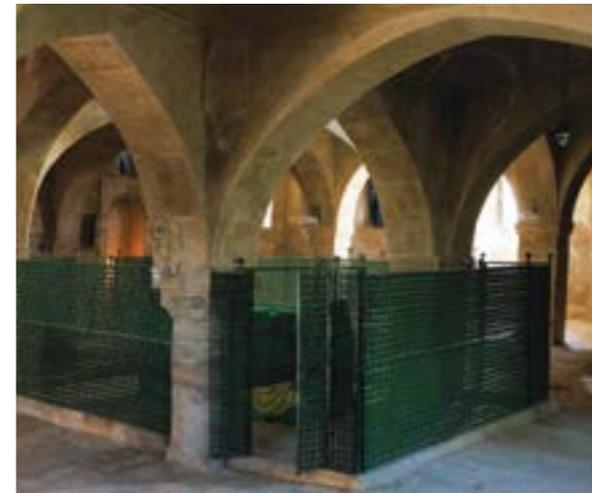


■ Inscription on a stone tablet at the shrine of the tomb of the Prophet Nahum



■ Mayor of Alqosh Lara Zara

Photos: Henna Baban



to the peaceful coexistence between different ethnic groups, sects and religions,” said Qahtan Salim, a local resident living on the outskirts of Alqosh.

The establishment of Israel in 1948 was a turning point in the lives of the Jews of Kurdistan and Iraq, leading the vast majority to emigrate in 1949. However, a few Jews remained in the Kurdistan Region but were forced to change their religion or hide it out of fear of persecution.

The fall of the former regime in 2003 strengthened coexistence among different religious groups. Indeed, the strength of understanding that exists in Kurdistan helped some Jews to reveal the religion of their fathers and grandfathers, and some even began to practice their religious rituals openly and ignore politics.

Although current Iraqi laws prevent Jewish tourists from traveling to Iraq and Kurdistan, which negatively affects religious tourism, many Jews wish to visit the shrines of their prophets, especially the shrine of the Prophet Nahum, which holds a special place for them.

Before the displacement of the Jews and the establishment of Israel, the shrine of the Prophet Nahum was a destination for many Jews coming from various Kurdish and Iraqi cities and towns to worship and practice religious rituals, in addition to holding weddings and other ceremonies.

The shrine of the Prophet Nahum remains evidence of Kurdistan’s rich history and cultural and religious diversity and a symbol of the peaceful coexistence that has characterized the region throughout the ages. ●

Next Generation Looking into the Hopes of Iraqis



Sardar Sattar

is a translator and journalist based in the Kurdistan Region. He has translated several books and political literature into Kurdish and English. He writes regularly for local and international newspapers and journals.

With a history marked by security crises, economic hardships, societal challenges, and most recently, the worsening effects of climate change, Iraq refuses to give up. Baptized by fire, young Iraqis have inherited a resilient spirit from their parents coupled with their strong aspiration for a better future. This aspiration is clearly reflected in a recent report by the British Council titled Next Generation Iraq, which suggests that the youth in Iraq cling to high hopes for their future.

What is Next Generation?

Next Generation is a global research initiative by the British Council that studies the current challenges faced by young people and how they can be supported to play an active role in their societies. Young people's views on certain topics – including but not limited to education, employment, and living standards – are defined as the main topics in focus.

To discuss the program in depth, *Kurdistan Chronicle* sat down with Christine Wilson, Director of Research and Insight at the British Council. She explained that, since 2009, the council has undertaken research in over 20 countries and engaged over 50,000 young people around the world in countries including Colombia, Nigeria, Vietnam, Germany, Pakistan, Lebanon, and the UK.

“And now Iraq has joined the Next Gen-

eration family,” Wilson said. “Iraq has one of the most youthful populations on the planet, with nearly 60% under the age of 25. Their lives have been marked by near constant upheaval and challenge.”

“We started this research 20 years after the U.S.-led invasion of Iraq, and are publishing it five years on from the Tishreen Movement. It was natural for us to engage with Iraqi youth, working with local and international research partners, to listen to their aspirations for themselves and their country, and to understand the role they want to play to achieve them. We also ask about the challenges and barriers they face and explore the varied policy responses to address them,” she explained.

Next Generation Iraq

Through consultations with 1,300 young people aged 18-30 from diverse backgrounds, Next Generation Iraq aims to understand youth attitudes and aspirations, amplify their voices, and support policymaking that reflects the hopes and desires of young people.

Asked about the role of tradition in Iraq's society, Wilson explained that the research findings reveal that, while Iraq is indeed marked by traditional views, there is a growing desire among young people to aspire for more progressive changes.

“The research highlights how youth, particularly in urban areas, are eager to en-



Photo Credit: British Council

Christine Wilson, Director of Research and Insight at the British Council

engage with issues like equality, civic participation, and economic reforms, despite the resistance they may face from more conservative elements in their communities. By engaging in dialogue, advocating for policy engagement, and participating in decision-making processes, these young individuals are working toward a future where tradition and progress can coexist,” Wilson elaborated. “Our work in Erbil and Duhok has particularly demonstrated these dynamics, with youth across the Kurdistan Region expressing their desire for increased opportunities to engage in the policy and reform processes.”

Research findings

Balancing traditional values and modern life: Defined by a collectivist culture, family is a traditional value of Iraqi society and remains a central aspect of many young Iraqi’s lives. Nearly two-thirds of young people (63%) cite family as the biggest influence on their views, and almost three-quarters (73%) consider family members the most trusted sources of information. In line with this, having a family and stable relationship is a key goal for most young Iraqis. Over two-thirds (66%) pointed to family-related factors as pivotal to their personal success and happiness.

Education as key to societal change: Iraq’s education



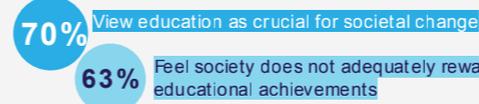
Photo Credit: British Council

students for the labor market. Improvements in the curriculum (23%) and the quality of teaching (29%) are seen as key by young people. Addressing these issues requires

Young Iraqis view education as crucial for societal change, but stress the need for alignment with the labour market

Education is highly valued by young Iraqis, yet improvements to the education system are urgently needed

Young Iraqis want practical employment skills that they feel are missing from their education



The educational system’s focus on theoretical knowledge and exam grades, rather than practical skills and student interests, fails to prepare students adequately for the labour market.

The top areas in need of improvement



When it comes to career preparedness, young people value a range of skills including creativity (38%), problem solving (38%) and communication skills (28%)

They also highlight the importance of learning multiple languages, particularly English to enhance employability and engage with global cultures.



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World Bank placing youth unemployment at 32%. Young men are significantly more likely to be in paid employment than young women, who are far more likely to be homemakers, especially in rural areas. The pressing need for more employment opportunities – which 52% of young people identify as their biggest challenge – is exacerbated by corruption and nepotism within the state apparatus. Many young Iraqis perceive public sector jobs as inaccessible without connections, while competition for private sector jobs remains intense.

opportunities in the labor market and an alternative pathway to self-sufficiency. Promisingly, entrepreneurship presents a key opportunity to include women in the workforce as there is equal appetite for entrepreneurship among both young men and women. Additionally, 59% of disabled young people express an appetite for entrepreneurship, viewing it as an alternative employment pathway that accommodates their condition.

Urban residents (62%) show a higher interest in entrepreneurship compared to their rural counterparts (52%), with those in the Kurdistan Region (76%) being particularly keen on starting a business compared to those in north or western Iraq (46%).

However, young people are seeking out alternatives to traditional employment, with six out of ten respondents (60%) expressing an interest in entrepreneurship, viewing it as a solution to the need for more employment oppor-

Young people are balancing traditional values with the challenges of modern life, but remain optimistic

Family is a key Iraqi value and continues to hold a central role for young Iraqis

73% Consider family the most trustworthy source of information

66% See family as key to personal success and happiness

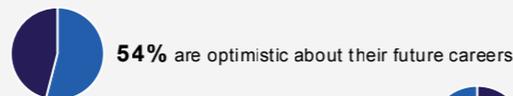
63% See family as the biggest influence on their views

But financial constraints and economic pressures remain the main barrier for young people considering starting their own families and realising these goals.



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Despite economic difficulties, young people are optimistic about the future



51% are optimistic about their future quality of life

And they are proud to be Iraqi citizens, largely due to their cultural heritage



sector has also been severely impacted by conflict, displacement, and the Covid-19 pandemic, resulting in damaged infrastructure, low teacher training investment, and disrupted learning processes. The educational system’s focus on theoretical knowledge and exam grades, rather than practical skills and student interests, inadequately prepares

systemic reforms to enhance the quality and relevance of education to better align with market demands.

Unemployment remains a key challenge: Almost three in ten young people (28%) reported currently being unemployed, largely in line with recent 2023 statistics from the

Entrepreneurship offers an alternative to employment, but barriers persist

Dissatisfaction with employment in Iraq is driving young Iraqis to consider entrepreneurship as a pathway

Despite equal appetite amongst young men and women, barriers to entrepreneurship are gendered.

Six in ten young Iraqis are interested in entrepreneurship – seeing it as a challenging but rewarding pathway.

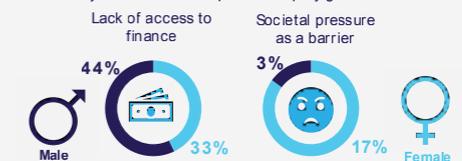


There is equal appetite for entrepreneurship amongst both young men and women, but a slight difference when it comes to urbanity.



Barriers to entrepreneurship ranged from difficulty accessing start-up funding to social constraints, with women particularly facing familial and societal pressures as key barriers.

Key barriers to entrepreneurship by gender

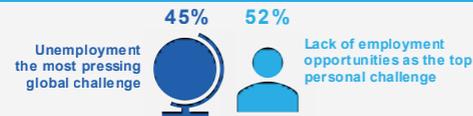


This societal pressure often revolves around expectations to marry young, which disproportionately affects young women, especially those in marginalised communities.

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Everyday pressures and economic challenges overshadow climate concerns

Across regions, gender, age, and disability status, young Iraqis consistently identified employment-related concerns as the top global and personal challenge



The issues above are exacerbated by perceptions of corruption and nepotism, especially when it comes to state jobs.

For those who are employed,

- low wages (56%) and corruption (41%) are primary concerns

For disabled persons,

- issues of accessibility in the workplace take precedence

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Despite not being the top priority, young people are concerned about climate change, particularly as they experience its impact locally



Young people have already felt the impact of climate change on their lives, citing concerns around water related issues (20%), air pollution (15%) and extreme heat (12%) among others

Increasing desire to emigrate: Young people see emigration as vital for personal and academic development, broadening perspectives, opportunities, and allowing cross-sharing of cultures. Just under half (48%) of young Iraqis would consider moving abroad, with young people from the Kurdistan Region more open to relocation than those in north and western Iraq. This is a marked increase from previous years, with only two in ten young Iraqis reportedly thinking about emigrating from Iraq

in a British Council survey of MENA youth in 2020.

Climate concerns overshadowed by daily challenges: Unemployment (45%), poverty (48%), and extremism and violence (32%) remained significant global concerns among young Iraqis, stemming from reflections on security issues faced by previous generations in Iraq and discussions about their own futures. There is a clear urban and rural divide on perspectives on global challenges, with urban resi-

dents more likely to identify a broader range of global issues, including drug abuse and the drug trade, health crises and pandemics, and erosion of religious values, compared to their rural counterparts.

Disillusioned with the political process: Half of Iraqi youth (50%) believe it is important to engage in national politics, but this varies by region. This aligns with views on climate change mitigation, where young people thought that national (27%)

Young people prefer alternative paths of political engagement

Young Iraqis are not politically apathetic, despite scepticism with the electoral process and the political system

Percentage of young people who believe it is important to engage with national politics by region



Protest and social media are especially seen as powerful ways of getting youth voice heard.

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Better representation of youth opinions in politics would boost young people's political participation

Percentage of young people who would be more likely to increase their engagement with politics if their views and opinions were represented



Dissatisfaction with politics is partly driven by issues centred on employment and perceived unkept promises by politicians which have previously triggered mass youth-organised protests in Iraq.

and local governments (20%) should be responsible for action. Among those interested in politics, 20% want their views reflected in political discussions. However, almost four in ten (39%) do not plan to increase their political involvement, something which relates to a disillusionment with the political process.

Young people recognize the importance of being politically engaged but are skeptical about the electoral process due to perceptions of unfulfilled promises and systemic issues. In response to this, protest and social media are seen as powerful ways for Iraqi youth to voice concerns and mobilize for change, but some young people hold reservations regarding their security and safety expressing their views online.

Making the desired impact

Asked about the impact that the Next Generation program hopes to make in the long run on both the youth and policymakers, Wilson said that the initiative envisions fostering a more inclusive, empowered generation of youth who are equipped to lead their communities and engage meaningfully with policymakers.

“For the youth, we aim to build their leadership and critical thinking skills, ensuring they become leaders of change in areas like governance, equality, and economic development. For policymakers, the goal is to shift perspectives on youth engagement and to encourage the adoption of policies that reflect the needs and aspirations of this younger generation.”



Photo Credit: British Council

collaboration between youth and decision-makers across the Kurdistan Region of Iraq, including in Erbil, Sulaymaniyah, Duhok, and soon Halabja, the Next Generation initiative seeks to promote more youth-centered policies,

Key Recommendations

Profiles

Social Inclusion:

- Enhance accessibility in public spaces, workplaces and educational institutions and availability of assistive devices
- Promote inclusive education by training teachers to equip with the necessary skills and resources
- Develop gender and context-sensitive programming especially in areas where women face societal and familial pressure
- Strengthen legal protections and enforcement mechanisms to protect and encourage the rights of young disabled persons

Perceptions

Employment:

- Focus on skills development and experience through public-private collaboration
- Introduce accessibility initiatives to accommodate young disabled persons
- Promote rural employment
- Promote employment in the digital economy

Climate Change:

- Enhance climate education and awareness
- Promote sustainable livelihoods and green entrepreneurship
- Empower youth in environmental advocacy at all levels of government
- Build climate resiliency in education

Pathways

Political and civic engagement:

- Facilitate inclusive political discourse with youth friendly platforms
- Ensure online safety for political engagement
- Promote representation in political parties
- Foster youth centric policy-making

Education and Entrepreneurship:

- Reform the curriculum so it is more focused on practical skills
- Promote vocational training to offer pathways outside of university
- Improve access to education in rural areas
- Integrate career counselling into secondary education
- Improve access to finance and networks for aspiring entrepreneurs

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Commenting on the desired impact of the program on the Kurdistan Region specifically, Wilson stressed that, by continuing to create platforms for constructive dialogue and

particularly in areas that are critical to Iraq's development, such as education, employment, and social cohesion. ●

An Overlooked History



Miran Abraham

is a well-known Kurdish novelist and director of Shanidar Publishing House.

The tapestry of Kurdish history and culture is as intricate as it is ancient, a rich and vibrant narrative that spans millennia yet remains overshadowed in global academia. Despite their profound influence on the cultural and political landscapes of the Middle East, the Kurds and their heritage are conspicuously underrepresented in scholarly discourse. This glaring omission prompts a critical question: why, despite their historical significance and contemporary struggles, are the Kurds relegated to the margins of academic inquiry?

Meanwhile, over the past decade, the Kurdish issue has once again surged to the forefront of regional political discourse, coinciding with a period of intense turmoil and conflict in the Middle East. Kurdish nationalism, a potent force throughout the latter half of the 20th century, has repeatedly galvanized and unified Kurdish populations across Iraq, Iran, Syria, and Türkiye. Yet, the aspirations of the Kurdish people have been consistently perceived as a threat by the states in which they reside, a threat not only to national security, but also to the delicate balance of regional stability.

Amid these challenges, Kurdish language, literature, and art have undergone a renaissance in recent decades. Kurdish writers and artists have made significant strides in contributing to the global cultural dialogue with their unique voices and perspectives. This resurgence, particularly noticeable in the innovative works emerging from Southern Kurdistan (the Kurdistan Re-

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Despite these significant political and cultural advancements, the academic study of the Kurds remains woefully inadequate
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■ A Kurdish village in the Hawraman region in northwestern Iran

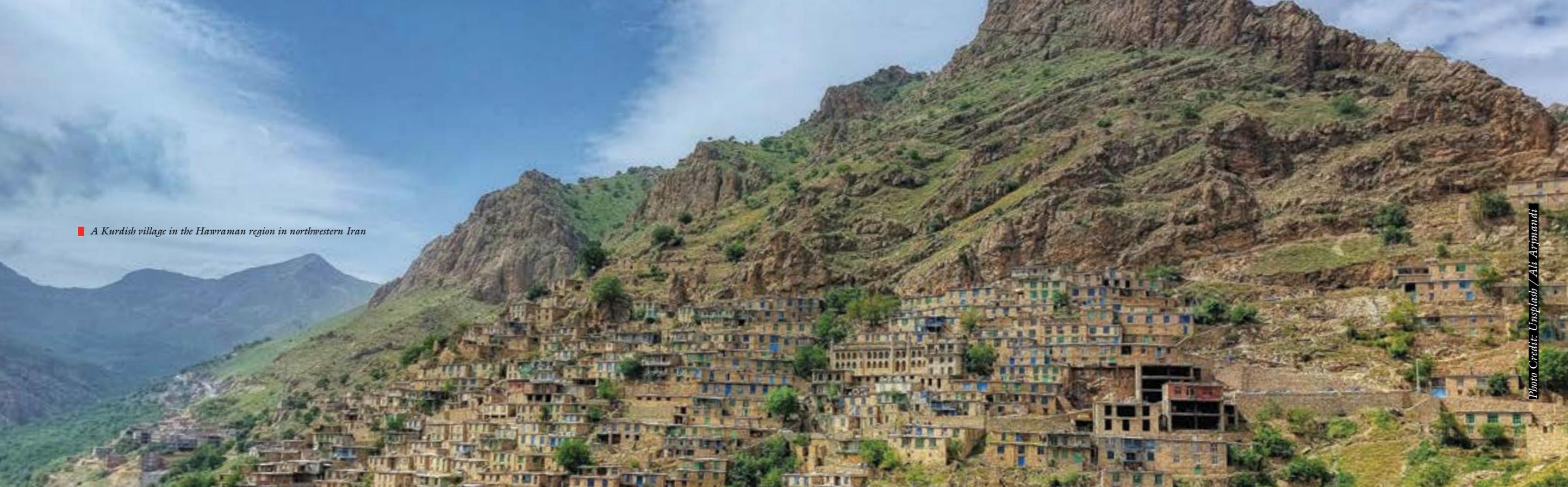


Photo Credit: Unsplash / Ali Armanadi

gion of Iraq), underscores the talent and creativity of Kurdish individuals who continue to enrich the global cultural landscape.

However, their contributions are often overshadowed, with their voices muffled by the mainstream narratives that dominate international discourse. This silence is not merely a coincidence; it reflects a broader reluctance

– or perhaps a deliberate refusal – to engage with the story of a nation that has long been viewed through a lens of political expediency rather than human dignity.

A comprehensive, multidisciplinary approach

The current generation of Kurds, es-

pecially those in Southern Kurdistan, is making commendable efforts to assert their place within the global community. Their endeavors span politics, culture, and academia, demonstrating a steadfast commitment to ensuring that the Kurdish voice is heard on the world stage. This new era of Kurdish political activism, marked by the consolidation of Kurdish autonomy in Iraq, has empowered the Kurds to

influence regional political developments, forge stronger alliances with international powers operating in the region, and navigate the complex geopolitical landscape of the Middle East with increasing confidence and assertiveness.

Yet, despite these significant political and cultural advancements, the academic study of the Kurds remains

woefully inadequate. The Kurdish issue, a complex transnational matter with deep roots, is often dismissed or superficially treated in the halls of universities worldwide. The few studies that do exist tend to be fragmented, failing to capture the full breadth and depth of the Kurdish experience. What is needed is a comprehensive, multidisciplinary approach that integrates historical, social, political,

economic, and cultural analyses to provide a holistic view of the Kurds and Kurdistan from the Middle Ages to the present.

Such an approach would enable scholars to explore the intricate web of forces that have shaped Kurdish society and culture over the centuries. It would offer a platform for innovative and critical perspectives, challeng-

Photo Credit: Unsplash / Zanyar Ibrahim



■ The citadel of Erbil



ing the conventional narratives that have long dominated discussions about the Middle East. In doing so, it would elevate the Kurdish story from the margins to its rightful place at the center of historical and cultural discourse.

The Kurds are a nation that forms the backbone of the Middle East, with a history as ancient and storied as any in the region. Yet, their culture and language have been repeatedly suppressed, their aspirations for self-determination thwarted by dominant and occupying regimes. The price they have paid for their perseverance is steep: oppression, displacement, genocide. These are not mere

footnotes in the annals of history; they are central chapters that demand serious scholarly attention.

It is incumbent upon the academic community to rectify this oversight. The history of the Kurds – a history of resilience in the face of unimaginable adversity – must be studied with the rigor and respect it deserves. Books must be written, courses must be taught, and discussions must be had about the Kurdish experience. Only then can we begin to do justice to a people who have endured so much in their quest for survival and self-expression.

An open invitation

The world's universities and writers bear a significant responsibility in acknowledging and addressing the historical and cultural narratives of the Kurdish people. To continue ignoring or marginalizing these stories is not only a disservice to the Kurds but to the broader understanding of human history. It is time for the global academic community to listen to the voice of Kurdistan, study it, and amplify it for future generations.

But to truly understand Kurdistan, one must step into the land itself, to witness its unique beauty as a landscape that

flourishes alongside its people. From the towering peaks of the Zagros Mountains to the fertile plains, Kurdistan is a breathtaking contrast of rugged wilderness and vibrant life. This natural beauty is mirrored in the Kurdish people, whose resilience and spirit thrive amid adversity.

We extend an open invitation to all scholars, writers, and journalists: come to Kurdistan. Walk through its valleys, meet its people, and experience its culture. Write, research, and document the stories that have for too long been overlooked. Kurdistan, with its rich history, thriving art, and unparalleled hospitality, awaits you. Let the world finally hear the voice of the Kurds, spoken in their own land. ●

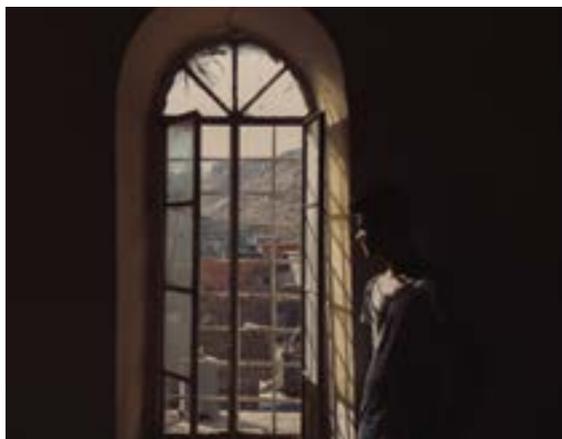


Photo Credit: *Unsplash / Levi Meir Clancy*



Photo Credit: *Unsplash / Levi Meir Clancy*

Cognitive Behavior Therapy in Kurdistan



Chris Bowers

is the former UK Consul General in the Kurdistan Region and has been working on KRI for more than a decade.

The July issue of *Kurdistan Chronicles*, issue 16, featured a story about a mental health training project led by the Oxford Cognitive Therapy Center (OCTC), a part of Oxford University. This story reports on the experiences of the trainers.

The first 30 Kurds trained to deliver Cognitive Behavior Therapy (CBT) are set to finish the first major element of their course in November 2024. CBT is the main ‘go to’ therapy treatment used in the UK and by the World Health Organization to treat depression, anxiety, and a range of other mental health issues.

Following the completion of the full CBT training, the Kurdish therapists should be able to treat patients with these issues.

The project, the brainchild of an Anglo-Kurdish non-governmental organization based in the UK, is the first major year-long CBT training project in the Kurdistan Region of Iraq and includes an added year of supervision.

The two main Oxford trainers for the Kurdistan Region are Dr. Kevin Meares and Amandeep Soomal.

“Everyone involved in the project at OCTC has been absolutely enthralled

by meeting people from the Kurdistan Region and working with them,” Meares says. “Even though this is a society that has suffered multiple instances of trauma, they are the most generous, kind-hearted people, with a huge appetite for learning. And it is this that makes this project an absolute joy to be a part of.”

A local lens

Throughout the early months of training, the trainees have overcome significant barriers and stigmas around mental health. In particular, Soomal admires the trainees’ “ability to take on that challenge, their open-





■ Dr. Kevin Meares



■ Amandeep Soomal



■ Dr. Ava Doski

ness to new learning, and their readiness to challenge us and say, ‘I don’t think that this works for us.’ And then we set about finding new ways of working.”

“We are working with this cohort to build something really beautiful,” Soomal explains. “And these are just the seeds. I’m hoping it is going to grow into a huge tree that will weather many storms.”

Although standard in many countries, CBT is new to Kurdistan. The Oxford trainers acknowledge that there have been challenges and learning opportunities for them as they work to adapt CBT to the region – which, in general, has a more collectivist culture than the UK.

Soomal says that they have had to think about how CBT helps the system and the whole family, in order to help the individual. “That’s something that the cohort has taught me,” she explains. “We did a ‘get to know you’ exercise during induction and asked: ‘What is your favorite thing about Kurdistan?’ The resounding answer was ‘community’ and ‘we rely upon each other.’”

The Oxford trainers have adapted their teaching in another surprising way. For the training on treating suicide risk, the Oxford team brought in Dr. Anne Garland, a specialist who was able to use Kurdish poetry to talk powerfully and movingly about difficult issues.

The Oxford trainers are also mindful of gender issues and have made space for women-only groups in some cases, which has led to more openness. Soomal notes that the team has been workshoping how to support patients who are survivors of gender-based violence.

Along these lines, there have been discussions about mental health disparities between genders and the different pressures and expectations that society places on them.

International expertise

Tackling mental health issues is a challenge across every society, but there are opportunities for countries to learn from each other’s experiences.

In this vein, the Kurdistan Region project has drawn upon the expertise of Anglo-Kurdish mental health practitioners, including Dr. Ava Doski. Doski, whose family is originally from Duhok, lives and works in the UK and received a doctorate in clinical psychology. In order to give back to

her community, she has helped shape, create, and develop the project from day one.

“Kurdistan should prioritize mental health because of the profound impact it has on the well-being and future prosperity of its people,” Doski emphasizes. “The Kurdish population has endured significant trauma, including decades of violence, displacement, and oppression. These collective experiences have left significant psychological scars, not only for individuals, but for entire communities.

“Mental health care is essential for breaking the cycle of generational trauma, where unresolved psychological wounds are passed from one generation to the next. By addressing these issues, Kurdistan can build a more resilient and mentally healthy population, allowing its people to live more fulfilled lives.

“Healthy minds lead to higher levels of productivity, creativity, and social cohesion, which are critical for the long-term prosperity of the region,” she adds.

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Kurdistan can ensure a
healthier, happier, and more
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development and growth

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“There is a strong global consensus that there is no health without mental health,” Doski says. “If mental health is ignored, physical health initiatives alone won’t be sufficient to create a thriving society. By investing in mental health care, Kurdistan can ensure a healthier, happier, and more productive population capable of contributing to the region’s development and growth.”

Having worked on the project as a supervisor, Doski says that she is struck by the extent to which awareness of mental health is on the rise. People in the Kurdistan Region, she notes, are becoming more open to discussing mental health, which is a critical shift.

For her, Kurds should continue to talk about mental health and normalize it – whether through advertising, TV shows, or public discussions. The more we bring it into everyday conversation, the more we can break the stigma and encourage individuals to seek help without fear.

The project has private funding through 2025, and the OCTC says it is looking forward to building the next generation of CBT therapists in the region.

“We want to provide the right level of support for the right amount of time and then phase ourselves away and out,” Meares says. “But we want to help our new CBT colleagues within Kurdistan for as long as they need us. This is just the beginning.” ●

CULTURE



Weam Namou

Executive Director, The Chaldean Cultural Center.

Chaldean Cultural Center's New Relationship with Ankawa



Established in 2003 in the U.S. state of Michigan, the Chaldean Cultural Center (CCC) has been a vital cornerstone of Chaldean heritage in the United States. The museum, which opened in 2017, is the only one of its kind and aims to enhance its offerings and engage more visitors.

The CCC and Museum plan to move to a larger space in the spring of 2025, marking an exciting new chapter for this vital institution. The expanded museum will add additional exhibits across its five galleries, along with a new sixth gallery dedicated to the theme of genocide. This

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This event will not only highlight Ankawa’s rich cultural heritage, but also showcases the beautiful community of Sterling Heights, which has the largest population of Chaldeans in Michigan

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transformation is a testament to the resilience and faith of the Chaldean community, which has contributed significantly to culture and society throughout the history of humanity, from ancient Mesopotamia to the modern-day United States.

Historical context

The Chaldean community, with roots tracing back to ancient Mesopotamia, has a rich history that spans thousands of years. This area, often referred to as “the cradle of civ-

ilization,” is where significant advancements in writing, mathematics, and urban planning first emerged. Understanding this legacy is crucial for appreciating the challenges faced by the Chaldean community today, especially in the context of the recent displacement of peoples and the importance of their representative diasporas.

Currently located within the Shenandoah Country Club in West Bloomfield, Michigan, the CCC will be moving just a few miles away to a campus that will include the Bishop’s Library housing ancient Aramaic texts, the television and radio stations of Chaldean News, the Chaldean Chamber of Commerce, a gymnasium, a theater, and a demonstra-



tion kitchen that will serve as a culinary space for cooking classes and more. This new location will not only enhance the visibility of Chaldean culture, but also create a hub for community activities and events.

The CCC serves as more than just a museum; it is a vital space for preserving Chaldean culture, language, and traditions. Community members often share their personal stories and experiences at the CCC, emphasizing its role in maintaining a sense of identity and belonging.

Chaldeans have made significant contributions to advancements in writing, mathematics, and urban planning. Understanding this history enriches our appreciation of our legacy and highlights the challenges we face today.

Museum expansion and Ankawa partnership

The new museum will build upon its current offerings, which include existing artifacts, multimedia presentations, and digital storyboards. I believe the expansion will allow us to enhance educational outreach, enrich our programs, and welcome thousands of visitors annually.

The museum currently showcases five dynamic galleries:

- Ancient Mesopotamia: Foundations of civilization
- Faith and Church: The evolution of Christianity in our community
- Chaldean Village Life: Culture of Chaldeans in the Nineveh Plains
- Journey to America: Immigration stories shaping the Chaldean presence in the United States
- Chaldeans Today: Our role in Michigan and the global diaspora

With the expansion, the Chaldeans Today gallery will feature a new exhibit that highlights Chaldean communities worldwide, whose importance was underscored by the establishment of a sister-city partnership on August 20, 2024, between Sterling Heights, Michigan and Ankawa, a district of Erbil in the capital of the Kurdistan Region of Iraq.

The historic partnership with Ankawa, initiated by Chaldean Community Foundation President Martin Manna and Ankawa Mayor Ramy Noori Awdish, seeks to promote cultural exchange and economic collaboration between the two cities.

Ankawa is known for its rich cultural heritage and is home to a significant Christian community – some 90% of its population is Chaldean. Ankawa and Sterling Heights share deep connections through their residents. This sis-



ter-city partnership aims to strengthen these ties and celebrate the shared heritage of both communities.

The initiatives under this agreement will include educational exchanges, cultural events, business collaborations, and municipal partnerships. Sterling Heights Mayor Michael Taylor expressed excitement about the partnership and emphasized that it is not merely symbolic, but represents a commitment to building bridges of friendship and cooperation. “We’re thrilled to formalize our relationship with Ankawa, a city that holds deep significance for many of our residents,” Mayor Taylor said.

Future opportunities

Following months of discussions between community leaders in Sterling Heights and representatives in Ankawa, a project team will be formed to create a roadmap for sharing knowledge in culture, business, and education. Plans include a curriculum assessment and teacher exchange program, as well as remote learning opportunities at the university level, enabling unique experiences for students and educators.

“We look forward to inviting a delegation from Ankawa to visit Sterling Heights in the near future, hopefully during our annual Cultural Exchange event in the spring. This event will not only highlight Ankawa’s rich cultural heritage, but also showcases the beautiful community of Sterling Heights, which has the largest population of Chaldeans in Michigan. Michigan has the largest concentration of Chaldeans in the world,” said Mayor Taylor.

In turn, the hope is to send a delegation from Sterling Heights to Ankawa, allowing residents to learn more about their counterparts’ daily lives, culture, and business practices.

As the CCC prepares for its move next year, the new museum promises to continue being a welcoming space for all. Visitors can expect interactive exhibits, guided tours, and community classes and programs that encourage engagement with Chaldean culture. Whether visiting the CCC in person or exploring it online, this cultural hub offers a unique opportunity to reflect on the interconnectedness of different cultures and histories.

This unique institution not only preserves Chaldean heritage, but also fosters essential conversations about our shared future in an increasingly diverse world. The CCC stands as a beacon of hope and resilience, inviting everyone to partake in the rich tapestry of Chaldean culture and its contributions to the global community. ●



Photo Credit: Chaldean Cultural Center

‘Little Kurdistan’ in Napa Valley

Kurdistan Chronicle

Mehmet Siddik Torun, originally from Dersim (Tunceli), Türkiye, has built his own little Kurdish paradise in Northern California. Fleeing persecution in Türkiye in 1994, he and his family moved to Europe before eventually relocating to the United States.

Torun began working as a shoe shiner at the age of 11 in Türkiye, later taking a job as a dishwasher at the Bellevue Casino in Istanbul. Over time, he climbed the ranks and eventually pur-

chased it, after which famous Kurdish and Turkish artists, such as Tarkan and Zeki Muren, worked for him.

“Tarkan worked for 21 days at our casino and didn’t make any money; in fact, we lost money from his visit. Despite this, he never asked for payment. He was genuinely nice. He even asked his mother in Germany for support, as he wasn’t earning much from his singing at the time. Nobody knew him then, but he later became very popular and remains so today,” Torun

told *Kurdistan Chronicle*.

Kurdish singers Mustafa Sagyasar from Urfa, Yasar Ozel from Diyarbakir, and Mehmet Ali Erbil, also worked for Torun at the casino, which attracted powerful politicians and businessmen. Former U.S. President George H. W. Bush visited with then-Turkish President Turgut Ozal in 1991. Torun also described how top Kurdish leaders from Iraqi Kurdistan would ask his employees to sing for them in a private setting.



■ Kurdish leader Mustafa Barzani’s name inscribed on a rock next to a sign with a map of Kurdistan at the entrance of the vineyard

A pick and a shovel

While in Türkiye, Torun was active in politics, and was one of the founders of the Social Democracy Party. He ran for mayor of the Kartal Municipality in Istanbul and then for a seat in the Turkish Parliament.

However, he felt threatened by the violence against Kurds in Türkiye in the 1990s, when he received death threats and received visits by the Turkish police. “They killed a Kurdish businessman in 1991,” Torun recounted.

“In 1994, I left Türkiye with my family and sold all my belongings. I spent nine months in London attending school before moving to the U.S. state of Georgia, where I lived for seven years and worked at Home Depot,” he explained.

In 2002, Torun bought a 4,300-acre farm for \$200,000 in Napa Valley, with the aim of setting up a vineyard, an olive orchard, and a ranch. Napa Valley, as any wine lover knows, is famous for its vineyards and the quality of its wine. It is also a popular spot for people visiting nature in the area.

“After purchasing this land, I asked my Kurdish friends what I should do.



“

In 2002, Torun bought a 4,300-acre farm for \$200,000 in Napa Valley, with the aim of setting up a vineyard, an olive orchard, and a ranch

”

They all laughed, saying it would be impossible. Even my father, wife, and American neighbors doubted me. Just to build the road, houses, and winery, a construction company asked for over \$18 million. My neighbors suggested I might have big people like Barzani backing me, but I had never met him and had no connections with him. Despite this, I said to myself: ‘I will do it,’” he said.

After buying the property, he relocated to it and constructed a small shed from reclaimed wood to use as a sleeping space, living and working there by himself for the next seven years. “I struggled, cleaned the prop-

erty, and then built everything by myself with just a pick and a shovel over the last 22 years,” Torun added.

Kurdistan on the mind

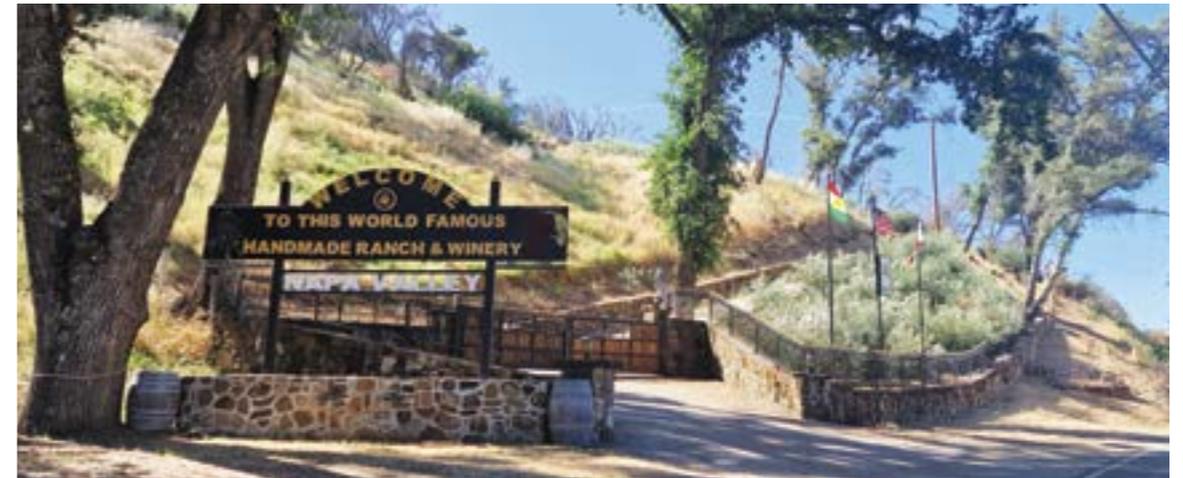
To build the winery, he shipped rocks from Diyarbakir, Dersim, and Mardin in Türkiye to California, only paying for shipping costs. These rocks in the United States would have cost millions of dollars.

Part of the drive to build the winery was his ever-present dream of working for a greater Kurdistan – a free, independent Kurdistan. Therefore, when you enter the property, you are welcomed with a Kurdish flag and a sign that reads: “Welcome to Little Kurdistan.”

“When I found the property, I thought it could be a small version of Kurdistan. Now, it features 70 to 80 miles of trails dedicated to Kurdish people, with signs along the way bearing the names of figures like Qazi Muhammad, Mustafa Barzani, and Seyid Riza. There are others – Ahmet Kaya, Yilmaz Guney, Mehmet Uzun – over 200 Kurdish names in total. The landscape includes places like Mount Nemrut, Hewler Field, Zozan Field, Amed Zozan, and Dersim,” Torun said.

“We have a petting zoo, a wish tree, and we are building a replica of Mount Nemrut. There are more than 100 activities happening here. We have an olive grove, an amphitheater, and a Kurdish Agricultural Museum that highlights the history of Mesopotamia and its cuisine.

“We offer guest houses where people can relax, drink wine, and enjoy their stay. At the ranch, we also serve authentic Kurdish breakfasts, all certified organic, with over 30 farm-to-table products, including tahini, olives, and honey. Every item we serve comes directly from the farm,” he proudly said.



International fanfare

Torun’s vineyard and ranch now host visitors from all over the world, who also get introduced to Kurdish cul-



ture and food. “When people come, they see the ‘Welcome to Little Kurdistan’ sign on the front gate,” he said.

Some also stay at his ranch and help as volunteers with harvesting the olives. His ranch produces more olive oil than wine, with over 12,000 olive trees.

Moreover, every year, more than 20,000 people camp near the biggest lake in the Napa Valley, which is next to his ranch. “When the people come to the lake, they see us.”

There are also famous people living near him, including Madonna, Robbie Williams, Elon Musk, California Governor Gavin Newsom, Oprah Winfrey, Silvio Berlusconi, and members of the Rothschild family.

Torun that believes that he is one of the most famous Kurds globally, not because of his wealth, but because of his ranch.

“Actors Sean Connery and Clint Eastwood have visited our ranch, attending weddings here in 2017, 2021, and 2022. Meeting them was an incredible experience. Connery told me I am going to become very famous in the next 20 years,” Torun said. “Connery also told me that I did the world’s most impressive work by hand in the Napa Valley.”

Remembering his roots

Torun is currently finishing up a replica of Lalish – a temple of religious importance to the Yezidis in the Duhok Governorate in Kurdistan. He says that he is building the temple because it reminds him of his Alevi roots.

Alevism is a heterodox Muslim Shi’a religion with pre-Islamic roots.

“I never practiced and I don’t know much about my religion. In my family, like with my grandfather, mother, and father, people have always followed certain traditions. For example, they always carried peacock feathers in their wallets and prayed to the sun in the mornings and to the moon in the evenings,” Torun said.

“I follow the same ways as my grandfather. I always wake up before sunrise to exercise and walk, and when the sun rises, I stand before it and say, ‘Thank you so much for giving us another life today.’ This is something that connects me deeply, not just to traditions but to the people as well,” he shared.

In the future, Torun plans to visit the Kurdistan Region, and especially Lalish. “I’m currently working on Lalish. I’m also building guest houses using natural rocks like the traditional houses in Kurdistan, which are around 200 years old and made entirely of stone,” he told *Kurdistan Chronicle*. ●

Adorning Jewelry with a Touch of Kurdish Culture



Goran Shakhawan

is a Kurdish-American journalist and author based in the United States. He has covered news for several Kurdish news outlets and was a former senior correspondent for Kurdistan24 in Erbil and Washington D.C. He has published several books in Kurdish.

Sayran Barzani, whose paternal grandfather was a *peshmerga* fighter who died during the First Iraqi-Kurdish War in the 1960s, was born and raised in Dallas, Texas, yet speaks Kurdish fluently. Her parents, who both immigrated to the United States separately in the 1970s and met in Nashville, played a vital role in her upbringing by introducing her to the language, culture, traditions, and history of Kurdistan at a very young age.

After graduating from university with a degree in International Studies with a focus on World Development in the Middle East and North Africa region, Sayran relocated to Los Angeles, California. There she founded her jewelry brand, Sayran, which has grown into a success, with numerous celebrities adoring her pieces. Through her accessories and jewelry, she aims to showcase her Kurdish heritage while being influenced by her upbringing in the United States.

In an exclusive interview with *Kurdistan Chronicle*, Sayran discussed her family's heritage, the role of Kurdistan in her work, and the joys of Kurdish culture that she feels connected to even living so far away.

Remembering her Kurdish roots

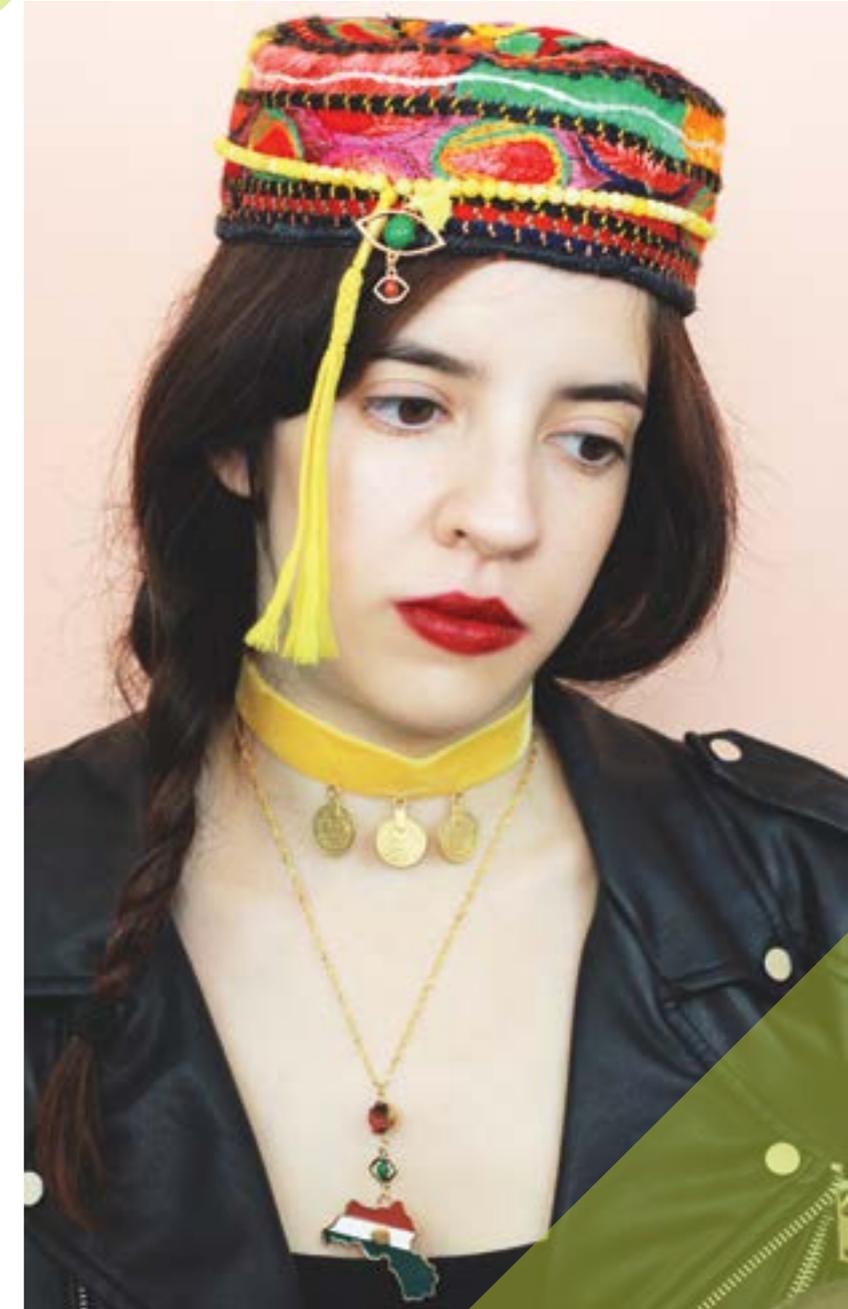
Sayran started the interview by focusing on how her family's heritage has had a profound impact on her. Her maternal grandfather, Jamal Bekhtyar, was an artist from Sulaymaniyah and used his art to

depict what was happening to the Kurds under the Ba'ath regime. One of his pieces depicting the bombing of Qaladiza in 1974 resulted in him being persecuted by the regime, which prompted Sayran's maternal family to flee Kurdistan and ultimately attain political asylum in the United States.

Her paternal grandfather, Siyamend Barzani, was from the village of Mergasor in the Barzan region and was one of the 500 men who traveled to the Soviet Union after the fall of Republic of Mahabad. "Both my grandfathers have played pivotal roles in my life, and through their influence, I have gained the strength to always support Kurdistan, regardless of how far away I may be," Sayran said.

Meanwhile, she credits her grandmother for playing a significant role in her upbringing and for teaching her Kurdish. "My grandmother is such a proud Kurdish woman; to this day, you will see her at protests in San Diego in traditional clothing advocating for Kurdistan," she remarked.

Though Sayran has lived in Los Angeles for the last 12 years, she relocated back to Texas this year to be closer to her family. She is eagerly anticipating the arrival of her first child by the end of this year and is filled with excitement about becoming a mother. "It is extremely important to me to make sure my children grow up knowing where they come from," she said.





Sayran also enjoys listening to all kinds of Kurdish music, but lately she has been more drawn to classical music introduced to her by her father. She enjoys lis-

In Kurdish, “sayran” means picnic, and the jewelry artist similarly intends to give her baby a Kurdish name, which dovetails with her vision for her work. “Through my work, I create in order to highlight the beauty of the region and shed more light on the Kurdish people and our culture,” Sayran explained.

One of the most challenging questions that the Kurdish diaspora grapples with is a lack of knowledge about Kurdistan. Sayran recalls at the age of 10 attempting to explain where it is to her peers, only to feel disheartened that it was not marked on the map. “As an adult, I take immense pride in my Kurdish roots. Being Kurdish is challenging due to the constant pain and erasure our people endure daily, but I genuinely believe that being Kurdish is a sacred gift,” she told *Kurdistan Chronicle*.

Food is an important element of Sayran’s connection with being Kurdish. “I love all Kurdish food, especially yaprakh, kuba and shifta, the so-called big three. My mom makes some of the best Kurdish food,” she said. She also mentioned her love for the popular dish shilay qaysi (apricot soup) that her mother makes every Eid – a tradition many Kurds adhere to.

ten- ing to artists like Ayse San, Seheriban, Mihemed Arif, and Dashni Morad, and occasionally listens to Jamshid around *Newroz*.

Sayran was able to visit Kurdistan for the first time in 2004, a trip encouraged by her parents to deepen her connection with her homeland. She visited again in 2023 for several months. “I spent most of my time in my father’s village with relatives. It’s just so special to be able to sit with family and be fully present in conversations that sometimes revolve around the different flavors of cantaloupe. In the United States, everything is constantly moving so fast that it’s hard to enjoy moments like that, where you’re just there to be together, drink endless cups of tea, eat cucumbers, and talk about everything and nothing all at once,” she said.

“Now, as an adult I understand so much why my parents were so adamant about speaking Kurdish in the house, because the enemy of our lands wishes for the day we forget our mother tongue, our values, our traditions, our roots. My father always said, ‘don’t forget your roots,’ and I echo that in my work, we must all remember our roots,” she said.

Jewelry and the diaspora

Sayran started designing in late 2014 and officially launched her business in 2016. “I initially

started it because I felt like the accessories space was lacking in the kind of jewelry I wanted, jewelry that represents my Kurdish roots but is influenced by the West. Traditional symbolism with a twist, in other words,” she told *Kurdistan Chronicle*.

“My jewelry is very colorful, using symbols like the evil eye, pomegranates, and specific lettering, as well as plenty of gold. Jewelry isn’t merely an accessory, it’s a means of expressing yourself without the needs for words,” she added.

Sayran has made significant strides in her career, having appeared in Teen Vogue and been featured in several music videos this year, including those of Raveena Aurora and Elyanna, as well as Merzi’s “Destim Bigri.” Reflecting on her journey, Sayran expressed disbelief at achieving such recognition. “Never in my wildest dreams would I have imagined being in magazines or collaborating with big musicians on a global scale.”

Sayran emphasized the importance of creating a representation that not only embodied her identity, but also resonated with many others, particularly those in the diaspora who seek a connection to their roots while still feeling a sense of belonging to their present identity. “I realized that with or without the recognition of statehood by outsiders, we are still a nation. We are still a people with a distinct and beautiful culture who have stood firmly on our lands for centuries and no one can take that away,” she said.

Sayran’s latest collection, Homeland, was inspired by her 2023 visit to Kurdistan and is a homage to traditional Kurdish jewelry, “I aimed to showcase the pieces on a remarkable Kurdish woman. Maryam embodies this strength; she is not only a Kurdish writer and poet but also a licensed marriage and family therapist,” she explained.

Sayran is happy to see Kurds taking up space in so many different fields. As a child she never knew a Kurdish person in art, design, or film, and never even dreamed it was possible. “But now we are making our way and making it known on a global scale,” she said.



Looking ahead, Sayran expressed her eagerness to collaborate with more Kurdish artists and mentioned her ambition to launch a line of home goods inspired by her cultural heritage, marking it as one of her next goals for her brand. She is eagerly anticipating a forthcoming collaboration with another Kurdish artist. “We are just waiting for the right moment,” she noted.

Humanitarian spirit

The Kurdish community has a longstanding reputation for its charitable initiatives and hospitality. In times of crisis such as the ongoing conflicts in Syria and Iraq, as well as natural disasters in Türkiye, they quickly respond to provide aid to those in need.

Sayran, like many others in the Kurdish community, embodies this spirit of generosity and care for others. She has contributed her efforts to several mutual aid funds and the

Palestine Children’s Relief Fund, motivated by the urgent and distressing situation in Gaza, particularly concerning the impact on children who should never have to endure such hardships. Additionally, she is currently engaged in a charitable initiative for the Hengaw Organization for Human Rights in Eastern Kurdistan, where all proceeds from a specific piece in her Azadi (Freedom) collection will be donated in support of the cause.

She also serves as a trustee for the Lotus Flower, an organization based in the Kurdistan Region, founded by Taban Shores, a survivor of Saddam Hussein’s genocide campaign. She has collaborated closely with the Lotus Flower on numerous fundraising initiatives aimed at supporting displaced women and children, whose plight becomes increasingly urgent each day.

In addition to her work with the Lotus Flower, she has also raised funds for various causes, including the Kurdish Red Crescent in Western Kurdistan (northeastern Syria), as well as humanitarian efforts in Armenia, Afghanistan, and Lebanon following the devastating explosion in Beirut. She has also worked with local communities in Los Angeles. “I strive to assist wherever I feel called to help, without discrimination based on region,” she said. ●



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A Special Guest Every Month!

Inside Kurdistan’s 2024 Parliamentary Elections



Delovan Barwari

Host

Delovan Barwari is the Director of Academic Affairs and Strategic Initiatives at the KRG Representation in the United States.

Delovan and Dr. Mohammedali dive into the results of Kurdistan’s 2024 parliamentary elections, exploring election day challenges, next steps in government formation, and the influence of federal court rulings and the upcoming census on Kurdistan’s political future.



Dr. Mohammedali Yaseen Taha

Guest

Dr. Mohammedali Yaseen Taha is a former Kurdistan Parliament member, academic, and political adviser. He holds a PhD in Political Science and currently serves as an adviser to the KRG Prime Minister.



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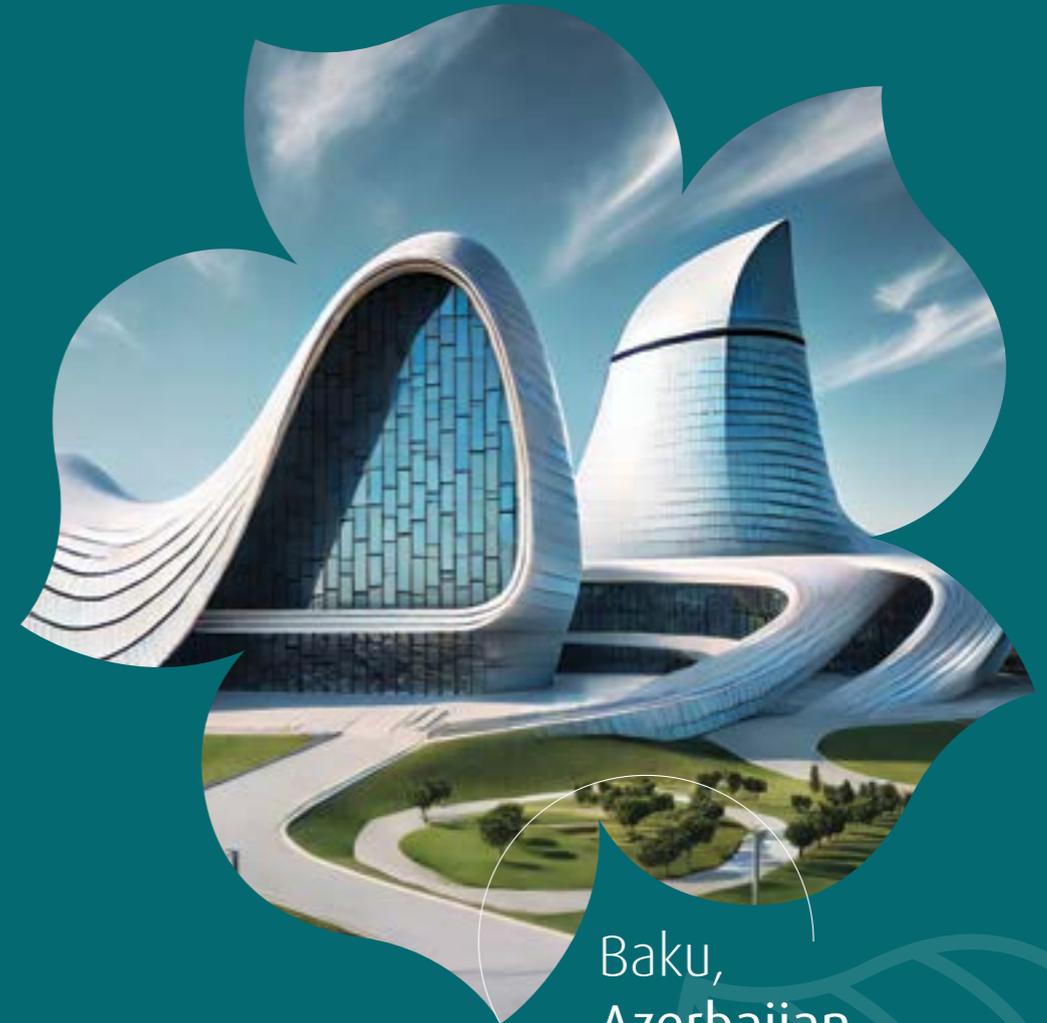
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Constructing New Dams The Lifeblood of Tomorrow



Marewan Hawramy
is a writer and has master degree in diplomacy and international relations.

While many countries around the world view climate change as a future crisis, Iraq is already living it. With over 40% of its total land covered by uninhabitable deserts, Iraq is considered the world's fifth most vulnerable country to water and food shortages and extreme temperatures, according to the UN Global Environment Outlook 6. Iraq's alarming climate situation has been exacerbated by mismanagement and stagnant policymaking; as a result, the country is contributing to deteriorating climates and environments throughout the Middle East.

In the Kurdistan Region, however, the outlook is relatively more positive, and many in the central and southern parts of Iraq see the autonomous region's determination to combat the climate change as a source of hope for Iraq's future.

Along these lines, the UN Interna-

tional Organization for Migration recently published climate vulnerability assessments for the Kurdistan Region, suggesting that the impact of climate change is less noticeable and more localized in the Kurdistan Region than in central and southern Iraq.

"No climate-induced displacement, secondary displacement, or failed returns were recorded in the Kurdistan Region of Iraq," according to the report.

Water security and economic diversification

If the impact of climate change continues to grow, acute water scarcity represents the most pressing challenge for the Kurdistan Region. Since the inauguration of Prime Minister Masrour Barzani's administration in mid-2019, the Kurdistan Regional Government (KRG) has worked tirelessly to improve its infrastructural ca-

capacity and, as a result, has devised significant strategic management plans to ensure a secure future for its water resources.

There are 34 dams of varying size in the Kurdistan Region. Of these, nine dams were constructed between 2019 and 2024, including Gomaspan, Aquban, Bastora, Dwin, Chamrga, Shawger, Khinis, Turrajar, and Dewana. The total capacity of these nine dams is estimated at nearly 270 million cubic meters, representing a supply of water that could meaningfully improve life for the surrounding communities.

Having gone through decades of oppression, conflict, and economic hardship, the Kurdistan Region seems to have now realized the need for decisive actions that could secure a more stable future for its people. Since taking office in 2019, Prime Minister Barzani has trained the government's



■ A view of Dewana Dam in Sulaymaniyah, Kurdistan Region of Iraq

Dam Construction by the Ninth Cabinet

KURDISTAN REGIONAL GOVERNMENT



Gomaspan Dam



Locations: Erbil
Capacity: 115 mcm
Height: 70 m

Aquban Dam



Locations: Erbil
Capacity: 2.6 mcm
Height: 31 m

Bastora Dam



Locations: Erbil
Capacity: 20 mcm
Height: 30 m

Dwin Dam



Locations: Erbil
Capacity: 100 mcm
Height: 70 m

Chamrga Dam



Locations: Erbil
Capacity: 1.1 mcm
Height: 17.5 m

Shawger Dam



Locations: Erbil
Capacity: 2 mcm
Height: 30 m

Khinis Dam



Locations: Duhok
Capacity: 7 mcm
Height: 34 m

Turajar Dam



Locations: Sulaymaniyah
Capacity: 2 mcm
Height: 17 m

Dewana Dam



Locations: Sulaymaniyah
Capacity: 21 mcm
Height: 42 m



■ Aquban Dam in Erbil, Kurdistan Region

sights on economic diversification, in order to rely less on the oil exports revenues that ebb and flow based on volatile global prices.

As part of this plan, the KRG has worked diligently to revive the agriculture and tourism sectors. Interestingly, this is where the constructed dams can play a secondary role, not only by serving as a source of water supply for the public, but also by nurturing the continued growth of the agriculture and tourism industries.

Among the major dam projects that have recently become operational is Gomaspan Dam, a reservoir located just outside the capital city of Erbil. With a storage capacity of 115 million cubic meters, Gomaspan is now the

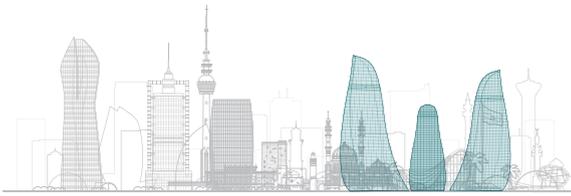
third largest dam in the Kurdistan Region after Dukan Dam and Darbandikhan Dam.

Standing 70 meters high and 512 meters long, this \$64-million structure collects rainfall water from a catchment area of more than 400,000 square meters.

Locals in the surrounding villages told *Kurdistan Chronicle* that while the currently collected water behind the barrage is still limited, they feel more secure about the water supplies for their farms. Additionally, the captivating lake behind the dam has already turned the area into an outdoor recreation hub with the potential to attract tourists and boost the local economy.

On a more strategic level, however, the KRG is working to operationalize these dams in order to help counteract the significant loss of groundwater in recent years for a population that relies heavily on water wells.

At the opening ceremony of Chamrga Dam in the Qushtapa District of Erbil in June 2024, Prime Minister Barzani emphasized the importance of prioritizing surface water consumption above groundwater, citing a worrying drop in groundwater levels in the Kurdistan Region. He underscored that water and natural resources belong not just to this generation, but also to future generations, and hence must be conserved. ●



Kurdistan's First Major Non-Oil Export

Kurdistan Chronicle

As part of its dedication to economic reform and diversification, the Kurdistan Regional Government (KRG) of Iraq has begun to widely export hanar, Kurdish for pomegranate, to regional and overseas markets, making it the largest non-oil export in recent history.

Hanar, a prominent agricultural product produced across

the region, continues to be among the most delectable fruits that garners increased demand.

In December, the first batch of Kurdish pomegranates was shipped to the GCC countries, including the UAE.

Following Prime Minister Masrour Barzani's visit to the



Photo: Farhad Ahmad



Kurdistan Regional Government Prime Minister Masrour Barzani gifting former British Prime Minister Boris Johnson a box of famous Kurdish pomegranates at the MEPS conference in Dubok in November 2023

“

"The Prime Minister has listed agriculture as a strategic priority in this cabinet. The message is clear: we're determined to deliver domestic needs and transform Kurdistan into a regional food basket that meets the region's food security needs and helps stabilise global supplies."

Aziz Ahmad, Deputy Chief of Staff to Prime Minister Masrour Barzani

”

UAE in early 2022, the Kurdistan Agriculture Export Initiative (KAEI) was launched in March to market domestically grown pomegranates.

The initiative was the first step of the KRG's progressive reform agenda, and centers on diversifying the economy and boosting the agriculture sector.

Pomegranate exports began after two firms were selected from Kurdistan's Zakho and Halabja areas and entrusted with procuring 2,000 tons from almost 100 farms scattered across the region.

To ensure that all exports met GCC and global standards, a quality-control provider was established, which also manages the logistics of door-to-door shipment from Kurdistan to the UAE and other GCC ports.

"The Prime Minister has listed agriculture a strategic priority in this cabinet. The message is clear: we're determined to deliver domestic needs and transform Kurdistan into a regional food basket that meets the region's food security needs and helps stabilise global supplies." Aziz Ahmad, Deputy Chief of Staff to Prime Minister Masrour Barzani.

Now that export markets are available to our farmers, and



■ Couple de-seeding and boiling pomegranates to make syrup



■ Packaging pomegranates for export

Photo: Nasib Ali Xayat

a food corridor to the Gulf has been established, focus will turn to investment in the value chain.

Given their proximity, market need, and purchasing power for Kurdistan's local agriculture products, the six GCC countries were deemed the most viable export destinations.

Amad Abdulhamid Muhammad, Consul-General of Iraq in Dubai and the Northern Emirates, commended the initiative and expressed delight at the news after hearing about the KRG's efforts to promote domestically produced Kurdistan products to the UAE.

"There is strong cooperation between the Kurdistan Regional Government and the UAE in all fields and there is a great desire to expand bilateral exports," Muhammad stressed.

He noted that Iraq and the Kurdistan Region can play a vital role in safeguarding regional food security in close collaboration with regional partners.

The exports are also another positive sign of the nation's economic growth and a positive start for all of Iraq to thrive.

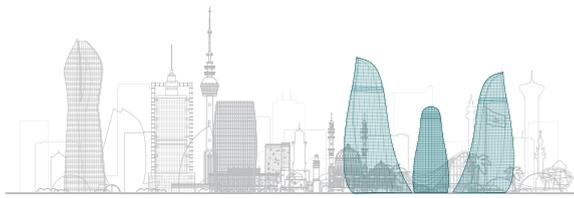
The consul-general also mentioned that the pomegranates are being showcased in international exhibitions in Dubai, which are scheduled to continue for the upcoming months.

According to Muhammad, the first batch of Kurdistan pomegranate is being sold in UAE market at an estimated price of USD 10-11 per kilogram.

"We look forward to greater collaboration and coordination between Iraq, the Kurdistan Region, and the UAE," he continued. "Pomegranate exports are just the beginning of the export of other fruits, such as grapes and apples, as well as other products like honey."

The KRG has established the Export Promotion Bureau with the mission of promoting and eventually exporting the Kurdistan Region's diverse array of products, which serves as the backbone of the agriculture sector.

The region's geographic location is known for its strength in farming and agriculture. Despite its mountainous terrain, it has considerably more arable land – around 28% of its total surface area – than most Middle Eastern countries. ●



Soran University Inaugurates Climate Change Research Center



Kurdistan Chronicle

Founded in 2009 in the Erbil Governorate, Soran University continued its trailblazing initiatives by inaugurating the Climate Change Research Center (CCRC) on its campus last month. The opening ceremony, which was held on October 17, was attended by a distinguished group of guests, including governmental officials, professors, students, and climate experts, who gathered to celebrate the university's first climate change center.

The CCRC, which is the first of its kind in the region, is poised to become a pivotal institution in the battle against climate change, both locally and internationally, and will serve as a central data hub for gathering and analyzing climate-related information, aiming to provide solutions to the rapid environmental shifts the world is experiencing. Its research will focus on key areas such as global warming, deforestation, biodiversity loss, and water scarcity, providing a scientific

foundation for addressing these critical challenges.

A bridge built on science

The ceremony began with a speech by Sherwan Sharif Qurtas, President of Soran University, who expressed pride in the new endeavor. "I am honored and proud to be here with you today on this historic occasion for our university, as we announce the opening of the Climate Change Research



Photo: Mohammed Dargalayi

Deep valleys in Soran, Kurdistan Region



Town of Rawanduz along the famous Rawanduz Canyon

Photo: Mohammed Dargalayi



■ Abdulrahman Siddiq, Head of the Kurdistan Regional Government Board of Environmental Protection and Improvement



■ Bayan Sami Abdulrahman, Senior Advisor to the Prime Minister

Photos: Sabir Salih

Center and the promotion of sustainability,” he said.

As part of his remarks, Qurtas emphasized the urgent need for research and solutions in the Kurdistan Region and the world to tackle the “rapid and unprecedented changes in the climate,” underlining the pivotal role that the new center would play.

Following the president’s remarks,

engineer Abdulrahman Sadiq, Head of the Kurdistan Regional Government (KRG) Board of Environmental Protection and Improvement, praised the establishment of the center, noting that it is launching at a time when the world is grappling with the fast pace of climate change. He emphasized that the CCRC could serve as a bridge between governmental institutions and environmental researchers, stating that scientific research is

crucial for identifying both the causes and challenges of climate change.

Bayan Sami Abdulrahman, Senior Advisor to the KRG Prime Minister on Climate Change, also delivered a congratulatory speech, underscoring that the CCRC will play a vital role in addressing environmental issues through scientific, data-driven approaches. She stressed the importance of utilizing data to pinpoint problems



■ Kurdistan Chronicle team joining the event to launch the Climate Change Research Center at Soran University

Photos: Sabir Salih



■ A panel at the launch of the Climate Change Research Center at Soran University

Photos: Sabir Salih

and devise actionable solutions, echoing the center’s goals of becoming a key data hub for climate change research in the region.

The ceremony concluded with a panel discussion on climate change, featuring notable speakers like Halgurd Sheikh Najib, Supervisor of the Soran Autonomous Administration; Kamal Y. Odisho Kolo, Head of the Scientific Center for Climate Change; and Mohammed Amin, Advisor to the President of Iraq on Climate Change. The panel explored the causes and impacts of rapid climate changes, providing insightful discussions.

Identifying causes and solutions

The inauguration of the CCRC at Soran University represents a monumental step in addressing climate change through scientific research, education, and international collaboration. As the first center in the region to fully integrate climate change into academic programs, it will shape future leaders while contributing critical data and insights to the global effort against environmental degradation.

“The center will serve as a conduit for cross-border cooperation, creating opportunities for international experts to engage with the specific environmental challenges facing the Kurdistan Region and beyond”

The center’s role as a data hub, research institution, and learning environment ensures that it will be at the forefront of both understanding and combating climate change. This moment marks the beginning of a long and challenging journey, but it is one that will undoubtedly help shape a more sustainable and resilient future.

The CCRC will focus on identifying the root causes of climate change, investigating factors such as industrial pollution, fossil fuel consumption, deforestation, and unsustainable agricultural practices. By providing a comprehensive analysis of these factors, the center will be able to guide the development of sustainable policies and mitigation strategies. The research produced through the center will also be instrumental in informing local governments, industries, and communities about how to reduce their carbon footprint and adapt to the rapidly changing climate.

The center’s mission extends beyond local research. By collaborating with international academics and climate institutions, it aims to contribute to global climate solutions. These partnerships will bring cutting-edge technologies and research methodologies to Soran University, enriching its research capacities. The center will serve as a conduit for cross-border cooperation, creating opportunities for international experts to engage with the specific environmental challenges facing the Kurdistan Region and beyond. ●



Launching First Asphalt Recycling Plant

Kurdistan Chronicle

In October 2023, the Kurdistan Region of Iraq (KRI) launched an advanced asphalt recycling factory, the first such project in Iraq, and one that speaks to the regional government's commitment to modernizing its infrastructure in line with current technological advancements and environmental protection standards.

According to international best practices, road construc-

tion projects are evaluated according to several principles. First and foremost, the road's engineering is scrutinized to ensure its structural quality. Second, safety measures are woven into the design and implemented along the road to ensure the well-being of all those who travel on it. In recent decades, another pivotal dimension has emerged as a critical principle for such evaluations: the project's environmental impact.

Asphalt Recycling Plant in Erbil, Kurdistan Region, on Oct. 17, 2023

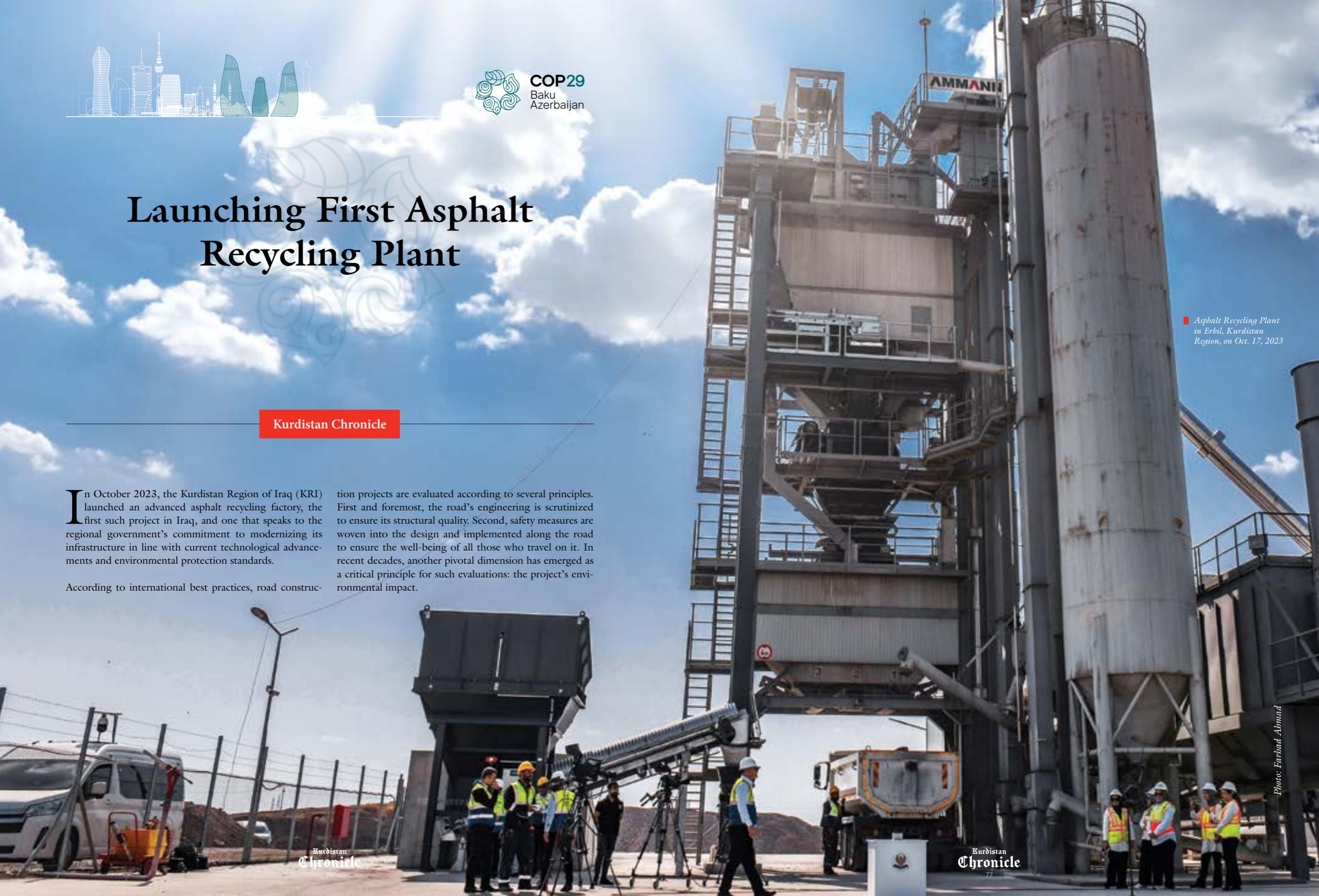




Photo: Farhad Ahmad

Roads, a vital means of connecting communities, must now be constructed with the utmost consideration for their ecological footprint, ensuring that their development not only serves people’s immediate needs but also safeguards the delicate balance of our planet’s natural system. That is, governments must recognize that infrastructure projects should harmonize with, rather than disrupt, the environment.

Building technical capacity

Acknowledging its responsibilities not only to the people of the KRI but also the environment, the Kurdistan Regional Government (KRG) has initiated a pioneering asphalt recycling project, despite its already challenging financial situation.

During a ceremony on October 17, Prime Minister Masrour Barzani announced that the Asphalt recycling project is capable of recycling 160 tons of discarded asphalt per hour and

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Working in tandem with the newly established recycling plant, it can produce 150-160 tons of asphalt per hour
”

mixing it with up to 30% new asphalt to pave the roads under construction across Erbil Governorate.

Dr. Agreen Abdullah, KRG Deputy Minister of Construction and Housing, who spoke to *Kurdistan Chronicle* at the inauguration of the plant, noted that Erbil’s asphalt production factory, which has been supplying road construction in the KRI for years, has a production capacity of 200 tons per hour. Working in tan-

dem with the newly established recycling plant, it can produce 150-160 tons of recycled asphalt per hour.

“Asphalt recycling comes with a technical challenge that not every country would feel confident to take on. In the KRI, our technical capacity for road construction has witnessed remarkable progress in recent years, keeping pace with the latest international innovations and standards,” Dr. Abdullah said.

Delivering a speech during the ceremony, Prime Minister Barzani emphasized that the asphalt recycling plant project underscores the KRG’s commitment to environmental protection and economic reform. Whereas the old practice of carelessly dumping discarded asphalt harmed the environment, the new approach is not only eco-friendly but also economically advantageous.

For this pivotal project to materialize, Dr. Abdullah explained that his team

■ Prime Minister Masrour Barzani launching the Asphalt Recycling Plant in Erbil on Oct. 17, 2023

worked with international experts to train a group of operators at the plant in accordance with international standards. This knowledge transfer has bolstered the government’s human capacity to further enhance the quality of its projects and laid the groundwork for duplicating the project across the KRI’s governorates.

The economic case for recycling

This project contributes to the economical aspect of road construction in the KRI. According to a feasibility study, the plant helps reduce the cost of road-paving projects by at least 15%. This will allow the KRG to save financial resources for more road projects across the region.

With this initial project focusing exclusively on Erbil’s roads, Prime Min-

“
Governments must recognize that infrastructure projects should harmonize with, rather than disrupt, the environment
”

ister Barzani has unveiled the government’s

broader vision to replicate these factories in every province within the KRI. To this end, he called upon the

private sector to undertake similar ventures, thereby repurposing previously discarded materials. The KRG’s dedication to a comprehensive environmental program aimed at serving the environment in every possible way was also reaffirmed by Prime Minister Barzani.

Since taking office in July 2019, roads and infrastructural projects have been a central focus for Prime Minister Barzani. On the fourth anniversary of the Ninth Cabinet, statistics showed that the largest number of projects fulfilled within the past four years across all sectors were those related to road construction or renovation, with 1,015 road projects carried out during this period. The second largest number of projects was carried out in the water management sector, with 615, and the third largest was in the energy sector, with 473. ●



From Farm to Fork



*Peshraw Mahdi
is a freelance journalist and photographer.*



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Spanning over 10 hectares of lush agricultural terrain, Kurdistan Farm is a sprawling testament to the potential of sustainable farming practices

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Kurdistan Farm, tucked away in the lush surroundings of Halabja, is an icon to the perseverance of Kurdish farming. Established more than a decade ago by forward-thinking farmer Hamid Ismail, this artistic agritourism endeavor has redefined the relationship between farmers, customers, and the land itself, while also transforming barren fields into a flourishing oasis.

Spanning over 10 hectares of lush agricultural terrain, Kurdistan Farm is a sprawling testament to the potential of sustainable farming practices. Here, amid vibrant fields and orchards, Ismail cultivates over 105 different agricultural products.

At the heart of Kurdistan Farm lies its bustling weekly market, a vibrant tapestry of sights, sounds, and flavors. Here, visitors can sample the region's finest produce,

hand-picked and freshly harvested from the farm's abundant fields. From the colorful hues of the rainbow wheat to the fragrant aromas of freshly brewed tea, the market offers a sensory feast for all who visit. Moreover, visitors can indulge in grilled fish caught from the farm's own ponds, sip on fresh juice, and relax in cozy tea houses and cafes.

But Kurdistan Farm is more than just a marketplace; it is a living, breathing ecosystem of innovation and community spirit. Through novel farming techniques and a deep respect for the land, Ismail has transformed what was once considered barren and unproductive terrain into a bounty of agricultural abundance. From the verdant vineyards to the sprawling olive groves, every corner of the farm tells a story of perseverance and renewal.



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Kurdistan Farm has become a favorite destination for tourists seeking to capture the beauty of rural life

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The transformational potential of agriculture

Central to the ethos of Kurdistan Farm is its commitment to sustainability and community empowerment. In addition to providing a platform for local farmers to sell their goods, Ismail has created jobs for over thirty people on the farm, offering employment opportunities and economic stability to the surrounding community. Moreover, the farm serves as a learning center for sustainable agriculture practices, hosting workshops and training sessions to educate both farmers and consumers on the importance of environmental stewardship.

Perhaps the most remarkable aspect of Kurdistan Farm is its status as a pioneer in agritourism. Believed to be the first project of its kind in the Kurdistan Region and Iraq, it has set the standard for similar initiatives to follow, inspiring a new generation of farmers and entrepreneurs to explore the potential of agriculture as a tool for economic development and cultural preservation.

In addition to its agricultural offerings, Kurdistan Farm has become a favorite destination for tourists seeking to capture the beauty of rural life. With its picturesque scenery and charming design, the farm has become a magnet for photographers and sightseers alike, who are drawn to its rolling hills and green fields to capture the essence of Kurdish hospitality and tradition.

Visitors from all over the region flock to Kurdistan Farm to experience its unique blend of agriculture, hospitality, and community spirit. Ultimately, this is more than just a farm; it is a symbol of hope, resilience, and innovation. As the farm grows and expands, it not only bears witness to the transformational potential of agriculture but also acts as a catalyst for future generations' economic success and sustainable development in the area. ●

Photo: Peshraw Mahdi



Oak Trees in Kurdistan



Yassin Ahmed Rasbid
is a University Professor and Expert in Botany.

OAK

Oak trees are ecologically important in a variety of settings, ranging from sub-tropical rainforests to Mediterranean semi-arid drylands, coexisting with a variety of fungi, including truffles. More than 950 species of insects, including numerous types of gall wasps, as well as numerous pests, are supported by oak trees. Oak wood is also robust and durable and used extensively in building and furniture construction. Leather was historically tanned using its bark. Oak, moreover, is used to make wine barrels that age alcoholic beverages like whisky and sherry and give them a variety of flavors, colors, and scents. The cork, or stopper, of wine bottles is also typically made from the cork oak's spongy bark.

Many nations have adopted the oak tree as their national tree because they are considered a sign of power in their cultures. In many early Indo-European religions, oak trees were connected to thunder gods.

A hardwood tree or shrub, the oak belongs to the beech family and the genus *Quercus*. They have nuts known as acorns that are carried in cups and spirally arranged leaves, most of which have lobed edges. The genus, which contains about 600 species, is extensively dispersed throughout the Northern Hemisphere. Some fossilized oaks date back as far as the Middle Eocene period, almost 50 million years ago.

Description

Oaks are deciduous or evergreen hardwood trees with spirally arranged leaves that frequently have lobate margins; some have whole leaves with smooth margins or serrated leaves. Many deciduous trees do not lose their dead leaves until spring, a characteristic known as marcescence. A single oak tree is considered monoecious because it bears both tiny pistillate (or "female") flowers and staminate (or

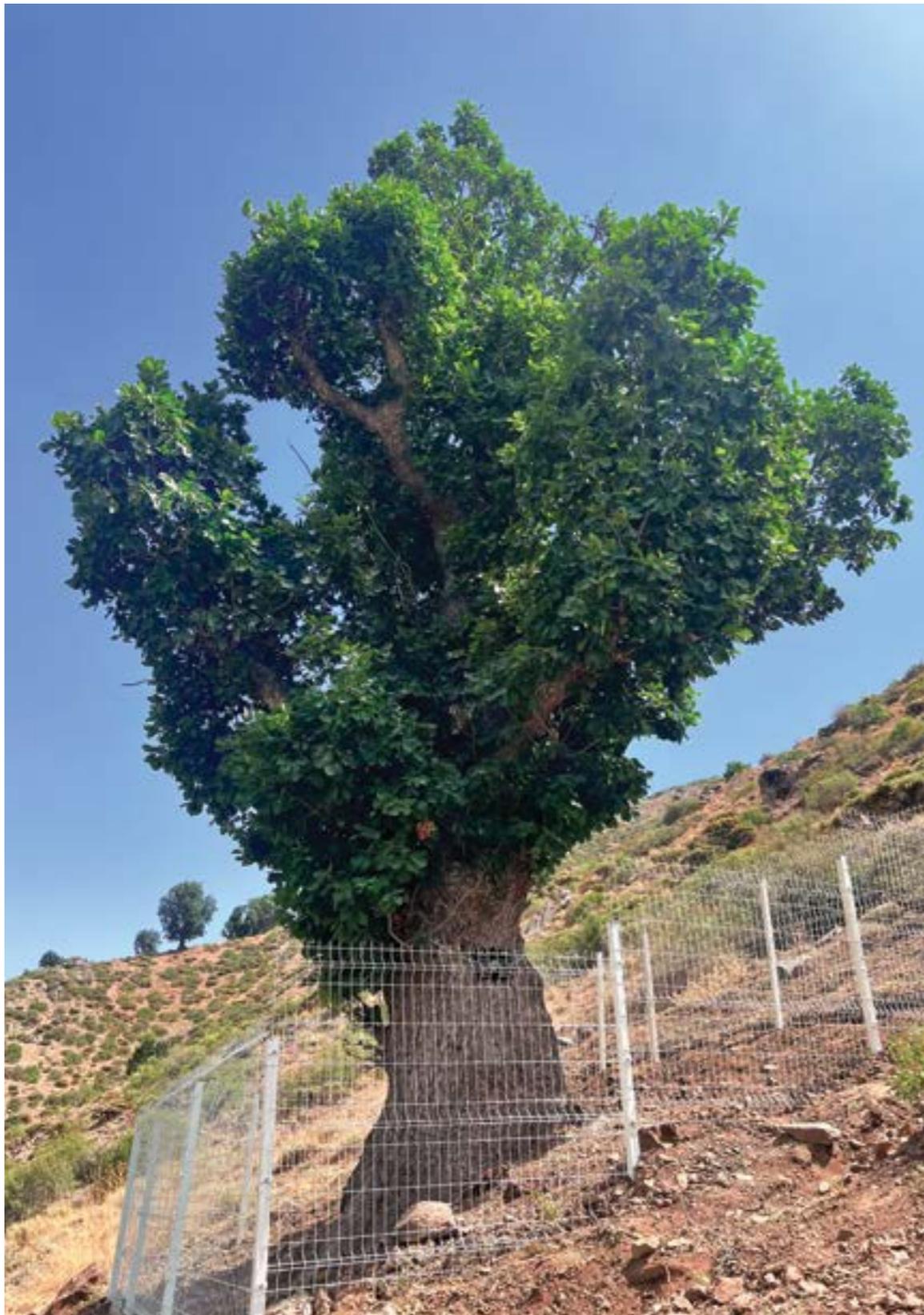


Photo: Dilband Ibrahim

An old oak tree fenced in by activists

“male”) blooms in the spring, which take the shape of catkins.

The fruit is a nut known as an acorn, which is carried in a structure like a cup called a cupule. Depending on the species, each acorn typically contains one seed and takes six to 18 months to develop. Tannic acid, which is present in acorns and leaves, serves as a defense against insects and fungi but can poison cattle.

Trees of this genus are frequently big and slow-growing; *Q. alba*, for example, can grow to be 600 years old, 4 meters in diameter, and 44 m tall. Estimated to have germinated some 1,679 years ago, the Granit oak in Bulgaria – a specimen of *Q. robur* – is the oldest oak tree in Europe. Meanwhile, the Wi’aaSal tree, a live oak found on the reservation of the Pechanga Band of Native Americans in California, is thought to be the oldest oak in the United States. It is at least 1,000 years old and possibly even 2,000 years old. In 1986, the Shaqlawa Agricultural Directorate cut down an oak tree in Hujran village that had died at an estimated age of 800 years.

Distribution in the region

Oaks are found throughout North Africa, from Morocco to Libya, and all of Europe, including European Russia, except for the far north. The range of oaks spans Türkiye, the Middle East, Iran, Afghanistan, and Pakistan. *Quercus libani*, *Q. aegilops*, and *Q. rubra* are native to Kurdistan, where



Prehistoric Indo-European tribes worshiped the oak and associated it with a thunder god, a tradition that survived in many classical cultures

they are referred to as *beru*. The species *Q. infectoria* is known as *mazi*.

Ecology

Oaks are an important tree in a variety of environments, from subtropical rainforests to Mediterranean semi-arid drylands. They are essential parts of hardwood forests; in oak heath woods, certain species thrive in conjunction with members of the Ericaceae family. Oaks also have a symbiotic relationship with several types of truffles, the most famous being the black Périgord truffle and the white Piedmont truffle, the latter of which grows in the oak woods of Kurdistan.

Uses

As a robust and durable wood, oak may be used as timber for a variety of things, including floors, building frames, veneers, and furniture. The wood is immune to fungus and insect damage. Up to the 19th century, wood from *Q. robur* and *Q. petraea* was utilized in Europe to build ships, particularly men-of-war for naval combat.

In the Old World, oak bark was commonly used to tan leather due to its high tannin content. Harvested at a specified time of year, oak galls were utilized for centuries as the primary ingredient in iron gall ink for manuscripts. Oak is also used to make culinary barrels for aging wines, sherry, and spirits like brandy and Scotch whisky. Single barrel malt whiskies are highly valued. A variety of flavors are added to wine by using wood, with oak barrels adding flavor,



perfume, and color to their contents. They can even be burned before use. Cheese, pork, and fish can all be smoked with oak wood chips.

Conservation

Around 30% of the world's oak species are thought to be in danger of extinction, while 41% are thought to be of conservation concern. As of 2020, the countries with the highest numbers of threatened oak species were China, with 36 species; Mexico, with 32 species; Vietnam, with 20 species; and the United States, with 16 species. Invasive pests and climate change in the United States as well as deforestation and urbanization in Asia, are the main threats to the trees' survival. Because of global warming, oak woods in India's Himalayan regions are being overtaken by pine forests. It is possible for related pine forest species to cross boundaries and blend in with oak woods. Notably, much of the oak woodland in the highlands of Mexico, Central America, and the United States has been lost over the last 200 years.

Religion and heritage

Prehistoric Indo-European tribes worshiped the oak and associated it with a thunder god, a tradition that survived in many classical cultures. For instance, in Greek mythology, the oak was sacred to Zeus, the king of the ancient gods. The sacred oak was also the centerpiece of the temple at Dodona, and priests would divine the pronouncements of the god by interpreting the rustling of the oak's leaves. Mortals who destroyed such trees were said to be punished by the gods since the ancient Greeks believed beings called hamadryades inhabited them. In Norse and Baltic mythology, the oak was sacred to the thunder gods Thor and Perkunas, respectively. In Celtic polytheism, the name druid, referring to a Celtic priest, is connected to the Proto-Indo-European word *deru*, meaning oak or tree. Veneration of the oak survives in the tradition of the Serbian Orthodox Church.

Several oak trees hold cultural importance, including the Royal Oak in Britain; the Charter Oak in the United States; and the Guernica oak in the Basque Country. *The Proscribed Royalist, 1651*, a famous painting by John Everett Millais, depicts a Royalist hiding in an oak tree while fleeing from Cromwell's forces. In the Roman Republic, a crown of oak leaves called the Civic Crown was given to those who had saved the life of a citizen in battle. ●





Savoring the Taste of Rashmiri Grapes



Nasih Ali Khayat
is a Kurdistan-based photojournalist.

In the picturesque mountains of the Kurdistan Region of Iraq (KRI) grows a grape unlike any other in the world, a precious gem among the vines: the Rashmiri grape. This distinctive black Kurdish grape stands apart from all others, carrying with it the spirit of a people who have worked their lands for generations, shaping their dreams into fruitful harvests. It is a story that has long awaited a global audience and a tale that promises to captivate the palates of the world.

In the heart of Sharbazher, a northern district of Sulaymaniyah Governorate, a visionary farmer named Abdulkarim Mustafa Abdullah tends to his vines. Abdulkarim,

a hardworking soul, represents the beating heart of a region where agriculture is both a way of life and an enduring tradition passed down through generations.

He shares his dream with a twinkle in his eye, “Once in the fruit market in Sulaymaniyah, I challenged anyone to bring me a grape as beautiful and fine as mine, and I would give him \$10,000. One of my dreams is to deliver my products to world markets, which will benefit not only me but also our country.”

“
One of my dreams
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”

His dream resonates with the Kurdistan Regional Government (KRG), which has been tirelessly working to find international markets for its agricultural treasures. In 2022, the pomegranate products of Halabja and Zakho were exported to the UAE for the first time. In 2023, Kurdistan’s renowned potatoes found their way to the UAE and other Gulf countries, delighting international food brands with their exceptional quality.

Environmental challenges

Abdulkarim’s journey is not one paved by modern machinery or technological shortcuts. It is a story of persistence, manual labor, and a profound connection to the land. “Every year in the spring, we cut our vines, harvest, and hire workers. My vineyard is 30 acres, so it needs more people. After that, we clean our fields and plow them. Since our area is mountainous, we still use animals to plow. Most of our work is manual, in

Photo: Nasih Ali Khayat

other words. We use less equipment because of the location of our fields.”

The journey of Rashmiri grapes from bud to fruition is a seasonal spectacle. Abdulkarim explains, “Our crops ripen in the summer and in early August. Then we start harvesting and selling our crops. The grapes grown in the high mountains ripen in early September. However, there are some special grape varieties that ripen later. The black grapes, which are very famous and very good, ripen in October.”

Climate change has posed challenges in the KRI, as it has worldwide, impacting the region’s weather patterns and harvest cycles. “Production has decreased over the past two years due to late cold and early rains,” the Kurdish farmer explained.

“Despite the problem of irregular seasons, we produced 40 tons of grapes last year. We sold 25 tons to private markets and shops. We will store the other 15 tons after turning them into raisins and other consumable products,” he states.

Untapped potential

The vineyards are located in mountains where the highest annual temperature reaches 35°C. With proper support and investment, Abdulkarim believes that production can be increased significantly. “When I started in 1997, it was a small vineyard. Every year, it grows, and the vines become more productive, so in the coming years, we will improve our production.”

Local markets are already enchanted by the exquisite taste and freshness of Rashmiri grapes. Abdulkarim affirms, “We sell our products locally because they are very special and we produce them well, and because they reach markets quickly and freshly, so we have a special market and customers.”

Recently, KRG Minister of Agriculture and Water Resources, Begard Talabani, recognized Abdulkarim as an “exemplary farmer” and pledged to support his aspirations.

What sets Rashmiri grapes apart is the unique climate and soil in the KRI. “Because of the climate and the fertility of the soil, the varieties of grapes are very good,” Abdulkarim proudly states. “For example, Rashmiri grapes are different from the grapes of other countries in terms of taste and composition. Rashmiri grapes are famous in the Sharbazher area, and we can say that this type of grape is only available in Kurdistan, and its identity is Kurdish.”

The potential of Rashmiri grapes is immense, yet untapped. If these exceptional grapes were to find their way to international markets, their reputation would undoubtedly soar. Abdulkarim envisions a brighter future, saying, “If this road is opened, we will be able to export at least one ton of such grapes daily from our village alone.”

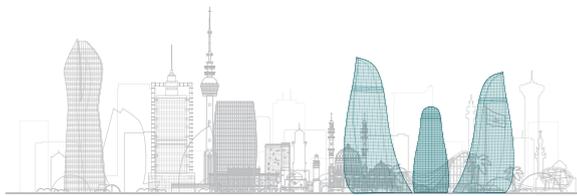
But he has an even bigger dream – a juice factory. “Come and take advantage of this product and set up a private factory for it,” Abdulkarim passionately appeals to foreign investors. With a factory, grape production could surge to new heights.

Kurdistan’s Rashmiri grapes stand out for their exceptional taste and are a testament to the region’s agricultural prowess. With distinctive flavors nurtured by the area’s unique climate and soil, they have the potential to become a global sensation when given the support and recognition they deserve. The future of Rashmiri grapes will be interesting to follow, with real promise to captivate the palates of people from every corner of the world. ●



Photo: Nasib Ali Xaqat

■ A dedicated Kurdish farmer diligently tending to his vineyard



Commitment to a Cleaner Environment

Kurdistan Chronicle

Iraq is facing a severe climate crisis, making it one of the most vulnerable countries to the effects of climate change. The crisis is characterized by water and food insecurity due to reduced precipitation, higher temperatures, and mismanagement. Upstream dams in Türkiye and Iran have significantly reduced the flow of water into the country, exacerbating the problem.

Iraq is classified by the UN as the fifth most vulnerable country to climate change, with temperatures increasing

two to seven times faster than the global average. In 2020 and 2021, the country experienced the driest rainy seasons in 40 years, leading to a 29% and 73% decrease in the flow of the Tigris and Euphrates Rivers, respectively.

Desertification is on the rise due to the climate crisis, unregulated land and water use, and reduced river flows caused by upstream dams. Sandstorms have become a prevalent issue, affecting public health, and there is a growing need to plant more trees and transition to renewable energy to

KURDISTAN REGION AGRICULTURAL LAND

Province	Arable Land Area / Dunam		Orchard Area / Dunam		Forest Area / Dunam	
	Rainfed	Irrigated	Rainfed	Irrigated	Artificial	Natural
Erbil	2,322,580	214,568	24,250	23,728	8,988	543,032
Slemani	930,800	832,876	53,159	89,728	15,980	570,496
Halabja					1,905	36,512
Duhok	1,019,568	119,896	32,723	25,370	8,068	1,221,037
Garmiyan	1,200,604	146,372	11,465	1,141	531	136,444
Total	5,473,552	1,313,712	121,597	140,327	35,472	2,507,521

combat these extreme weather events.

The Kurdistan Region of Iraq (KRI) recognizes climate change as a top priority. In 2022, the Kurdistan Regional Government (KRG) announced several green investment

ervation and protection of our environment. In the past two years we have launched some bold initiatives. We have pivoted from diesel to clean gas. We have revised waste collection practices and introduced new waste treatment plants,” said KRG Prime Minister Masrour Barzani at the Green Investment Conference in 2022.

Prime Minister Barzani emphasized that his government is ready to work with local and international partners to create a more sustainable future for the region, and leave a cleaner and safer world for the younger generations.

Turning waste gas into electricity

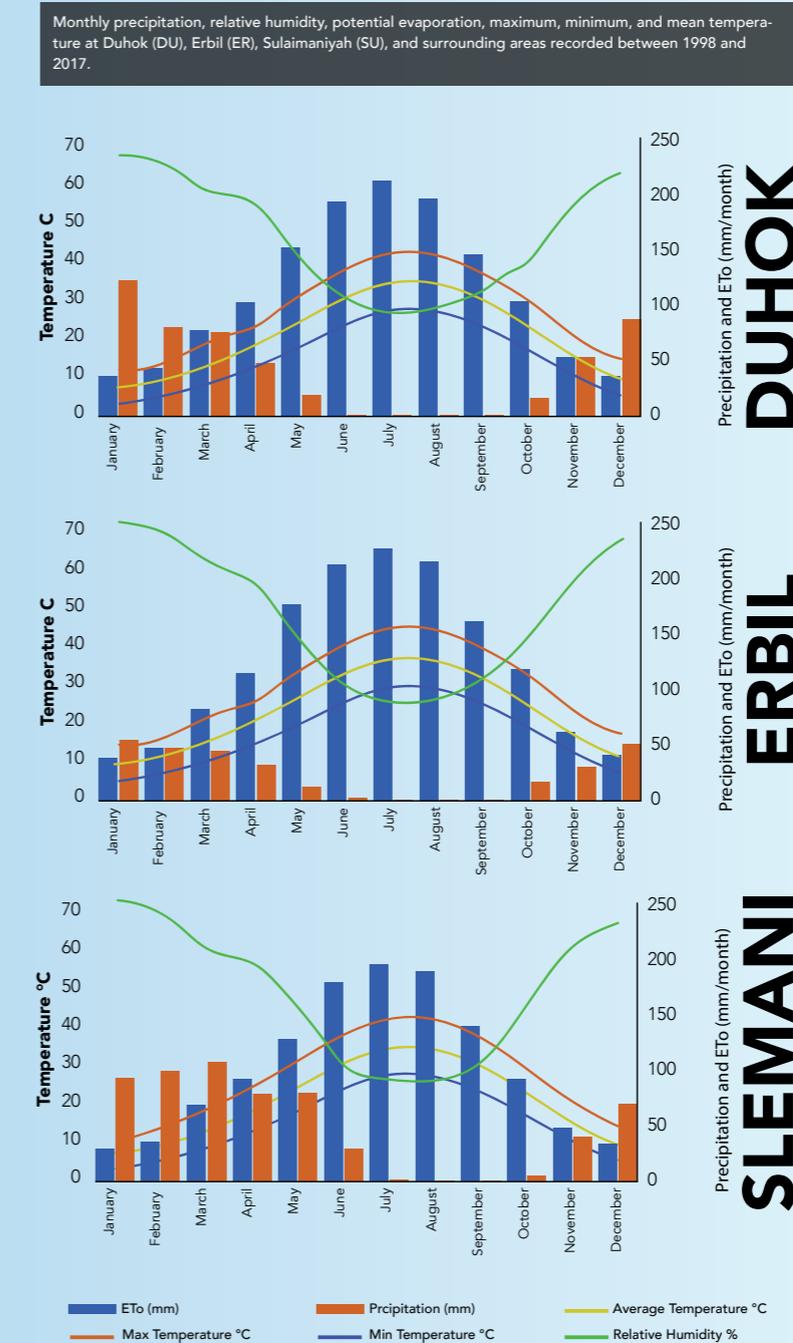
The Ninth Cabinet of the KRG has taken a commendable step towards reducing the environmental impact of waste gas by harnessing it to generate electricity from oil wells. A stand-out achievement is the Garmian waste-gas-to-power-plant, a 165-megawatt facility that effectively recovers flare gas from the Hasira oil wells to generate electricity. This transformative project, completed in 2021, has also provided job opportunities for 118 local residents.

Spanning 35,000 square meters of land, the power plant comprises 180 generators and 45 converters. Each generator has a capacity of 0.9 MW, resulting in a daily estimated production of 100 MW. Efforts are underway to further increase this output.

By implementing eco-friendly policies, the Ninth Cabinet has demonstrated its unwavering commitment to curbing the detrimental effects of waste gas on the environment. Beyond the environmental benefits, this project ensures an improved

supply of electricity for the residents of Garmian.

When it comes to natural gas flaring, Russia stands as the world’s largest culprit, burning off 24.9 billion cubic me-



initiatives under the banner “Safe Environment – Sustainable Development.”

“My government has no higher priority than the pres-

ters per year as of 2020 according to World Bank data, with Iraq following closely behind with 17.4 billion cubic meters. However, analysis reveals that Iraq's population, on average, lives much closer to flaring sites than Russia's.

The World Bank's October 2018 Global Gas Flaring Tracker found that the number of people in Iraq living within a 1-km radius of more than 10 flaring events was 1.2 million. In Russia, only 275,000 people experienced the same level of exposure. The reason for this discrepancy lies in the geographical placement of these flaring sites. Russia's oil refineries are often in remote locations, spread out across arctic tundra. In Iraq and the KRI, however, major cities and towns are more commonly situated close to the flares, leaving their populations at greater risk of exposure.

Approximately 70% of Iraq's natural gas is lost to flaring, which, in many cases, involves burning off gas that could have been used during the winter if it had been stored ahead of time. The health risks associated with flaring are significant, including asthma, allergies, lung fibrosis, and stillbirths, but the communities who live near the flares are most frightened by the risk of cancer. Several chemicals released through flaring, such as benzene, are identified by the American Cancer Society as carcinogens, substances that promote the formation of cancer.

Long-term exposure to benzene can cause damage to bone marrow. Those exposed may feel increasingly weak and tired as their red blood cell count decreases. Bruising and bleeding become more common, with healing taking longer.

The Garmian power plant project is proof that structural changes are not only possible but also economically viable. The plant sustains itself by using gas it would otherwise have flared, reducing maintenance costs.

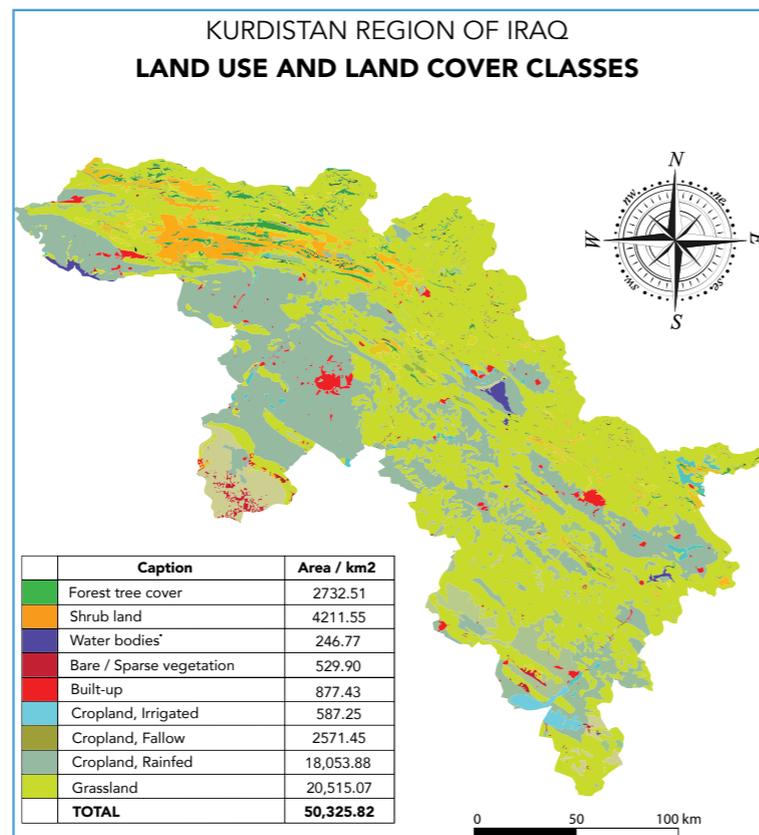
Focusing on clean energy

This year, the KRG laid the foundation for the first solar power plant in Erbil Governorate. The KRG's Ministry of Electricity said that "the power station will be the largest solar plant in the Kurdistan Region and the whole of Iraq."

The environmentally friendly power station, which is located in Minara, outskirts of Erbil city, is expected to produce 25 MW of electricity and will

There are currently two solar power plants in the KRI and the government has decided to build an additional power station in Soran Independent Administration with a budget of 235 billion Iraqi dinars and a capacity of 100 MW.

The KRG's efforts to increase the use of solar power could boost awareness of green technology and renewable energy in general, as well as agricultural technology.



be connected to the national energy network.

The KRG plans to increase the amount of electricity coming from solar energy by constructing other similar projects.

Built on 590 dunam (21.6 acre) of land, the project is expected to be completed in one year at an estimated cost of \$100 million.

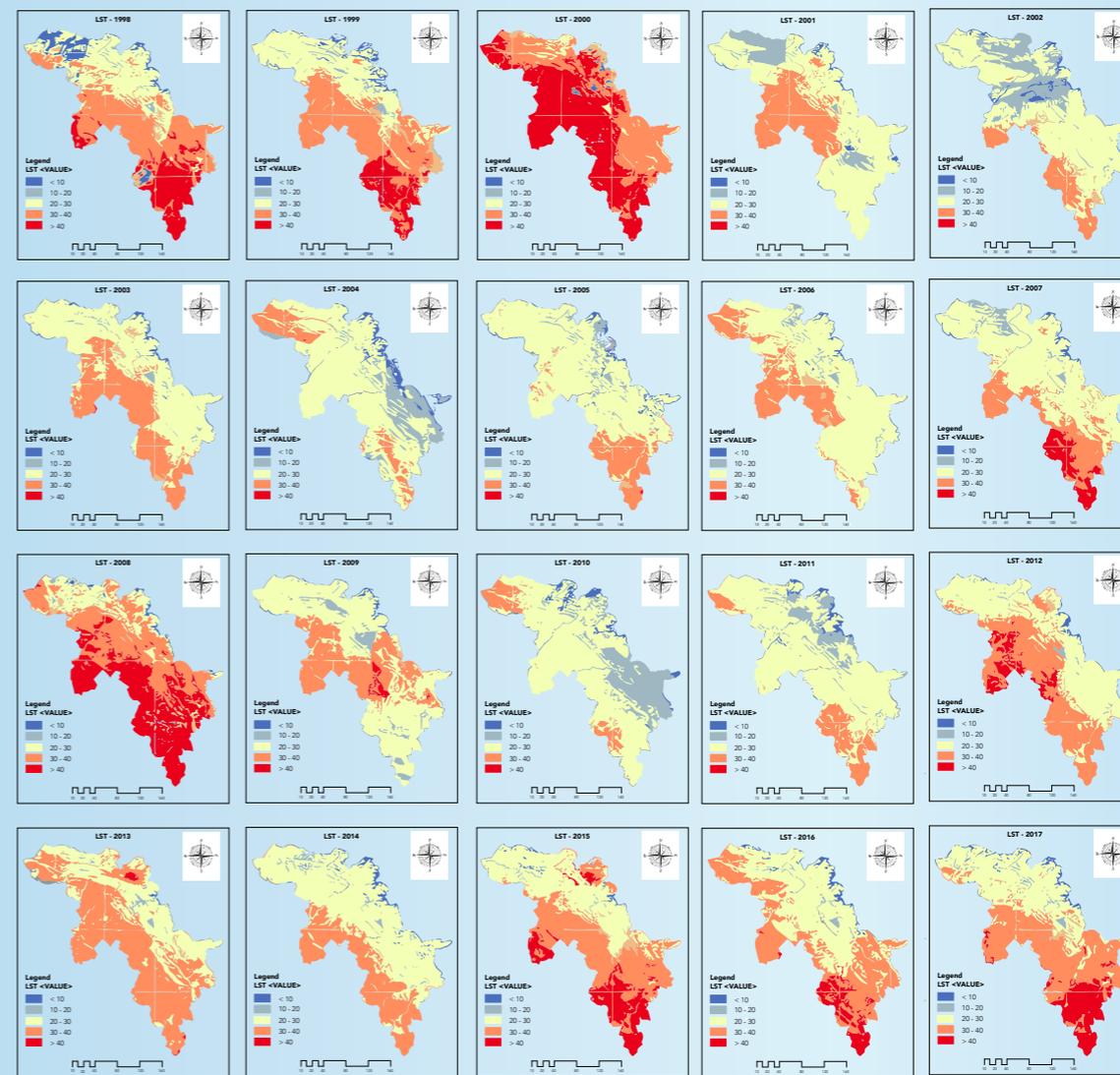
Recycling

In October of this year, the KRG inaugurated the country's first asphalt recycling plant in Erbil. It has a capacity of 160 tons per hour and can mix up to 30% discarded asphalt.

"From today, excavated asphalt across Erbil province will be recycled, protecting the environment and reducing

KURDISTAN REGION OF IRAQ

Drought Severity Categories based on LST Index in Years 1998-2017



emissions," announced Prime Minister Barzani.

In an interview with the Department of Media and Information, the Director of Road Maintenance in Erbil Emad Mohammad Amin highlighted that "the project involves pulverizing asphalt by grinding down the existing road surfaces, allowing us to reuse it for new road construction. It is environmentally friendly, emitting no dust, smoke, or CO2 gas." He added that "this pioneering initiative has the capability to produce 2,000

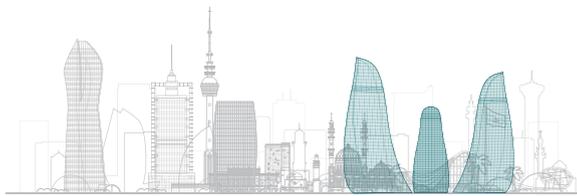
tons of tar daily. In its initial phase, we will use the recycled asphalt in the construction of the Erbil-Qushtapa road."

Henceforth, asphalt and other existing road materials will be milled and transported to the Erbil factory for recycling, contributing to both environmental preservation and reduced asphalt production costs.

Rawezh Rasoul, an engineer at the factory, emphasized that "this project is not only eco-friendly but also

cost-effective, consuming less fuel than the traditional method. Additionally, it boasts a remarkable hourly production capacity of 200 tons of tar."

The KRG is firmly dedicated to further developing the industrial sector, establishing modern factories that are both productive and environmentally sustainable, thus safeguarding the region's environment and economic prosperity. ●



A Looming Crisis



Sherko Sharif
P.Eng. advisor to KRG Prime Minister on water issues.



Photo: Pesbram Mahdi



Photo: Pesbram Mahdi

There's an old joke about a man sitting on a tree branch, busily sawing away at it without realizing that once the branch breaks, he will fall. In many ways, this joke represents the dangerous relationship that humans have with their environment, unaware that by destroying natural resources, they are undermining their own future.

Nowhere is this more evident than in Iraq, where climate change and water scarcity present existential threats that could destabilize the region and upend the lives of millions. This issue is particularly concerning for the Kurdistan Region of Iraq, where water resources are already strained, and worsening conditions could reshape the demographic landscape in profound and unpredictable ways.

Water crisis in Iraq: a nation on the brink

Iraq's water crisis has deep roots, exacerbated by a combination of mismanagement, regional politics, and the worsening impacts of climate change. With two major rivers, the Tigris and Euphrates, Iraq has historically been a land of rich water resources. But decades of conflict, poor water governance, upstream dam construction in neighboring countries like Türkiye and Iran, and a rapidly changing climate have severely diminished its water supplies.

Today, Iraq is facing acute water shortages. The middle and southern regions of the country are particularly vulnerable, where rising temperatures and diminishing rainfall have reduced river flows. Agriculture, which is heavily dependent on these water sources, is collapsing, leading to economic hardships for millions of Iraqis. As the rivers shrink and pollution increases, the specter of drought looms large, threatening not just food security, but the very livability of entire regions.

The Kurdistan Region: a place of relative abundance – for now

Compared to the rest of Iraq, the Kurdistan Region has fared better in terms of water availability, but this advantage is rapidly eroding. Historically, it has been blessed with more rainfall and access to mountain-fed rivers, allowing for a more stable water supply. However, as climate patterns shift, the region too is grappling with water scarcity.

The Kurdish population relies heavily on groundwater for drinking, agriculture, and industry, which has led to significant depletion of this critical resource. Groundwater levels in many parts of the Kurdistan Region have fallen dramatically, making it more expensive and difficult to access.

While the Kurdistan Regional Government (KRG) has recognized the need for better water management and has taken steps to address the issue, such as building ponds and dams to harness surface water, there remains much work to be done. The current government has certainly paid more attention to water management than its predecessors, but without decisive action, the situation could become dire.

The hidden dangers of groundwater depletion

The over-reliance on groundwater is one of the most pressing concerns for the Kurdistan Region. With rainfall becoming more unpredictable due to climate change, many farmers and communities have turned to wells to sustain their crops and provide drinking water. However, groundwater is a finite resource, and once depleted, can take generations to replenish, if at all.

This pattern of over-extraction is unsustainable and threatens the long-term viability of agriculture and human habitation in the region. Moreover, the depletion of groundwater can lead to land subsidence, where the ground physically sinks, damaging infrastructure and making future agricultural activities even more difficult. If the region continues to rely so heavily on groundwater without shifting to sustainable surface water management, it risks long-term ecological and economic collapse.

Internal migration: a looming demographic shift

One of the most troubling aspects of Iraq's water crisis is the potential for large-scale internal migration. As water becomes scarcer in the middle and southern regions of Iraq, millions of people may be forced to relocate in search of more habitable conditions. The Kurdistan Region, with its relatively better water situation, could become a major destination for these migrants.

While the region has historically been a haven for those fleeing violence and persecution, a large influx of people from other parts of Iraq due to water scarcity could strain its already limited resources. This kind of demographic shift could significantly alter the region's ethnic and cultural balance, potentially leading to tensions and instability. Moreover, the local infrastructure, already stretched by years of conflict and underdevelopment, would struggle to cope with the sudden increase in population.

The KRG must prepare for this scenario by implementing policies that both protect its water resources and ensure that any future population movements are managed in a way that minimizes social and economic disruption.

A path forward: sustainable water management

The Kurdistan Region, like much of Iraq, stands at a critical juncture. While the KRG has made efforts to address the water crisis, more aggressive and innovative solutions are needed. One promising approach is the construction of more ponds and dams to capture surface water. This strategy would help reduce reliance on groundwater and ensure that the region can store water during the increasingly erratic rainy seasons.

Additionally, modernizing irrigation techniques in agriculture would go a long way in reducing water consumption. Currently, many farmers use inefficient methods that waste vast amounts of water. By introducing drip irrigation or other water-saving technologies, the Kurdistan Region could significantly reduce its overall water use, making its agricultural sector more sustainable.

Public awareness campaigns are also crucial. Many people in the region, like elsewhere, are unaware of the severity of the water crisis and the role they play in exacerbating it. Education programs could help individuals and communities adopt more water-conscious habits, ensuring that everyone plays a part in conserving this vital resource.

Finally, the KRG must engage in diplomatic efforts with neighboring countries to secure fair water-sharing agreements. The Tigris and Euphrates Rivers are transboundary waters, and unilateral actions by upstream nations can have devastating effects downstream. Iraq, including the Kurdistan Region, must advocate for cooperative water management strategies that ensure all countries in the region have equitable access to these shared resources.

Conclusion: the branch we are sitting on

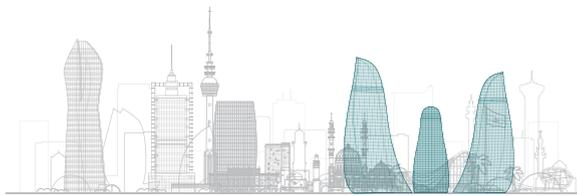
The climate crisis and water scarcity are not future problems – they are happening now, and their effects are being felt across Iraq. The Kurdistan Region, though in a better position than some parts of the country, is not immune to these challenges. Without urgent action, the depletion of water resources could lead to economic hardship, internal migration, and even conflict over dwindling supplies.

Like the man sawing away at the branch, we risk bringing ourselves to the brink unless we recognize the danger and act swiftly to change course. The Kurdistan Regional Government, with the support of its people and international partners, must take bold steps to secure a sustainable future for its water resources. Only by doing so can we ensure that the Kurdistan Region remains a place of refuge and prosperity, even in the face of a changing climate. ●

“ While the KRG has made efforts to address the water crisis, more aggressive and innovative solutions are needed ”

A view of the dry river bed of Sirwan River resulting from lower levels of rainfall and upstream dam constructions in neighboring Iran

Photo: Peshram Mahdi



Halabja's Booming Olive Industry



Omar Aziz
is a journalist and videographer from Halabja.

The aroma of freshly pressed olive oil is wafting across the Kurdistan Region, a sign of a burgeoning industry taking root. This article explores the rise of olive cultivation in the region, delving into the experiences of Kurdish farmers who are embracing this new crop, the operations of a leading olive oil factory striving for quality and growth, and the potential of olive production as a valuable export.

Kurdish farmers embrace olive cultivation

Abdullah Sadiq, a 60-year-old farmer from the district of Sharazoor, is an active driver of the growing popularity of olive cultivation in the Kurdistan Region. He has grown olives for two decades, having planted 60 olive trees around his house specifically for oil production. According to Abdullah, olives have a long history in the region, but recent years have seen a renewed interest in their cultivation due to several factors. Unlike other crops, olive trees require minimal care, can withstand harsh weather conditions, and are exempt from import duties.

Sadiq finds olive trees to be not only low maintenance, but also resilient. He proudly shares that his olive trees yield around 500 kilograms of olives annually, with the olive harvest season in Kurdistan stretching from October 15 to

January 15 each year. Farmers cultivate two distinct types of olives: one variety specifically suited for oil production and another for eating.

Zahir Ali, a 62-year-old farmer from Sulaymaniyah, exemplifies the region's shifting agricultural landscape. Traditionally, Ali focused on cultivating pomegranates and figs. However, recognizing the potential of olives, he has recently established an olive nursery, a clear indication of the growing interest in olive cultivation among Kurdish farmers.

Climate change and the appeal of olives

Olive trees, known for their longevity, were historically abundant in Western Kurdistan (northern Syria). Due to climate change, some farmers in the Kurdistan Region of Iraq have begun planting olive trees, recognizing their potential.

Burhan Ahmad, a farmer from Kirkuk, highlights the multifaceted value of olives and olive oil, emphasizing not only the culinary benefits but also the medicinal properties of these products.

Ahmad is particularly enthusiastic about the future of ol



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The facility achieves a remarkable daily output of 120 tons

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Photos: Omar Aziz

cultivation in Kurdistan. He recently planted 70 olive trees and has witnessed a steady increase in their yields year after year. He believes that Kurdish farmers should embrace olive cultivation for export, considering the region's untouched natural environment and the minimal use of pesticides in the growing process, which translates to high-quality olive oil.

From harvest to production

After harvesting their olives, Kurdish farmers use some for personal consumption and the rest for oil production at facilities like the Rasan olive oil factory. Established in 2018 by the Halabja Group, Rasan aims to contribute to the local economy by producing Kurdish olive oil. During the olive season, farmers from various cities across the Kurdistan Region deliver their harvest to the factory. While 60% of the olives processed by Rasan are sourced locally, the remaining 40% are imported from neighboring countries like Syria, Iran, and Türkiye.

At 34 years old, Payam Saywan, the director of the Rasan factory, asserts its status as Iraq's foremost olive oil producer in terms of volume. The facility achieves a remarkable daily output of 120 tons and possesses an annual capacity reaching 150,000 liters. Emphasizing quality, Rasan prioritizes stringent quality control measures, subjecting each batch of olive oil to thorough testing for indicators such as peroxide value, pyrroline, and oxidation prior to market distribution.

Rasan's olive oil is distributed throughout Iraq and the Kurdistan Region, and the factory has recently made inroads into the international market, exporting their products to Germany and the UK. Negotiations are underway to begin exporting to Norway as well.

Accordingly, the factory has witnessed a substantial increase in sales, from 27,000 liters in the first year to a projected 150,000 liters this year, indicating high customer satisfaction with the quality of their olive oil.

Growth and sustainability

So far, Rasan has successfully exported 10 tons of olive oil abroad, and the Kurdistan Regional Government (KRG) has played a crucial role in facilitating these exports and

promoting the product internationally. The factory directly employs 25 individuals and indirectly benefits an additional 100 people, contributing to the region's economic development.

While olive production among Kurdish farmers has increased significantly, it still falls short of meeting the factory's demand. To address this gap, Rasan has established a modern olive tree nursery, focusing on two specific olive tree varieties carefully selected for their high yield and suitability to the region's climate. By marketing these high-quality trees, Rasan believes that it can eliminate the need for olive imports, creating a self-sustaining olive production cycle within the Kurdistan Region.

Kurdish farmers are not blind to the ease of olive cultivation and its potential as an export crop, similar to other agricultural products grown in the region. They acknowledge that the region's climate is remarkably conducive for olive growth, comparable to neighboring Syria, which has a long history of olive production.

At the same time, farmers like Abdullah Sadiq believe that widespread adoption of olive cultivation can not only diversify their income, but also establish the Kurdistan Region as a prominent exporter of high-quality olive oil, leveraging the region's untouched natural environment and minimal use of chemicals.

Challenges and the road ahead

Despite the promising outlook, the burgeoning olive industry in Kurdistan faces challenges. Meeting the increasing demand for olives from factories like Rasan remains a key hurdle. Additionally, ensuring the long-term sustainability of olive groves requires careful management practices to prevent soil erosion and promote biodiversity.

However, Kurdish farmers and the Rasan olive oil factory, along with the support of the KRG, are demonstrating a deep commitment to overcoming these challenges. Through collaborative efforts, they are fostering a thriving olive industry that has the potential to become a valuable source of income for Kurdish farmers and establish the Kurdistan Region as a significant player in the global olive oil market. ●



Pioneering Hydroponics in Erbil



*Basil Al-Khatib
is an Iraqi journalist based in the Kurdistan Region.*

Who among us does not dream? It is part of being human, yet few achieve their dreams. Among these few is a young engineer leading a team of specialists with high-level scientific and academic qualifications to implement a pioneering agricultural project that addresses multiple challenges at the same time, including water scarcity, food security, and increased variety of agricultural production.

A group of Kurdish youth, led by information technology expert Dara Govand Sherwani, has successfully applied hydroponics technology at Cihan University - Erbil to produce a variety of high-value vegetables – from French and Dutch lettuce to Italian basil – that were previously imported as they could not be grown locally. Moreover, with

the support of local and international organizations, local demand for these vegetables can now be met.

A three-year dream

Sherwani explained that it all began in 2021, when the UN Development Program (UNDP) commissioned Skills House, a consulting company that he manages, to prepare a study on the feasibility of implementing a hydroponics program in Nineveh Governorate. “The outcomes of the study, prepared by specialists in agriculture, business, and marketing, were very promising. We then proposed to the UNDP the idea of implementing a hydroponics project in Erbil as a precursor to similar projects in other parts of the Kurdistan Region and Iraq,” he said.



Photo: Safin Hamid



Photos: Safin Hamid

Sherwani further noted that, while the UNDP welcomed their proposal to produce plants that cannot be grown locally through traditional agriculture due to weather and climatic factors, they did not support the financing of the project. “This prompted us to seek financial support from Safe Home, which enabled us to initiate the project,” he recounted.

Additionally, the team secured a contract with Cihan University to use a suitable plot of land of 520 square meters within the university’s Erbil complex for a period of five years. There, they established a pioneering hydroponics greenhouse for training purposes, the products of which would be used to generate profit for the im

“**Hydroponics constitutes an appropriate solution to the problem of water scarcity in Iraq, as it utilizes about 20% less water than traditional irrigation methods**”

plementing agencies. Sherwani mentioned that the project was also presented to the U.S. Agency for International Development, which not only welcomed it – in line with the agen

Wcy’s support for the Iraqi agricultural sector – but also gifted the team a solar energy system.

“The team includes specialists in the fields of communications, electronics, and marketing, as well as agricultural experts,” Sherwani explained. “We began implementing the project in March 2023, and actual production began at the beginning of 2024,” he said.

Sherwani stated that the greenhouse “produces 7,200 seedlings per month, at a rate of 15 seedlings per meter, which is a much higher yield than what can be obtained with traditional agriculture. The project’s clients are fast food restaurants and a group of commercial markets in Erbil. In addition, we receive many requests from other governorates, especially Baghdad, that we cannot meet because of the project’s current limitations.”

“The team is planning to expand the project to be able to meet the increasing demand for its products from various parts of Iraq,” he added. “We are also planning to develop a software system to control and manage the greenhouse remotely.”

Why hydroponics?

Hydroponics is a modern and sustainable method of agriculture in which plants do not grow in soil, but rather directly in water enriched with nutritious mineral components. This type of agriculture offers many benefits over traditional agricultural methods, helping to increase production, conserve water, and protect the environment.

With this technique, more seeds can be planted and grown faster in water compared to soil. Hydroponic plants also have fewer problems with fungi, insects, and diseases, making them

generally healthier than conventionally grown plants. Additionally, there

is a decrease in the amount of heavy metals or pesticides that accumulate in the tissue of the plants.

“Hydroponics constitutes an appropriate solution to the problem of water scarcity in Iraq, as it utilizes about 20% less water than traditional irrigation methods,” Sherwani emphasized. “Moreover, it provides continuous, high-quality production throughout the year, the period from planting to harvest is half of what plants need in traditional agriculture, and it does not require pesticides.”

Concerning the ambitions of the team after its success in hydroponics, Sherwani indicated that they are “currently planning to meet the increasing demand for our products and the possibility of growing other plants.”

“We are also planning to implement another project in aquaponics technology, which combines hydroponics and fish farming by taking advantage of the same hydrological cycle. Water cycles from the fish tank to the farm, and after the plants filter and purify it, the water is returned to the fish tank. This allows for the breeding of new

species that are not available in Iraqi waters, such as salmon, catfish, and others,” he noted.

About Skills House

Dara Govand Sherwani holds a Bachelor of Science in Software Engineering from Salahaddin University in 2008, a Master of Business Administration from the Lebanese French University in 2010, a second Master of Science in E-Business from the University of Huddersfield in 2011, and a PhD in Human-Computer Interaction from City University of London in 2016. He has worked as a project lead and user research consultant on various projects involving the development and evaluation of software systems, such as hospital information management, supply chain management, eLearning systems, and online communities for residential clients. He currently holds the position of Chair of the Computer Science and Information Technology department at the American University of Dohuk.

The project team is composed of agricultural expert Dr. Deidar Khoshnaw, communications engineer Muhammad Khaled, and financial and banking expert Abdul Aziz Tahseen. ●



Plant Propagation Lab to Combat Climate Change



*Huda al-Jassim
is an Iraqi journalist.*

Laylan Hussein Fadl al-Din al-Naqshbandi's goal is to provide solutions to agricultural challenges resulting from climate change, focusing on economically valuable plants such as paulownia and palm trees.

She dreams of building a better world for humanity with what is known as the "tree of the future." A pioneer in agricultural science and technology, she is paving a path to combat climate change through innovative solutions.

Al-Naqshbandi's PhD in plant tissue culture, obtained in 2019, was not the end of her academic journey; rather, it was the beginning of a mission to serve both the environment and humanity. Through her mastery of the latest

plant propagation techniques, al-Naqshbandi has attracted the attention of universities and investors worldwide, becoming one of Iraq's few innovators in this vital field.

Born in Mosul in 1981 into a Kurdish family from the Naqshbandi clan, she drew early inspiration from her father, a retired brigadier general in the Iraqi army and former *peshmerga* fighter. After their village was destroyed in 1983, the family relocated to Dohuk, where al-Naqshbandi completed her education. She later enrolled at the University of Dohuk, majoring in forestry and graduating with honors in 2004.

Despite marrying at 21 and raising two children while



■ Laylan Hussein working in her lab



■ Laylan Hussein working in her lab

pursuing her degree, al-Naqshbandi had ambitions that extended far beyond the boundaries of family life. Appointed as a teaching assistant at the University of Dohuk, she went on to obtain a master's degree in plant tissue culture in 2008, a field recognized as one of the world's most advanced plant propagation techniques. By 2019, she had earned her PhD, solidified her academic standing and secured a teaching position in the university's Department of Forestry. Her expertise also made her a sought-after advisor for researchers in countries such as Argentina, Brazil, Indonesia, Iran, Italy, Malaysia, Spain, and Türkiye.

“
I collaborated with a Dutch company and a local potato company, developing protocols for growing 10 potato varieties and producing microtubers
”

“I inherited my love of hard work and persistence from my father,” says al-Naqshbandi. “Living in Dohuk, a city known for the generosity and solidarity of its people, motivated me to keep striving for excellence.”

The power of trees

Since 2009, al-Naqshbandi has focused on the propagation of economically and environmentally valuable plants such as the paulownia tree, often called the “tree of the future” for its ability to grow quickly in poor soils. Her ground-breaking efforts led to the development of an economic protocol for propagating a specific paulownia variety, making her a leader in this field. She also achieved significant success in the propagation of oak – a notoriously difficult plant to cultivate using tissue culture – by applying three different tech-

niques. Her research extended to include red maple, sweet potatoes, and 10 varieties of potatoes.

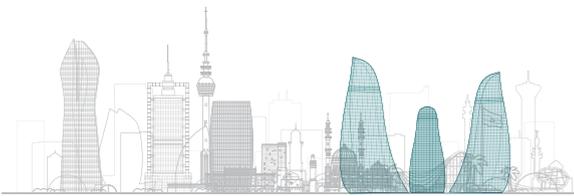
“After earning my PhD, I felt it was important to channel my academic knowledge into practical applications,” al-Naqshbandi explains. “I collaborated with a Dutch company and a local potato company, developing protocols for growing 10 potato varieties and producing microtubers. For the first time in Iraq's history, we registered two new varieties with Kurdish names – a moment of great pride.”

However, al-Naqshbandi soon realized that working with investors who were unfamiliar with agriculture was limiting her potential. Determined to bring her vision to life, she decided to establish her own project. She purchased land, secured licenses, and built a laboratory that became the heart of a pioneering research, training, and production facility. Aiming to address the agricultural challenges of climate change, her project focuses on economically significant plants such as paulownia and palm trees.

Her initiative quickly attracted interest from investors who approached her to propagate palm trees for Iraq's central and southern regions. “Unfortunately, many of Iraq's best date varieties are imported from foreign laboratories, which is a source of shame for us as farmers,” she says. “That's why I'm concentrating my efforts on strengthening the local market, from the north to the south.”

Al-Naqshbandi is preparing to launch a national-scale project in early 2025 aimed at transforming Iraq's agricultural sector, an initiative that will create job opportunities for hundreds of agricultural graduates and help the sector reach the same levels of technical capacity as more advanced nations.

“We hope that our efforts will receive support from both the Kurdistan Regional Government and the Iraqi federal government,” she concludes. “With their backing, we can achieve the ambitious goals we have set for advancing Iraq's agricultural sector.” ●



Pishdar

Kurdistan's Mightiest Dog Breed

Kurdistan Chronicle



A man imparts valuable instructions to a Pishdar dog, demonstrating the bond between man and beast

Photo: Safin Hamid

Iraqi Kurds hold a deep sense of pride in the Pishdar dog or Kurdish Mastiff, a remarkable breed that traces its roots to the rugged terrain of the Pishdar district near the Iranian border. Bearing a resemblance to the English Mastiff and the Turkish

Kangal, the Pishdar is celebrated for its sheer size, extraordinary strength, and unmatched courage. Males of this breed can tower up to 90 centimeters in height and tip the scales at a staggering 80 kilograms, boasting a life expectancy of 10 to 13 years.

Pishdars are valuable animals in the Kurdistan Region of Iraq (KRI), particularly in mountainous areas, with prices for some exceeding \$10,000. They are frequently used as livestock guardians and in combat sports.





Witness a man training a Pishdar dog, a fascinating display of canine skills

Photo: Safin Hamid

Ahmed Nabi, a Kurdish shepherd, shared his story while tending to his flock of sheep within the rocky confines of the Pishdar district, two formidable Pishdars at his side. He described the immense danger posed by the local wildlife, including wolves, bears, and foxes, and how owning a Pishdar is a matter of life and death in this unforgiving landscape. “The Pishdar is very strong and fearless; it is not afraid of anything, not even a pack of wolves,” he proudly stated.

He emphasized that Pishdars work tirelessly, sleeping during the day and staying awake at night, solely dedicating themselves to safeguarding the sheep and their shepherd. Ahmed recounted a recent encounter where his two Pishdars valiantly repelled three raiding wolves that ventured too close. “Basically, if you don’t have a Pishdar, you can’t be a shepherd here,” he explains.

However, having a Pishdar dog is not easy for a shepherd like Ahmed because they are so expensive and most shepherds cannot afford them. Moreover, their numbers are decreasing, as Iranians travel to Pishdar to buy them for dog-fighting competitions in which gambling is involved.

“We either have to get a puppy, which is less expensive, breed them ourselves, or borrow them from other people, because otherwise it is too expensive for us,” Ahmed explained.

Deep roots

Some historians refer to the Pishdar dog as the Assyrian Shepherd, tracing the breed back to the Assyrian Empire. There are, after all, Assyrian inscriptions and clay tablets that depict a type of dog that resembles the Pishdar and describe it as the best friend of humans. Some of the inscriptions depict the dog fighting a lion.

Kardost Hasan, 27, is from Ranya, which is near Pishdar district. He has had a strong attachment to Pishdar dogs since he was a child. He current-

ly has 11 dogs, the names of which include Shera Sor (Red Lion), Qoza (Handsome), Ruta (Naked), and Shina (Blue).

He describes the dogs as calm and obedient, but always on high alert for any danger and ready to charge if they sense it.

He explained that Pishdars are not suitable as pets in a home or an apartment because they need to run at least 10 kilometers every day. For this reason, he keeps all his dogs at his farm outside of Ranya and takes them every day to run and swim at Ranya Lake, which is only a few hundred meters from his farm.

“
Pishdars are valuable animals in the Kurdistan Region, particularly in mountainous areas
”

According to Kardost, the names of Pishdar breeds that are popular today include Qassab, Saphira, and Ismail Nouradini, which is the name of a village in Pishdar.

Kardost also engages his dogs in dog fighting once or twice a year, and Shera Sor (Red Lion) has never been defeated.

When questioned about the ethics and legality of dog fighting, Kardost responded, “Dog fighting has been a part of Pishdar culture for centuries; the people of Pishdar can’t accept if they hear there is a dog not only in the KRI but also in neighboring countries that is braver than the Pishdar; once they hear that, they set a fighting date.”

High stakes

Despite being prohibited in the KRI, dog fighting in Pishdar occurs monthly during the fall and winter months. Around 2,000 people gather to witness these contests, which are more popular in Pishdar than football. For the people here, dog fighting is not about gambling or money; it is about pride and determining whose dog is the better fighter.

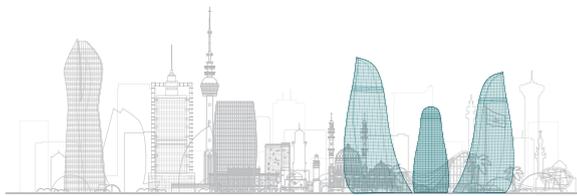
According to Kardost, Iranians have purchased increasing numbers of Pishdars in recent years, often to compete in dog fighting that includes gambling because large sums of money are involved. Others are purchased for Iranian villages, whose large flocks of sheep require protection from wolves.

He expressed concern over the rise in Iranian purchases, warning that if the trend continues there will soon be very few Pishdar dogs left in the district. He urges authorities to intervene and prohibit their sale to Iran.

There is a strong belief among the people of Pishdar that if someone sells a Pishdar dog, something terrible will happen to that person. Nevertheless, the number of people selling them continues to increase.

Kardost claimed that he has never sold any of his Pishdars, preferring to gift them to friends and family. During the summer, he also allows shepherds to borrow them, not least because it benefits the dogs’ health as they thrive in the cool mountain climate.

He also highlighted the problem of thieves. Since Pishdars fetch such high prices, one cannot leave their dog unattended because it will be stolen. One of his puppies was stolen and his friend also lost one, which he later discovered was in Iran. Thankfully, with the assistance of police, the thief was detained, and the dog was returned to its owner. ●



A Jewel of Kurdistan's Skies



Derya Kılıç
is a Kurdish journalist based in Paris.

A species, beyond embodying the inherent traits of the area it inhabits, can serve as a symbol of the socio-political and historical context of its region, encapsulating the nuances of its climate and the human populace. The Kurdish wheatear, as a bird indigenous to the Kurdistan Region of Iraq (KRI), not only epitomizes the ecological richness of its habitat but also serves as an indicator of the implications of climate change through its historical record.



Also known as the Kurdistan wheatear, *Oenanthe xanthopyrma* has been the subject of extensive research. Its nomenclature in early British sources is attributed to its prevalence in four distinct regions in Kurdistan, with mountainous terrain serving as its natural habitat.

Alternate appellations include chestnut-rumped wheatear, red-rumped wheatear, or red-tailed wheatear, the latter of which was formerly considered a subspecies of this bird but is now regarded as a separate species. The red-tailed wheatear builds its nest in the mountainous regions that are inhabited by Kurdish peoples and thus inadvertently delineates the geographical extent of Kurdistan.

Research for war, espionage, and diplomacy

The first scientific research on the Kurdish wheatear dates to the 19th century. It was first described in 1833 by two German naturalists and ornithologists, Wilhelm Hemprich and Christian Gottfried Ehrenberg during their research in Lebanon and Egypt. In addition, according to Jean Rolin's book *Le traquet kurde*, which was

published in 2018 and won the Alexandre-Vialatte Award, the bird was captured in Sudan in March 1874 by British ornithologist and businessman Henry Seebohm. Rolin's archive research also reveals that more research was carried out on this bird in the British Empire than anywhere else. It is thus thanks to Rolin, a French journalist, that we know so much about this bird's history and importance.

In fact, it was a development in France that inspired Rolin to undertake his research in the first place. In the spring of 2015, amateur ornithologist Alex Clamens spotted a small

male Kurdish wheatear on the summit of the Puy de Dôme in France – the first time he had observed the bird.

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The first scientific research on the Kurdish wheatear dates to the 19th century

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Indeed, it had never been seen in Europe before.

In fact, no one knows how the bird ended up 2,700 kilometers away from Kurdistan. The fact that it was alone, however, was unsurprising, as Kurdish wheatears usually live alone, except during the breeding period.

Interestingly, *Le traquet kurde* illustrated, in exemplary fashion, how the study of the Kurdish wheatear transformed into a subject of multifaceted inquiry that transformed into a focal point for strategic considerations encompassing “war, espionage, and



diplomacy” by British high-ranking officials and military personnel. In this context, Rolin interweaves references to diverse geographical locations, including Puy de Dôme, Türkiye, Iraq, and Kurdistan, establishing intricate connections between British Colonel Richard Meinertzhagen, Thomas Edward Lawrence – more commonly known as Lawrence of Arabia – and ornithology. In other words, the book serves to shed light on British imperial history, how Kurdistan was viewed from London, and how important British historical figures researched the bird.

tioned, Meinertzhagen conducted the most extensive ornithological research. Between 1922 and 1948, he compiled a study of the birds he encountered during his service in his book *Birds of Arabe*, including the Kurdish wheatear, which he called the red-tailed wheatear.

Moreover, it is noteworthy that Cox, the British High Commissioner to Iraq, and Major Cheesman, captured a Kurdish wheatear from Duhok in 1892 and brought it to England, where it is currently on display in the avian collection at the Tring Museum in London.



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The Kurdish wheatear spends the winter months in the Red Sea and the Persian Gulf and returns to Kurdistan in April for the breeding season
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The narrative unfolds as the protagonist encounters notable figures in British imperial history such as Lawrence, St. John Philby, Wilfred Thesiger, Percy Cox, Edmund Allenby, and Major Robert Ernest Cheesman. While the Kurds are familiar with Cox and Allenby for reasons beyond ornithology, these individuals, in an alternative capacity, contributed to avian research and observation in the region, which was integral to British intelligence efforts. The avian inquiry at present thus serves to illuminate the nuanced history of Kurdistan throughout the colonial period and the two World Wars.

As explained in *Le traquet kurde*, of the individuals men-

Appearance and behavior

The most prominent characteristics of the Kurdish wheatear are its size, weight, and color. Its length is between 10-20 centimeters, and it weighs 20-25 grams, while the nomenclature of red-tailed wheatear is attributed to the distinctive crimson hue of its tail plumage.

Kurdistan is known for its high mountains and harsh climate, which matches Rolin’s description of the bird’s activities. “[The red-tailed wheatear] prefers dry, steppe climates, especially high-altitude plains and generally mountainous regions. It prefers steppes and suitable for-



mations such as hollows and cracks in bare lands. In winter, it rarely chooses areas with desert characteristics, but most of its nests are rocky cliffs and bushes in arid lands. It has a list of insects, mainly ants, and feeds by digging and stirring up arid soils, grabbing insects and larvae. It hunts mostly by diving over a rock where it perches. It crushes and swallows the insect larvae it grabs from the plant by hitting the soil with its beak.”

Typically exhibiting solitary behavior, the red-tailed wheatear engages in bipedal locomotion characterized by an undulating trajectory, intermittently executing downward movements of its tail, as stated by Rolin. During flight, the avian species maintains a predominantly closed tail configuration. It displays a predilection for habitats marked by rocky outcrops. The avian vocalization is chiefly characterized by the incorporation of imitative elements.

The transient territories utilized during migratory periods are actively defended by both male and female

specimens against intrusions by other avian species. The nesting sites exhibit an intertwined architectural configuration, fostering a collaborative and interconnected relationship with neighboring habitats.

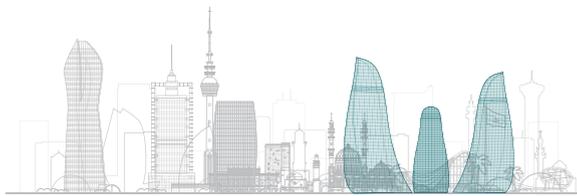
During its breeding season, the Kurdish wheatear, indigenous to Kurdistan, is most often seen in Choman, Halgurd, Diyarbakir, Gaziantep, and prominent mountainous regions including Nemrut, Shirin, and Tarsus.

Migration and destination

According to the book *Robins and Chats* by Peter Clement and Chris Rose, the Kurdish wheatear spends the winter months in the Red Sea and the Persian Gulf and returns to Kurdistan in April for the breeding season. In general, it “migrates in large numbers, winters in east Africa and southwest Asia. In its wintering grounds it occurs from October to February or mid-March,” according to Clement and Rose.

Meanwhile, ornithologists active during World War I discovered that the bird was found in Algeria, Egypt, Iraq, Jordan, Libya, Mauritania, Morocco, Saudi Arabia, Syria, Tunisia, Western Sahara, and Yemen. In addition, research being carried out in Israel today has yielded observations of the bird, stating that “the Kurdish wheatear *Oenanthe xanthopyrma* is a rare winterer in Israel but in some winters several are present, offering the chance to learn about them.”

And of course, France can now be included on the list of the bird’s destinations, which must be considered in the context of climate change. To confirm such ideas, the migration patterns of the Kurdish wheatear should be analyzed in depth, and within the framework of these investigations, necessary steps should be taken to ensure its survival in Kurdistan. Leaving the region poses a great danger to these special birds, adding another important reason for stronger initiatives to prevent climate change and protect the natural diversity of Kurdistan. ●



Kurdish Entrepreneur Shines on BBC's 100 Women List

Kurdistan Chronicle

In a world that often looks for inspiration and change-makers, Basima Abdulrahman, a Baghdad-born Kurd, has emerged as a beacon of success. Her recent inclusion in the BBC's prestigious 100 Women list for 2023 tells us about not only her significant individual accomplishments but also the transformative power she holds in pressing for environmental solutions.

A visionary entrepreneur

At the helm of KESK, an environmental solutions company that specializes in green building design and renewable energy, Abdulrahman is more than a mere businesswoman – she is a visionary. Founded in the aftermath of the advent of ISIS in 2014, KESK became Iraq's first initiative dedicated to green building, demonstrating Abdulrahman's commitment to rebuilding her homeland sustainably.

"Our mission is to make smart green solutions trustable, accessible, and profitable. And our vision is to make the green way, the easy way," Abdulrahman told *Kurdistan*

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Discovering that I was selected for BBC's 100 Women list was incredibly humbling and thrilling

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Chronicle during an interview. "We aim to increase energy efficiency, reduce carbon emissions, and create opportunities for economic development through our projects. Empowering communities by providing clean energy access while simultaneously fostering environmental sustainability lies at the heart of our vision."

A seat at the global table

The BBC's 100 Women list, established in 2013, has been a platform for recognizing women who have played pivotal roles in shaping the 21st century. Abdulrahman now joins the ranks of past luminaries like Michelle Obama, Amal Clooney, and Huda Kattan. Her selection reflects a global acknowledgment of her efforts to ensure that current building practices do not compromise the well-being of future generations.

"Discovering that I was selected for BBC's 100 Women list was incredibly humbling and thrilling. It was a moment of validation for the hard work and dedication we've

put into promoting renewable energy and advocating for greater inclusivity in a male-dominated industry. More importantly, it reinforced the significance of our mission and the need to continue pushing boundaries and effecting positive change," Abdulrahman said.

Asked about the factors that she thinks that contributed to this remarkable recognition, Abdulrahman named various factors, including her team's unwavering dedication to fostering sustainable solutions in the renewable energy sector, and their initiatives focused not only on innovation but also on creating meaningful impact within their communities.

"Our efforts to empower women in STEM fields and promote gender diversity within the industry were also a crucial aspect that garnered attention," she added.

From conflict to creation

Abdulrahman's journey is rooted in a deep concern for the environment and a desire to mitigate the impact of climate change. Her commitment to green building centers on creating structures that consume less energy, produce less waste, and provide a healthy indoor environment.

Born in Baghdad and raised in the Kurdistan Region of Iraq (KRI), Abdulrahman's path to entrepreneurship was unconventional. The turmoil of the Iraqi conflict drove her family to the KRI in 2006, where she discovered her Kurdish heritage and developed a passion for mathematics and physics, diverging from her family's initial push towards a medical career.

"Growing up in Iraq, I witnessed the challenges posed by traditional energy sources and their impact on the environment. I was determined to be part of the solution, despite the struggles and societal norms that often discourage women from pursuing careers in STEM fields," Abdulrahman explained.

Abdulrahman's global outlook is evident in her educational journey. A recipient of a Fulbright scholarship, she pursued a master's degree in structural and civil engineering at Auburn University in the United States. Her exposure to green building concepts during her time in the United States laid the foundation for what would become KESK upon her return to Iraq.

Returning to Iraq in 2015, Abdulrahman worked as a structural engineer for the UN before embarking on her entrepreneurial path. KESK, founded in 2017, is both a consultancy and a commitment to sustainable architecture that combines modern technologies with traditional building methods.

Asked about any events or experiences that led her to her current direction in her personal and professional lives, Abdulrahman said that witnessing firsthand the environmental challenges faced by her community in the KRI and Iraq was pivotal. These challenges ranged from air and water pollution to the detrimental effects of unsustainable energy practices. These experiences instilled in her an early awareness of the interconnectedness between human actions and environmental consequences.

Furthermore, learning about the impact of climate change and its potential long-term consequences on both the environment and society profoundly transformed her perspective.

"It became evident that addressing these issues wasn't just a choice but a responsibility – one that required immediate action," she added.

Recognition and awards

Abdulrahman's inspiring mission has not gone unnoticed. In 2021, she was recognized as the Cartier Women's Initiative laureate in the Middle East, receiving \$100,000 in prize money. In 2023 her company won the ExpoLive Global Innovation award, a \$50,000 prize. This acknowledgment, coupled with her recent inclusion in the BBC's 100 Women list, underscores the international impact of her work.





Photo: The Carrier Women's Initiative

A woman leading change

As a woman operating in the male-dominated fields of tech-enabled businesses and green energy, Abdulrahman faces challenges. However, her approach is rooted in resilience and preparedness. She emphasizes the importance of being qualified and prepared to shatter prejudices and misconceptions.

“I have encountered several challenges, both unique to my gender and inherent in driving transformative initiatives,” Abdulrahman pointed out.

As for gender bias, she explained that in a predominantly male-dominated industry, facing gender bias and stereotypes can be a significant struggle. From subtle discrimi-

nation to overt challenges in accessing resources, funding, and networking opportunities, according to Abdulrahman, overcoming these biases requires resilience and continuous effort.

“In our region, there is a lack of trust in female entrepreneurs,” she pointed out.

The Kurdish entrepreneur identified resistance towards change in established industries as the second challenge that she has had to overcome. Advocating for renewable energy and sustainable practices might encounter push-back from those who favor conventional energy sources due to financial interests or a lack of awareness, she explained.

Empowering future generations

Abdulrahman’s success extends beyond her individual achievements. She actively engages in discussions about sustainability, advocates for green solutions, and emphasizes the economic benefits of embracing environmentally friendly practices. She has also dedicated herself to mentoring and encouraging more women

Additionally, Abdulrahman participates in talks and sessions dedicated to emerging woman entrepreneurs to share knowledge and experiences of how to navigate through the entrepreneurship journey as women, especially in STEM fields.

Last but not least, she leads one-on-one mentorships for women professionals to guide them through specific career choices and ventures.

leading renewable energy projects, promoting sustainability, and shaping a greener future for Iraq and Kurdistan. We are in the process of building a complete ecosystem for renewable energy in Iraq, including providing solar energy hardware and software solutions as well as a carbon offset monetization facility to help our clients make additional revenues from investing in solar energy through trading carbon credits,” she explained



to break through barriers in markets where men are traditionally dominant.

One of the examples of how she contributes to women’s empowerment is through creating employment opportunities. Within her company, she prioritizes hiring and empowering women by providing equal employment opportunities. She also actively seeks to recruit and train women in various roles, from technical positions to leadership roles, fostering an inclusive work environment.

The future looks green

As KESK expands its operations, Abdulrahman envisions a future where the company is at the forefront of sustainable development not just in the KRI but throughout Iraq. Her focus is on innovative solutions and staying relevant in an ever-changing landscape.

“In the green energy sector, my company and I look forward to growing, innovating, and advocating for positive change. We’re committed to

before concluding the interview.

Amid the present global challenges, Basima Abdulrahman stands as a testament to the power of vision, determination, and a commitment to create positive change. Marked with recognition at international forums, her journey is an inspiration to aspiring entrepreneurs, especially women, to carve their own path and contribute to a greener and more sustainable future. ●



Protecting Kurdistan's Last Leopards



*Qassim Khidbir
is a Kurdish journalism and media developer.*

Brothers Nabaz Horeni and Bahz Horeni live in the village of Horen in the Sulaymaniyah Governorate of the Kurdistan Region. Located on the slopes of Bamo Mountain within the Zagros Mountain range, this area is a suitable habitat for wild mammals. Both brothers have a deep love for the nature that surrounds them and have dedicated themselves to protecting the wildlife of Bamo Mountain, particularly its leopards.

The brothers have so far recorded eight leopards using camera traps and were the

first in the Kurdistan Region to photograph a leopard family. They were also the first in Kurdistan and Iraq to record footage of a female leopard.

“It was January 6, 2020, when we saw the footage. We hugged each other,” Nabaz recalls.

They decided to name her Kurdistan. It was the first time a leopard had been caught on camera in Bamo Mountain; previously, there had only been word-of-mouth sightings of leopards or documentation of their tracks.





■ Named “Kurdistan,” the first female leopard recorded on Bamo Mountain in 2020 by brothers Nabaz and Bahez (Photo provided by Bahez to Kurdistan Chronicle)

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It was the first time a leopard had been caught on camera in Bamo Mountain

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■ The female leopard “Kurdistan” with her two cubs, “Hiwa” and “Nishtiman,” exploring Bamo Mountain in the Darbandikhan District. (Photo provided by Bahez to Kurdistan Chronicle)

“Since we beginning to document her in 2022, Kurdistan has given birth twice,” Bahez recounts. In the first year, she gave birth to and successfully raised two cubs, one male and one female, whom the brothers named Hiwa and Nishtiman, Kurdish for “hope” and “homeland,” respectively.

Natural challenges

Bahez and Nabaz have spent their entire lives surrounded by the nature of Kurdistan. From a young age, they enjoyed hiking and taking photos and videos of their natural surroundings and its wildlife. Over time, they be-

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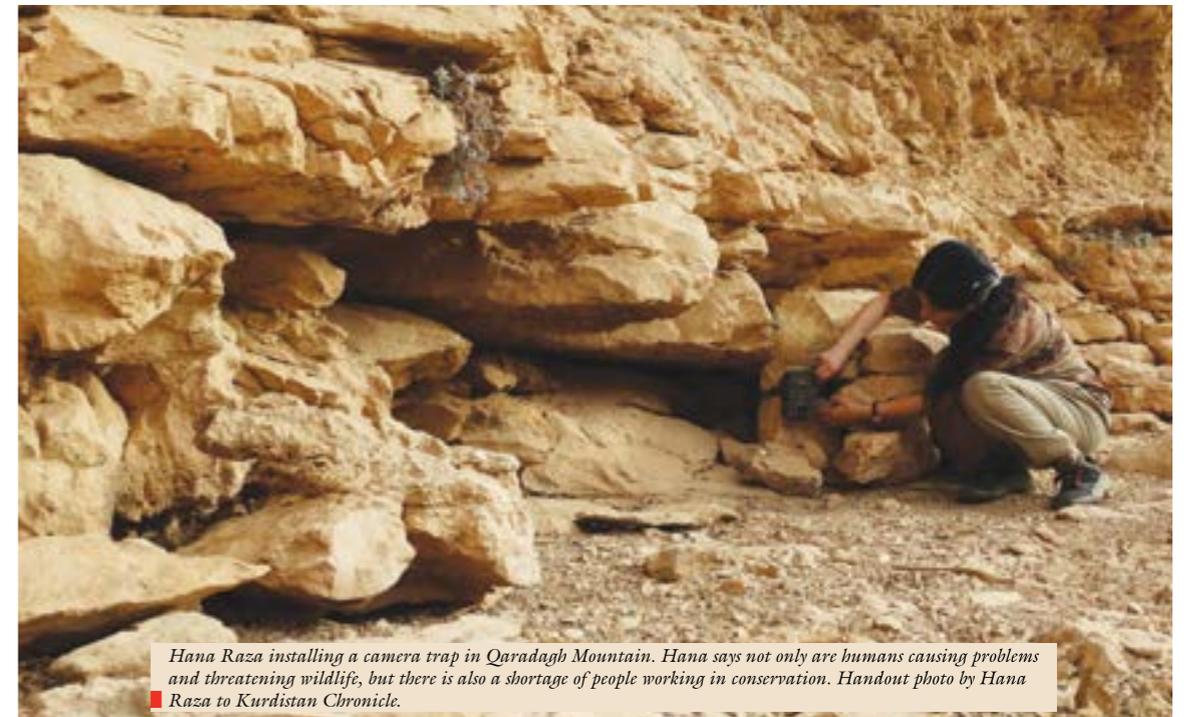
The leopards in Kurdistan’s mountains are internationally known as Persian leopards

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is simply called “leopard” (*plng* in Kurdish). However, Bahez and Nabaz are advocating for renaming it *plngi zagros*, or “Zagros leopard.”

“By adding Zagros, we want to win the hearts of the people of Kurdistan, so that they might love and protect this majestic animal. Kurdish people have a deep love for Kurdistan’s mountains,” Bahez explains.

This love of Kurdistan’s mountains also prompted Hana Ahmed Raza to devote her life to conserving biodiversity in Kurdistan and beyond. After earning a biology degree from Su-



Hana Raza installing a camera trap in Qaradagh Mountain. Hana says not only are humans causing problems and threatening wildlife, but there is also a shortage of people working in conservation. Handout photo by Hana Raza to Kurdistan Chronicle.

came aware of the suffering of the wild animals and birds. They began speaking to poachers, urging them not to hunt. As summers on Bamo Mountain became hotter – and rainfall became scarce – they started cleaning wells to ensure that the animals and birds had enough water. When those wells dried up as a result of climate change, they began creating man-made wells.

“We used to have only two hot

months in the summer in our village, but now we have four months of hot weather,” Bahez says.

The leopards in Kurdistan’s mountains are internationally known as Persian leopards. Historically, Persian leopards have always lived in the Zagros Mountains, which extend through Iran, the Kurdistan Region, and southeastern Türkiye, primarily in areas inhabited by Kurdish people. In Kurdistan, the Persian leopard

laymaniyah University, Hana joined Nature Iraq – a non-governmental organization in Iraq and the Kurdistan Region that is accredited by the UN Environmental Program – and began collecting data on wild mammals throughout Kurdistan. When she asked people about leopards, they frequently stated that they had not been seen since the 1980s. Despite this, Hana was certain that leopards were still roaming the mountains of Kurdistan.



■ *Bahez Horeni, 33, posing on Bamo Mountain (Handout photo by Bahez to Kurdistan Chronicle)*

“I told myself, there is a strong bond between hunter and prey. Since there are wild goats in Kurdistan, I believed there must still be leopards in the mountains,” Hana recounts.

In 2011, for the first time in the history of the Kurdistan Region and Iraq, Hana recorded a leopard, a male, on a camera trap in Qaradagh Mountain, also in Sulaymaniyah Governorate. This picture became the first and only hard evidence of the existence of leopards in Iraq. Previously, there were only unconfirmed written references in literature, which were not enough to prove their presence.

This 2011 discovery motivated Hana to dedicate her life further to protecting the last leopards of Kurdistan. Later, she went to Newcastle University in the UK to study ecology and wildlife.

Poachers threaten Kurdistan’s wildlife

Hana, Nabaz, and Bahez have sounded the alarm: poachers pose the gravest threat to wildlife in the Kurdistan Region, surpassing even climate change and landmines.

“Sadly, Kurdistan has a large number of poachers who are destroying our region’s beauty and wildlife,” Nabaz says.



■ *Hana Ahmed Raza posing on a mountain in Kurdistan. She has devoted her life to conserving Kurdistan’s biodiversity and environment. (Photo provided by Hana to Kurdistan Chronicle)*

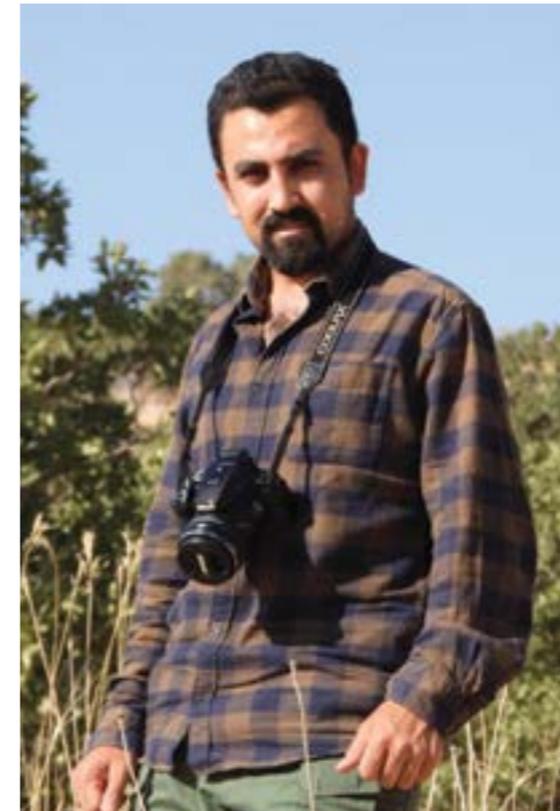
The conservationist mentioned that the negative impact of poaching involves more than just the killing of animals. Poachers disrupt the ecosystem by killing animals that leopards prey on, like wild goats and porcupines, leaving leopards hungry and forcing them to migrate. Additionally, they steal young animals, like brown bear cubs, and sell them to wealthy people, as happened in a well-publicized case in Duhok Governorate.

Meanwhile, Hana criticizes the media’s role in endangering wildlife. “Media often portray wild animals like leopards, bears, and boars as dangerous beasts by publishing fake, unverified information about attacks on villagers or livestock,” she says.

“There isn’t a single confirmed case of a leopard attacking a person or domesticated animals in Kurdistan,” Hana emphasizes.

Protecting wildlife has not been easy for Nabaz, Bahez, and Hana. They have faced opposition from poachers who see them as adversaries.

“It’s not our fault,” Nabaz argues. “Poaching goes against the law, religion, and basic humanity. It also harms nature.”



■ *Nabaz Horeni, 37, installing a camera trap on Bamo Mountain. Nabaz and his brother Bahez have recorded eight leopards using camera traps in the mountain. (Photo provided by Bahez to Kurdistan Chronicle)*

“Maybe it’s divine intervention,” he adds hopefully. “Perhaps these animals are finally receiving God’s mercy through our passion to protect them.”

Their efforts to curtail poachers have not been entirely fruitless. Some poachers have been convinced to abandon the practice. Bahez shares that some feel ashamed after seeing young people dedicating their lives to protecting wildlife. “They realize they can’t hide from our camera traps, even if they evade us,” Bahez says. He also mentions that 15 of their camera traps were stolen in just one year.

Regarding landmines, Nabaz offers a surprising perspective. He believes that landmines, especially those along the Iraq-Iran border, have created a haven for wildlife. Poachers are deterred by the danger, and according to their data, landmines have claimed very few animal lives since the 1990s. “We’ve observed a higher concentration of wildlife in areas with landmines,” Nabaz concludes.

What needs to be done

Hana highlights that not only are humans causing problems and threatening wildlife, but there is also a shortage of people working in conservation. She has called on the government and international community to support and

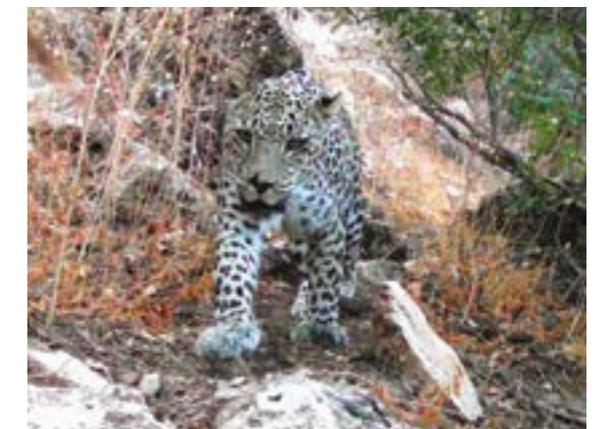
encourage those aspiring to become conservationists. Moreover, she urges the government to employ more environmental police and station them in the mountains to protect wildlife from poachers.

“Our aim is to change the image of Kurdistan and Iraq, showing the world that it has protected national parks and beautiful nature,” Hana says.

In 2022, Hana established Leopards Beyond Borders, a non-profit organization in the Kurdistan Region. Nabaz and Bahez are members. These three conservationists are seeking enough support to develop and implement three key projects. First, they aim to designate Bamo Mountain as a community conservation area, supporting the local community in protecting their natural surroundings and wildlife. Second, they want to make Qaradagh a nature reserve. Third, they plan to protect the brown bears in Duhok Governorate.

Their goal is to protect the last leopards of Kurdistan, ensuring that they do not become extinct like some animals that once lived in the region, such as the brown bears in Bamo Mountain.

They also urged the Kurdistan Regional Government and the world community to put pressure on the Iraqi government and Türkiye to halt the building of fences along



■ *Image of a male leopard walking on Bamo Mountain in the Kurdistan Region, recorded by a camera trap (Photo provided by Bahez to Kurdistan Chronicle)*

Iraqi, Iranian, and Turkish borders. “These fences will harm wildlife since animals will no longer be able to easily cross borders, and will eventually become extinct. I hope the Iraqi government stops building the fence along the Iranian border,” Hana stated.

The barbed wire fence was recently commissioned by the Iraqi federal government as part of the security agreement with Iran that aims to address security concerns raised by Tehran. ●



Mountain Trail Invites Explorers



Lawin Mohammad
is the co-founder of Zagros Mountain Trail.

“

The trail’s evolution has been bolstered by the unwavering support of the Abraham Path Initiative, an international non-governmental organization dedicated to developing walking trails across the Middle East

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■ A group of Kurdish and foreign mountaineers walk through the mountains of Kurdistan to identify the ZMT path.

Photo: Leon McCarron

“Can you help me translate? I want to ask the shepherd where this trail leads.”

This was the query posed to me by Leon McCarron, a Northern Irish adventurer, filmmaker, and author, during our time at the Mosul Gate in Amedi, Kurdistan Region of Iraq (KRI), where we were filming a documentary on the majestic landscapes of Kurdistan. It was a simple question, but one that marked the inception of a remarkable, multi-year journey.

The Mountain Trail is a long-distance hiking trail that weaves across the KRI. It is the first of its kind, and its purpose is to foster connections between individuals from diverse backgrounds, whether local or international, while immersing travelers in the richness of the local culture and landscape. It aspires to create economic opportunities in rural areas, and to establish the Kurdistan Region as one of the most exciting destinations in the Middle East for outdoor tourism. Beyond that, it serves as a platform to support the local community and narrate the unique history of the region.

My encounter with Leon in 2016, alongside the Kurdish filmmaker Miran Dizayee, and later, in 2019, the British photojournalist Emily Garthwaite, marked the genesis of our expedition. We embarked on a quest to unearth the ancient paths of the region. Our vision was to create a lasting legacy, instilling a sense of pride and ownership in the local population and establishing a platform for the protection of culture and the environment.

Since that day at the Mosul Gate, we have scouted over 1,500 kilometers of walking paths in the KRI. This has resulted in a continuous 215-km route, with more than 50 culturally and historically significant sites and over 40 breathtaking spots in nature. We have meticulously curated a network of homestay hosts and local guides to represent the vibrant community of this region.

Every endeavor requires assets, and in our case, it was the warmth and hospitality of the Kurdish people, the unparalleled beauty of the landscape, and the deep-rooted historical ties between the Kurds and their mountains. These very mountains, which have safeguarded us throughout history, now beckon us to safeguard them in return through hiking and preservation. As a Kurd residing in these lands, I have gleaned fresh insights with every step I take in the mountains of Kurdistan. This experience has been profoundly

fascinating for me. It leaves me pondering what it must be like for foreigners who are not acquainted with these lands and their people.

A labor of love

In October 2023, the Zagros Mountain Trail was officially launched, unveiling detailed information on all 13 stages, allowing hikers to access data encompassing distance, elevation, difficulty, and contact information for our local guides and homestays.

During the launch event, Leon remarked on the importance of these trails:

“Trails offer a unique means to foster economic prosperity in rural areas while championing the protection of environmental and cultural heritage. They bring people together in a safe and welcoming space and serve as a conduit to introduce a destination to the world. A successful trail is inclusive for all. Trails can also aid regions with a history of conflict and tragedy in moving toward a new narrative of hope, opportunity, and community. We designed the Zagros Mountain Trail with these ideals in mind, and now we are thrilled to share it with the world. It has been the utmost privilege of my career to contribute to this endeavor.”

Emily also shared her sentiments, emphasizing her love for the project and the region:

“I take immense pride in being part of the Zagros Mountain Trail. My involvement since 2019 led me to fall in love with Kurdistan, prompting my decision to relocate, work, and live in this enchanting region. I initially fell in love with its mountains, a sentiment I believe many share when they first encounter Kurdistan.”

The trail’s evolution has been bolstered by the unwavering support of the Abraham Path Initiative, an international non-governmental organization dedicated to developing walking trails across the Middle East, which is a founding partner of this project and has played an integral role in its growth.

Community-based, experiential tourism

Executive Director of the Abraham Path Initiative Anisa Mehdi articulated the importance of this endeavor:

“Our vision was to create a lasting legacy, instilling a sense of pride and ownership in the local population and establishing a platform for the protection of culture and the environment”



Photo: Leon McCarron



Photo: Leon McCarron

■ Soran Governor leads a group of people walking the ZMT path ahead of the official announcement of the trail.



■ A scenic view of Dargala village in Soran, Kurdistan Region.

Photo: Mohammed Dargalayi



■ The historic Bahdinan Gate in Amedi, Dubok province, Kurdistan Region.

Photo: Leon McCarron

“Our collaborative efforts represent the vanguard of a burgeoning segment in the tourism industry: community-based, experiential tourism. It brings job opportunities, such as guiding and homestay hosting, to generations of families. This type of tourism ushers in income and hope ‘off the beaten path.’ It fosters new friendships.”

Miran emphasized the project’s role in the region:

“This project belongs to the residents of the KRI, and its benefits extend far beyond us. Therefore, we appeal to the Kurdistan Regional Government

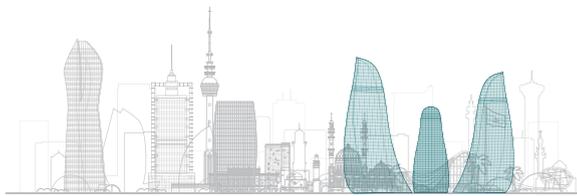
to extend their support so we can expand our initiatives across Kurdistan and establish more trails in the region.”

Head of the Soran Independent Administration Halgurd Sheikh Najib, who sponsored the launch event for the Zagros Mountain Trail, underscored the significance of such projects:

“From the day that we heard about the Zagros Mountain Trail we decided to support it because this project aims to boost tourism and create economic opportunities in our region by changing how we view our moun-

tains. We are transforming them from being shelters and a place to flee from war into popular hiking destinations, which has the potential to reshape our country’s landscape and people’s perceptions.”

I take pride in our achievements thus far and envision the Zagros Mountain Trail as the foundation for the creation of numerous other trails, as the breathtaking beauty of Kurdistan cannot be encapsulated in just one trail. This region undoubtedly holds the potential for the development of more strategic trails, inviting explorers to witness its magnificent landscapes. ●



Darbandikhan Dam

A Witness of Living Memory



Kadhim Sabar
is the former director of dams in the
Kurdistan Region.

The night of March 29, 1954, was long and terrifying for the people of Baghdad. Though the flood no longer directly threatened them from the river, the city's inhabitants remained at risk from the eastern side, as new fractures in the rivers north of Baghdad had opened and were already placing severe pressure on the city's surrounding areas, exacerbated by the strong winds that had continued to rage for two straight days. Due to the seriousness of the situation, the British engineering team that was hired by the Directorate of Irrigation General informed the government that three-quarters of a million people in the city were at risk.

Emergency meeting and a courageous minister

Such a circumstance demanded an emergency meeting, which was called at the General Directorate of Irrigation and attended by all the relevant official centers of the country, including ministers, members of Parliament, a large number of experts and the Crown Prince Abdullah bin Ali. Participants agreed on a statement and decided to evacuate and relocate residents from the densely populated Rusafa side of Baghdad to the Karkh side of city.



One attendee, the late Minister of Interior Mohammed Saeed Qazzaz, opposed the decision and put forward a different opinion, one for which he would bear full responsibility. After having assessed the risks evacuation would cause he concluded that these outweighed the risks of residents staying in their homes that these would outweigh the risks of residents staying in their homes. He argued that the breakdown of one car on one of the two bridges in Baghdad during the evacuation would lead to large-scale deaths among the terrified masses of people fleeing their homes and to an unprecedented disaster for the country. Attendees concurred, and Qazzaz announced this policy to the people of Baghdad on government radio.

The birth of the dam

As the wind calmed down and the river levels receded, Baghdad escaped the danger, but the crisis prompted the Iraqi government to change tac-

tic. A new system for controlling the country's water resources was needed, and the Council of Reconstruction would be trusted with that project. The construction of the Dam, which could control water levels from the Sirwan River that had threatened Baghdad with previous floods, was a major aspect of this new strategy.

The council undertook a comprehensive survey of the riverbed and assessed studies of the areas proposed for the dam. All possible methods of construction were considered based on cost and how much water could be stored, with major international companies from the United States and Europe providing feasibility studies with such estimates.

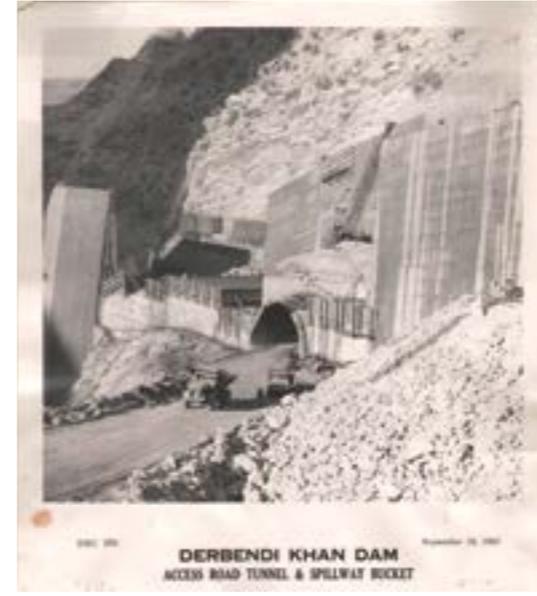
By 1956, all the preparations had been made to begin construction on the river close to the Darbandikhan district in the Sulaymaniyah governorate. The work was then carried out by American companies over five years,

so that Prime Minister Abdul Karim Qassim inaugurated the dam on November 23, 1961, in time for the wet season that year. Since the storage capacity of 2.5 billion cubic meters was insufficient to absorb greater rises in water levels from the Sirwan River, the dam became the main part of a storage, operation and irrigation system that would be completed with the later construction of the Hamrin Dam and Al-Sudour Dam in Diyala.

A design ahead of its time

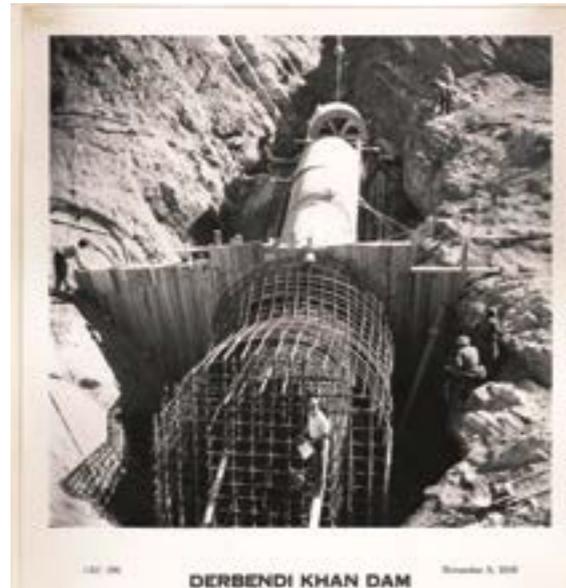
Of course, much has changed in the design, methods, and technologies of dam construction and operation since the 1950s. Though the dam at the time was cutting edge, it now requires a wholesale review to consider how to implement the latest monitoring and sensor technologies and to take advantage of digital computing systems. This process can help nurture a new generation of engineering and technical specialists who can develop

■ A picturesque view of Darbandikhan Dam in Kurdistan Region



their skills in managing dams and water systems in line with the expansion of scientific understanding.

When the dam was first constructed, two proposals were



submitted: one for a concrete dam similar to the Dukan Dam, and one for a dam made of stone with a clay core. Based on the feasibility studies presented, the collective opinion of the technicians settled on the second proposal of a clay core. The texture of the core was determined with specifications that would suit the conditions surrounding the dam and the possible environmental changes that might occur, especially since the dam would be located

very close to the active seismic belt in the western Iran. The dam's length was less than 450 meters, which was ideal in terms of cost and functionality. There was no need for post-construction filling work, and nearby quarries provided abundant supplies of the necessary materials. The dam's water column height was over 100 meters, an ideal design for the three-unit hydroelectric power plant with a total capacity of 250 MW that accompanied the dam.

Earthquakes and war

In November 2017, as the 56th anniversary of the dam's opening was approaching, it was subjected to a violent earthquake measuring 7.2 degrees on the Richter scale, with its epicenter approximately 100 km from the dam's axis. In the preliminary study, the dam's designer expected that it would be exposed to an earthquake of this magnitude, although the probability of such an event was roughly 1 in 1,000. Yet the design was accepted on this basis, and the dam indeed withstood the earthquake's tremors and did not incur serious damage, as the tremors occurred where storage levels were under the maximum limits. Therefore, the rehabilitation process was short, and the dam returned to operation that very same wet season of 2017-2018. The following wet season of 2018-2019 proved another test for the dam, as storage levels approached the maximum limits, but there were not any problems.

It is worth noting that the Darbandikhan Dam previously experienced a different type of earthquake in the 1980s, when it was the site of clashes during the Iran-Iraq War. During this time, the former Iraqi regime destroyed and removed the dam's floodgates for military reasons, knocking the dam out of service and preventing the accumula-

tion of water. The dam was rehabilitated after the war's conclusion and thus stands as a living memory and true witness to the conditions of water, people, and nature in Iraq.

Breathtaking beauty

The dam is in one of the most beautiful parts of Kurdistan, and its lake extends between high mountains and winding

its location and the region's topography constitute an ideal environment for further tourism investment.

Further clarification

In the spring of 1954, Baghdad experienced an unprecedented rise in the level of the Tigris River due to a wave of surging waters in the lower Zab and Sirwan basins due to a rush of melting snow and rain.



valleys, leaving small islands between them. When the waters recede, it leaves flat lands between them and creates a lake that has moderate temperature during most seasons of the year. Although the dam itself is a tourist attraction,

Muhammad Saeed Qazzaz, a Kurdish citizen born in Sulaymaniyah, held several positions during this period, including as Minister of the Interior in multiple governments. After the monarchy system ended, he was tried in court and sentenced to death after refusing to concede and there he said his famous words: "I stand close to death and am not intimidated by the ropes of the gallows; when I am hung, I will see many who do not deserve to live under my feet."

Clay core and pulp: these were clay materials that were placed in the heart of the dam to prevent water leakage.

The wet season is the rainy season in Kurdistan, from the beginning of October to the end of May. ●



A 500-Year-Old Tahin Mill



Rojhat Loqman
is a Kurdistan-based journalist.

“

This extraordinary mill has stood the test of time, boasting a rich history that spans over 500 years

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When one thinks of Kurdish tahin, the picturesque region of Amedi immediately comes to mind. Nestled within this captivating landscape lies a place of great renown—a mill known as “Ashe Pra Issa,” which translates to “The Mill of Issa Bridge.” This extraordinary mill has stood the test of time, boasting a rich history that spans over 500 years. Its fame has transcended borders, captivating the hearts and palates of individuals not only across Kurdistan but also in the United States and throughout Europe.

Tahin, also known as tahini or tahina, is a paste made from toasted sesame seeds that is commonly used in Middle Eastern cuisine.

Sulaiman Dashtani, the proud owner of this remarkable mill, shared with *Kurdistan Chronicle* the captivating story of its origin. “Built five centuries ago in the enchanting region of Amedi beneath the city that shares its name, this mill was the brainchild of a man named Issa Delal. It is in honor of his vision and contribution that the mill bears his name, forever intertwining his legacy with the fabric of history. Nestled along the banks of the Amedi River, our mill springs to life when the river flows generously with water. Every October, we prepare the mill to produce tahin through May. Each day, we craft an average of 300 kilograms of this exquisite delicacy.”



Photos: Sajfin Hamid



Dashtani continued, “However, there are years when the river’s water level wanes, compelling our mill to halt production. We are entirely reliant on the river’s life-giving flow to power our operations.”

“
This mill stands as
a testament to the
enduring beauty of
Amedi
”

Elaborating on the intricate process of tahin production, Sulaiman Dashtani shared that to create their tahin, they embark on a meticulous journey that begins with washing the sesame seeds and then drying them. “From there, the seeds make

their way into the mill, where they are transformed into the delectable tahin that graces countless tables. Our sesame seeds are sourced from local farmers, as we take pride in relying solely on the sesame products of the Kurdistan Region.”

He also noted that their tahin enjoys immense popularity year after year. “The distinctiveness lies in our method of toasting the sesame seeds in front of a crackling fire before they enter the mill. This unique touch bestows upon our tahin a flavor that sets it apart from others produced in conventional factories.”

“However, acquiring our tahin is not always an easy feat. Due to the limited quantity that we produce each day, eager customers must patiently wait in line, longing to savor our tantalizing creation. Unfortunately, our constrained production capacity prevents us from reaching all the markets across the Kurdis-

“
Every October, we
prepare the mill to
produce tahin through
May. Each day, we
craft an average of
300 kilograms of this
exquisite delicacy
”

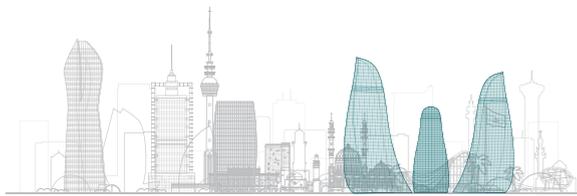
tan Region of Iraq. Occasionally, individuals make the pilgrimage to our mill, where they can personally acquire our cherished tahin,” Dashtani added.

This timeless mill has not only enchanted taste buds but has also provided employment opportuni-

ties for numerous workers. “We are overjoyed to have generated job prospects for many young people from our region. Witnessing their growth and prosperity brings us immense satisfaction,” the mill owner remarked.

According to Dashtani, demand for their tahin transcends the borders of the Kurdistan Region. “Our tahin has found its way to every corner of Kurdistan and graces the tables of the United States and numerous European countries,” he proudly proclaimed.

It is worth noting that Tahina Pra Issa holds a place of archaeological significance within the Amedi district, duly registered by the Kurdistan Region’s archaeological directorate. This mill stands as a testament to the enduring beauty of Amedi, its rich heritage, and the captivating allure of Kurdish tahin. ●



Sidik and the Panther In the Middle of Time



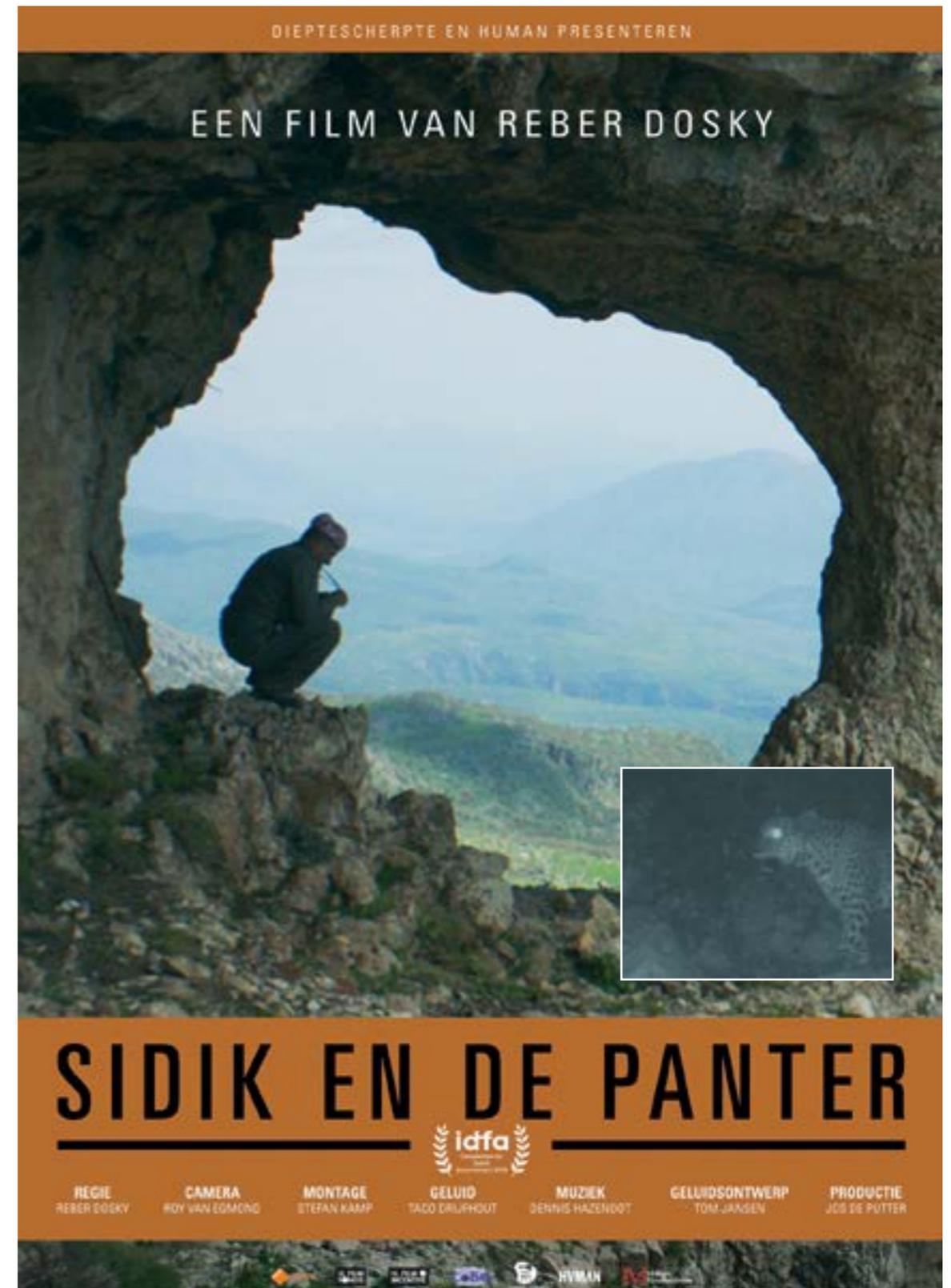
Firat Yucel
is a film critic and a filmmaker.



If Reber Dosky's Sidik and the Panther (2019) is a documentary about nature, we shall start to tell the story from the middle. Not the beginning or end, but the midway or in the midst of. For that nature, these mountains, these trees, these animals have no beginning or an end. Or rather let's say, the idea of beginning and end is unknown to them.

Sidik and the Panther, in all its visual representations of the mountains of Kurdistan in northern Iraq, makes the viewer keenly aware of this insight. Dosky along with his companions on this journey – the talented cinematographer Roy van Egmond, the sound recorders, and the film's star Mohammed Sidik Barzani, who has been searching for a leopard for 25 years in these mountains – are all in a way passers-by. They are not the beholders of this story for that the leopard was here before them, has seen many of the things they haven't seen.

So, let's start somewhere from the middle of the film, where something unexpected happens. We hear the voice of the director, one of the eyes behind the camera. It's unexpected because until this point, the film carries an observational style: we don't feel the existence of the film crew or the camera until this moment, when the film reflects its craft.



Dosky asks Mohammed Sidik for a favor: “could you write something for me?” He then tells him about his grandfather, and Mohammed Sidik writes in his small notebook: “On the White Mountain, near Zakho and the village, near the spring...”

This is the place where the Ba’athists, Saddam Hussein’s troops, killed Mehemmo Rashedo, the director’s grandfather, and the other peshmerga who were fighting alongside him on January 24, 1975.

Perhaps not the exact spot, but there’s no need for an exact spot: the mountains are broad, absolute, and timeless. And in these infinite hills, Dosky’s story is not the first one we hear. Many people that Mohammed

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”

All the people who Mohammed Sidik meets on the mountain are men, yet there’s also a beautiful scene, in which women sing an elegy and tens of women lament for the dead and dance on the hills. Just after this scene, we hear lines from Mohammed Sidik’s notebook: “Water flows from our springs... Nightingales sing to the flowers... And the bees will make honey... The leopard with its black spots will surely soon return...”

Sidik and the Panther is surely a film about the beauty of nature. But not just the beauty of course. It’s also about interdependency between humans, animals, and nature and how this is torn apart not just by industrial capitalism but also by the war technologies that go hand in hand with it.



■ Film crew

Sidik and the film crew encounter on the way share similar stories of longings, aspirations, and expectations from future.

We also see people mourning, next to real or symbolic gravestones. Each have their own rituals of commemoration. A teacher visits the spring that his late father used to visit. An elderly man talks about his father and two brothers who disappeared in 1975. He talks about Kurdish people who were killed by Ba’athists, who have no graves, not even memorials.

Through these encounters, Mohammed Sidik becomes more like an intermediary between these stories and

the viewer, rather than a protagonist in a pursuit. Just like Mohammed Sidik, who records wild animals with “trap cameras” carefully installed on trees, the film positions itself as a medium for sharing the stories of the people encountered on the way.

The patient editing of the film (by Stefan Kamp) confirms this by investing time in the gestures of salutation and farewell. Every time the conversation comes to an end between Mohammed Sidik and his interlocutor, what would have been most probably cut from another documentary fills the screen and the filmic time, namely the point of departure between two men saying goodbye to each other after a satisfying conversation.

The leopard does not signify the unspoiled nature, it is not a cry out to a form of primitive fantasy or a dream of a preindustrial time filled with nostalgia. It is rather a symbol of utopic imagination, a future with no wars on Kurdish mountains and no nation-states benefiting from it.

This at times paints the film’s depiction of nature with a tone of romantic holism. Concepts like revival, rejuvenation, and spring are utterly attached to the possible appearance of the leopard, as if it is a kind of ‘animal messiah’ for Kurdish people.

Yet amidst this utopianism, Sidik and the Panther never cuts its ties with



■ Behind the scene of Sidik and the Panther

irony – in one scene, a young man wags his finger at the landscape and asks Mohammed Sidik, “can this beauty find me a job?” – and materiality. As Mohammed Sidik points out regularly, his search has a useful goal: if it is proved that his homeland has leopards, it can be declared as a national park, and in that case, Mohammed Sidik hopes, “nobody would dare bomb it.”

That is also perhaps why the film has, so to say, a “scientific” ending in contrast to its lyrical tonalities. Near the end, we see two men arguing: Mohammed Sidik and a hunter chasing goats. He asks the hunter, “do you want to destroy all this again? This place our ancestors protected and our enemies destroyed?” and confiscates his gun by force.

At this point, Dosky masterfully shifts the narrative. We suddenly see a woman on her own, standing on the same rocks on which Mohammed Sidik had stood, installing trap cameras just like

him. All of a sudden, we find ourselves out of the mountains, watching an academic presentation by the same woman, Hana Raza, an expert on wild animals researching the Persian leopard in the Zagros mountains.

Though it is not a just change in scenery. With Raza’s words, the rhetoric shifts from finding the leopard to the return of the leopards. “When I was sure the leopard was back, I felt a period of peace and stability was coming back,” Raza says. In her words the human is no longer at the center, the searching is no longer the precursor of things to come.

In line with Dosky’s previous documentary Radio Kobani, which focuses on the reconstruction of life in Kobane after the defeat of ISIS, Sidik and the Panther also engages with the idea of a new beginning.

Yet all in all, it is the sudden but elegant semantic shift between destruction and revival, ideal and material,

return and search, man and woman, human and post-human, and values attached to these concepts that challenge our presumptions. This makes the film not just a poetical but also a political tale about nature and hope. When the film ends, one feels that we are not approaching the apocalypse, but rather somewhere in the middle of time, and the wish for peace in the Kurdistan Region and the Middle East is just a step, not forward, not backward, just a small step.

Firat Yuçel is a film critic and a filmmaker. He co-founded Altyazı Monthly Cinema Magazine in 2001, and worked as the magazine’s editor in chief since then. He co-directed Kapalı Gişe (Only Blockbusters Left Alive, 2016), worked as the co-editor of the documentaries Welcome Lenin and Audience Emancipated: The Struggle for the Emek Movie Theater in 2016. In 2019, he co-directed Heads and Tails with Aylin Kuryel. ●



Sulaymaniyah Turns Its Waste into Clean Fuel

Kurdistan Chronicle

Animal and human waste has long posed a threat to natural environments and human societies, most notably in serving as incubators of disease. Today, after centuries of burning fossil fuels, the damage that waste inflicts is more complicated and pernicious. For instance, waste releases microplastics and toxic chemicals into the soil, groundwater, and waterways – not to mention carbon into the air that serves as another accelerator of climate change.

Recognizing the danger posed by waste to communities around the world, the city of Sulaymaniyah took action, constructing a pioneering waste management and treatment plant that has converted more than 800,000 tons of waste into clean fuel since it began operating in 2020.

Sulaymaniyah’s actions anticipated those of the Kurdistan Regional Government (KRG), which announced in July 2022 that the environment in general and the solid waste sector and its treatment in particular would be given priority. To this end, the KRG announced that it had signed 9 billion Iraqi dinars’ worth of contracts with 32 companies to collect and treat waste. It also unveiled plans to establish several waste treatment plants across the Kurdistan Region, including in the Kwashe industrial area in Duhok Governorate and in Akre, among others.

Processing 1,200 tons daily

Twana Jaafar, the Director of the Production Department at the waste treatment plant in Sulaymaniyah, explained how the project started in 2013. It was initially launched in the Tanjaro area, which lies southeast of Sulaymaniyah, as a cooperation between the Sulaymaniyah-based firm Faruk Holding and the French company Lafarge. However, the latter withdrew because of the threat of ISIS in the area, forcing Faruk Holding to proceed with the project alone and delaying the start of production until 2020.

The project covers a total area of 50 acres and cost \$60 million to construct. According to Jaafar, the plant “aims to protect the environment from the damage caused by solid household waste and convert it into clean fuel that can be utilized in laboratory furnaces and thermal power plants. This includes organic waste, plastic, paper, glass, and metal, which are collected and supplied to the plant by five companies located in Sulaymaniyah.”

Jaafar also explained that the plant processes approximately 1,100 tons of waste daily that it receives from the city and suburbs of Sulaymaniyah. “Treating waste occurs in three stages,” he said. “The first of is mechanical, in which the waste is cut and separated to prepare it for the second





stage, during which it is treated biologically by evaporating liquids that constitute approximately 55% of its volume with heat. This creates a unique environment suitable for the growth of bacteria, which in turn raises the temperature of the waste to the point where the bacteria are killed.”

The first two stages result in the decomposition of the waste and thus an enormous reduction in the risk of pollution. Reducing the size and weight of the waste makes it easier to control. “This decomposition reduces liquids and active organic materials in the waste, in addition to unpleasant odors, especially since the purification process is covered with a special cover that prevents the release of any latent emissions to ensure safety, so that plastic, paper, glass, and metal materials remain,” Jaafar said.

Creating clean, useable liquids

The third and final stage of the process is perhaps the most exciting, as the waste is subjected to advanced mechanical treatment in order to improve its quality, separating inert materials such as dust, stones, glass, and metal materials from the final product: resource derived fuel (RDF).

“RDF is a sustainable energy source because of its low level of emissions, especially carbon dioxide and nitrogen dioxide. It can be used in cement, iron and brick factory furnaces, and thermal power plants,” Jaafar underlined. He stressed that these processes “eliminate the harmful health and environmental effects resulting from burying or burning waste.”

Jaafar delved further into the chemical processes at play, describing how the laboratory at the plant includes an advanced treatment unit for waste liquid that ensures that these liquids do not leak into the environment, including the nearby Tanjaro River, which flows into Darbandikhan Lake. The other benefit is that treated water that results from the process can be used in agriculture and public washing places. The laboratory’s output “is environmentally friendly and its gas emissions are less than half those resulting from burning tires or heavy fuel,” explained Jaafar.

Environmental incentives and legislation

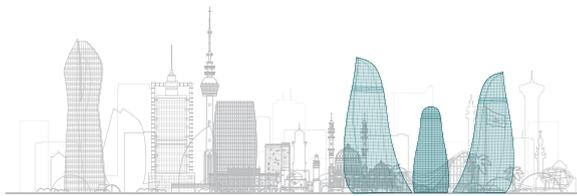
The plant, of course, provides additional social and economic benefits beyond the outstanding environmental advantages. Jaafar confirmed that the plant “has provided 250 job opportunities since it started operating in August 2020, in addition to processing over 800,000 tons of waste and preventing the production of 3.9 million cubic meters of methane gas and the emission of 4.7 million tons of carbon dioxide.”

Jaafar hopes that the project can “encourage investors to work in the environmental field and establish waste treatment or recycling projects in the Kurdistan Region.” He highlighted how many countries around the world are engaging in efforts to treat and utilize waste as a form of sustainable development. He stressed, however, the importance of “environmental legislation and educating citizens in this regard.”

Aras Fouad Saber, KRG Director of Environmental Protection and Waste Treatment at the Ministry of Municipalities and Tourism, has previously called on the press to raise awareness among citizens through schools, the media, and civil society organizations about reducing the amount of waste produced, which is estimated at 7,000 tons per day in the Kurdistan Region.

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”

Despite the importance of waste treatment plants, more investment is needed in the processing of useful materials that can be extracted from waste, including metal, glass, paper materials, and more. Recycling these materials is an obvious win-win that reduces the need to produce or import such raw materials, while reducing production costs across the industrial sector. This requires increasing community awareness of the importance of proper waste disposal, improving access to waste sorting units, and – most importantly – creating incentives for everyone who contributes to properly collecting and disposing of waste. ●



ZeroWaste Kurdistan



Sana Badrkhan
is a researcher and volunteer at ZeroWaste.

“My main aim is to inspire Generation Z to take the environment seriously!”

Avin Sherwani, at only 23 years old, is a dedicated environmental and climate justice activist. Currently enrolled in a master’s program at the University of Kurdistan Hewlêr (UKH), she is also an alumna of the Iraqi Young Leaders Exchange Program. Most importantly, she stands out as the founder of the ZeroWaste Kurdistan project, an organization devoted to raising awareness and inspiring action among the youth in the Kurdistan Region of Iraq (KRI) on the current global environmental crisis and climate change. Meanwhile, her academic background as a petroleum engineer has landed her a job as sales and marketing coordinator at KurdNeft, a retail fuel company in the KRI.

Avin’s passion for the environment began in her early childhood with her admiration for the region’s spectacular natural heritage and its stunning mountainous landscapes, especially in her ancestral village in the Barzan area. Her concerns about the environment came to a head when she established the ZeroWaste Kurdistan project in 2021.

Creating a sustainable future

ZeroWaste Kurdistan aims to encourage, prompt, and cre-

ate a caring community appreciative of KRI’s nature. Avin’s dream is to create a sustainable future for the KRI, so that the region’s inhabitants can enjoy its breathtaking nature for generations to come. As a young Kurdish woman, she believes that the best way to serve her community and inspire positive change is through environmental advocacy.

Along with her fellow activists at ZeroWaste Kurdistan, Avin has already embarked on several remarkable group activities such as planting trees, organizing cleanups, and creating educational campaigns. The group has also placed several themed bins in public places to encourage the practice of recycling, which has yet to become a habit in Kurdistan. “Recycling can eventually become the norm, with a little guidance,” Avin said.

To this end, Avin and her co-activists have conducted a number of seminars at academic institutions in the KRI, namely UKH and Tishk International University in Erbil.



Avin Sherwani

One of the highlights of her activism was a joint project with the U.S. Consulate and American Corner in Erbil last year. U.S. Consul General Robert J. Palladino and many other U.S. diplomats stationed in Erbil participated in a cleanup effort together with volunteers from ZeroWaste Kurdistan. The project received nationwide recognition. “This support gave a massive boost to our fledgling organization, raising its profile and highlighting the noble cause behind it,” Avin stressed.

Forging community

These kinds of initiatives serve to motivate Generation Z to appreciate and protect the nature that surrounds them. Avin is overwhelmingly optimistic about the way her organization is advancing and maintains that “so far, everyone who has heard of ZeroWaste wants to be part of it.”

The organization has an active volunteer base of 30 members – a number that is rising. Avin stressed that the volunteers enjoy the visible changes that they make to their homeland, as well as the collaborative nature of their work and the resulting spirit of comradery. “They also get many perks from this work,” she added. In addition to making new lifelong friends with a group of like-minded individu-

als, they were all awarded certificates of recognition by the U.S. Consulate in Erbil.

Reaching Generation Z

One of ZeroWaste Kurdistan’s major achievements was the publication and distribution of a Kurdish-language children’s storybook titled Forest Adventures, which aims to help enlighten Kurdistan’s future generations about the environment. This interactive story follows two friends who are concerned about their local forest being destroyed by a major industrial plant. Beautifully written and inspirational, Forest Adventures encourages children to think about ways to protect their local environment.

Avin’s main focus in her climate activism is to change the mentality of Generation Z because they are the future of the KRI. She wants them to be confident in a bright future for their homeland. “There does not



Head of ZeroWaste Kurdistan project (Avin Sherwani) thanking former US Consul General Robert J. Palladino after a hard day’s work helping clean-up and dispose of rubbish in the areas surrounding the Erbil’s Martyrs Monument.

have to be a particular reason to plant a tree anywhere in Kurdistan,” she said. “The very fact that they live here should make them want to do so anyway.”

“In order to build a society that cares,

“

ZeroWaste Kurdistan aims to encourage, prompt, and create a caring community appreciative of KRI’s nature

”

it is absolutely essential we focus on the youth, especially primary school pupils, because they are impressionable and easily influenced when a positive effort is made,” she said. “If we are able to make them embrace a climate-conscious mindset – which I am confident we can – then we will be able to build a very beautiful future for Kurdistan.”

Avin underscored that ZeroWaste Kurdistan aims to make environmen-

talism fun and pleasant for everyone by giving vibrant and lively seminars to raise awareness, as well as organizing therapeutic activities like planting trees and painting murals in public places. ●



Kakay Falah



I love You, My Land

I love it, I love it,
This homeland of mine.
Until my heart's last beat,
Nothing will tear it from my sight.

I love you, my land,
The source of my hope and dreams.

This air, water, and soil
Are the lifeblood of my existence.
A heart, like the nightingale on the branch,
Is entranced by the face of this flower.

I love you, my land,
The source of my hope and dreams.
My beloved Kurdistan,
As long as I live, I'll revere you.
My soul and senses cry out for you,
And I'm drunk by your splendor.
I love you, my land,
The source of my hope and dreams.

My heart tells me, like my tongue,
I love you, my Kurdistan.
My homeland's love
Is the foundation of my faith.

I love you, my land,
The source of my hope and dreams.
I love it, I love it,
I wish for my country to succeed,
To shine brightly in all names,
To bring growth and clarity.
I love you, you my land,
The source of my hope and dreams.

Kurdistan, 1958

Translated by Nahro Zagros

SABR DRI



grey mongoose



The Indian grey mongoose (*Urva edwardsii*), a species native to the Indian subcontinent and West Asia, has also been spotted in Kurdistan, where the Shamak Plain hosts diverse native and migratory wildlife. This large mongoose, which thrives in agricultural land, forests, and scrublands near human settlements, is curious but cautious, often staying close to cover like hedgerows, bushes, or rocks. Skilled at climbing and hunting, it preys on lizards, rodents, snakes, and bird eggs. Despite its bold nature, it usually lives alone or in pairs and breeds year-round, remaining abundant enough to be listed as Least Concern by the IUCN.

Mohammed Ghafoor Majeed

Mr. Mohammad Khoshnaw founded Das Food Industries in 2020. He is the chief executive officer (CEO) of the Erbil-based manufacturing compound, which is the largest wheat-based food production factory in Iraq.

His leadership ensured Das Food Industries great success despite the company's young portfolio.

He has been essential to developing Iraq's wheat trade, quickly becoming a leading figure in the wheat trade both in Iraq and the region.

DAS is a subsidiary of Khoshnaw Company, which is well known for its successful businesses for more than four decades.



Das Food Industries

DAS Food Industries comprises of 2 flour millings with a capacity of 2000 tons per day, 2 bulgur mills with a capacity of 400 tons per day, a seed preparation factory with a capacity of 120 tons per day and a 400 tons per day feed mill, in addition to grain storage and handling facility with capacity of 100,000 tons.

In second phase, DAS will have more factories for pasta, biscuit, cakes, rice mill, maize mill, and more storage capacity.

This ambitious project is absolutely vital for the agri-industry's growth in the Kurdistan Region and Iraq, and hence the farmers benefit immensely, it also provides employment for the younger generation. The company's main goal is to restore the most substantial local capital that was sent abroad up to now in an effort to revitalize the local economy through high-quality local products.



