



Ministry of Planning
Kurdistan Regional Government

Kurdistan Region of Iraq 2020



A Vision for the Future





FOREWORD BY THE MINISTER OF PLANNING

The Kurdistan Region of Iraq has achieved dramatic development in the past decade. Although challenged by damage to our society and infrastructure from years of war, genocide, forced displacement, and the destruction of more than 4,000 villages at the hand of the previous Iraqi regime, we have begun a sustainable development process.

With the appointment of the Seventh Cabinet, and with opportunities for improvement still available to our Region, the Ministry of Planning of the Kurdistan Regional Government (KRG) has developed a Regional Strategic Development Vision for 2020.

We have produced this vision for three reasons.

First, we wanted the population to know how we envision the Region developing and how the KRG is working to improve the people's well-being.

Second, we wanted to unify present thinking into an overall plan for the new cabinet in order that all parts of government will work together for a common goal.

Third, we wanted to provide a framework under which the individual ministries could develop their detailed policies and goals through 2017, and so included five-year policy priorities.

In the Kurdistan Region of 2020, our private sector will take the lead in providing jobs and economic growth. Our government will operate efficiently and effectively to enable businesses to succeed and all people in our Region to fulfill their highest potential.

Our vision for 2020 is that all people in our Region will enjoy the benefits of freedom, health, welfare, and economic security and opportunity. This document lays the foundation for the achievement of that vision.

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ABBREVIATIONS

Abbreviation	Definition
EIA	environmental impact assessment
NGO	non-governmental organization
ICT	information and communications technology
IT	information technology
K-12	kindergarten through grade 12
KRG	Kurdistan Regional Government
KRSO	Kurdistan Region Statistics Office
TVET	technical and vocational education and training

The overall development vision of the Kurdistan Regional Government is a Kurdistan Region of Iraq where all people enjoy the benefits of freedom, health, welfare, and economic security and opportunity.

The Kurdistan Vision: Building on History and Opportunities



After decades of painful struggle, we, the Kurdish people of Iraq, have achieved a self-governing Region in which we can develop our culture and human potential. Development in the Kurdistan Region of Iraq has been extraordinary since liberation, spurred by a highly secure environment and a proven record of attracting investment. New construction has sprouted, along with improved electricity supply, new universities, and new opportunities for a better life for all. The Kurdistan Region today is far different than when we started functioning autonomously in 1992.

The central problem we face now is to build on the achievements of recent years to expand economic opportunities and create a better homeland for all of our people, regardless of gender, socioeconomic status, place of birth, age, religion, or ethnicity. Accordingly, we introduce *Kurdistan Region of Iraq 2020: A Vision for the Future* to provide a framework for policy development by government officials, define five-year policy priorities, and outline the ways that the KRG is improving opportunities for the people of the Region.

The Development Vision of the Kurdistan Region of Iraq

We are guided by an overall development vision.

In the Kurdistan Region of Iraq, all people will enjoy the benefits of freedom, health, welfare, and economic security and opportunity.

Fulfilling this vision by 2020 requires an overarching set of coordinated activities by the KRG that focus on delivering:

- Health and social services that meet the needs of the population
- An education system and labor market opportunities that will enable the population to achieve its potential and improve its standard of living
- The necessary physical infrastructure
- The development of a diversified economy relying on the private sector
- Effective and honest government.

Coordination will be important because achievements in one sector can affect achievements in another. Improving health not only requires improving the health care system, but also improving our sanitation systems and our environment. Improving our agriculture and private sector not only requires modernizing our laws and regulations, but also ensuring a healthy and skilled population so that employees can provide their best effort at their jobs.

Our Region is rich in oil and natural gas. Our innovative policies for developing our resources have brought numerous international energy companies into our Region and created new possibilities for development. Our Region also possesses significant natural mineral resources that have not yet been tapped, and we will learn more about them as we conduct geologic and mineral surveys.

Because our oil, gas, and natural resources policy is well-defined and well-known, we do not deal further with it in this document. Indeed, our ambition is to be more than an oil and gas economy, or to rely only on oil, gas, and natural resources. Instead, our ambition is to use our oil, gas, and natural resources to support the growth of our private sector. How? Companies in the natural resources sector can buy supplies from local businesses, and employees in the sector can supply many of their own needs from our growing private economy. In addition, the growth of the natural resources sector can inspire more education and scientific research in fields related to the sector, including engineering, geology, physics, and chemistry. In these ways and others, oil, gas, and natural resources will serve as one of many enablers that will help us build a stable and secure society and a diversified, private-sector economy.

Building on History and Opportunities

Our Region has an ancient culture and a long heritage. It has more than 1,000 archaeological and historic sites, from Shanidar cave and its Neanderthal skeletons, to the Erbil Citadel, to the Sheikh Choli Minaret, and to all the treasures in our antiquities and heritage museums in Duhok, Erbil, and Slemani.

In our heritage we have poets, historians, scholars, diplomats, and dreamers in our past, such as the minister and historian Ibn Al-Mustawfi of 800 years

ago and the 20th-century poet Dildar, author of our national anthem. We have Muhammad Amin Zaki, a leading modern historian of Kurds and Kurdistan; Ahmad Nalband, who drew from multiple languages to create his patriotic and socially conscious poetry; Muhammad Ariz Jizrawi, who revolutionized Kurdish music; and Sherko Bekas, the great contemporary poet. This culture and heritage give us much to build on.

The Kurdistan Region has functioned autonomously since 1992 and was recognized as a formal political entity under the authority of the Iraqi Constitution of 2005. However, the Kurds are an ancient, proud people and our arrival to our own government came with great effort.

The Struggles of the Past

There is no need to dwell on our past—how we fought for self-determination against hostile neighbors and even a hostile world. But a few details should be mentioned.

- In the Treaty of Sèvres of August 1920, after World War I, the Kurds were promised their own homeland, but the Treaty of Lausanne of July 1923 negated this promise.
- Our rights took a step forward in 1958 when the provisional constitution of Republican Iraq declared both Kurds and Arabs to be partners in the nation and recognized our national rights. But there was no progress, and in 1961 we rose up against the oppressive Iraqi state. Although there were times of no fighting, our rebellion lasted almost a decade.
- In 1970, we reached an agreement with the Baathist government on autonomy as well as representation in the national capital, but by 1974 this had not been fulfilled. Another period of suppression began.
- From 1974 to 1991, more than 4,000 villages were destroyed. The worst of village destruction, mass killings, and Baathist brutality took place during the 1983 to 1991 period, culminating in the horrible Anfal Campaign, which included the attack using chemical weapons on Halabja, killing 5,000 people. In all, tens of thousands, perhaps 180,000, people were killed.

- Finally, in 1991, we rose up against a hostile Baathist regime after the Gulf War, only to face counterattacks by the Iraqi military and its helicopters, leading to a mass evacuation and humanitarian crisis in which nearly the entire population fled to the mountains.
- This sparked U.N. Security Council Resolution 688 on April 5, 1991, which recognized that there were Kurdish parts of Iraq. It condemned the repression “in Kurdish populated areas,” demanded an end to this repression, insisted that international humanitarian organizations be allowed access, and opened the way to a mission to report on the plight of “in particular the Kurdish population.”
- This resolution enabled a no-fly zone and, protected by this zone, the Kurdistan Region held parliamentary elections and created the Kurdistan Regional Government in May 1992.
- Unfortunately, disagreements led to two separate administrations, one based in Erbil and one in Slemani.
- From 1992 to 2003, we endured the double sanctions—the world sanctioning Iraq and Iraq sanctioning the Kurdistan Regional Government.
- We remained vigilant and resilient, and in the 2003 Operation Iraqi Freedom, our official armed forces, the Peshmerga, contributed to the coalition effort to liberate Iraq.
- We then played a key role in drafting the 2005 Iraqi Constitution, which almost 80 percent of the population voted to ratify.
- Finally, in 2006, we unified our two administrations with the start of the Fifth Cabinet. The Sixth Cabinet took over in 2009. And now the Seventh Cabinet is carrying on this legacy.

The Kurdistan Regional Development Vision

Our history speaks of tragedy, but also of triumph. We maintained our culture and our identity. The Kurdish language and arts are alive and vibrant. We have emerged with our own self-governing Region, an oasis of stability and security in Iraq and an

example that can lead all Iraq to a better future. And because of our past, we know that all people deserve to have their human rights protected. But we still face many challenges.

The vision and policies presented in this document are meant to be a start to meeting our challenges. In an era of uncertainty and political unrest, our stability will help us develop our Region as an essential crossroads in the Middle East, providing access to a market of more than 26 million Iraqis in the rest of Iraq, facilitating exchange among the Iraqi, Iranian, Syrian, and Turkish markets, serving as a transit region for pilgrims visiting Iraq’s many holy sites, providing a vacation site for people throughout Eurasia, and serving as a global air-transit hub.

To capitalize on these opportunities, young residents of Kurdistan will need to learn languages and information technology skills and become more work and service oriented. They will need to work to the best of their capabilities and to make part of their lives the idea that a strong work ethic will give them and their Region the best chance of success no matter which sector they work in. Likewise, the government must relieve regulatory and legal barriers to the private sector, and enable the population to achieve its potential through better education, health, and other social services. And we must maintain open relations with the rest of the world and remain willing to learn from anyone who can provide information of value.

This document describes our vision for the future Kurdistan. We developed this vision based on much consultation with and review by development experts, international agencies, and the ministries.

For each policy area, we present our vision and then more completely describe how our Region will appear in 2020. We then provide policy priorities for the five-year period to 2017 to explain what steps the KRG will take to accomplish this vision. In the final chapter, we show how we will monitor our progress and we define the responsibilities of the government and the people.

Our vision for 2020 and our policies to reach this vision will:

- Put people first
- Build the Region’s infrastructure
- Create an economically prosperous Region
- Put government to work for the people.



Putting People First

The Kurdistan Region is rich in resources—agricultural land, archaeological sites, minerals, gas, oil, and water. But our most valuable resource is our people. In this chapter, we provide our vision for health, education, social welfare, and labor. Focusing on people does not involve only providing important government services to help them develop their potential. It also involves including them in government decisions, listening to their ideas, and ensuring that they feel their government truly represents them. We discuss the relationship between the people and the government in the Conclusion of this Regional Development Vision.

Health in Kurdistan

A healthy population is the foundation of a country's success. The health of the Kurdistan Region's people is essential to our economic and social success as well as to the well-being of our population.

Vision

An efficient health system that provides high-quality essential services to everyone to prevent, treat, and manage physical and mental illnesses and injuries.

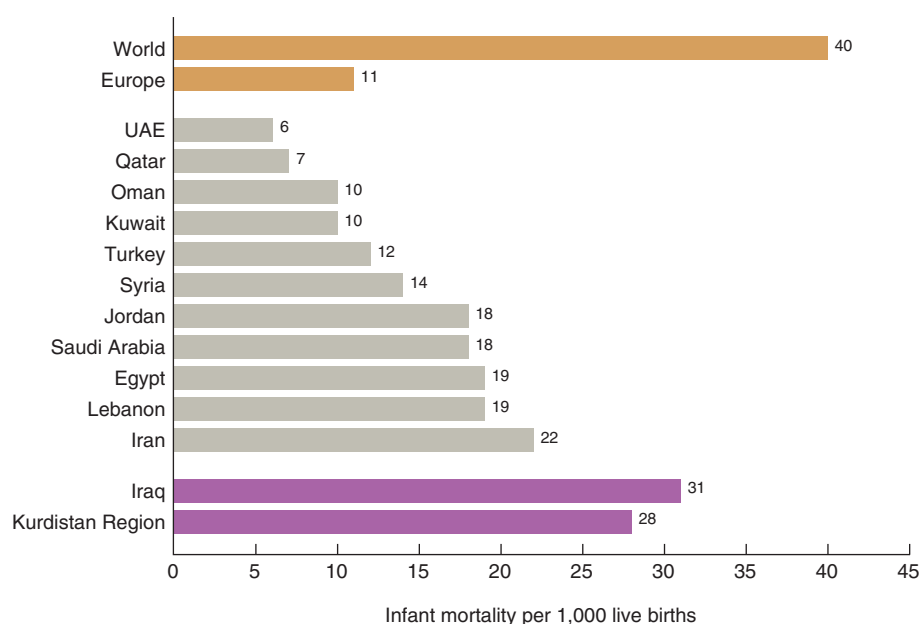
Health Today and in 2020

The Kurdistan Region has a long tradition of excellence in healthcare, which suffered tremendously during the previous regime. Over the past decade, dedicated and skilled professionals have sought to overcome depreciated facilities and lack of investment in the sector. Many improvements have been made, but many more will have to follow if the Region is to have a truly healthy population and achieve its vision for the future.

As of 2008 and 2009, depending on the indicator, people in the Region have life expectancy, mortality, infant mortality, and other macro health indicators at levels that are better than world averages and better than those in Iraq as a whole. Our next step is to improve

our status and reach the health levels of the developed Gulf States and Europe. One example is the Region's infant mortality (Figure 1.1).

Figure 1.1 Infant Mortality Rates in the Kurdistan Region and Selected Economies, 2010



SOURCES: World Health Organization, Kurdistan Region Statistics Office (KRSO), and Iraq Multiple Indicator Cluster Survey 2011.

The leading causes of death in adults in the Region are largely consistent with patterns seen in countries in the Middle East and North Africa, including injuries (mostly caused by road traffic accidents), cancers, stroke, and cardiovascular disease (Table 1.1). As economic development continues, we will likely see communicable disease incidence fall. With this welcome trend, we will prepare ourselves for new health problems, those that typically predominate in industrialized countries—non-communicable diseases and injuries.

The Region has many assets to help it achieve its health vision for the future, including a large network of primary health care centers and hospitals that assure easy access for almost the entire population to some public care as well as a trained cadre of physicians who represent some of the best minds in our Region. The KRG ensures access to care through its public budget, which funds public hospitals, public health centers, and physicians, who provide care to people at very low cost. People also have access to and use private-sector hospitals, clinics, and doctors whose numbers are expanding rapidly with limited regulation or oversight. People usually pay much higher amounts in cash for private-sector care than the same service provided in the public sector.

This provides a strong base from which to overcome challenges as we improve our health system for 2020 to provide even better care for the people of the Region. Our vision is to define and provide a package of basic health services to be covered by public financing and offered at each level of care, and then to have people pay for all other services.

In our future health system, we must increase health sector funding, the quality of care, and efficiency. Quality and efficiency need to be improved in particular in tertiary care, which today does not meet world standards. We must increase our number of

Table 1.1 Leading Causes of Death in Persons Under and Over Age Five, 2009

Rank	Deaths Under Age 5		Deaths Over Age 5	
	Condition	#	Condition	#
1	Prematurity	399	Injuries (all types)	925
2	Septicemia	170	Cancers	463
3	Birth asphyxia	127	Stroke	450
4	Dyspnea	113	Cardiac diseases	442
5	Injuries (all types)	106	Heart attack	359
6	Congenital problems	64	Encephalitis	241
7	Pneumonia	49	Kidney failure	177
8	Neonatal heart failure	42	Diabetes	39
9	Gastroenteritis	23	Respiratory failure	30
10	Peritonitis	18	Hypertension	28

SOURCE: KRG Ministry of Health.

physicians and hospital beds to meet the needs of an expanding population and an expected increase in demand as incomes increase and people demand care at levels similar to those in neighboring countries (Figure 1.2). And we must institute a policy and regulatory framework for our expanding network of private-sector hospitals to ensure quality and a process to ensure that new facilities are addressing national needs.

Our future health system will offer improved health service delivery. There are a sufficient number of primary health centers, but the services to be offered in each type are not defined and many centers do not offer some of the services that should be provided. Health facilities, services, and professionals should be distributed appropriately and fully staffed and resourced to enhance access, coverage, efficiency, and quality of care for the entire population. Presently most physicians work only a few hours in the public sector before moving to their private-sector clinics. Many public hospitals operate inefficiently because they have much higher staff levels than would be necessary to provide quality care. Our future health system will correct these staffing imbalances. Patient safety and the quality of care in tertiary care and emergency facilities are not up to world standards and can and will be improved.

Policy Priorities

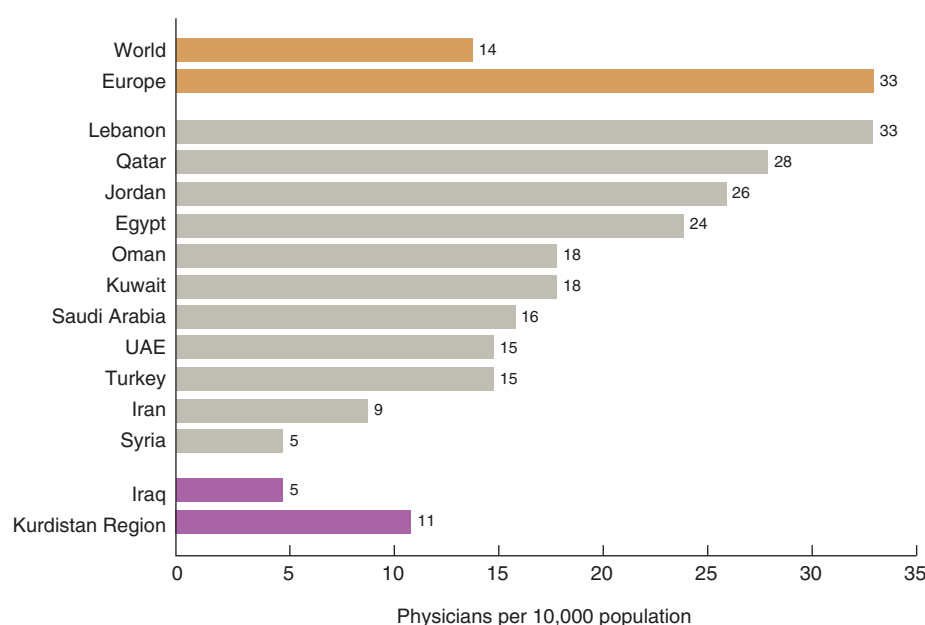
As we look to our future, we have many opportunities but also many policy choices that must be made to modernize our health care system. To bring our health care system in alignment with a 21st-century model of care, we will focus on four key policy priorities through 2017: financing, clinical services, preventive services, and public sector management, regulatory, and policy capacity.

• Introducing a sound health care financing

system. The KRG is presently developing a new strategic approach to financing health care focused on accountability and a national health insurance system. A sound health care financing system should include incentives to guide the system and thereby help determine the system's quality, fairness, efficiency, effectiveness, and overall cost. To achieve these goals, we will pursue most of these policy actions:

- Study, design, and implement a social insurance system along with the necessary regulations;
- Establish the institutions to set overall policy goals and manage the new financing system;
- Establish a special commission to determine which basic services should be provided in public facilities and at what prices;
- Encourage the creation of private health insurance companies to offer supplementary coverage and to process claims and manage the system should the KRG wish to contract for such services;
- Develop programs that encourage efficient operation of hospitals;
- Utilize financing options to encourage development of a robust private sector that provides efficient, high-quality care and that is properly regulated and consistent with our goal of insuring all people have access to affordable health care;
- Develop and implement a policy that pays for physician services based on the amount and quality of the services they provide; and
- Establish a management-training program to train hospital and policy officials to manage resources efficiently.

Figure 1.2 Physicians per 10,000 Population in the Kurdistan Region and Selected Economies, 2008



SOURCES: KRG Ministry of Health and World Health Organization.

- **Improving availability and quality of clinical services.** We will institute policies in the area of primary care services, secondary and tertiary care services, and service quality and patient safety. *Primary care* is a critical feature of any modern health care system that directly addresses the needs and health of the people and over time can reduce demand for secondary and tertiary care. We intend to optimize the distribution of primary care facilities and services across the Region to ensure access to a defined standard package of services at each facility level; ensure a well-functioning system for referrals and continuity of care through different levels of the health care system; enhance the education, training, and performance of all health professionals; and implement strategies to more easily recruit and retain professionals in rural areas. We will also work to attract professionals to family medicine and primary care, create career pathways for them, and upgrade the professional standards and use of nurses.

Secondary and tertiary care includes such services as district general hospitals (secondary) and specialty, emergency, and teaching hospitals (tertiary). Our policy priorities for secondary and tertiary care will include developing standards of services to be provided, identification of facilities not meeting those standards, and policies and programs to bring underresourced facilities up to the standards set. This may involve improving facilities and building new ones. We will also focus on using the private sector to enhance choice and fill gaps where appropriate within the confines of improved regulatory systems and clear policy direction.

To achieve service quality and patient safety, vision, skills, incentives, resources, and an action plan are needed. Using the definition of quality and specific quality domains from the U.S. Institute of Medicine as a framework, we will introduce policies that assure that all clinical services are effective (decisions guided by evidence and research); patient-centered (services reflect patient preferences, needs, and values); timely (services reach patients and providers when they are needed); efficient (resources are not wasted); equitable (all patients have equal access to care); and safe (patients are protected from medical

errors, unsafe medication practices, and hospital-acquired infections). We will also introduce a system of hospital accreditation consistent with international best practices. We will also improve our human resources by improving undergraduate and graduate medical education and providing additional training and continuing medical education.

- **Promoting preventive services.** Preventive health services are typically the most cost-effective but often the least-attended-to elements of health systems. Our policy priority is to define a package of key preventive services and implement them at the most local level of care that is appropriate and safe. These services will include child health (genetic screening at birth, growth monitoring, and vision and hearing screening); immunizations (routine child and adult immunizations); women's and girl's health (before, during, and following pregnancy, as well as routine care); adult screening (blood pressure, Type 2 diabetes, cholesterol, cancers, obesity, tobacco use, and depression); environmental health (clean drinking water and sanitation); highlighting the dangers of smoking; food and drug safety (regulation and enforcement of product safety from production to sales), and a program to reduce injuries and in particular road traffic injuries.
- **Improving Public Sector Management, Regulatory, and Policy Capacity.** To achieve the other priority objectives detailed above, public sector management, regulatory, and policymaking capacity must improve. This means developing data and management information systems necessary for modern policy development, decisionmaking, and regulatory oversight; improving the human resource capacity of the public sector in the delivery of health services and management of hospitals; and improving the capacity of the Ministry of Health to manage and regulate the system. The Ministry of Health will need to expand its capacity to plan, develop policy, manage contracting, and monitor providers; draft needed legal changes; and manage the more complex insurance and financing system envisioned.

Education in Kurdistan

The turbulent events of history prevented many of our older residents from achieving their educational potential. However, with the creation of our Region and the new powers of the KRG, the opportunity to educate our younger generations has arrived.

Vision

An educational system that equips our people to achieve their aspirations and support democratic values, economic development, and societal welfare.

Education Today and in 2020

Educating residents of our Region to their full potential will be critical for our continuing progress. In the past 10 years, the Region has made great strides toward expanding access to all levels and sectors of education. Since 2003, more than 160 new preschools, 2,200 kindergarten through grade 12 (K–12) schools, five technical institutes, and four public universities have been opened. Total student enrollment has increased by 27 percent over the past five years, with enrollment growth in secondary preparatory and postsecondary technical education leading the way (Figure 1.3).

At the same time and unlike in countries in the area, our Region provides near-equal gender educational opportunities. Although boys outnumber girls in basic and secondary education—in some grades by large amounts—at the postsecondary technical education and university levels, girls are more likely to continue education than boys. Girls in 2011–2012 accounted for 54 percent of total enrollment in postsecondary technical education, up from 46 percent in 2006–2007. In universities, they accounted for 50 percent in 2011–2012, up from 45 percent in 2006–2007.

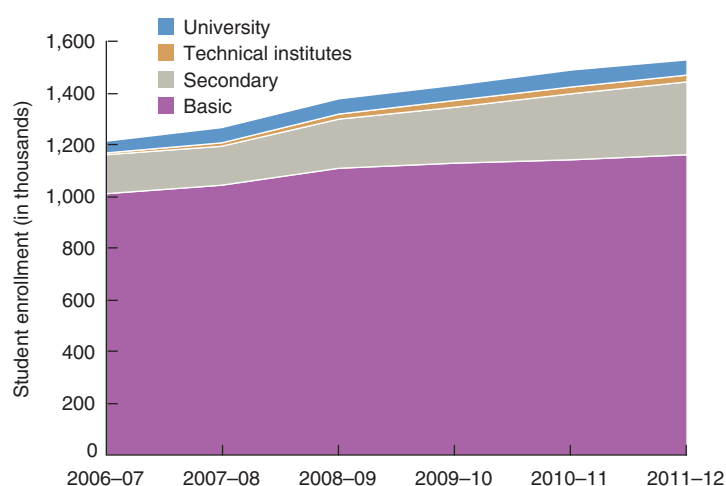
Beginning in 2009, the KRG has taken steps to bring basic and secondary education to international standards, implementing major reforms. It introduced a new, more rigorous K–12 curriculum and made education compulsory through grade 9 instead of grade 6. Preparation requirements for new teachers in the basic level (grades 1–9) were upgraded to require a bachelor's degree, and new basic teacher colleges were established to train new teachers. It also put in place policies to reduce the high rate at which students were being retained in the early grades and instituted two national exams.

Similar progress has been made toward upgrading the quality of higher education. A teaching quality assurance system and a continuous academic development program are being established. An ambitious effort to modernize curricula, including learning standards, to meet the labor market demand has been started. And we have introduced courses and requirements in critical thinking and debate, languages, computer skills, and basic science.

Efforts to modernize and upgrade the education system will continue. Future efforts will address educational access, quality, relevance, gender disparities, and transparency and accountability across all educational levels. They will also include modernizing and upgrading the basic schools, many of which are in poor physical condition.

We are committed to providing all with an opportunity to fulfill their aspirations for increasingly higher levels and quality of education.

Figure 1.3 Student Enrollment by Education Level, 2006–2007 to 2011–2012



SOURCES: KRG Ministry of Education and KRG Ministry of Higher Education and Scientific Research.

This commitment, combined with a growing population, will mean continuing increases in student enrollment at all levels of education. Our challenge, which we will meet, will be to build enough facilities to meet this natural increase and to reduce the need for double-shift facilities that limit instructional time.

Our education system in 2020 will achieve consistent and sustained quality from basic to postsecondary education, helping us address the needs of the current and a more diversified economy. Upgrading the standards and aligning curricula across all levels of education will be an important part of this effort. It will contribute to improving student achievement in sciences, mathematics, and languages and ensure that graduates meet the knowledge and interpersonal-skill requirement of employers.

We will complete effective implementation of the new curricula. This will require significantly upgrading teacher standards and the content and instructional knowledge of practicing teachers. Providing ongoing professional development will be important. The development of teacher aids to practicing teachers will also be needed. Without them, teachers cannot be expected to effectively implement the new curriculum. The preparation of new teachers is also in need of improvements and needs to be upgraded to meet the content demands of new curricula and teaching methods.

KRG education leaders will also aim to improve the match between what students learn and what employers demand. In particular, this will entail developing a closer collaboration between technical and vocational education and training (TVET) institutions and the private sector in the development of curricula, aligning the TVET occupational mix with the occupational demands of the economy, and increasing the opportunities that the private sector offers for on-the-job training. While post-secondary technical education has seen a rapid growth,

secondary vocational education will be the next priority for upgrading. There will be a need to develop vocational education opportunities for secondary students who do not want or cannot pursue a post-secondary education.

Transparency and accountability also will be developed. Parents and the public need to know the progress that their children's school is making; students expect that their qualifications are recognized; and employers expect that graduates with certificates or diplomas meet their needs. Providing parents with information about their child's school may help engage parents to get more involved in their child's education. And strengthening evaluation of both teachers and students will help provide feedback to drive improvement and ensure the validity of the learning gained.

Policy Priorities

Our efforts through 2017 to improve education will focus on the following policy priorities:

- **Ensuring access to all levels of K–12 education.**

We will develop and implement a program to build about 1,000 schools integrated across level and type of education in line with projected student growth and the need to decrease double-shift facilities. Public-private partnerships will be sought to accelerate the program of school construction and renovation.

- **Providing high quality K–12 education.** This will include establishing a high-level committee to review and align academic and occupational curriculum standards across levels of education; increasing K–12 instructional time for students to international standards; reviewing curricula against the established standards; expanding the capacity to provide ongoing teacher development and train practicing teachers on the new curricula; developing curriculum implementation aids; reviewing the curriculum of basic teacher colleges to align with the basic education curriculum; and conducting pilot implementation programs with monitoring and evaluation. It will also include exploring participation in one or more international assessment programs to benchmark KRI student learning against that of other countries.

- **Increasing relevance and success of TVET.**

Actions include improving the quality of TVET curricula, facilities and equipment, governance, and teacher training at all levels, secondary, tertiary, and adult; establishing a high-level TVET-private-sector coordinating institution to provide inputs into the design of occupational curricula and improve the quantitative match between occupational supply and demand; accounting for employer technical and employability requirements in the revisions of occupational curricula; expanding vocational education capacity and options for secondary students; placing career counselors in schools to advise students on education and career paths; establishing uniform TVET student qualification requirements that meet employer needs based on employer inputs; and coordinating the student-progression process from level to level to ensure that students receiving diplomas from secondary vocational education have the skills needed to continue to the tertiary level.

- **Increasing transparency and accountability.**

Means to achieve this policy goal include developing and implementing (1) teacher evaluation and quality assurance programs at all levels of education; (2) a K-12 student achievement school report card for parents and the general public; (3) a Region-wide uniform standard occupational certificate for two-year technical institutes; (4) establishment of an Education Management Information System.

- **Building on improvements in higher education.**

We will continue and accelerate improving quality; building links with international research centers; investing in people and infrastructure; fostering the independence of the universities; strengthening quality assurance, including establishing an institutional licensing and accreditation system; establishing polytechnic universities; continuing administrative reforms to limit bureaucracy and put students and staff first; and protecting human rights and social justice to improve the learning and

working environment. We will add to our curriculum reforms in languages, information technology (IT), and critical thinking and debate by enhancing our management training, which will benefit both the public and private sectors. Private colleges and universities can make an important contribution to education in the Region, for example by introducing innovative methods and new courses of study. We will endeavor to continue to welcome them while ensuring that their quality is high.

Ensuring an Inclusive Society

Vision

A society in which all people in the Kurdistan Region of Iraq can achieve their maximum potential regardless of gender, socioeconomic status, place of birth, age, religion, or ethnicity.

Our Inclusive Society Today and in 2020

Our Region has a remarkably diverse population. We have different ethnicities and religions. We have people of different abilities and different backgrounds. We have people who have suffered from war and genocide, and people who have known only peace. We welcome all these people and find strength in our diversity. We want a society by 2020 in which a person of any background is free to pursue his or her life's goals. We recognize the disadvantages of women and girls; the impoverished, widows, and orphans; political prisoners, the victims of oppression, and relatives of martyrs and genocide victims; and ethnic and religious minorities. We not only want to help the disadvantaged, but we also want to ensure the development and inclusion of our youth.

Improving the status of women and girls. Women make an important contribution to our society in the working world and the home. Today, our laws protect women from discrimination. We have women business people, women professors, and women members of Parliament. But social and cultural considerations continue to restrict the equal access of women to resources and leadership positions in society. The majority of women in our Region report that they have

not reached the level of education they wanted (62 percent) and many report they do not work due to lack of educational qualifications (13 percent). In fact, literacy is too unequal (Figure 1.4). We must make sure our girls and women are educated, know how to read and write, and know how to work with numbers.

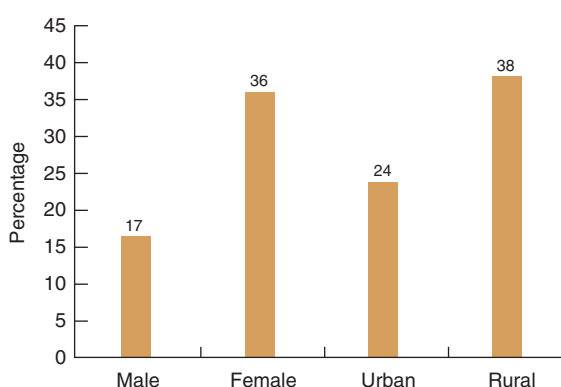
Nearly 20 percent of women are married before the age of 18, and some are even married before the age of 15 (4.5 percent). In our Region by 2020, we aim to narrow the literacy and school enrollment gap between men and women. We aim to ensure that women understand their legal rights and are encouraged to engage in activities outside their homes if they want. And we aim to ensure that women have equal opportunities in all activities in society.

The impoverished and vulnerable populations.

Our society has always had traditional safety nets in place in the form of aid from family, the community, and religious organizations, which helped meet the needs of vulnerable populations such as the very poor, disabled, and widows and orphans. We have made strong efforts to enhance these traditional safety nets. Working with the national government of Iraq and the World Bank, in 2009 we created a comprehensive poverty reduction strategy that has four goals: (1) creating income-generating opportunities for the poor; (2) empowering the poor to exercise their rights; (3) building the capacities of the poor; and (4) establishing a social safety net for the poor. The term “social safety net” means a collection of specific government programs that transfer money to the poor under certain conditions, without any obligation by the poor to contribute to the programs in advance or pay the money back.

Based on these goals, the strategy has six projected outcomes. These are (1) higher income for the poor from work; (2) improvement of the health status of the poor; (3) dissemination and upgrading of education for the poor; (4) a better living environment for the poor; (5) effective social protection for the poor; and (6) less inequality between poor women and men.

Figure 1.4 Percentage Illiterate by Gender and Environment, 2011



SOURCES: KRSO and Iraq Knowledge Network.

Our aim is to improve living conditions of the poor, address the causes of poverty, and foster upward mobility. This will take further improvement of our poverty programs. Many members of marginalized groups are still struggling today. Iraq’s food ration program—the Public Distribution System—has provided food rations to 99 percent of the country’s population, including both the poor and non-poor. These subsidies have driven down the price of food, which has been beneficial for some but had a negative effect on farmers, who constitute a majority of the rural poor. Other support programs provide necessary relief to some in need, but many of the beneficiaries are actually not poor. Our goal is to redesign our programs so that by 2020, assistance is targeted to those in need and creates economic opportunity for all.

Political prisoners, the victims of oppression, and relatives of martyrs and genocide victims.

The KRG has made strenuous efforts to recognize those who died or made significant sacrifices in defense of the Kurdistan Region. Nine annual events have been established to honor both the heroes who were killed while defending their people as well as their families who must continue to endure their sacrifice. The government has also provided financial support for these families who have lost loved ones, including a monthly salary and support for health care, education, and housing.

Ethnic and religious diversity. Our Region has accepted the idea that it is a diverse society. Ethnic and religious minorities—Christians, Yazidis, Turkmen, and Arabs, among many other groups—live and work in the Region. And our government includes more than just ethnic Kurds. Our Region must ensure that all its peoples and all of their languages and religions are accommodated and fully respected within our vision of a better society.

The development and inclusion of our youth. We have a young population. Two-thirds of our population is 30 years old or less, and half our population is 20 years old or less. These are the people who will build the new Kurdistan. We have been taking steps to address the challenges faced by our young people and to celebrate their talents, including expanding college enrollment for preparatory school graduates, celebrating World Youth Day for a full month, and initiating a discussion on how to improve youth representation in the policymaking process. Recent surveys have shown that youth in Kurdistan have levels of happiness higher than those of the youth in the rest of Iraq. We want to ensure that our young people continue to have opportunities to develop themselves mentally, physically, and socially, that they have strong career opportunities, and that they are connected to other young people within and outside Kurdistan.

Policy Priorities

Our program through 2017 for disadvantaged groups will include the following policy priorities to ensure that no person in our Region will suffer because of who they are or because they have been struck by misfortune:

- **Assuring equal opportunities for girls and women.** Our policies for women and girls stretch across all domains, including education, labor markets, private-sector development, and social support. In the area of social support, we will enhance social protection to provide additional child-support payments so that low-income

mothers with small children can more easily continue their education. We will work to make educational and vocational training programs more accommodating to the needs of full-time mothers. And we will address gender violence. In our modern society, there is no place for honor killing and female genital mutilation, and we will work to legally ban these and to enforce these bans strictly. There is also no place for domestic violence, and suicidal burning, especially among young females in rural areas, and we will combat this by improving the legal protection of women and creating a network of organizations and financial assistance programs to aid the victims of domestic violence.

- **Reducing poverty and improving the social safety net.** We will continue to implement the poverty reduction strategy aggressively. Poverty is concentrated in the countryside and in the farming sector, and we will address these spatial and sectoral concerns by making sure that our education, health, labor market, and infrastructure initiatives include rural areas, and not just the cities. This includes improving mass transportation between rural areas and cities to facilitate access to jobs, and improving the availability and quality of health care. As part of improving the social safety net and aiding poor farmers, we will reform our aid to the poor to feature cash transfers rather than in-kind provision. Today our major in-kind assistance programs are public housing and food rations. However, these are poorly provided and poorly targeted. Properly identifying the poor and ensuring they have enough money for a basic, but decent standard of living will be our policy goal. Furthermore, we will design these programs so they encourage people in poverty to seek employment, rather than causing them to stay out of a job so that they can retain their benefits.
- **Encouraging development of non-governmental organizations (NGOs).** Poverty, gender inequality, and intolerance of ethnic and religious groups are social problems and thus require involvement from social actors. We will work to attract non-profit NGOs and private-sector organizations to assist the poor and vulnerable groups. NGOs can become an important link between officials who implement the programs and program recipients by creating outreach campaigns, gathering information about program effectiveness, and attracting private-sector resources.

- **Strengthening our laws against discrimination, and their enforcement.** All groups in Kurdistan must have an equal chance for success and be granted respect for their basic humanity. We will review and strengthen our laws against discrimination and strongly enforce them to make sure all people are treated equally.
- **Assuring the development and inclusion of our youth.** Many of our health, education, and labor policies will help our youth. We can do more, and in all that we do, we will make sure we reach our rural youth. Through such events as annual Kurdish youth festivals, field trips, and Internet-based symposiums we will help our young people connect to each other in Kurdistan and in the world. We will develop outreach programs and television programs to help young people consider their career paths and enhance their knowledge of our culture and our Region. We will also develop and expand sports leagues so that young people can stay healthy and meet each other in a safe environment.

The Labor Market in Kurdistan

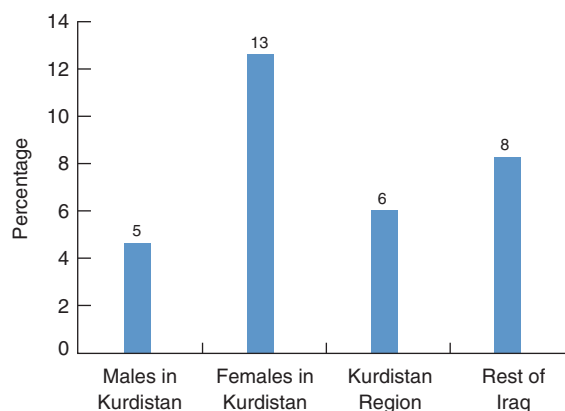
Vision

A private-sector labor market in which employees can find jobs, can move to better jobs when they want, and are rewarded for their work, and in which employers can find qualified employees and freely employ who they want.

The Labor Market Today and in 2020

Our economy is growing rapidly and needs an engaged and educated labor force to support the Region's development. People who want to work in our Region have a better opportunity to get a job than do the people of surrounding countries. Our unemployment rate is lower than that in the rest of Iraq (Figure 1.5) as well as that in Turkey, Egypt,

Figure 1.5 Percentage of Labor Force Unemployed in the Kurdistan Region and the Rest of Iraq, 2011



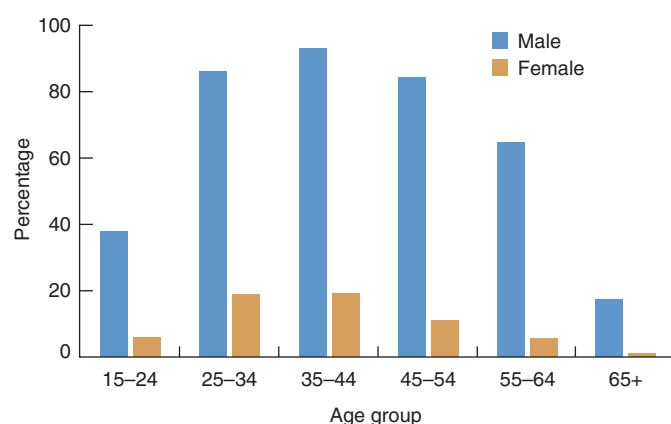
SOURCES: KRSO and Iraq Knowledge Network.

and Syria. Our rate differs by gender, with almost 13 percent of women in the labor force unemployed and less than 5 percent of men in the labor force unemployed. But even the female unemployment rate is a considerable achievement and is lower than the same rate in Egypt and Syria, and similar to that in the rest of Iraq and Turkey.

Today, almost 1.2 million people aged 15 years or older are in the labor force, meaning they either have some form of work or are actively seeking work. This is about 40 percent of the population aged 15 years or older. Many of those not working are supported by relatives who work for the government or by government assistance. Labor force participation rates are substantially higher for men than for women. The latest data available indicate that about 67 percent of working-age men and 14 percent of working-age women were in the labor force, either employed or actively looking for work (Figure 1.6).

The population of our Region is very young, with about 50 percent of residents aged 20 years old or younger. Over the next 20 years, our Region will experience a dramatic demographic shift in its labor force as this segment of the population reaches working age. There will be a net increase of approximately 850,000 to 1.1 million new job seekers who wish to join the labor market during this period.

Figure 1.6 Labor Force Participation in the Kurdistan Region, 2012



SOURCE: Kurdistan Region Labor Force Survey.

By 2020, we envision an economy in which men and women who want to work can find jobs in the private sector. We want these to be jobs that match the skills and abilities of all who want employment. Right now, we face considerable underemployment, more than 17 percent, with many of our people wanting to work more than opportunity allows. Our policies are intended to change this.

One area of focus is skills. Our population needs more skills to succeed in the private sector, and our growing private sector needs employees with better skills. They will need to speak the languages of our neighbors and of international business, they will need to be able to use IT in many types of jobs, and they will need to work at international standards in their chosen professions.

Another area of focus is labor and pension laws. Our labor and pension laws are antiquated and in need of reform to ensure that private-sector employees have protections and benefits that are fair and that will attract more of the working population into the private sector. Laws regulating the hiring of foreign employees have also not been strongly enforced, and as a result, many private-sector employers are employing foreign employees for jobs that residents of our Region should perform. Payments into the pension systems by both

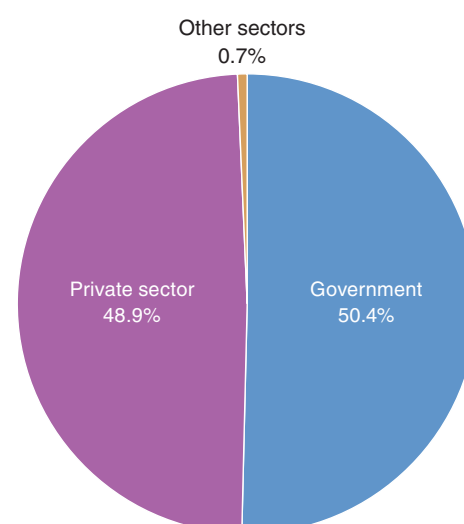
employees and employers have not been consistent and have been too low.

Finally, we must rebalance our economy. Today, the government employs a majority of the working population, but this is no longer sustainable, especially with our growing labor force. Hiring more government officials is becoming beyond the reach of our budget and will lower our ability to use our budget to invest in necessary infrastructure. More important, we wish to expand our economy, and developing a healthy and innovative private sector is the best way to do so. Such a private sector will need access to a pool of labor from which it can hire qualified employees.

During the era of the double sanctions—between 1991 and 2003—we had people who were eager to help themselves, but no private sector where they could find jobs. So the government stepped in and provided jobs so people could eat and gain self-respect from contributing to society through honest work. But that time has now come to an end.

Almost 560,000 people, more than half of all employed people in the Kurdistan Region, work in government (Figure 1.7). This number includes people who work directly for the government, a small number who work for state-owned enterprises,

Figure 1.7 Employment in the Kurdistan Region by Sector, in Percentage, July 2012



SOURCE: Kurdistan Region Labor Force Survey.

and a small number who work in mixed public-private enterprises. About 80 percent of all employed women in the Kurdistan Region work in government, and 45 percent of all employed men work in government.

We know that we will be able to rebalance employment away from the government and to the private sector. Many civil servants have skills and characteristics, such as strong language ability and desirable levels of education, that will allow them to leave government jobs and find gainful employment in the private sector. More than one-fifth of our civil service employees already work in both the government and private sectors, and the jobs nearly all of these employees hold are in different occupational specialties.

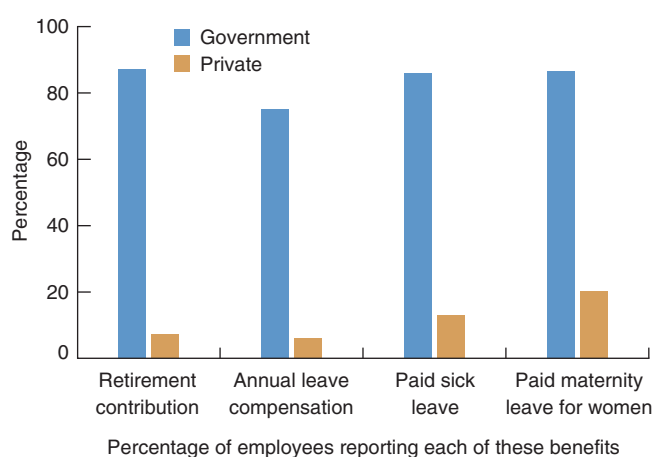
This effort will need to involve reforms in compensation, making the private sector more attractive than it is. Although for most occupations, wages in the private sector are higher, civil service employment benefits are more attractive than those offered by the private sector. More than 80 percent of civil service employees receive health care, retirement, and paid vacation, whereas less than 20 percent of employees in the private sector enjoy the same level of benefits (Figure 1.8). Civil servants also enjoy regular working hours and a greater sense of job security than private-sector employees, making the government sector more stable and predictable than the private sector.

Policy Priorities

Our program through 2017 to improve the labor market will include the following policy priorities:

- **Instituting legal reforms.** This will include modernizing the labor law so that it provides for a flexible labor market in which employees are free to compete for the jobs they want and employers are free to maintain the workforces they need. Our standards for this law will be the labor laws of the economically advanced countries—countries that have the levels of economic and human development to which we aspire. Legal reforms will also include a better functioning of the market for imported labor so that our population can have a good chance at attaining employment.
- **Ensuring our workforce is highly skilled.** In addition to our education goals, we will investigate policies that enable university students to work at trainee jobs and internships while they are enrolled, that will enable companies to pay for training for their employees more easily, and that will enable our residents to find life-long learning and skill-building opportunities.

Figure 1.8 Percentage of Employees Who Reported Receiving Employment Benefits by Type of Benefit and Sector, 2011



SOURCES: KRSO and Iraq Knowledge Network.

- **Introducing pension and benefits reforms.**

Reforms will include the creation of a state pension system that makes the prospect of joining our growing private sector attractive. Our goal is a comprehensive pension system that addresses retirement age and the relationship between the level of pension benefits, the length of employment, and wages earned. Besides providing adequate benefits, such a pension system should be fiscally sustainable and efficient and allow for movement from the public sector to the private sectors. As mentioned in the section on health care, the introduction of a health care financing system will also help make the prospect of joining the private sector more inviting.

- **Developing a comprehensive unemployment insurance system.** The system will protect individuals from unexpected job loss, and will raise the security of working in the private sector.

- **Helping women enter the labor market and succeed.** Our economy will be stronger if women who want to work are able to work. Policies to enable this include better and more frequent mass transportation that allows women more flexibility in their working hours, training and financing programs targeted at women entrepreneurs, and stronger and better enforced anti-discrimination laws. Our government's statements and actions will also show that women deserve equal opportunities in the labor market, and we will seek to provide contracting opportunities to women-owned businesses.

The Way Forward

Our government puts the people of Kurdistan first in our actions and policies. Our program for improving the lives of our people includes a coordinated set of policies that will elevate the quality of life in the Kurdistan Region.

We will work to institute government actions that can produce a healthy, educated population—regardless of gender, socioeconomic status, place of birth, age, religion, or ethnicity—that can find rewarding jobs and that will not suffer unduly when struck by bad luck, such as a job loss or a death in the family.

Good health will enable people to focus on their education and to work hard as employees or business owners. A modern labor market will enable people to find jobs that will provide money to maintain their health and support the education of their children. And the social safety net will give people the ability to emerge from adversity to good health and employment.



Building the Region: Infrastructure

A healthy, educated population can reach its full potential only if it has adequate infrastructure to support it. In this chapter, we present our vision and policies for building this infrastructure.

Infrastructure Today and in 2020

Our infrastructure was severely neglected for many years before liberation in 2003, and the Region suffered with limited basic services. However, the KRG has recognized the need for investment to support the Region's growing economy and the well-being of the population and has undertaken many significant infrastructure development projects to address the shortfalls. We now have frequent air transport that connects us easily to all parts of the world, strong information and communications technology that lets us connect to each other and to the world, and levels of electricity generation unknown in the rest of Iraq.

Still, we face infrastructure challenges. Not only must we continue to rebuild our infrastructure in an environmentally sound manner, but we must also keep pace with an expanding population, economic growth, a developing private sector, and an influx of foreign investors, all of which demand an increase in the level and quality of services. We have had many successes, but significant challenges remain. We will meet these challenges in transportation, water and sewerage, electricity, communications, and housing.

Overall Policy Priorities

Our overarching policy priorities through 2017 to improve the infrastructure in our Region include:

- **Pricing infrastructure correctly.** For all areas of publicly provided infrastructure, our overarching policy will be to design tariffs that reflect the full cost of service provision, whenever possible, so as to avoid excessive usage and avoid government deficits. This need not mean that the poor will have trouble paying. On the contrary: In each case, we will strive to have basic amounts of service, such as water or electricity, provided at a very low price to the user, and then larger amounts provided at increasing prices to the user. This will ensure that we have enough money to invest in infrastructure that can reach the poorest and most isolated parts of our Region.
- **Using infrastructure to promote the efficient development of the Region.** We will focus on developing infrastructure that will knit the Region together, make it easier for all residents to interact and communicate with each other, and aid uniform development across the Region. We will design our infrastructure in a way that will allow transportation corridors to serve as spaces for water pipelines, gas and fuel pipelines, and telecommunications and electric power lines, and therefore to maximize available open space and preserve our historic city centers.
- **Using infrastructure to build the private sector.** We will also work to foster private-sector participation in infrastructure provision to promote economic growth and improve the quality of life. When there is a national interest for the government to be involved, or if the private sector alone is unable to provide services, we will foster public-private partnerships.

Transportation for a Growing Economy

Vision

A transportation network that connects every inhabited location in the Kurdistan Region to every other inhabited location in the Kurdistan Region and to the world.

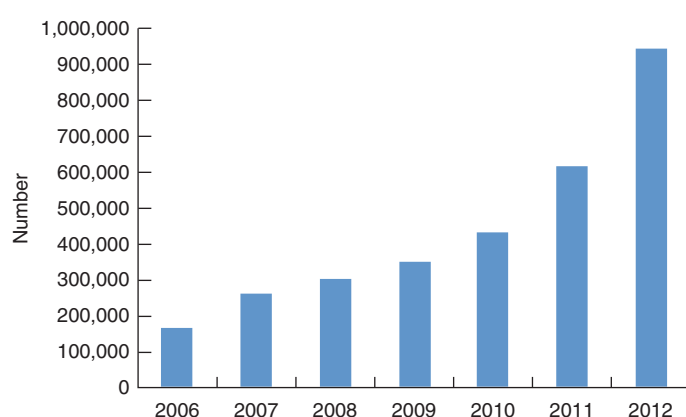
Transportation Today and in 2020

Construction at two international airports, in Erbil and Slemani, and new international air services have greatly expanded our Region's air transportation network in recent years. The Erbil International Airport expansion increased capacity to 3 million passengers per year, with a significant increase in capacity for cargo shipments as well. Slemani International Airport capacity stands at 1.5 million passengers per year. Adding to our rapidly expanding air services, in 2012 we broke ground on Duhok International Airport, which will be the third international airport in the Kurdistan Region and is scheduled to open in 2015.

This construction and expansion have enabled and will continue to enable a rapid expansion of both passenger traffic and cargo. For example, passengers at Erbil International Airport increased to 947,600 in 2012, more than 52 percent higher than the 621,870 passengers the year before (Figure 2.1). Since 2006, passenger traffic has grown an average of 34 percent annually. Total cargo traffic in 2012 hit 27,849 tonnes, almost 57 percent higher than the 17,769 tonnes from the previous year. Growth in the number of passengers and the amount of cargo is projected to continue increasing at both airports. We will ensure that these increases continue and that we become a key air transportation hub.

We have many newly paved roads throughout the Region, but the road network does not meet current needs, particularly in the rural areas, and we need more highways connecting cities, towns, and villages. Our Region also faces problems with the quality of existing road construction and with lack of comprehensive, systematic, and accessible data on present and expected future population and industrial activity to inform road and transportation planning. This situation will change. We completed a roads and highways master plan in 2012 that will guide our ground transportation efforts. Our goal is to have a strong ground transportation network by 2020 that will enable our residents and businesses to travel easily

Figure 2.1 Number of Passengers at Erbil International Airport



SOURCE: Erbil International Airport.

throughout the Region by cars and trucks, and a railway system that meets the Region's needs. We will also improve our mass transportation systems and are now designing a tramway to transport residents of the Region throughout the three governorates. Our goal with mass transportation is to have efficient transportation options to reduce traffic congestion and for people who do not have cars or who prefer not to use them.

Policy Priorities

Our transportation policy priorities through 2017 to support the Region's growing economy will include:

- **Continuing to develop Kurdistan as an air cargo hub.** Our modern airports will give us the opportunity to become a logistics hub for Southwest Asia and beyond, and to become an essential node between Europe and East Asia. Taking advantage of this opportunity will also enable us to foster economic development near our airports in the form of free zones and industrial parks.
- **Upgrading the Regional road network.** A network of well-paved roads is the key to economic development and the expansion of commerce and tourism. We will continue to build and improve our primary roads that connect major population centers. A strong road network is also the key to improving living conditions in rural areas and promoting strong mass transportation networks. We will institute a national paving program for secondary roads to ensure that all secondary roads are paved and well maintained. As part of this program, we will upgrade construction standards for input materials to increase durability of the new roads. We will also create a road maintenance fund to pay for the maintenance of the existing roads, and support this fund with the appropriate institutional and regulatory frameworks.
- **Improving mass transportation systems.** People need access to employment, community resources, medical care, and recreational opportunities. Travel by car provides high levels

of mobility, but it may also lead to congestion, pollution, and accidental injuries. Mass transportation provides people with mobility while safeguarding against many of these negative effects. Therefore, we intend to develop a safe, efficient, mass transportation system, building on current systems and our current tramway design efforts. Our policy will enable private providers and public-private partnerships in addition to the possibility of public transit, and will balance ridership against cost recovery and fiscal sustainability.

Water and Sanitation for a Growing Economy

Vision

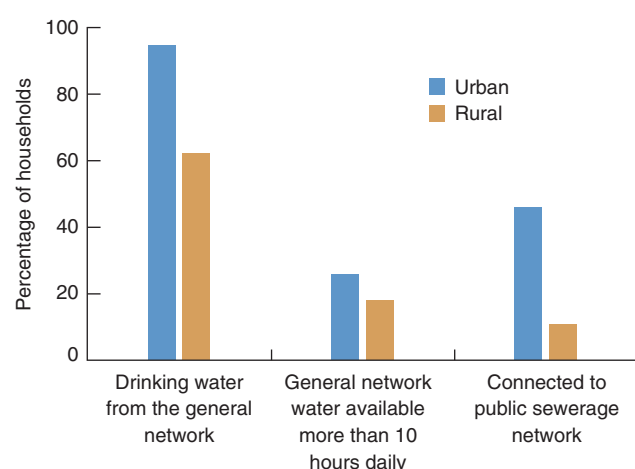
Water security for all, and water and sanitation services that reach every home and supply every industry.

Water and Sanitation Today and in 2020

We are fortunate to have water resources throughout our Region, including such rivers as the Tigris, the Great Zab, the Little Zab, the Khabur, the Sirwan, and the Awa Sipi, along with rainfall and groundwater, including natural springs. Among our major rivers, almost 60 percent of the flow originates in our Region. However, we do not have adequate estimates of our groundwater resources. In fact, we do not have a full study of our water resources, so we face a very high risk of mismanaging our water supplies and especially of depleting our groundwater. We will correct this situation in our quest to provide water security for the residents and businesses of our Region.

Numerous projects are completed or under way to improve water management and the clean water supply in the Region, including the development of a management plan for the Great Zab river basin, and new water treatment plants. Ninety-five percent of our urban households and 62 percent of rural households access drinking water through the general water network. In fact, fully 70 percent of our residents get their drinking water piped directly into their homes from improved sources. However, access to clean drinking water remains a key challenge for the Region, especially for rural areas. Only 25 percent of urban residents and 18 percent of rural residents report being able to access the general water network for more than 10 hours each day (Figure 2.2).

Figure 2.2 Water and Sewerage Service from Public Networks, 2011



SOURCES: Kurdistan Region Statistics Office and Iraq Knowledge Network.

Periodic droughts negatively affect the Region's water stores in reservoirs behind our major dams, and discrepancies among the governorates in levels of rainfall have led to serious shortfalls in some areas. Finally, even though much of our river water originates from within our Region, we are still susceptible to disruptions in water supply because some of it originates in other countries and parts of our Region experience low levels of rainfall.

Progress has been made in the provision of water for our growing population, but sewerage management in the Region has not kept pace. Improvement to sewerage services will be a major emphasis through 2020, with benefits to the health of our population and the environment. Service in rural areas especially needs to be strengthened. In those areas, only 10 percent of our households are connected to the public sewerage network, and, subsequently, more than 50 percent have to use outside covered canals. There is a more extensive sewerage system in the urban areas, but still less than half of the urban population uses the public network and almost one-third uses outside covered canals. The inequality in access to services between our urban and rural areas must be addressed.

Policy Priorities

Our focus through 2017 for improving water and sanitation services to residents of our Region will include the following policy priorities:

- **Completing a full hydrological study of the Kurdistan Region.** Such a study would assess both the quantity and quality of all natural water sources, including rivers, groundwater supplies, and aquifers to better understand groundwater potential, and would analyze water inputs, uses, storage, and flows. It would quantify rainfall and snowfall trends and patterns; runoff of this rainfall and snowfall into streams and groundwater; recharge rates into groundwater; evaporation rates from agricultural lands, irrigation channels, and other lands; and wastewater return flow, among other important categories. We expect that this study will provide the baseline on which we will determine all future management and investment decisions.
- **Completing an integrated water resources management plan.** Building on the hydrological study and on our work on management of the Great Zab river basin, we will make strong progress on the development of an integrated water resources management plan for the Region. This plan will help us develop and manage all our water resources to make sure we have the right quality and quantity of water for the health of the people and for agriculture, industry, and all other parts of our economy, while at the same time helping us sustain our ecosystems and environment. It will also help us design well-planned programs to attract local and international investment in the water sector. As part of designing and fulfilling this plan, we will strengthen connections among water-related institutions in the Kurdistan Region, and between those institutions and international institutions. We will disseminate public information to increase public awareness about water use and treatment so all residents of the Kurdistan Region can help safeguard this precious resource.
- **Increasing access to clean water.** We will continue our efforts to provide universal access to clean water, focusing on increasing access to drinkable water in rural areas and improving the quality of drinking water in both cities and villages. Our strategy for improving water access will entail five elements: (1) estimating the amount of water leakage in the existing water transportation infrastructure and supporting investments to eliminate it; (2) investing in water storage facilities to address seasonal fluctuations; (3) upgrading water treatment infrastructure to international standards; (4) expanding opportunities for private participation in water provision; and (5) reforming the water tariff system to reduce waste and provide for cost recovery.
- **Upgrading sewerage systems.** To protect our environment and public health, the expansion of water access must be accompanied by investments in sewerage. We will develop a Region-wide sewerage plan to invest in treatment plants and infrastructure, make water and sanitation infrastructure an integral part of city planning, help residents of low density areas install and maintain septic tanks and expand infrastructure for refuse collection and treatment, create facilities to treat industrial waste, and introduce a system of municipal taxes and user fees to pay for sanitation services. So that we may not only protect the environment and public health, but also aid our economy, we intend that water treated by the new sewerage treatment plants will be recycled for agricultural purposes.

Electricity to Power Our Region

Vision

Electricity services that are reliable and available to every home and every industry in an environmentally friendly way.

Electricity Today and in 2020

Great strides have been made in the generation of electricity for the Region through private independent power producers (Figure 2.3). Today we have electricity for many more hours of the day than anywhere else in Iraq. Electricity improvement projects throughout the Region have totaled about U.S.\$5 billion. By 2020, we will have 24-hour electricity and become an electricity exporter. The level of access to our main electricity grid for both our urban and rural areas is close, unlike access to water and sewerage services. Approximately 72 percent of urban and 64 percent of rural households report that their main source of electricity comes from the public network, while 28 percent of urban and 34 percent of rural households report using shared generators as their main electricity source. Although access to the main electricity grid has improved greatly, we need improvement in hours of supply and many households still experience electricity cut-offs lasting 12 or more hours a day.

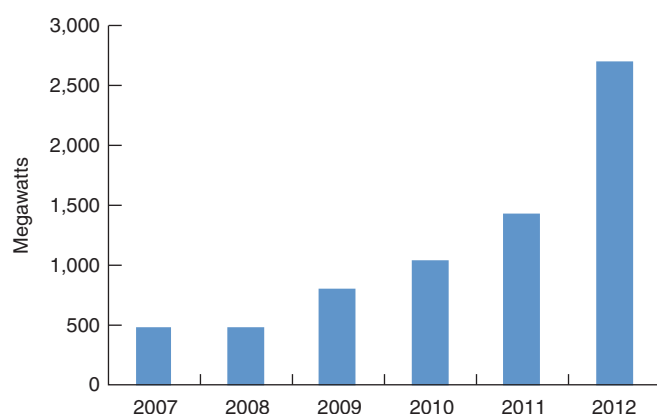
In addition, demand for electricity is increasing. As new office buildings, factories, hotels, housing complexes, and other facilities are built, and the income of the Region's people increases, the need for efficient management of electricity generation, transmission, and distribution is critical. Increasing the efficiency with which we manage our infrastructure and ending shortages are among the key electricity challenges our Region faces.

Policy Priorities

Our focus through 2017 for improving electricity services to residents of our Region will include the following policy priorities:

- **Improving electricity provision.** We have made tremendous advances in electricity provision by inviting generation by private firms. In extending service to a full 24 hours, we will explore new institutional arrangements to encourage competition, for example by separating electricity generation from transmission and distribution and allowing local-government-owned or private companies to distribute electricity to customers, and collect tariffs. We will also explore instituting a better system of tariff collection, for example by introducing a "smart grid" system that enables automatic monitoring of meters and that can send automated text messages to customers with the amount they owe, and by increasing the number of ways and places that customers can pay.

Figure 2.3 Electricity Production in the Kurdistan Region



SOURCE: KRG.

- **Increasing efforts to conserve electricity.**

Although proper pricing and improvements to system infrastructure will be the best methods of conserving electricity, we will encourage other means as well. We will develop better standards for housing and building construction focused on minimizing power use. We will also communicate directly with the people about the importance of conserving electricity.

- **Introducing renewable sources of energy.**

Because of our abundant hydrocarbon supplies, we will generate most of our electricity with natural gas. But we have already started exploring the potential use of renewable energy sources. Their use may be expensive, especially the initial cost of building plants that use them, so we will be careful as we proceed. They may be good for our environment, but they also must make sense financially.

- **Ensuring electricity for industry.** We also recognize industry's need for constant, reliable electricity service. We will create electricity systems that provide guaranteed, uninterrupted, 24-hour service to industry, at a price that at minimum fully recovers cost. This will help us attract firms that need such service and that can use our Region as a base to serve all of Iraq and neighboring countries with their products. We will also explore extending these arrangements for guaranteed, uninterrupted supply of electricity to industrial parks.

Communications for a Growing Economy

Vision

A world-class communications infrastructure that enables uninterrupted voice, video, and data transfer and that includes strong postal services.

Communications Today and in 2020

Our residents have a choice of three fiercely competitive mobile phone companies. Service throughout our Region and to the rest of the

world, along with inexpensive subscriber identity module cards, enables communications to flow easily. We not only talk, but we actively text as well. What was a luxury or even impossible only 10 years ago has become common and useful.

But the demands on the information and communications technology (ICT) infrastructure in our Region continue to grow, and wireless and Internet systems must keep pace with requirements for more bandwidth, speed, and reliability from new individual users and businesses. Significant efforts to expand the ICT infrastructure have been underway for several years, and we intend for ICT to be useful to all sectors of society, such as education, health, the economy, and government. However, coverage and quality, especially for the Internet, still vary by area, even within urban areas. We can achieve improved coverage by ensuring our laws and regulations enable the growth of Internet centers. We also want to make sure all our residents are confident using and working with new ICT as a means to improve their personal lives and employment.

Deploying new technologies will help us reach another goal, that of improving our weather forecasting. Automated forecasting stations will be installed throughout the Region, so that residents will have the best available weather information.

More traditional forms of communication, such as postal services, still need improvement. Although we have location identifiers, such as numbers and names, for quarters, neighborhoods, streets, and buildings, we do not have reliable and regular postal delivery to individual homes and businesses, or even specific street addresses to help people navigate in cities. This makes deliveries of equipment, goods, invoices, and payments difficult; these types of deliveries are standard in the developed countries of the world and are essential for business. However, we are committed to moving forward on a system so that mail can be delivered to people and businesses at a reasonable price. For example, we are working on a post code project that will reduce obstacles to postal delivery. Beyond postal services, we must also improve our telephone landline service for those residents who cannot get or afford mobile service.

Policy Priorities

We will pursue two main policy priorities through 2017 to improve our communications infrastructure:

- **Upgrading ICT infrastructure.** In the digital age, access to the Internet is a necessity. We will continue reforming our laws, regulations, and programs to spur private-sector investment in ICT infrastructure to increase broadband access throughout the Region and foster competition so that costs may be lowered. As part of this continuous reform, we will ensure that all Internet service providers have equal access to the network.
- **Creating a 21st-century postal system.** Our postal system does not deliver mail and packages to individual businesses and residences because it is not organized to do so. However, traditional postal systems are struggling in many countries. We will focus on improvements to enable regular mail and package delivery to all people and businesses at a reasonable price, and then implement such a system. Such a system could be wholly government-run, but we will also investigate new arrangements in which it could be wholly private or a public-private partnership. We will also work toward the introduction of street addresses to enable better maps and improved navigation within cities, and then build on this in the implementation of our new postal delivery system.

Housing for a Growing Population

Vision

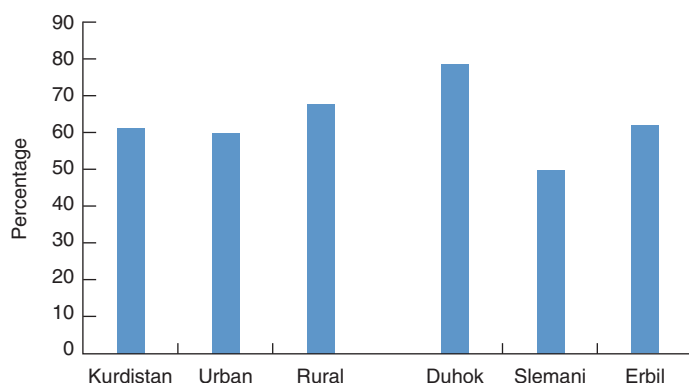
A vibrant private housing sector in which all residents of the Kurdistan Region have decent shelter.

Housing Today and in 2020

Construction is a booming industry in our Region, especially in the housing sector. The vast majority of people in Kurdistan live in their own houses. Throughout our Region, 79 percent of the people live in houses they own and have completely paid for. In urban areas, this is 77 percent, and in rural areas, this is 89 percent.

Despite this rapid construction, individual family homes are still in demand and our households are large (Figure 2.4). Part of this is because multiple families and many generations are living together. For example, in our Region in 2011, 29 percent of our households had four or more children, but 61 percent of our households had six or more total residents.

Figure 2.4 Percentage of People Living in Households of Six People or More, 2011



SOURCES: KRSO and Iraq Knowledge Network.

Major construction projects are underway, facilitated by government grants of money and construction materials for individual families to build homes, and public-private partnerships with international home building firms to construct housing developments. Still, the building sector is struggling to keep pace with the volume of demand, and some of the projects are not benefiting residents of our Region as well as we had hoped. Many of our residents live in substandard housing. Some live in informal housing developments and do not receive adequate services. And many of our residents have trouble financing home purchases because our housing finance systems are inadequate. To solve these problems, our housing policies will foster private production of housing for all income levels. And when the government is involved, we will make sure to select qualified companies based on competition to ensure we get the highest quality for the best price. We will also make sure that this involvement is transparent, with precise data being collected and shared, and that the results of government involvement are monitored and evaluated.

We have already embarked on new solutions for low-income families. In July 2012, we published a new affordable housing strategy for the Kurdistan Region, building on an earlier Erbil housing strategy. And we have already started implementing this Region-wide strategy, which includes measures related to land, financing, housing provision, building materials, and social infrastructure.

Policy Priorities

Our policy priorities through 2017 to improve the availability and accessibility of housing include:

- **Improving land-use regulations.** We will review and reform our land-use regulations to encourage the supply of units of various sizes and types of housing at a wide range of prices. As part of improving land-use regulations, we will consider formalizing informal housing developments where possible, including establishing proper zoning and granting formal title to people who live in these developments.
- **Reforming land titling and ownership.** We will strive to make more transparent the ownership records of each parcel of land so that the private market in residential land can function more effectively. This will enable homebuyers, people who want to buy land for their own new home, or home developers to more easily find available land or homes.
- **Encouraging development of mixed-income neighborhoods.** We will encourage neighborhoods that contain housing for people of all income levels. When necessary, we will explore public-private partnerships to do so, including concessions to those real estate developers who agree to provide newly built housing to low-income families below market price when that housing is in mixed-income neighborhoods.
- **Establishing a housing-finance system.** We will review and improve the laws and regulations related to our financial system to make possible the widespread provision of long-term housing finance, such as mortgages, by NGOs or private financial institutions.

The Way Forward

Our program for improving infrastructure includes a coordinated set of policies that will elevate the quantity and quality of infrastructure in the Kurdistan Region.

Our government knows that people can achieve their full potential only if they have the physical infrastructure to support their efforts. We also know that if we want to provide this infrastructure efficiently for the benefit of all the people, we must price the infrastructure correctly and involve the private sector.

A better transportation network will make it easier for people to get an education, find jobs, and buy what they need. Better water, sanitation, and electricity will help people remain healthy and industry to thrive. Better communications will enable people to share ideas and businesses to cooperate and compete with each other. And decent housing will provide a harbor for our healthy, educated, and employed population.



Creating an Economically Prosperous Region

We can have a prosperous, diversified, and robust economy. To support this, in this chapter, we present our vision and policies to create a growing private sector.

Agriculture and Agro-Industry

Vision

Food security for the people of the Kurdistan Region, economic prosperity for farmers, and prosperity through the export of our agricultural and food products.

Agriculture and Agro-Industry Today and in 2020

Our Region has a moderate climate and, if managed properly, water resources, and an abundance of agricultural land that can, once did, and will support a thriving agricultural sector. We can once again be both a major food and agricultural producer and exporter of wheat, vegetables, fruit, meat, dairy, and poultry in the wider region and beyond. Much of our agriculture has reemerged. We produce tomatoes, eggplant, cucumbers, onions, watermelon, peppers, and many other fruits and vegetables. We herd cattle and sheep and keep flocks of chickens. Our wild honey and Hawler yoghurt are well-known for their special flavor, and even our uncultivated mountain areas grow delicacies, such as rewas.

We have already had some success attracting new investments in agricultural projects. Between August 1, 2006, and May 25, 2012, our Board of Investment and the Directorate Generals of

Investment in our governorates licensed 19 agricultural investments with total project capital of U.S. \$268 million.

But our agriculture has challenges. The vicious and drawn-out conflicts before liberation led to the destruction of the rural environment and collapse of this once thriving sector. They also left a legacy of chemical weapons and remnants of explosives that litter rural areas, and agricultural land that is in need of rehabilitation. Other challenges include:

- **Farmer preparation and training.** Our farmers have a long history of agriculture to build on, but there is a pressing need for better farmer preparation and training, especially in modern farming practices and equipment, in order to increase agricultural productivity. We need to build up our educational extension services to provide training on new agricultural practices or improvements on techniques and methods that could increase efficiencies and production. In addition, we need to help farmers learn to use new technologies for ensuring the health of their crops and livestock and for improving their productivity.
- **Agricultural data, research, and planning.** Today, we are not maximizing the use of our land and water resources. We are developing our agricultural data, research, and planning to do so, as reflected in a strategic plan we developed for 2009 to 2013. Our goal is to build a comprehensive database on agricultural inputs, crop yields, labor, and land types that can be used by agricultural engineers, farmers, and agro-industry to determine the best locations for growing our agricultural products.

- **Water management.** Although we have sufficient water sources to support a thriving agricultural sector, the Region needs to better manage these resources, as noted above in the section on water, including rehabilitating our irrigation systems and starting to institute a system of irrigation system user charges, just as we must start properly pricing all of our infrastructure.
- **Agro-industry.** We want a thriving agro-industry in our Region, and to succeed, we will need to encourage the private sector to invest in cold storage facilities, transportation logistics centers, and facilities for packing agricultural products. Together with the private sector, we must embark on marketing efforts to show the world our agricultural products. Our efforts to promote agro-industry will move hand-in-hand with our efforts to improve the transportation system, so that our agricultural goods can be transported easily.
- **Land ownership.** There are also land ownership issues that must be resolved, and we need to enable the creation of large farms for greater efficiencies in production. New legal reforms allowing ownership of agricultural land to increase from 75 hectares to 250 hectares will enable improvements on some of these challenges, but we will continue to reform our land laws in order to enable efficient and productive farming.

Policy Priorities

Our effort through 2017 to revive and expand agriculture and to improve its productivity will focus on the following policy priorities:

- **Improving the skills of our farmers.** We will review the current status and quality of agricultural training in all our universities, our technical and vocational institutions, and any other institutions that can help with farmer training. We will endeavor to improve this training and our extension services in order to equip our future farmers with the skills that will enable them to compete in global agricultural markets. This improvement will include strengthening connections among the institutions in the Kurdistan Region,

and between those institutions and international institutions. The skills will include modern management methods and the ability to use modern agricultural technology.

- **Improving the investment environment for agriculture.** We will work to make investment in agriculture easier to accomplish, for example by streamlining procedures, and we will work to ensure that there are rewarding opportunities for investment. This will not only bring new technologies and techniques for improving productivity, but it will also bring new technologies and improved medicines for ensuring the health of our crops and livestock. Our investment attraction efforts will welcome and recruit both local and international investors.
- **Improving irrigation to enable agricultural production.** International experience demonstrates that irrigation systems developed and managed by farmer groups and based on locally derived principles of water and land rights, rules, and obligations tend to be less wasteful than those constructed by governments. We will work with farmers to improve irrigation and promote their role in the rehabilitation and management of irrigation networks. We will also start instituting user charges on irrigation to further enhance the efficiency with which we use our water. And we will incorporate the findings of the hydrological study noted above to plan for more efficient allocation of groundwater for irrigation purposes.
- **Rehabilitating and managing the land.** Besides water, another important input for agriculture is the land itself. We will continue and enhance programs to rehabilitate our rural lands and rid them of mines and pollutants. We will map lands that have remained unplanned so that we may put them into use as farmland. We will protect our forest and rangelands, plant trees on lands that need reforestation, improve rangelands for use by livestock, and support the establishment of Regional parks. We will adopt land-protection and management methods to prevent landslides.
- **Developing infrastructure for the agriculture industry.** We will work with private companies or explore public-private partnerships to construct cold storage facilities and silos in

agricultural regions and ensure these facilities have uninterrupted electricity. Our transportation strategy will enable better opportunities to move farm goods to market.

- **Improving availability of agriculture data and information.** We will also pursue the completion of rural land surveys and analysis to assess the quality of soil, locate fertile lands for agricultural use, identify which crops should be grown in which areas, and categorize the land according to agro-climatic zones. To help increase the flow of information to farmers, we will follow international practices to promote greater usage of information and communications technology to create access to price information at local markets and to set up an early warning system for pest, livestock, and plant disease controls. We will also work to share data on agricultural diseases with neighboring countries so that we may safeguard our borders.
- **Implementing legal reforms for the agricultural sector.** Agricultural production entails economies of scale, and land consolidation is not possible to realize with the existing caps on ownership of farmland. We will revise the legal framework to allow for larger farms that can make better use of technology and diversify production, reducing losses due to unfavorable weather conditions.
- **Minimizing price distortions for agricultural products.** The food ration system constitutes an important impediment for the expansion of local markets for agricultural products. This system is a legacy of the past and has significantly contributed to the demise of local farming because local producers cannot compete with free food. To help farmers and ensure the well-being of our Region's poor, we will convert the food ration system to a system that will provide cash instead of food, and target it to the poor. By halting the distribution of free food to those who can afford it, we hope to be able to distribute to the poor an amount of cash even larger than the value of the current food basket.
- **Developing our export potential.** With a rehabilitated agricultural sector and our expanded and efficient international airports, we will be well-

placed to deliver fresh produce, especially fresh organic produce, and processed agricultural goods to European and global markets. This will provide far more opportunity than banning imports; although banning imports may help farmers, doing so will hurt the poor and vulnerable who are our neighbors, friends, and relatives. We can develop our export potential by embarking on trade missions and by working with major European, Middle Eastern, and global food distributors and logistics experts.

Enabling the Private Sector for Growth

We believe Kurdistan should not merely live off its oil and gas resources. Our diverse population deserves the stability and opportunities of a diversified economy.

Vision

A diversified and entrepreneurial private sector that is open to the world.

The Private Sector Today and in 2020

Development of the private sector is vital to the Region's growth and development, and our Region's leaders have placed a high priority on creating an environment that attracts local and foreign investment and where businesses can thrive. By 2020, we envision a thriving private sector filled with new and growing small and medium-sized enterprises. Activities that were once conducted by government under the former regime in Iraq will be carried out by private firms. By 2020, we will finish privatizing any factories that are currently under government ownership. And where government must be involved, we will seek to have public-private partnerships so that an entrepreneurial and productivity-focused private sector can both contribute and benefit.

We have already made progress on privatizing parts of important growth industries, such as electricity generation, and we have successfully attracted foreign direct investment in key sectors, such as housing construction, banking, tourism, and agriculture.

Our investment climate offers attractive elements for business, including a secure environment and an improving infrastructure. Our Regional Investment Law, Law No. 4 of 2006, is exemplary of our goal of welcoming foreign investors—it allows foreign investors to own land and enables them to gain exemptions from most taxes. Our Board of Investment and Directorate Generals of Investment in the governorates licensed 36 foreign investment projects between August 2006 and May 2012 worth US \$3.5 billion, and 23 joint ventures between Iraqi and foreign companies, worth US \$1 billion (Figure 3.1). Although we place a high priority on investments in agriculture, industry, tourism, and infrastructure, we welcome any type of investment that can improve our economy. Beyond those projects licensed under our investment law, many more foreign companies are operating in Kurdistan today—approximately 1,860 as of April 2012, of which 750 are from Turkey. We have also developed detailed plans for an industrial zone in Erbil, including legal, marketing, and environmental assessments and blueprints. These plans can serve as a basis for the establishment of special economic zones that would be attractive to investors. Despite these substantial achievements, although we offer a favorable environment for foreign investors, local businesses—especially those that are small or medium-sized—face important disadvantages that must be addressed if we are to build a thriving private sector.

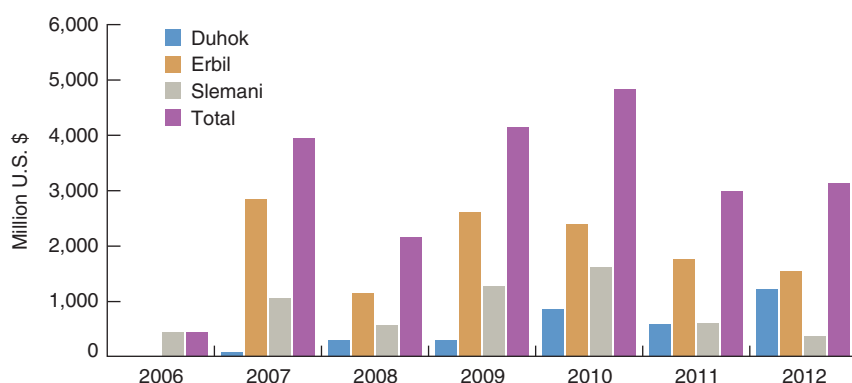
Over the next 20 years, our Region will need to create a substantial number of employment opportunities as the next generation enters the workforce. Approximately 50 percent of our Region's population is under 20 years old, and it is estimated that an average of 43,000 to 54,000 jobs per year will be needed to keep pace with these changing demographics. Private-sector employment will be critical to meeting this need.

Freeing and developing the private sector will help us meet not only the requirement for new jobs, but our desire for good jobs. At present, many of the jobs available in our Region do not meet the skills or desires of our workforce, as shown by our level of underemployment (Figure 3.2).

Areas that we must work to improve include:

- **Local financing.** One of the most critical challenges faced by local businesses is the lack of local financing, including early-stage, working capital, and equipment loans. This severely limits the number of businesses that can enter the market and expand. We have a variety of banks, including local private banks, foreign banks, and Islamic banks. But we also have government banks that are making it hard for our private local and foreign banks to thrive. Our Region is also missing insurance and mortgage industries as well, which are important supports for

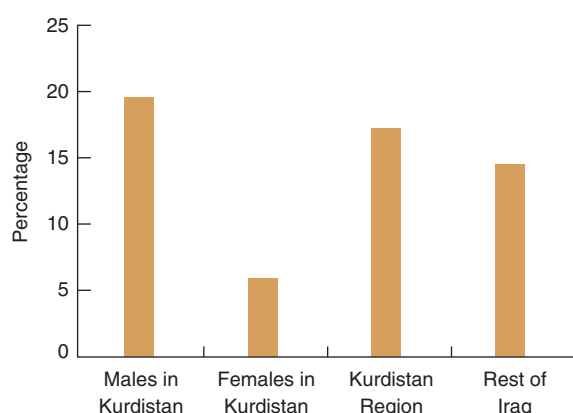
Figure 3.1 Project Capital for Licensed Investment Projects, August 2006 to May 2012



SOURCES: KRG Board of Investment and Directorate Generals of Investment in the governorates.

Notes: Data for 2006 include only August 1 through December 31, and data for 2012 include only January 1 through May 25. In addition, the chart does not show U.S. \$150 million for a project jointly in Slemani and Erbil, although this figure is included in the totals.

Figure 3.2 Percentage of Labor Force Underemployed in the Kurdistan Region and the Rest of Iraq, 2011



SOURCES: KRSO and Iraq Knowledge Network.

the development of the private sector. Our goal is a strong private financial sector that includes foreign participation and that offers a wide variety of services. Because our business sector is thriving more than that in the rest of Iraq, we anticipate that our financial firms will gain valuable experience and by 2020 will be the leading financial institutions in all of Iraq, serving the entire country.

- **Access to land.** Securing land for new local businesses can be a difficult and lengthy process. Our land titling, information, and ownership reforms for housing and agriculture, described above, will be extended to include land for businesses to help the private sector.
- **Procedures for opening, running, and closing a business.** The legal and regulatory environment for doing business is outdated and confusing. This is difficult for all businesses, but is especially difficult for smaller businesses. There can be lengthy waits for approvals for business licenses to start a business, and some businesses require approvals from multiple ministries. These burdensome difficulties continue through the life cycle of a business as it grows and then even if it needs to shut down.

- **Utilities and infrastructure.** Our Region has made great progress toward developing its infrastructure over the past decade, but all businesses and our overall business climate can benefit from improvements, as described in the chapter on infrastructure.

- **Availability of local labor.** Decades of war and conflict severely affected the education system in our Region, and as a result, we are rebuilding our capacity to supply skilled and trained labor to fill positions in the private sector.

Policy Priorities

Our policy priorities through 2017 for enabling private- sector growth will include:

- **Improving the legal and regulatory environment for the private sector.** We will embark on a broad effort to review the legal framework and regulatory system for registering, operating, growing, and closing a business with the goal of simplifying and modernizing the laws and regulations, including bankruptcy law, so failing businesses can close and their labor and capital move to growing businesses. Further legal reforms will include a modern anti-monopoly law, better dispute-resolution mechanisms, and intellectual property rights so that as the people of the Kurdistan Region become more educated, they will have strong incentives to invent and innovate. We will also institute a quality control process based on regulatory impact analysis for proposed new laws and regulations to ensure that our legal and regulatory environment remains friendly to business while safeguarding public welfare.
- **Advancing greater openness to the international economy.** We will remove import and export licensing requirements. Where necessary, we will maintain a short list identifying those items that cannot be traded rather than requiring all items to get licenses. We will also increase our openness to the world by reducing the time and cost of crossing international borders. We will start a process of surveying truck drivers at the borders to better understand border crossing times and formalities.

- **Improving the banking and financial system.**

To improve our financial system, we will work to attract lenders, both local and foreign, that focus on small and medium-sized businesses. We will also work closely with the Central Bank of Iraq to enable banks and financial institutions to offer a full range of financial services. In order to ensure that private financial institutions can prosper, we will start a process of depositing civil service salaries into private banks and wind down the KRG's use of all government banks. We will work with foreign insurance companies to start an insurance market in our Region, and as we noted in our section on housing, we will work to establish private housing finance.

- **Improving land registration and land use.** As with our policies on agriculture, we will reform our property laws and registries. This will enable small businesses to start more easily and give banks and financial institutions more options regarding collateral, further freeing their ability to lend. We will also review other aspects of land use in the Region so that we may ensure that agriculture, industry, housing, and all other sectors have sufficient and appropriate land available.

- **Creating special economic development zones.** In order to attract more investment, we will pursue the development of full-service industrial parks, which could serve as special economic development zones, complete with high levels of services, including Internet, banking, and business-friendly regulations. New areas for development of housing would be sited nearby wherever possible. In all cases, we will refocus our incentives toward the hiring and training of local labor, partnering with local businesses, and attracting industries that serve regional and global markets.

- **Opening opportunities for small and medium-sized enterprises.** Many of the policies we describe will especially help small and medium-sized enterprises. But we will embark on additional

training programs led by private and international specialists to equip people with the ability to start and run businesses, and to ensure that graduates of these programs will be able to access necessary finance. We will also make sure that small and medium-sized businesses have equal opportunities to win government contracts.

- **Expanding business opportunities for women.**

Our attention to treatment of women runs throughout our policy efforts, including education, social support, and labor market policies. Our support for women in business will include efforts to enable work-from-home schemes, promoting child-care centers for working mothers, and ensuring equal opportunity under the law. In our efforts to establish training, assistance, and financing programs for new entrepreneurs, we will make sure the curriculum addresses issues that are unique to women. We will also ensure that women-owned businesses have equal opportunities to win government contracts.

- **Completing privatization and enhancing private participation in all aspects of our economy.** In our program through 2017, we will finish privatizing any enterprises that remain under the ownership of the KRG. And where government is involved now or will be involved in the future, we will explore conducting government activities through public-private partnerships in order to create greater opportunity for the private sector and bring private-sector efficiencies to our economy. In all of these cases, we will make sure that the private companies are qualified and well-regulated so that the public is well-served.

- **Promoting Regional tourism.** We will complete a master plan for the tourism industry that emphasizes our natural and cultural heritage and makes it possible for people of all income levels—from

backpacking college students to wealthy resort-lovers—to enjoy our Region. We want them to enjoy our beautiful landscape and our archaeological sites, our museums, our music and dance, and our Regional cuisine, and we want to do this while minimizing environmental damage. As part of our efforts to expand our tourism sector, we will simplify our government procedures and make sure tourist sites have adequate infrastructure and services. We will create Regional parks that meet international standards to preserve wildlife and plant life and, at the same time, attract visitors, and we will develop a system of forest rangers to protect forests from fires and help all visitors preserve and enjoy the environment.

- **Increasing availability of data and information.**

Finally, we will eliminate information barriers by regularly publishing information about our economy and allowing the private sector to carry out its own market research.

Environmental Protection

We do not want economic success to come at the cost of ruining our environment—the water we drink and use for our agriculture, the ground we walk on and farm, and the air we breathe. Our Region has a diverse landscape and a comfortable climate, and we need a clean environment for the health of our people, for tourism, for recreation, and for posterity.

Vision

A healthy and safe environment, with clean water, land, and air, for posterity and that enables the economy to grow.

The Environment Today and in 2020

Our Region has astounding natural beauty and a varied landscape. Our mountain air provides welcome relief to hundreds of thousands of our residents and visitors during the summer, and our diverse animal life and plant life make us a nature-lover's paradise.

But we face challenges. We have had little development of modern systems for protecting the Region's water, air, or land resources. The vestiges of the chemical attacks on rural lands and water resources remain a serious issue. Increased urbanization has caused environmental and public health strains as greater numbers are consuming more water and fuel and producing more waste. And we may be at risk of negative effects from climate change.

We have undertaken efforts to address our environmental challenges by establishing the Environmental Protection and Improvement Board and passing a law in 2008, updated in 2010, mandating the Board to protect public health and natural resources, remove and treat biological and chemical weapons, and increase environmental awareness. Still, our Region lacks a comprehensive set of environmental regulations and monitoring systems to sustain and protect its natural resources. In addition, we do not assess the environmental impacts of our public investments or major infrastructure projects. Some of the key challenges in protecting the environment include:

- **Water resources.** We must improve our sewerage and wastewater treatment systems. The Region's water sources have been polluted for many years resulting in contaminated wells, streams, and rivers, some of which are direct household water sources for some people, especially in the rural areas. We must establish new regulations and incentives to control liquid waste dumping or promote water conservation and protection at present. And we must improve our municipal water mains and the chlorination system, to eliminate water-borne diseases. New water treatment infrastructure projects have begun to address this situation, and increasing numbers of our population are now receiving treated water. We will continue these investments to provide universal access to clean water in the Region.

- **Air pollution.** Urbanization is also leading to increases in the levels of air pollution, mainly due to the higher volume of personal and mass transit vehicles on our roads in recent years. Emissions from these vehicles, which often rely on cheaper, low quality fuels, contribute to air pollution in our Region. Pollution from industrial plants, power stations, and generators and burning of waste are also contributors to the problem of air quality in the Region. We have taken steps to mitigate these problems, including programs to get older, air-polluting vehicles off the road. Other projects to construct pedestrian bridges and tunnels have been aimed at decreasing traffic congestion and thus emissions released into the air from idling vehicles. Our continued efforts will include new measures to control and mitigate air pollutants so that all people in our Region have clean air to breathe.
- **Waste management systems.** In addition to improving our sewerage and wastewater management systems, we must improve our methods for handling solid and hazardous waste. Burning and burying waste have harmed the environment and added to air, soil, and water pollution. Most urban households dispose of their garbage through collection from their dwelling or from collection from other places, but more than 40 percent of rural households report disposing of trash in open areas and 18 percent report burning or burying their trash (Figure 3.3). In addition,

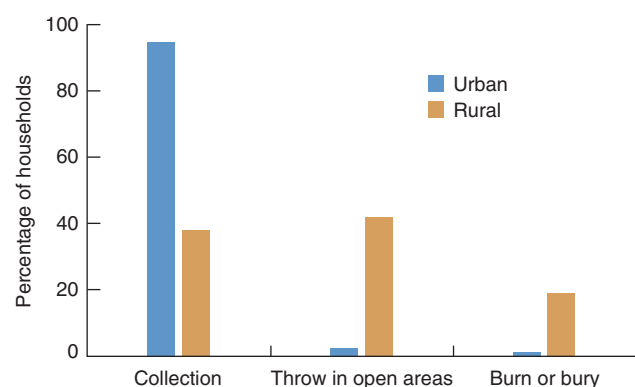
litter abounds throughout the countryside. Our most precious outdoor resources—nature and archaeological sites—are in a constant battle with plastic bottles and other trash. We will create effective monitoring systems and proper oversight of the movement and disposal of waste.

Policy Priorities

Many of our infrastructure policy priorities, along with our agro-industry and tourism policy priorities of establishing Regional parks, are part of our environmental program. Additional steps through 2017 will include:

- **Increasing environmental awareness.** We will strive to increase the awareness of the benefits of a clean environment. These include benefits to the health of the population, the economy, and even the ability of the people to enjoy their lives in our beautiful Region. We will raise awareness among government departments and employees, and among the population.
- **Developing energy efficient buildings.** Existing regulations and building codes for the construction industry do not impose any requirements for using either environmentally friendly inputs or building techniques that minimize energy consumption. We will work with the construction industry to develop feasible solutions.

Figure 3.3 Garbage Disposal in the Kurdistan Region, 2011



SOURCES: KRSO and Iraq Knowledge Network.

- **Strengthening our laws, regulations, and enforcement.** We will review and strengthen our laws covering water, soil, and air pollution. We will develop our administrative capacity to enforce these laws and regulations, and we will create effective monitoring systems and proper oversight.
- **Starting to conduct environmental impact assessments.** Major public and private infrastructure projects can have significant impacts on the environment, including both the natural environment and the social environment. Rigorous, objective environmental impact assessments (EIAs) are a valuable aid for decisionmakers as they weigh the benefits and risks of a proposed project. We will develop an EIA review process based on international best practices that ensures EIAs are conducted for all relevant government investments, and we will expand this process to major private sector development projects.
- **Developing a strategy to adapt to climate change.** We do not yet know how climate change could affect our Region. It may influence the availability of water resources, and it could stress our agricultural resources or change our agricultural opportunities. Accordingly, we will bring consideration of climate change into our environmental, agricultural, and water policies so that we may be prepared for potential changes as they occur.
- **Supporting environment protection groups.** Our government's involvement in shaping environmental policy is less than in other policy areas. Therefore, we will seek to address this gap by ensuring that environmental protection groups are free to operate and increase public awareness of environmental issues, enhancing the government's environmental efforts.
- **Improving the urban environment.** We will have a special focus on improving the quality of living in urban centers because they serve as magnets for mobile capital, skilled employees, entrepreneurs, tourists, and intellectuals. Our three main cities have experienced unprecedented growth in their populations and economies, and this has resulted in higher levels of pollution. We will improve existing fire, sanitation, and police services to reduce the danger of fire outbreaks, improve disposal collection services, and prevent the growth of street crime and other forms of crime that damage urban quality of life. We will also continue improving public parks and cultural attractions and make sure our cities are family- and pedestrian-friendly.

The Way Forward

Our program for creating a prosperous Kurdistan economy includes a coordinated set of policies that will enable the people of our Region to achieve a comfortable standard of living.

Creating opportunities in all sectors of the economy will help our healthy, educated population find fulfilling employment that matches their skills and ambitions. In creating this high-performing economy, we will maintain the integrity of our environment so that our future generations can enjoy the same benefits that we have. Nothing in our economy will be guaranteed except for the most important guarantee of all: the opportunity to succeed if there is an honest effort.



Putting Government to Work for the People

We have achieved our present condition through the constant sustained effort of the millions who live in the Kurdistan Region. Thanks to our people, we have a secure Region and our own Regional government. Our government is here to work for the people, to enable them to achieve all that is within their abilities. In this chapter, we focus on how the KRG will serve the people of the Kurdistan Region.

Effective and Honest Government

To be effective, our government must concentrate on those tasks that only a government can do well—providing law and order and approving and enforcing sensible and necessary laws and regulations. But it must also earn the trust of the people of the Kurdistan Region every day.

Vision

A government that is effective, transparent, trusted, and honest.

Effective and Honest Government Today and in 2020

We are a young government, but already we have many achievements for the benefit of the people. We have brought about security, invited investment, embarked on reforms in government budgeting and information technology, and instituted policies to improve the health, education, and welfare of the people.

We are a learning government. We have worked with development agencies and experts from around the world to improve the way we operate. We have sent tens of thousands of civil servants to training programs and are sending thousands abroad for advanced university degrees.

We are an improving government. We must improve our honesty, transparency, and efficiency. By 2020, our government will be free of corruption and will fulfill all of its responsibilities fairly and efficiently.

To meet these goals, we must root out corruption; establish new processes and rules for civil servants; ensure that the people have access to data, laws, and government decisions; make sure our government is organized for success; and properly define our government's roles and missions.

We will confront corruption by enforcing the rule of law, ensuring that the civil service has a clear code of conduct guiding its actions, limiting and simplifying the number of licenses and permissions that people must receive from the government in order to conduct their lives and businesses, making sure all government functions are open and transparent, and clearly showing the use of public funds. We will strengthen our courts and our internal government inspection system so that we can find and punish corruption.

We will increase our transparency. We will make sure that all laws, regulations, and government decisions are written clearly and then published and distributed so that all people can find and read them. As we build up our capabilities to collect data about our Region's economy and society, we will publish all data, while safeguarding the privacy of people and businesses, regardless of whether the data reflect well or poorly on our government. The people have the right to know about their Region so they can make their own decisions.

We will increase our efficiency and effectiveness. We will more carefully define the role of our government. During the period of double sanctions, we needed the government to hold our society together—to provide services, to provide jobs, and even to provide food. But now we have a growing private sector and openness to the world. We need our government to provide security, administer justice, and set the rules of society and business through wise laws and efficient regulations. The private business sector and non-governmental organizations should be our first choice for providing goods and services, and where government is needed, we should first consider public-private partnerships before making something a government program. Any programs our government runs must be evaluated and improved.

This shift in our government's role may require a reorganization of our government and our ministries. A deep institutional analysis will help us rethink the way we structure our government in terms of number and types of ministries and methods of policy development and implementation. Such an analysis will also help us rethink the way we structure our ministries in terms of the numbers and types of general directorates and in terms of the lines of control between the central ministry offices and the general directorates and directorates in the governorates. This analysis will help support our policy priorities for effective and honest government.

Achieving our goals to confront corruption, increase transparency, and increase efficiency and effectiveness can be helped by the adoption of the latest information and communications technologies. We will make sure to spread these throughout the government so we can communicate better with the people and within the government, keep better records on government activities, and gain other efficiencies enabled by ICT.

Policy Priorities

In the period through 2017, we will pursue the following policy priorities to enhance our government's honesty, openness, efficiency, and effectiveness:

- **Increasing openness and transparency.** Access to government documents is a fundamental principle of democratic government. We will strive to create a system, and consider the creation of an Office of Government Publications as one way of doing so, to make widely available all government documents in Kurdish, Arabic, and English. Widely available will mean posting documents on the Internet and having copies available in every sub-district. The documents to be disseminated will include laws, draft laws under consideration by the Parliament, draft laws under consideration by the Council of Ministers, regulations, draft regulations, the operating budget, the investment budget, audits, and all other official documents. We will also publish voting and attendance records of all members of Parliament, and work to institute a financial disclosure system for all public officials.

- **Creating high legal standards and ensuring ethical behavior by the government.** We will propose legislation and conduct outreach and collaboration with international experts to ensure our anticorruption and government ethics efforts are of the highest international standards. We will provide integrity training to all our civil servants. And so the burden does not rest only on government officials, we will install integrity pacts in key civil infrastructure projects and create and implement a contractor ethics and integrity program.
- **Ensuring the rule of law.** We will continue reforms to ensure a professional and autonomous judicial system. We will focus on creating continuing education opportunities for incumbent judges, reforming financing of the judicial system, investing in new facilities, creating a system for online case tracking, designing rules for assigning cases to individual judges, and improving media and public access to courtroom proceedings and court decisions.
- **Improving the efficiency with which we deliver our government services.** We will start to conduct evaluations of our ongoing programs and pilot new programs to better understand whether they will succeed. These evaluations should become routine for all ministries, be based on the most up-to-date methodologies, and be conducted by independent organizations to guarantee impartiality. We will also ensure that the use of ICT in government becomes widespread to enhance efficiency.
- **Making sure citizens have a voice.** Governments around the world strive to improve their services. We will investigate instituting a system by which citizens can report their satisfaction and their problems with government programs and government officials and suggest ways to improve government operations. To demonstrate our transparency, we will publish these reports and suggestions.
- **Simplifying government requirements.** We will review all of our licenses and regulations and start to eliminate any that are unnecessary or burdensome. Ministries will need to show why a license is needed.
- **Investigating the organization and operations of our ministries.** We will review the main purposes of each ministry in light of this Regional Development Vision and then analyze whether the ministry is organized to achieve those purposes. We will also review whether each ministry communicates with and responds to the public in the best way possible and whether each ministry has sufficient funding to carry out its delegated responsibilities. When we find that ministry performance can be improved, we will develop ministry reorganization plans.
- **Improving coordination within the government.** In order to be effective, our government must improve the way its ministries work together to achieve common goals. Part of this effort will include the spread of ICT throughout government. We provide more detail and concrete steps in the Conclusion, where we outline the responsibilities of the government in fulfilling this vision.

The Budget

We have ambitious goals, and we can achieve many of them by improving our management systems and revising our laws and regulations. But reaching our goals will also take considerable expenditures made wisely.

Vision

A transparent, efficient, and equitable public finance system that fully pays for the government investments and operations that are of highest priority for the well-being of the people.

The Budget Today and in 2020

Fiscal management is a key challenge for our government as it tries to balance resources under difficult circumstances while meeting the Region's highest priorities. Our budget has grown dramatically, more than doubling since 2008, although it fell in 2009 when oil prices fell (Table 4.1). Until recently, we put much of this

increased government revenue into our investment budget. The result has been new roads, schools, health facilities, and other necessary infrastructure. To aid our development, we intend to keep increasing our investment budget and to spend the money efficiently.

Our vision for 2020 is that our revenue sources are diverse and stable and that our spending is well planned and matches our priorities. We face a number of challenges on the way to achieve this vision. Our government receives a substantial portion of its annual budget from the federal government, supplemented by limited taxes and fees collected locally. The federal budget depends largely on national oil revenues that fluctuate a great deal. This makes the budgeting process at both the federal level and Regional level unpredictable. Furthermore, the federal government often does not approve its budget until after the start of the fiscal year, and this delays our ability to fully plan our public finances and receive our rightful portion of the federal budget. Finally, with the expansion of our government, our investment spending is at risk. Our investment budgets starting in 2009 have constituted a lower share of the total budget than the investment budget constituted in 2008.

Table 4.1 The KRG Budget

Year	Operating	Investment	Total	Investment Share
	Iraqi Dinars (Billions)			%
2008	4,750	2,879	7,629	37.7
2009	6,554	2,303	8,857	26.0
2010	7,889	3,543	11,432	31.0
2011	10,099	3,852	13,951	27.6
2012	10,746	4,500	15,246	29.5
2013	11,608	5,334	16,942	31.5

SOURCES: The Official Gazette of the Kurdistan Region, issued by the KRG Ministry of Justice; KRG Ministry of Planning.

NOTES: Figures for the operating budget include separate line items for Parliament and the Judicial Council. No data for these two line items were available in 2009.

In 2009, we adopted an Action Plan for Regional Public Financial Management. To support this, we embarked on a Budget Execution Support Project to strengthen our budget policy, planning, and formulation; our execution and monitoring; our reporting, oversight, and control systems; and our management information systems and human resources in the budget area. We will continue to build on our Action Plan and the result of the Budget Execution Support Project to ensure that we spend our government budget wisely.

Policy Priorities

In order to increase the ability of the KRG to budget properly, the government will execute the following policy priorities through 2017:

- **Modernizing budget administration.** We will complete and work to implement all budget support projects currently under way, and embark on new ones to improve the current budget administration. This includes, among other tasks, harmonizing budgeting practices across the three governorates, reducing cash-based transactions, and adopting international standards for budget reporting by all ministries.
- **Increasing budget transparency.** We will adopt international standards for budget reporting and ensure timely public release of the draft budgets that are sent to the Council of Ministers and the Parliament, and then timely public release of the approved budget. We will also publish a timely annual accounting of the budget after we close the books for the year. All these documents will be posted online.
- **Moving budget decisions closer to the people.** Our governorates, districts, and sub-districts all have institutions for making decisions about what government investments and services would be best for them. We will enact a legal framework to specify revenue sources and spending responsibilities among different levels of government, and institute fiscal transfers from the central KRG budget to district and sub-district budgets to compensate for differences in fiscal need and tax base.
- **Improving taxation.** The KRG must diversify its revenue sources to reduce its dependence on transfers from Baghdad and revenues from oil. Our government will explore new methods of personal and business taxation in a way that will reduce economic distortions, make sure mobile capital does not flee the Region, minimize compliance cost for taxpayers, and keep administrative costs low. These taxes will empower our government to invest more for the people while lowering our dependence on the federal government.
- **Aligning the investment budget with our priorities.** We will ensure that spending under the investment budget matches the priorities outlined in this Regional Development Vision. Furthermore, we will introduce cost-benefit analysis or other investment appraisal methods to ensure we are receiving value for money.
- **Stabilizing our budget.** Finally, we will explore the establishment of a Regional budgetary stabilization fund to prepare for future downturns in our revenues. By using this fund, if oil prices collapse or if Baghdad is slow to send us our share of the national budget, we can maintain rates of investment and service expenditures that the people deserve.

Reform of the Civil Service

Our government has many achievements since liberation, but it is also too large and inefficient. Changing this is a key element of our overall development strategy.

Vision

A government that is the right size with the right people to act as an enabler for the growth and development of the Kurdistan Region.

The Civil Service Today and in 2020

Under difficult circumstances and great uncertainty, we built a government where none had existed before. We are now in our seventh cabinet and we have ministries and departments that are concerned with all sectors of society and the economy. With this achievement, we now must move to the next phase of improving our government. We must ensure that it is the right size—not too large or too small—and that we have the right people in the right positions.

Our government is too large. Some of our efforts to reduce the size of government are part of our program to rebalance the economy from the government to the private sector, discussed earlier in our vision for the Region's labor market. However, there are additional steps we can take that are internal to the government. First, we must evaluate the level of salaries and benefits that our government employees receive to make sure that they are not overpaid in relation to the work that they do. Second, we can institute a program to help our government employees leave government comfortably so that they can choose to embark on a new career in the private sector. The key to this will be a voluntary separation program, in which we will develop rewards for people for leaving the government and let people choose to claim those rewards.

This will work in coordination with development of the private sector so that the possibility of private-sector employment is available for people who leave government and encourages them to do so.

For those who remain in government, we want to make sure that we have high quality civil servants and that we have the right people in the right jobs. We must first define exactly what jobs we need and what the responsibilities of each job are. Once we define the jobs, we need a way of hiring the most qualified people in an orderly, non-political, and transparent fashion. We then need a way to evaluate job performance and promote only the best employees. One way to achieve all of these goals efficiently is to establish a civil service management agency that can create a strategic human resource plan and manage hiring, evaluation, and promotions. This will help us reach our goal of a fully professional civil service by 2020.

Policy Priorities

Our government will have these policy priorities through 2017 to professionalize the government and guide it toward its correct size:

- **Managing the civil service to meet short-term and long-term goals.** We will develop a strategic human resource plan, including creating job descriptions, having rigorous staff evaluations, and matching the size of the civil service to the tasks it will accomplish. This will allow us to reduce hiring now while still meeting our short-term needs, and it will allow us to continue to attract young officials who will be the government leaders who fulfill and build on this Regional Development Vision. Our new plan will also ensure opportunities for capacity building of government officials.

- **Establishing a civil service management agency and system.** Creating such an agency to manage hiring and evaluation will help us ensure that we hire the people with the right skills, that we evaluate them fairly, and that we then promote only the best. It will also take the lead in creating written job descriptions of all occupations in the government, a fundamental requirement for all modern governments. These job descriptions will enable us to create a new evaluation system and complete fair evaluations by creating standards against which we will measure job performance, and they will let us establish career paths within the government.
- **Adjusting compensation and benefits.** We will review the compensation and benefit package our government employees receive with an eye toward making the private sector more desirable. This will include considering whether we are too generous, now that we are developing a diverse economy and the government no longer needs to be the main employer.
- **Helping civil servants choose to leave government and contribute to the private sector.** We will consider new programs to enable civil service employees to voluntarily leave the government with a safety net so that government employment is reduced. Our process will be to run pilot programs, evaluate them, and then institute new programs government-wide.

An honest and efficient government will spend its money more wisely, match spending to priorities, and focus on those tasks that government does best, making room for the growth of a vibrant private sector. Better budget processes and decisions closer to the people will ensure that the public's money is spent on their highest needs, resulting in a healthier, better-educated population. A smaller government will have more money to spend on investments in our Region, resulting in better infrastructure and a cleaner environment. Creating an honest, effective, fiscally responsible, and qualified government will give the private sector and the people a true partner in creating a successful Kurdistan Region.

The Way Forward

Our program for making government work for the people includes a coordinated set of policies that will cause the government to be an enabler for a healthy, educated population served by high levels of infrastructure with a variety of job opportunities.

Our work together will build on our
many achievements, and create
new achievements for ourselves, our
children, and our grandchildren.

Fulfilling the Vision

Our Region has come far since our population fled to the mountains after our uprising in 1991. But we still have far to go. This Regional Development Vision provides a framework within which the government and the people can work together to set specific priorities and reach our goals.

Monitoring the Progress Toward Our Vision

Our development vision is a Region where all the people enjoy the benefits of freedom, health, welfare, and economic security and opportunity. We will monitor our progress toward achieving this vision (Table C.1). Our goal will be to ensure that our policies and reforms are based on evidence.

Our statistical agency, the Kurdistan Region Statistics Office, is improving rapidly and has available to it a roadmap for becoming a first-class statistical agency. It is both professional and serious. Likewise, we have statistical capabilities in our ministries, and have embarked on improving them as well. But we do not yet have all the data we will need to monitor our progress.

For example, in order to monitor clinical services in the implementation of our health care policies, we will need to create four main data systems: (1) a management information system to monitor health resources and services and present data in tables and maps to be used by managers at district, governorate, and Regional levels; (2) a system to monitor health care utilization; (3) routine client satisfaction surveys to monitor the level of satisfaction of people served by the health system so we can improve the system; and (4) a system for quality monitoring at hospitals and clinics so we

can monitor incidence and distribution of hospital-acquired infections and medical errors, and other quality statistics. Likewise, in the area of promoting preventive services, we will need to institute a public health surveillance system and a system for monitoring, evaluating, and approving the use of pharmaceuticals and their quality and safety, and develop environmental quality and food safety indicators. In the area of housing, we will need to institute a regular census of housing to gain a full understanding of the housing situation in our Region

Accordingly, we list the major monitoring indicators we will need to collect in order to measure our progress, knowing that we will not be able to collect all of them immediately. In the interest of transparency, we will publish all of these indicators in a timely fashion. In some cases, the data will be available. In other cases, we must create the systems or the surveys to collect the data. Furthermore, we will strive to develop qualitative, efficiency, and effectiveness indicators.

Monitoring our progress is more than just collecting and publishing data, however. It also involves evaluating how well our policies and programs are working, and changing our course as we gain new information. Accordingly, one of our goals as we fulfill this vision will be to develop a fuller monitoring and evaluation framework to make sure that the indicators we collect will be used to improve our actions and reach our goals. Building up our monitoring capabilities will also be a major policy thrust through 2017.

Table C.1 Monitoring Indicators

Chapter One: Putting People First	
Health In Kurdistan	
<i>Introduce a Sound Health Care Financing System</i>	
Number of people covered and claims paid through the new insurance system	
Number of insurance companies established and operating	
Percentage of payments made that are based on amount of work performed and its quality	
Hospital productivity as measured by hours open, patients seen per hour, and cost for treatment of various conditions	
<i>Improve Availability and Quality of Clinical Services</i>	
Data collected under the four main systems described above will be benchmarked against representative countries the Region should strive to be like in the short run, such as Jordan and Turkey	
Education in Kurdistan	
Number of new schools completed each year	
Percentage of teachers trained each year	
Gross and net student enrollments in secondary education	
Completion rate in secondary education	
Employment rate within one year of finishing a TVET program	
Percentage of university graduates who obtain private-sector employment	
Foreign language and IT literacy among graduating university students	
Equality of Opportunity and Support for the Disadvantaged	
Killings, burnings, and beatings of our wives and daughters	
Number and percentage of people below the poverty line	
Gap between the basic cost of living and the amount of state assistance needed to bring people to this basic level	
Number and activities of NGOs serving disadvantaged groups	
Annual child and youth well-being index based on poverty, schooling, health, and other measures of socio-economic conditions	
The Labor Market in Kurdistan	
Labor force participation rate	
Unemployment and underemployment rates	
Length of time a person remains unemployed	
Gender differences in labor force participation, unemployment, and underemployment	
Number of private-sector employees enrolled in training courses each year	
Number of private-sector employees versus civil service employees	
Average compensation to private-sector employees versus average compensation to government employees	
Chapter Two: Building the Region: Infrastructure	
Overall Infrastructure Policy Priorities	
Total user revenues for and total cost of running each infrastructure system	
Transportation for a Growing Economy	
Tonnes of cargo trans-shipped through our international airports	
Number of airport passengers, flights, and airlines	
Length of paved roads	
Passenger vehicles traveling between major cities	
Tonnes per hour of goods transported by road	
Injury collisions	
Water and Sanitation for a Growing Economy	
Water	
Total surface water stocks	
Total groundwater stocks	
Flows of water from inland water resources to users, including households, businesses, and farms	
Losses of water in distribution	
Population using improved water sources	
Assessments of the quality of water	
Sewerage	
Amount of waste discharged untreated directly into rivers	
Population having access to modern sanitation facilities	
Number and capacity of wastewater treatment plants	
Proportion of rural residents with septic systems	
Electricity to Power Our Region	
Generation unit name, nameplate capacity, and actual capacity	

Daily kilowatt hours produced

Hours of power in each sub-district

Level of peak demand and percentage of peak demand met

Communications for a Growing Economy

Number of mobile phone lines per 1,000 inhabitants

Number of Internet subscribers per 1,000 inhabitants

Availability of broadband services per 1,000 inhabitants

Percentage of localities with Internet access centers

Number of fixed telephone lines per 1,000 inhabitants

Number of post offices per 1,000 inhabitants

Volume of postal delivery per 1,000 inhabitants

Housing for a Growing Economy

Number of housing units

Incidence of home ownership

Average number of people residing in the same home

Number and value of housing loans to home buyers

Chapter Three: Creating an Economically Prosperous Region

Agriculture and Agro-Industry

Number of farmers served by agricultural extension

Seasonal production and price data for staple crops such as wheat and rice

Seasonal production and price data for high-value crops such as grapes and pomegranates

Number and value of new agro-industry projects

Amount of land under production

Average size of farms

Value and quantity of agricultural imports and exports

Amount of water used for irrigation

Enabling the Private Sector for Growth

Personal expenditures on goods and services

Exports and imports of goods and services

Consumer price index

Number of enterprises by economic activity

Number of persons employed by economic activity

Value of fixed investment

Time it takes to start and close a formal business and the cost of doing so

Value of foreign direct investment

Crossing times for trucks at borders

Number and type of banks and branches

Type, value, and maturity of bank loans

Collateral used for bank loans

Value and type of insurance policies

Arrivals of visitors, and their average length of stay

Average daily visitor expenditure

Environmental Protection and the Urban Environment

Water, soil, and air pollution

Frequency of environmental disasters

Private-sector compliance with the environmental regulations

Amount of garbage collected

Amount of designated parkland

Amount and type of street crime in cities

Chapter Four: Putting Government to Work for the People

Effective and Honest Government

Percentage of all laws and regulations made available publicly

Percentage of public satisfied with the operations of their government

Annual reports on how citizen complaints are handled

Number of program evaluations and program pilots

Number of ministry organizational reviews conducted

The Budget

Annual publication of detailed budget, including revenues and expenditures at all levels of government and for all ministries and departments

All changes to the budget, at the time of change, when revenues change unexpectedly

Annual audits of the budget

Reform of the Civil Service

Amount and growth of civil service wages and benefits

Number of civil servants by ministry and grade

Number of new civil servants hired by ministry and grade, and their total wages and benefits

The Responsibilities of the Government and of the People

Fulfilling this vision will not and cannot be the responsibility only of the government. The people must also participate, and therefore it is incumbent on the government to reach out to them, protect their human rights, and provide an environment in which their aspirations can be realized. But the government does have many responsibilities, and these include developing specific priority actions based on this Regional Development Vision and then developing concrete, measurable performance targets. As the ministries develop their work plans to fulfill this vision, we will work with them to develop the specific priority actions and targets that will motivate their work.

The KRG will have the following responsibilities in fulfilling this vision:

- **Improving our system of top-down coordination.** We will ensure that ministries understand the KRG leadership's top priorities and that ministry plans are coordinated so that our actions can have the most impact. Accordingly, we will further specify our top-level priorities from among the policy priorities designated in this vision. We will also develop an accountability system for ministries to provide incentives for them to meet overall and ministry goals.
- **Designing a system of bottom-up policy development.** We will embark on a system in which each ministry develops detailed strategies from the bottom-up based on this vision, the ministry's own priorities from its specialized knowledge, and consultations with civil society. Upon the release of this vision, each ministry will start to develop its own detailed plan in line with the five-year policy priorities designated here. As part of this plan, ministries will develop priority actions and targets in their own sectors and will be held accountable for carrying out those actions and reaching those targets.

- **Creating a process of coordination among the ministries.** We will design a process in which ministers, their advisors, their directors-general, and any other officials they delegate can meet with each other in small groups, specialized by policy area, to coordinate policies and settle differences. The policies developed by the ministries under this vision will be based on their expert understanding of the issues, their capabilities, and the desires of the people, but different policies developed by different ministries may conflict, and may not match the guidance and the goals of top-level decisionmakers. A process of coordination among the ministries will be the primary mechanism for connecting the top-down coordination and the bottom-up policy development so that we can fulfill the public interest and speed the implementation of this Development Vision.
- **Consulting the people.** Our efforts will include a system for formally consulting with all stakeholders in society—business, non-governmental organizations, men, women, and youth—to ensure that our governmental priorities are aligned with the priorities of the population. Each ministry will also design a system of formal consultation. As part of this system, we will start a process whereby each ministry and the government reports on stakeholder input and how it was responded to.
- **Ensuring the sovereignty of the law.** Progress in nearly all sectors will require reforms of laws and regulations. Social progress will require that every person is equal under the law and that the law applies equally to all people. We will reform our laws and regulations and our judiciary system so that all residents of the Kurdistan Region trust in the fairness of all aspects of the law. In our reforms, we will make sure our enforcement of the law is effective and fair.
- **Collecting data, and monitoring and evaluating our policies and programs.** With the help of the Kurdistan Region Statistics Office and the relevant line ministries we will develop benchmarks and collect data to monitor the progress outlined in the monitoring indicators table (Table C.1). We will develop a more complete monitoring and evaluation framework to take the best advantage of these indicators.

The people will have the following responsibilities in fulfilling this vision:

- **Contributing to the new Kurdistan.** As part of the new Kurdistan Region of Iraq, the people must recognize that government is an enabler to their success, and that the government will not guarantee success such as by giving all graduates employment. Instead, the government can and will institute policies so that people will be able to participate and fulfill their hopes in the private economy.
- **Helping the government.** The government cannot know all the problems and opportunities in Kurdistan. The people must keep the government informed in the spirit of presenting ideas that are good for our development, not for personal self-interest.

The Kurdistan Region of Iraq has a rich history, rich agricultural land, and a wealth of natural resources. But we are richest in the most important resource—people who are willing to work together for a better Region. The people and the government together can fulfill this vision. Our work together will build on our many achievements, and create new achievements for ourselves, our children, and our grandchildren.

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