



Regional Development Strategy for Kurdistan Region 2012-2016



Kurdistan Regional Government Ministry of Planning

Regional Development Strategy for Kurdistan Region 2012-2016

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Forward by the Minister of Planning

In the last few years the Kurdistan Region has benefited from considerable development in many areas. This was the result of the government's attempts to seize new opportunities to improve the life of the people of the Region. The Kurdistan infrastructure has been damaged by many years of war, genocide and forced displacement at the hand of the previous Iraqi regime. For example, the former Iraqi regime destroyed over 4000 villages in Kurdistan. Thus the Kurdistan Regional Government (KRG) has been faced with numerous challenges in its attempts to reconstruct the Region and start a sustainable development process.

The ongoing economic development is indicated by the increase in, and diversity of, local products in most of the economic sectors. From the years 2003 -2008 National Income increased from (4,373) billion IDs to (35,665) billion IDs, an average growth rate of 46.6% at current prices. In the same period the GDP increased from (2,419) billion IDs to (24,725) billion IDs, an average growth rate of 68.9%. GDP per capita income increased from (0.524) million IDs to (4.754), an average growth rate of 64.3%.

In the light of the above mentioned development, the KRG Ministry of Planning (MoP), under its clear mandate, believed it was necessary to adopt a strategic planning approach to enhance the development process. The MoP, for the very first time, prepared a multi-year comprehensive strategic plan based on a clear understanding of the current status and vision for the future. This five-year Strategic Plan will be the reference for all future development and capital investment projects. It will also be the guide for the preparation and execution of the annual budget. We firmly believe that this Strategic Plan will enable the KRG to overcome the problems and delays in project implementation resulting from the outdated methods currently used.

In the development of this Strategic Plan, we learned from the successful experiences of a number countries around the world. At the national level we made sure that the Plan is aligned with the Iraqi National Development Plan; and on international level we took into consideration crucial international documents such as the MDGs, the International Covenant with Iraq, the Poverty Alleviation Strategy and others.

Finally the Strategic Development Plan is multi-dimensional and interrelated; it includes all the sectors of economy and attends to the social needs of the people. We are confident that this Plan will contribute to the achievement of the overall objective of sustainable development and will lead to increased prosperity for the people of the Kurdistan Region.

Dr Ali Othman Sindi Minister of Planning Kurdistan Regional Government

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And hopes that this plan is a comprehensive development agenda in the development of the region and be the first step to achieving sustainable development for the coming years. And God help you

Consultant Engineer Nawzad Tawfiq Srhnk D. G of Strategic Planning

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Abbreviation

BOI Board of Investment

BOO Building-Ownership-Operation

BOOT Building-Ownership-Operation-Transfer

BOR Bed Occupancy Rate

BOT Building-Operation-Transfer

CA Comparative Advantage

CAI Comparative Advantage Index

CAM Content Analysis Methodology

CMR Child Mortality Rate

COSIT Central Office of Statistics and Information Technology (Iraq)

CQMS Comprehensive Quality Management System

CSO Civil Society Organization

DI Deprivation Index

EC Environmental Citizenship

EIA Environmental Impact Assessment

ES Environmental Sustainability

FAO Food and Agriculture Organization

FCF Fixed Capital Formation

FDI Foreign Direct Investment

FMR Fetal Mortality Rate

FTE Foundation of Technical Education

GC Growth Center

GDI Gender Development Index

GDP Gross Domestic Product

GFCF Gross Fixed Capital Formation

GFSY Agriculture, Forestry, Fishing and Hunting

GG Good Governance

GNI Gross National Income

GNP Gross National Product

HD Human Development

HDI Human Development Index

HPI Human Poverty Index

HRD Human Resource Development

ICDL International Computer Driving License

ICT Information and Communication Technology

ID Iraqi Dinar

IELTS International English Language Testing System

IHSES Iraqi Household Socio Economy Survey, 2006-2007

ILI Industrial Location Index

IMR Infant Mortality Rate

ISP Internet Service Provider

IT Information Technology

KRG Kurdistan Region Government

KRSO Kurdistan Region Statistics Office

kWh Kilo Watt Hour

LBR Live Birth Rate

LEB Life Expectancy at Birth

M&E Monitoring and Evaluation

MAWR Ministry of Agriculture and Water Resources

MCY Ministry of Culture and Youth

MDGs Millennium Development Goals

MHE Ministry of Higher Education

MICS Multiple Indicator Cluster Survey

MMR Maternal Mortality Rate

MOC Ministry of Transportation and Communications

MOCH Ministry of Construction and Housing

MOH Ministry of Health

MOLSA Ministry of Labor and Social Affairs

MOM Ministry of Municipalities and Tourism

MOMA Ministry of Martyrs and Anfal Affairs

MOPDC Ministry of Planning and Development Cooperation (Iraq)

MP Member of Parliament

MTI Ministry of Trade and Industry

MWh Mega Watt Hour

NDP National Development Plan

NGO Non-Governmental Organization

NPL National Poverty Line

NRHSD National Report on the Status of Human Development

OIG Office of Inspector General

OPS Organized Private Sector

PBR Premature Birth Rate

PGR Population Growth rate

PL Poverty Line

P.O. Box Post Office Box

PPP Public Private Partnership

PRS Poverty Reduction Strategy

PRSP Poverty Reduction Strategy Paper

QLI Quality of Life Index

QOL Quality of Life

R&D Research and Development

SA Spatial Analysis

SD Sustainable Development

SIM Subscriber Identity Module

SMEs Small and Medium-Sized Enterprises

SV Spatial Variability

T&T Travel and Tourism

TFR Total Fertility Rate

TM Tourism Multiplier

UN United Nations

UNAMI United Nation Assistance Mission for Iraq

UNESCO United Nation Educational, Scientific, and Cultural Organization

WEI Women's Empowerment Index

WHO World Health Organization

WTTC World Travel and Tourism Council

Executive Summary

Throughout its development stages, strategic thinking, especially since the beginning of the third millennium, has led to a series of successful strategic applications, most importantly in strategic planning which is extensively adopted by governments and organizations. Practical experiments have proved its effectiveness with respect to interaction with local and international environmental dynamics and changes, which are often characterized by constant change and extreme complexity. This situation occurs as a result of the development of national economies on the one hand, and development of global economy, on the other, in addition to globalization consequences and the interaction between local and world economies.

1. Current Situation

Based on the strategic planning methodology, the multifaceted analysis of the Region's social and economic conditions can be summarized as follows:

- 1) Over the past few years, the economic situation has experienced remarkable growth, reflected in the rise of overall public revenues. As a result, the government has increased and expanded its support for different economic sectors. GNP has registered a rise of 46.6% at current prices during the past six years. Also, GDP has risen by 68.9% for the same period, hence increasing the average per capita income by 42.7% at current prices.
- 2) During the past five years, the economy has registered clear increase in local and foreign investments (about \$ 12,491 million in mid-2010, spread over a number of economic activities). Government investment during 2004-2009 also increased by 92.1%, where government investment expenditures amounted to 25% out of overall public spending during the same period.
- 3) PGR regularly increased as absolute figures of population increases were not affected by the successive economic changes. Based on Ministry of Planning KRSO's figures and Iraqi household socio economy MICS (IHSES) for 2006-2007, annual PGR reached 3%. This increase occurred as a result of the rise of FTR to 4.2%, which is higher than the world rate of 2.6%, and general birth rate to 2.99% during 2004-2009, according to the figures released by MOH. The increase is also attributed to relative stability, coupled with a little rise of IMR (11.5 per one thousand live birth for the same period). Urban population constituted 77.6% of total population against 22.4% in rural areas up to end of 2007.
- 4) The population age structure shows that working-age population (15-64) constituted 58% of the population in 2009. On the other hand, the actual rate of manpower contributing to the economic activity was about 41% in 2009. Overall manpower distribution rate was 69.7% for males against 12.9% for females. This situation resulted in a rise of unemployment level to 17.86% in 2009, based on the figures released by KRSO. Discrepancies in rates in the different governorates, as well as between males and females were observed.
- 5) The total irrigated and rain fed agricultural land represents about 42.5% of total area of the Region, of which 87.6% is rain fed (37.2% of the Region's area); and 12.4% is irrigated accounting for 5.3% of the Region's area. Natural factors play a basic and effective role with regard to determining main crops production and yields levels. Production and yields indicators with respect to field crops in particular considerably fluctuate from one year to another.

- 6) Quality of basic agricultural products is relatively acceptable at present. The other products, like fruits and vegetables would have competitive potential, should productivity and marketing processes be improved, which is likely to boost per dunam productivity and help reduce unit prices. This will also lead to protecting local produce from the risk of local market dumping with cheap agricultural products from the neighboring countries. This situation also applies to red and white meats, milk and eggs.
- 7) The Region is divided into three areas in terms of annual rainfall rates: an area with assured annual rainwater levels of more than 500 mm, another with semi-assured rainfalls (350-500 mm/year), and an area with unassured rainfalls (less than 350 mm/year). Percentage of rain fed cultivable land represents up to 37.2% of total agricultural land, a relatively high percentage compared with that of irrigated land (5.3% of total agricultural land¹).
- 8) The Region has a considerable human capital involved in agricultural activities (about 23% of the population). Based on estimates for 2009, economically active population represents about 41% of total population, which means that the inhabitants involved in the agricultural sector account for 9.7% of total manpower. Through the current professional and science-oriented experts, workers in this sector can be efficiently used through provision of qualification and development support, which leads to a sustainable and advanced agricultural activity.
- 9) All the Region's areas abound with huge reserves of a variety of minerals that are rich in metal ores, including ores of copper, chrome, nickel, manganese, iron, zinc, lead, limestone, gypsum, gravel, sand, and cement mud, in addition to large quantities of dolomite, representing 57% of Iraq's reserve of this material. Most of these minerals, however, are still in need of extractive industries, given their importance as an essential economic resource, which if properly utilized, could boost development efforts.
- 10) Electricity sector is the driving force of economy, given that it is associated with all the economic, services and industrial activities. Per capita electricity consumption is one of the key indicators for assessment of social welfare level. The increase of produced electric power amounted to about 140% in 2008, compared with the levels produced in 2004. There was a considerable upswing in this sector in 2009, where the increase level reached 228%, against increase volume in 2004. However, the figures released by the Ministry of Electricity point to a deficit of about 30% against the overall demand for electric power. Per capita share of electricity at present is 1,308 kWh, while the Ministry of Electricity estimates that per capita share in accordance with the size of overall demand is at about 2,500 kWh.
- 11) The government is aware of the importance of education, and is therefore exerting extra efforts to reach MDGs, given that one of the government's binding goals lies in expanding the educational programs aimed to achieve social development. Some development has been realized with respect to providing education to the population aged 6-11 years. Coverage percentage rose from 91.6% to 94.3% for 2003-2009, which points to a failure to achieve full obligatory education. Education coverage for middle level also rose to 27.25% in 2009, from 20.33% in 2003. The rise achieved in number of this level's students of 6.8% is basically attributed to growth of population and number of students enrolling. Meanwhile, educational coverage of population at the vocational middle level registered a decrease of 2.45% from previous 3.5%, in addition to a decline in number of students at this level of 8.4%. At the university level,

¹ Translator's comment: This contradicts what is mentioned in point 5.

² Translator's comment: This ratio should be 56.097%.

- education coverage for age groups of 18-23 years rose from 4.9% in 2003 to 14.7% in 2009. Given the large increased number of students with no corresponding increase in number of teachers, the ratio of student/teacher rose from 12:1 in 2004 to 19:1 in 2009, coupled with a rise of number of colleges and institutes, caused by horizontal and vertical expansion, from only 3 universities in 2003 to 18 universities in 2009. Number of government colleges also rose from 35 to 81 colleges for the same period, and number of private universities colleges reached 12.
- 12) Notwithstanding the great efforts exerted by the Ministry of Education in regard to building and restoring school buildings, which contributed to bridging the deficit gap from 49% in 2004 to 33% in 2008, the increased demand for schools coupled with mounting levels of enrollment; growth of school-age population; spread of education at the various urban and rural areas; limiting possibilities of dropping out; in addition to the huge inheritance of a shortage in the supply of public school buildings, the gap between demand for schools as educational institutions and affordable school buildings continues to be an obstacle that needs extra effort and allocations. These needs aim to reduce the existing gap and end the deficit and the double or even triple shifts applied at several schools.
- 13) Efforts to solve problem of illiteracy have succeeded to reduce the rates over the past years. IHSES for 2006/2007 indicate that illiteracy rate was 27.4% of total population age 10 and older. Based on the figures released by the Ministry of Education, this rate was reduced to 18.4% in 2009. Illiteracy rates in urban and rural areas as well as of males and females are obviously not the same. Some estimates indicate that illiteracy rate at the governorates' centers is about 13.6% of these centers' population. The rate goes up to 16.3% at the other urban areas (districts and sub-districts), and up to about 25.4% in the rural areas.
- 14) Based on MOH figures, birth rates have registered a rise, particularly those carried out under the supervision of official health specialists (doctors, nurses, licensed midwives) as such rates reached 87.8% of total birth rates, while the remaining 12.2%, were carried out without those specialists' supervision. Comparing with 2003, number of live births in 2009 rose by 43.6%. In addition, LBR rose steadily in 2003-2009. IMR rose from 5.9 deaths per 1000 people in 2003 to 24.1 in 2009. CMR decreased from 40 deaths per a thousand live births in 2006 to 35 in 2009.
- 15) Decent housing is a basic right and an essential need for all population. Citizens at both urban and rural areas must be empowered to have appropriate houses within a good and healthy environment with well-integrated services and other necessary facilities. Despite the exerted efforts and the growing number of residential units completed in the past years, totaling at the end of 2009 about 41,000 units carried out by MOCH and local and foreign private investment projects, indicators point to housing shortages and the need for providing at least 250,000 housing units in all governorates during the next five years, based on MOCH sources. These indicators also show a clear discrepancy with respect to provision of houses in the different governorates. Problems of housing shortfalls, crowded residential areas and inadequate housings in the rural areas are much deeper than they are in cities, due to negligence by former housing policy of rural sector and failure to give this sector the same privileges and facilities accorded to the urban areas. The results of the study carried out in the field of housing shortfalls revealed that more than 37% of the population in the rural areas suffered clear deprivation.
- 16) The Region generally possesses sufficiently integrated elements to become a tourist attraction area. It is one of the few areas blessed with variety of tourist aspects and a mosaic cultural heritage, in addition to the natural sceneries. It also has essential

- complementary facilities which can be further developed and enhanced. Another advantage lies in the current economic and building revival, over and above the stability of security conditions and the increased number of tourists. Private sector investment in the field of tourism has shown a remarkable increase, reflected in the increased number of hotels from 64 hotels in 2007 to 167 hotels and 59 motels in 2009. This is also evident in BOR in hotels, which exceeded 66%. However, the distribution of these hotels and motels concentrates at the governorate centers, while such facilities, especially the luxurious hotels, are much less in number at the majority of districts and sub-districts.
- 17) Cultural activities have received due attention by the government, including the various cultural domains like journalism, publishing, audio-visual media, theatre, fine and plastic arts, festivals, poetry and artistic forums, etc. The past few years saw a clear increase in the number of satellite TV channels, totaling 7 in 2009. There was also an increase in the number of local TV stations totaling 40 in the same year. Number of both government and private newspapers rose up to 29. Similarly, number of private and official magazines rose to 48. Number of movie theaters increased by 3 to become 7, and also number of theaters increased to 7. In addition, several festivals and cultural, literary and artistic forums were organized.
- 18) The issue of woman marks a significant change in the social fabric of Kurdistan community, given the fact that ensuring women's access to the resources and inputs that are essential for the production process is one of the fundamental dynamics for empowering women to effectively participate in the development process. Having access to resources, such as land, credit, income, inheritance, etc. will ultimately allow women to use and control these resources. It also means that they will be empowered to take decisions vis-a-vis these necessities. Although indicators point to a poor women's contribution to the economic activity, women's availability at decision-making positions increased in the past years. Number of women assuming senior posts by the end of 2009 increased. There were 13 women assuming the post of general manager, 13 deputy general manager, 3 district and sub-district chiefs, 16 advisors, 3 undersecretaries, one governor and one chief prosecutor. Besides, the former ministry had 3 female ministers, and the same number exists in the present one. There are also 30 female MPs.
- 19) Youth demands reflect the demands of society itself. These demands are not limited to job opportunities, but go far to cover life opportunities like education, training, labor, entertainment, health, etc. Therefore, any failure or drawbacks to meet these requirements are likely to lead to formidable social threats especially that the numbers of youngsters at present are exceptionally on the high side. Over 21% of the population is young groups (15 to 24 year-old). Besides, the percentage of young population to working-age population (15-64) is about 37.8%. The present and anticipated rise of the number of young population and related rates is closely linked with fertility and mortality temporal trends, in addition to immigration size and pertinent upsurges. Based on anticipated figures, young generations' rate will continue to rise in the next two decades, achieving stability followed by an era of subsequent decline.
- 20) Vulnerable groups face problems and challenges in their day-to-day living conditions, including high poverty levels and multiple forms of deprivation. These groups are also likely to be faced with constant lack of potentials or loss of adjustment with shocks. They represent a considerable part of the society, owing to meagerness of communal services accumulated throughout the past decades in many areas, leading to a mounting marginalization, poverty, alienation and breakdown of family relationships.

- 21) Investment represents an important aspect with regard to restructuring spatial development, and a tool for an attempt to minimize developmental variability among governorates and between urbanized and rural areas, and distribute industries, agricultural development, land reclamation and reforming specialized infrastructures, especially road building, to all governorates. In the field of private investment, the Governorate of Erbil had the lion's share of 60.06%, compared with investment rates at the governorates of Sulaymaniyah and Duhok, reaching 36.19% and 3.74% respectively in 2007-2009. These percentages reflect considerable variability vis-à-vis promotion and distribution of private sector investments in the governorates. In the field of public investment, these differences in addition to the differences of investment opportunities between the main cities (governorate centers) and their relevant towns (districts and sub-districts) registered a decline.
- 22) Needs of spatial investment require a more serious consideration as to the importance of preparing a rural settlement plan, based on a science-oriented and workable policy which contributes to the identification of the villages entitled to development through proper data analysis of the economic, constructional and social aspects of all villages, in addition to a proposal to reduce the number of villages, aimed at supporting the opportunities for their development, providing basic services to them, and increasing their investment attraction chances. The present population's status indicates that about 77.8% of population lives in the governorates centers, against about 22.2% live in the districts, sub-districts and rural areas. These percentages clearly reveal that the governorates centers attract total economic and investment activities, and consequently the people, at the expense of other areas. They also reflect the causes for escalating migration from the outskirts of governorates towards their centers.
- 23) The importance of integrating the environmental dimension into the socio-economic dimension is a basic priority, conducive to achieving SD. This goal can be realized through avoiding the traditional planning policy which depends upon economic considerations alone and adopting, instead, the modern planning method which gives the environment due care and attention. Over the past decades, the Region underwent clear negligence, in which the environment experienced many problems and threats for numerous reasons, without taking into account their accumulated future consequences. There was also a poor treatment of the pollutants caused by the wars, destructions and extermination campaigns faced by Kurdistan's population. In addition, there was no awareness of the negative consequent relationship between economy and the environment and between man and the environment, with the result being an obvious disruption of the environmental systems, a change of the environment's natural features, a decline of water bodies, desertification, loss of green areas, aggravation of salinity problem, and water deficiencies.
- 24) The principles and applications of GG and proper administration are two fundamental requirements for achieving progress in all fields, including economic advancement, conducive to achievement of social welfare and equality for all citizens. Taking sound and proper decisions is one of the most essential requirements for development process. The Government has adopted these principles and worked for their implementation, assisted by many factors, including the improvement of overall values of state budget, and the Region's encouragement of foreign investment, most important pillar of which was the government's enactment of the Investment law.
- 25) The political changes taking place after 2003 opened new horizons for private sector development. Economic data indicate that the contribution made by this sector with respect to FCF amounted to about 60% for 2008 and 2009, which points to a rise of private sector contribution to GDP and GNP rates. As one of its essential trends, the

government sought to strengthen this sector vitality by making it an effective sector in the field of economic activities; a generator of job opportunities; an enhancer of SD and a financer of the development process, through increasing its revenues and deposits. This trend falls in conformity with the pledge made by the government to reform Kurdistan's economy in accordance with sound economic foundations to ensure full investment of the Region's resources, source diversification and encouragement and development of private sector, as well as to enhance private sector interactive, participatory, competitive and sustainable role in the development process.

2. Development Challenges

Based on the results of IHSES, and in anticipation of the local, regional and international socio-economic changes characterized by continued change and large-scale interaction, a number of immediate and future challenges have been identified. This RDS seeks to address these challenges, most important of which are:

- 1) Relative deficiency in the structure of economic sectors, reflected by their contribution to GDP. The contribution made by the agricultural sector is 10%, tourism 4.9%, industry 6.6%, and commerce 4.9%. These contributions are relatively low, compared with other sectors, like services (14%) or real estate ownership (14%), leading to extreme exposure of economy to the outside world as a natural result of these low contributions to GDP generation, particularly commodity sector contributions totaling only 11% of commodity activities, while distribution activities and services activities reached 65% and 24% respectively, based on 2008 statistics.
- 2) Lack of clear strategic planning vision in relation to state budget preparation. This is especially evident during the selection of priorities, due to the adoption of the conventional policy (line-item budget) which focuses on immediate needs only. In addition, public expenditure is generally focused on the current spending at the expense of investment spending, which resulted in an increase of effective overall demands levels, and heightened the rigidity of production system flexibility. This situation made imported goods thrived at the expense of locally produced goods, due perhaps to underperformance of the financial management and the urgent need for introducing changes into government finance system in order to adjust revenues and public spending, and properly directing them socially and economically and in a way that suits the priorities of development goals.
- 3) Failure of the Region's economy to generate sufficient job opportunities due to the decline of investment expenditures out of overall public expenditure, leading to widespread unemployment among working-age population in general and youngster group in particular (rate of unemployed females was higher than males) as a consequence of poor response of employment policy, on the one hand, and the negative effect of urbanization on the employment trends, on the other, despite the fact that numbers of the latter group out of numbers of the former group is high. Statistical figures indicate that manpower is concentrated on non-commodity businesses at the expense of commodity businesses, which led to its multiplicity.
- 4) High PGR constitutes a basic challenge as a natural consequence of the heightened FTR, which requires sustained increase in consumer expenditure rates required for meeting the needs of consumer groups in the economy (the population groups below and above working age), which may be at the expense of the investment expenditures.

- Dependency rates in economy are also high, where demographic conditions revealed that about half the population are consumers and the rest are producers who are responsible for supporting themselves as well as the consumer group. This situation creates pressures on the economic resources and a challenge to the labor market and its ability to create new job opportunities.
- 5) Poor competitive capability of vegetable and animal production at both foreign and local levels. As a consequence, food security demand relying upon domestic production, especially main crops and products, was affected. This was associated with limited water resources exploitable for agriculture, coupled with inadequate storage capacities currently available against consumer demand, in addition to irrationalized exploitation of water in certain areas of the main three sectors of industry, agriculture and other human consumptions. Government investments are still under the required volume, and the agricultural investment environment is still unattractive to both the private and foreign investors.
- 6) Paucity of local and foreign investments in the industrial sector in general, and in manufacturing industries in particular, making local industrial production clearly unable to compete against imported goods. In addition, there is a tendency for dumping local market with cheap and sub-quality goods, due to the failure of obsolete legislations, which are still enforced, to provide an adequate legislative environment which supports the industrial sector.
- 7) Paucity of local and foreign investments which support the domestic power generation efforts, resulting in failures to meet the overall increasing demand, which in turn led to a rise in the size of the electricity provided by foreign sources (Turkey, Iran, and the federal government of Iraq), which accounted for 30% of total power supply. Another problem lies in the lack of public awareness of methods and mechanisms of power consumption rationalization, coupled with the unclear measures as to distribution of energy in general and electricity in particular, on prioritized basis in the cities and rural areas and according to the consumption sectors (residential units, government sector, industrial sector, agricultural sector, services sector...etc.).
- 8) A prerequisite for comprehensive reform of the education sector rests with providing sufficient funds. This requirement must be a top priority in this Strategy, which demands increased financial allocations and sufficient funds for improving the quality of provided education, addressing non equitable educational distribution between urban and rural areas in addition to treating inadequate accommodation capacities of the existing buildings for all educational levels, represented in declining ability to provide complete and sustainable education opportunities. This declining constitutes a major challenge to improving the educational circumstances, as the clear shortage for school buildings is one of incentives for dropping out, and a major cause for the recurring complications in respect of the accommodation capacities of the different levels of education. Consequently, the distribution process of the graduates of a particular stage to another depends on financial allocation opportunities, rather than on the teaching empowerment demands, which compels many families to send their children to distant schools and consequently pay higher costs for study.
- 9) Sufficient attention must be accorded to pre-academic, academic, and post graduate curricula development, ensuring that these curricula are in conformity with the current scientific developments and changes, and meeting the demands for libraries, laboratories, technical educational aids, etc. The lack of these necessities has resulted in poor coordination between the educational constitutions and labor market, on the one hand, and clear lack of conformity between the current educational and applied programs, which depend on labor market needs, and the economic system demands, on

- the other, especially in relation to technical education programs. In addition, poor relationship between scientific research and development programs is one of the most important challenges facing the demands for linking scientific and technical development with the social and economic programs, and revival of different sectors. This is evident in the insufficient allocations and the limited R&D budget.
- 10) Demographic changes among districts happening as a consequence of increased migration from the rural areas and villages to the cities constitute a challenge for implementing needed health policy. This is perhaps due to unavailability of a clear and adopted population policy. Increased population growth leads to increase in the demand for health services. Despite increased spending on the health sector of overall government expenditure over the past years, pertinent allocations remain relatively small and insufficient, compared with WHO's recommendations which indicate that per capita health share of government spending in the developing countries comes to about US\$ 34. Therefore, this sector still experiences insufficiency of the number of health facilities (hospitals and main and branch health-care centers), in addition to shortfalls of health and medical staff. A relative inconsistency of health services distribution among the governorates and between urbanized and rural areas has also been observed.
- 11) Several indicators refer to a mounting housing deficit, reaching about 1/4 million residential units in 2016, in addition to the increased immediate and future need for restoring and developing most of the existing rural housing units, given that a large number of these dwellings is built of unsustainable building materials, and are therefore under acceptable construction standards. Lack of land earmarked for residential construction projects is another problem, especially in the urban areas and large cities, coupled with unavailability of a sustainable residential land management system responsible for proper regulation of available land for this purpose. Over and above these problems, there are no trustworthy mechanisms or proper systems for providing needed land for concerned developers, including companies, individuals and local and foreign private sector investors.
- 12) Number of private and joint-stock investment companies in the field of tourism and culture is very low as they are restricted to individual investors with limited capacities which are incompatible with large-scale tourist and cultural investment projects. This situation has also been associated with limited financial resources earmarked by the government for these activities, where allocated funds are used for few areas. This may be attributed to multiplicity of authorities responsible for activities related to tourism, culture and antiquities, as there is overlapping in duties and responsibilities among them. In addition, lack of sufficient supplementary services and infrastructural facilities, especially at tourist attraction sites, like religious, archeological and entertainment areas, represents another hindrance.
- 13) The challenges related to the traditional culture of women's participation in the economic activities represent a major obstacle and a main reason for the declining involvement of females in the economic development process. This situation is attributed to the existing social values and traditions which are responsible for identifying women's roles, in addition to the negative attitude vis-à-vis females' employment in economic activities outside household confines, and preparing them instead for taking up traditional family roles like matrimony and motherhood. Discrimination against women is the most negatively affecting cultural and traditional factor.
- 14) Absence of a comprehensive national policy targeting youth sector has made services provided for them lack comprehensiveness without achieving the desired positive impacts. Another problem lies in inadequate employment policy that is commensurate

- with factual circumstances objectively and scientifically, conducive to creating new job opportunities for the young. The situation may be attributed to the inadequate private sector role, declining regulatory efficiency, and failure to depend upon local manpower during foreign companies' execution of investment projects.
- 15) There is a lack for a comprehensive vision for improving the social and economic conditions of vulnerable groups, coupled with frequent dependence on fragmented and localized policies and measures with poor interrelations. This may be attributed to lack of sufficient integration and coordination among the involved social sector actors and between the public and private sector, and to institutional underperformance of services and non-services public bodies, which negatively impacted their policy, plans, programs, initiatives, types of interaction and extent of factual response to the vulnerable groups' problems and challenges.
- 16) SV of development prevails as there are limited number of developed areas (the big cities and governorates centers) which dominate most of the economic activities, services and key infrastructures, and less developed areas, especially in the districts, sub-districts and rural areas. This situation is a great challenge in terms of equitable distribution of development gains to all governorates and districts, based on the adopted development standards. This problem represents another major reason for increased emigration from rural areas to the cities and from small to large towns, causing depletion of human capital in rural areas and small towns, on the one hand, and increasing demand for housing and other public services in the population attracting cities, on the other. Available data and statistical figures show rising population rates in the urban areas to about 80% of overall population.
- 17) Lack of focus on continual upgrading of long-term land use plans with an absence of basic rural settlements plans, which reflects on random and unregulated use of lands which are predominantly agricultural. The situation is further aggravated by building on cultivable land, and frequent violation against use of different lands, especially those located within the master developing plans of main cities.
- 18) Failure to integrate the environmental issues into development schemes has created a state of estrangement between environmental and socio-economic issues making them away from goals and mechanisms of SD. This is perhaps due to insufficient environmental awareness of citizens in general, and of investors in particular, who disregard environment-related measures and conditions in favor of self-centered economic gains. It is also due to insufficiency of the enforced legislations and regulations concerned with the environment, or the need for upgrading them to suit the internationally recognized criteria, especially the question of climate change.
- 19) There is a lack of a clear-cut indicative vision vis-à-vis the role played by the private sector in restructuring economy and building its productive foundation. This has been associated with a relative shortage of laws and regulations governing the private sector role in economic activity, which consequently limited the highlighting of this role and its competitive powers and caused this sector to overestimate the demand for dependence on regulations of protection and support provided by the government, instead of reliance on competition systems. It has consequently shunned the efficiency and competitive criterions that are based on knowledge, information and technology, losing the prospect of strengthening its capacity to cope with and maintain the fast moving developments of world market, as an essential element for achieving competition and gaining access to foreign markets.
- 20) The RDS goals cannot be realized without developing the various aspects of government capabilities at all levels and geographic positions. The government's legitimacy, jurisdictions and intrinsic powers are reflected in its interaction with the

citizens and in the interest of the citizens. Such behavior falls in line with the principles and applications of GG and proper administration. It also falls in line with the optimal method pursued to achieve the goals of the Strategy, aimed to promote the government's potentials and enable it to perform its basic functions, and rise up the level of providing needed services designed to meet the demand and requirements of society.

3. RDS Goals

This Strategy has adopted a large series of goals, aimed to develop the economic and social sectors, based on the results of the strategic analysis of the socio-economic circumstances, and the consequences of the diagnostic process of present and future challenges expected to be faced by the development efforts during the next five years. A large number of quantitative and qualitative indicators have been derived from these goals, which will be used to achieve them. The most important indicators are:

1) Macroeconomic development:

- Increasing the GNP growth rate by 7% annually during the time set for the Strategy.
- Increasing the GDP growth rate by 8% annually, agricultural sector by at least 15%, manufacturing industries by 5% and the tourism sector by 7%, during the Strategy years.
- Increasing the GDP contribution of local and foreign investment to 20% within five years.
- Providing the essential requirements for export operations (production, domestic services and re-export) at progressive rates, starting from 2% in the first year of Strategy implementation, up to 10% by the end of 2016.

2) Financial sector:

- Increasing the investment expenditures out of overall public spending at progressive rate to reach 50% of 2016 budget through rationalizing non-basic operating expenditures.
- Linking the preparation of the state investment budget with development priorities, and adopting economic principles with regard to endorsement of the investment budget projects (preparing feasibility studies, cost/benefit criterions...etc.) starting from 2012.

3) Population, manpower and employment:

- Reducing unemployment from 17% to 4% by the end of 2016, through creating 100,000 job opportunities per year, coupled with a balanced manpower distribution, and increase of manpower productivity rate up to 4% per year.
- Reducing migration to the cities, and providing resettlement for 5% per year for the manpower migrating from rural areas, through developing a balanced employment policy, coupled with increased investment allocations at the rural regions.
- Education and training outputs should satisfy 15% annually of public and private labor market needs for adequately educated and skilled manpower so that the scientific specialties and educational curricula could satisfy 80% of such needs by the end of 2016.

4) Agricultural and water resources:

- A 10% increase in annual use of agricultural land; providing protection for 80% of cultivable land against desertification and damage during 5 years; and increasing the water storage capacity up to 5% of available river flows during 5 years, through building 4 dams during the period (2012-2016).
- Increasing the production of basic crops (wheat, barley etc.) and of fruits and vegetables by 8% per year; increasing animal production by 5% annually through raising the number of livestock (sheep, cows and goats), and increasing animal production and productivity (red and white meats, milk and eggs) by 10% annually.

5) Energy and industry:

- Securing the Region's total need of oil products and natural gas during 5 years.
- Re-qualifying the economically feasible industrial public companies, and privatizing the remaining companies during 5 years.
- Creating a fund for financing and supporting SMEs which help the existing industrial companies through their products, in addition to creating new job opportunities and encouraging integration between public and private industrial sectors.
- Increasing the annual per capita share of electricity up to 3,000 kWh during 5 years.
- Securing a power supply reserve, aimed to meet increased demand for electricity in the future, which is estimated at about 12.5% per year.
- Expanding the R&D and HRD infrastructures, and increasing R&D's contribution to GDP up to 0.5% in 5 years.
- Providing needed support for renewable energy development, aimed to achieve a 10% of electric power production and consumption by 2016.

6) Education and higher education:

- Empowering all 6-year old children covered by the compulsory education to go to school, and ensuring that 99% of them complete primary education within 5 years.
- Ensuring that 60% of the students earn middle school certificate within 5 years.
- Creating a regional indicative system for measuring primary and middle education level during one year, in addition to creating a new system for evaluating middle and vocational school students, which falls in line with the internationally recognized standards and systems, within a two-year period. This system aims to qualify students for post-middle level education (similar to International Baccalaureate).
- Reducing illiteracy rate by 10% per year, aimed to eliminate illiteracy by 80% within 5 years.
- Raising the percentage of higher education coverage to over 25% within a period of 5 years.
- Providing needed tools to enable 90% of university and institutes graduates to score (5) or more in IELTS (or equivalent) during a period of 5 years. In addition, 90% of the graduates will be prepared to have an ICDL license within the same period.

7) Health:

- Increasing number of doctors and hospital beds by 15% or more per year for each 100,000 persons and family health-care centers by 30% during the five years, in addition to reducing rates of diseases by 40% and cancer diseases by 50% during the same period.
- Reducing CMR and MMR by 75%, increasing LBR by 75%, and providing reproductive health services by 90% during a period of 5 years.

8) Women's empowerment:

- Equitable education opportunities for females and males at all pre-academic stages within a period of 5 years.
- Increasing women's contribution to the economic activity by 5% per year through their financial and moral empowerment, aimed to enable them to play a proactive role in boosting the development process.
- Reforming the educational systems and curricula during the first two years of this Strategy, aimed to change the attitude of society vis-à-vis violence against women, and develop a sense of responsibility towards them. Human rights programs will also be provided with concepts conducive to enhancing and promoting the values of equality, equitable opportunities as an anti-discrimination culture, achieved through coordination with the stakeholders within 5 years.

9) Youth:

- Targeting the young in particular to reduce unemployment rate by 10% per year, taking into consideration the rural areas and both sexes.
- Increasing the number of youth and entertainment centers by 25% during 5 years, to cover all governorates to provide the young with proper education and useful and constructive activities.
- Preparing a comprehensive program during the first year of the Strategy, aimed to accommodate the young migrants and providing them with rewarding job opportunities

10) Vulnerable groups:

- Treating the consequences and burdens caused by poor performance of government policies and declining concern by the different social sectors about the vulnerable groups, resulting in continued marginalization of a large number of widows, orphans, the handicapped and the like. Proper action will be taken to amend these policies within one year and begin the implementation process during the second year of the Strategy.
- Working out a social aid effective system or legislation, or amending the present one during the first two years of the Strategy.
- Committing to implementing the endorsed PRS, and realizing its goals within 5 years.

11) Families of martyrs' and genocide victims:

• Enhancing the multi-services package offered to families of martyrs and genocide victims, achieved through stepping up the number of opportunities of treatment outside the Region for patients and those in need of medical care by 10% annually. In addition, medical and health needs will be fully covered within 5 years.

- Increasing the number of land pieces and housing units granted to these groups by 20% per year until the total number of needy people is covered within 5 years.
- Increasing the number of persons covered by the educational services and training and rehabilitation courses by 10% per year.

12) Spatial development:

- Allotting at least 50% of the state investment budget for development of services and major infrastructures at the districts, sub-districts and rural areas, proportionate with their population size, degree of deprivation in the past decades, and their particularities.
- Increasing local and foreign private investment by at least 10% of overall invested annual capitals, at the less developed areas, achieved through a series of incentives proposed by BOI in cooperation and coordination with the government stakeholders.
- Preparing or upgrading the integrated structural plans in the governorates, aimed to regulate land use, during the first two years of this Strategy, and encourage growth at central development areas for realizing economic integration among governorates.
- Annually Selecting 10 villages with appropriate population number in accordance with scientific approaches to provide services programs and infrastructures for rural areas.

13) ES:

- Increasing potable water distribution services through safe networks by an annual rate of 10% for the underprivileged areas and quarters (particularly at the rural areas).
- Reducing the percentage of water-carried diseases by 15% per year, through improved water resources.
- Reducing water resources contamination caused by industrial waste water by 15% per year.
- Increasing the rate of safe disposal of radioactive and dangerous wastes (especially medical and pharmaceutical wastes) by 15% per year.
- Reducing air pollution rate to internationally recognized levels within two years, and maintaining this rate.
- Reducing desertification rates and increasing forests areas by 5% per year.

14) GG:

- Enacting a set of laws on financial management, a law banning political parties' interference with government institutions' work, a law on setting up Commission of Integrity, a law on declaration of assets and interests with regard to holders of ministerial posts and special degree officials, and the new labor law which supersedes the old one.
- Full committing to implementing the instructions contained in the enforced contracts and tenders law, with a high sense of transparency, and issuing clear-cut instructions empowering the government control authorities to monitor its full implementation, and obligating them to prepare quarterly and annual reports on monitoring results.
- Issuing instructions on setting up Public Civil Service Council, and activating its role in the development of government action and management of civil service problems and impediments, in an objective and scientific manner that falls in line with the nature of government administrative body, particularly the problem of disguised unemployment at government establishments and multiplied number of employees.

- Developing a national training strategy during the first year of the Strategy, and providing technical and financial support proposed by the Ministry of Planning to increase its training center's services to all government officials.
- 15) Private sector role and participation:
- Increasing the private sector contribution to GDP and accumulation of fixed capital through mobilizing its investments, especially in the sectors of agriculture, industry and tourism.
- Promoting decentralization with regard to management of development facilities and private sector involvement in plans and programs designing at the level of governorates, municipal councils of districts and sub-districts. Private sector will also be encouraged to participate in governorates' development projects which represent viable investment opportunities.
- Adopting a national employment policy in the first year of the Strategy, based upon the vision that the private sector is the creator of job opportunities and the enhancer of SD.

4. RDS Priorities

To achieve the pursued strategic goals, the Strategy has adopted a set of priorities and preferences with regard to investment distribution among the economic and social activities and sectors, based on the details outlined in the three previous paragraphs, as follows:

- 1) The required investment is estimated at about ID 30 trillion (US\$ 25 billion) during this Strategy. US\$ 17 billion will be funded from the federal budget, accounting for 17% of NDP allocations totaling US\$ 100 billion of federal budget allocations for the five years, in addition to private sector investments (local and foreign) totaling US\$ 8 billion for the five years. The latter amount has been estimated on the basis of the actual investment volume over the past three years 2007-2010 (US\$ 1.6 billion annually), with presuming investment increase of about 10%-15%, targeted by the Strategy.. In this way, the public and private sector contribution will represent 68% and 32 % respectively.
- 2) In terms of investment priorities, agriculture has been considered top priority given its significant resources and great potential to contribute to economic diversification and food security as well as its role in creating new jobs that would effectively minimize the levels of unemployment and poverty and would enhance stability of manpower in rural areas, reduce immigration to urban regions and ease pressure on services inside cities. The construction, building and housing sector has also been given priority, being one of the basic sectors for providing and developing much needed infrastructures of roads, bridges, buildings and residential units. These key elements have wide-ranging contributions to the development of other economic sectors and preparedness of the tools needed for improving the different social services. RDS has also accorded priority to the transportation, telecommunications, and storage sector, given its importance as an essential infrastructure involving great functional interaction with the other sectors. Also, the electricity sector enjoys a preferential status, because of its vital role in realizing development of productive and services sectors, over and above population's welfare. Man's capacity-building has also been given suitable priority, given the fact that man is the ultimate goal of any development and that no material development can be achieved short of efficient human resources who have the potentials to achieve and

administer it. Based on the outlined details given above, the table (1) illustrates investments anticipated for this Strategy, arranged by sector for 2012-2016:

| Table (1) Sector | Activity | %the fund in 2007-2010 | %Proposed | Details | Ministry |
|---|--------------------------------------|-------------------------|-----------|----------------|-----------------------|
| Public Services | Municipality Culture & Tourism | %22.4 | %22 | %15 %7 | MoM |
| Electric | Electric | %19.2 | %20 | %20 | MOE |
| Construction & Housing | Reconstruction & Housing | %16.2 | %15 | %15 | MOC |
| Education | Education Higher education | %10.45 | %10 | %5 %5 | MO Education MHE |
| Agriculture | Agriculture Water Resources | %3.5 | %8 | %4 %4 | MAWR |
| Social Services | Social Sport Martyr | %0.74 %1.29 %0.16 | %6 | %3 %2 %1 | MOLSA MOCY MOMA |
| Transportation, Telecommunication | Transportation Roads & Bridge | %1.5 | %6 | %3 %3 | MOTC MOCH |
| Health | Health | %4.76 | %5 | %5 | MOH |
| Banking and Commercial Services | Finance Trading | %12.3 | %5 | %3 %2 | MOF MOTI |
| Extractive Industry and Mining Manufacturing Industry | Industry Natural Resources | %1.1 %0.65 | %3 | %2 %1 | MOTI MONR |

- 3) Provision of investment on its own is by no means sufficient for achievement of set goals, notwithstanding its function as the cornerstone for any development process. It is highly important in the financial sphere to develop the financial government administration, and reconsider the methods used for state budget preparation. This also applies to institutional development, legal and administrative reform, plan monitoring and follow-up procedures. The Strategy concentrates on these aspects, recommending a series of indicators which fall in line with the investment policy, and RDS' sectoral, spatial and social goals.
- 4) RDS recommends a number of institutional reforms at sectors' level, stressing capacity-building, particularly the importance of developing the different levels of education; using modern technology; focusing on the economic values adopted by the Strategy; question of GG with its principles of the rule of law, accountability, transparency,

- justice, inclusiveness, efficiency and effectiveness; in addition to public sector upgrading guided by these principles and basic rules.
- 5) The track pursued by the Strategy for achieving its goals also entails using modern technologies and knowledge, and benefiting from regional and international experiences, as well as getting more acquainted with knowledge economy and using it to serve the Strategy goals.



Chapter One: Macroeconomics

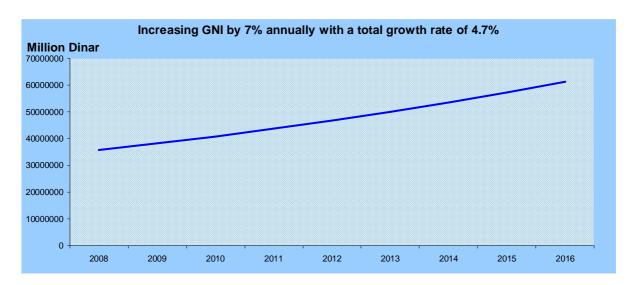
Macroeconomics is an economic term referring to a group of theoretical solutions that deal with economy as a single package. The theory covers several subjects, including GDP, unemployment rates and price index, aimed to understand and develop local and global economies. The analysis tools used by economists in this field include national income indicators, GDP and pertinent contribution of the various economic activities, local consumption, unemployment rates, savings, investment, and inflation. GDP represents total monetary value of commodities and end services produced in a local economy during a given period.

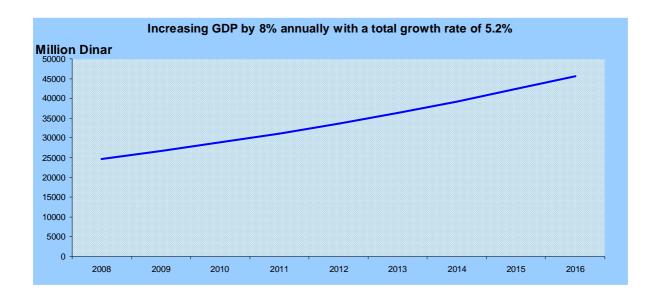
Every economy produces different kinds and quantities of commodities and services, using the available economic resources. Production processes involve mixing the available productive elements and using the accessible technological level to obtain largest possible quantities of goods and services. Production elements receive material benefits in return for their contribution to the production process. Labor element receives wages, land element (land owner) gets proceeds, the element of capital gets returns, and the organizing side also has a share of accrued profits. Thus, the production element receives an income for involvement in the production process.

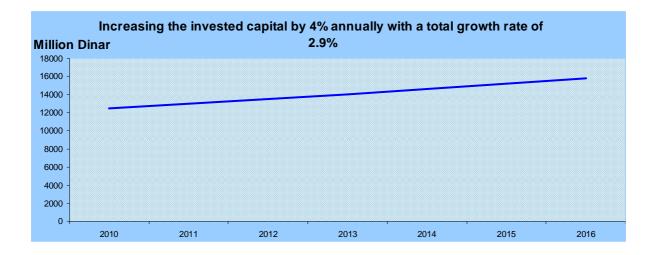
This chapter focuses on the main subjects of national income, GDP and per capita GDP, GDP distribution by economic activities at current prices, FCF, investment and consumption expenditure.

An analysis of the present situation, assisted by the available indicators, can reveal the major challenges that are likely to face economic development. These challenges are the benchmark whereby future trends, including vision, mission and strategic goals, may be identified. Key strategic goal-achievement indicators will be presented in the form of percentages, figures or quantities targeted during the years of the Strategy. Major indicators for monitoring the achievement of the set strategic goals during the years of the Strategy will also be presented.









1. Current Situation

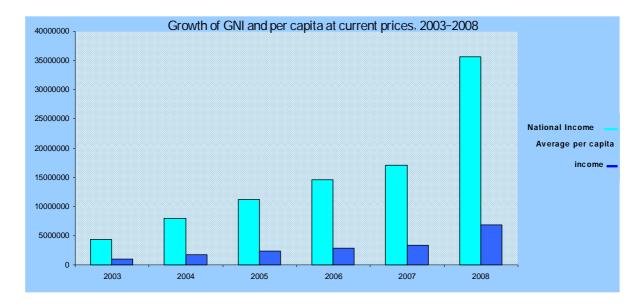
1.1. National Income

The past years experienced a large growth in national income rates and average per capita share thereof. As a result, local production was more diversified in favor of the economic sectors. National income achieved a qualitative boom upwards from ID 4,373,887.262 million in 2003 to ID 17,017,138.822 million in 2007, at an increase rate of 289%. In 2008, it registered another rise reaching ID 35,665,500 million at current prices at an increase rate of 109.6% compared to 2007 figures, and 715.4%, compared to 2003 figures, reflected in the table (2):

| Table2 | Growth of National Income and Per Capita Share at Current Prices 2003-2008 | | |
|--------|--|----------------------------|--|
| Year | National Income (ID million) | Average Per Capita (ID) | |
| 2003 | 4,373,887.262 | 976,794 | |
| 2004 | 7,976,963.669 | 1,728,935 | |
| 2005 | 11,185,756.356 | 2,353,058 | |
| 2006 | 14,523,316.596 | 2,926,339 | |
| 2007 | 17,017,138.822 | 3,372,433 | |
| 2008 | 35,665,500.000 | 6,858,750 | |

Source: KRSO- Ministry of Planning/KRG

The increase of national income values during the past years reflected clearly on average per capita share thereof. It rose from ID 976,794 in 2003 to ID 1,728,935 in 2004, at an increase rate of 77%. This increase rate continued as a result of the rising state budget, reaching to about ID 3,372,433 in 2007, and ID 6,858,750 in 2008, at an increase rate of 103.4%, compared to 2007, and 602.2%, compared to 2003. It had a compound growth rate of 42.7% for 2003-2008 at current prices.

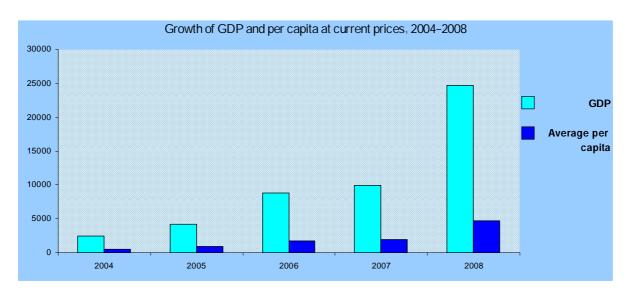


1.2. GDP and Per Capita GDP

Economic development figures for 2004-2008 reveals that GDP at current prices (table 3) increased from ID 2,419.6 billion in 2004 to ID 9,947.2 billion in 2007. Later, it rose to ID 24,725.7 billion in 2008 at current prices, at a total increase rate of 1022% and a compound growth rate of 68.9% for 2004-2008, reflecting remarkably on per capita GDP which increased from ID 524,426 in 2004 up to ID 1,976,673 in 2007, and ID 4,754,942 in 2008.

| Table3 | Growth of GDP and Per Capita GDP at Current Prices 2004- 2008 | | | |
|--------|--|-----------|--|--|
| 2004 | 2,419.6 | 524,426 | | |
| 2005 | 4,198.3 | 883,162 | | |
| 2006 | 8,817.5 | 1,776,660 | | |
| 2007 | 9,974.2 | 1,976,673 | | |
| 2008 | 24,725.7 | 4,754,942 | | |

Source: KRSO- Minis try of Planning/KRG



1.3. GDP at Current Prices by Economic Activity

Economic sectors' contribution to GDP generation revealed different rates, coupled with sustained growth rates due to the stable local and foreign political and economic circumstances experienced by Kurdistan's economy over the past years. Table (4) reveals that sectors' contribution rates in 2007 were as follows: transportation, telecommunications, and storage (57%); social and personal development services (22.7%); wholesale and retail (8%); tourism and hotels services (7%); GFSY (5.6%); building and construction (4%); finance and insurance (1.5%); and mining and quarries (0.1%).

A look at the development of certain economic sectors reveals that the value of social and personal development services sector rose from ID 867.8 billion at current prices in 2004 to ID 1,768.9 in 2006, registering an increase rate of 103.8%, followed by a rise to ID 2,257.8 billion in 2007 at current prices, with an increased rate of 27.6% compared with 2006, and 160.2% compared with 2004.

The transportation, telecommunications and storage sector contribution to GDP rose from ID 726.1 billion at current prices in 2004 to ID 5,211.8 billion in 2006, with an increase rate of 617.7%, rising to ID 5,672.2 billion in 2007, with an increase rate of 8.8% from 2006 and 681.2%, from 2004.

GFSY's contribution value reached ID 353.9 billion in 2004, which rose to ID 514.3 billion in 2006, at an increase rate of 45.3%, followed by another rise of up to ID 560.5 billion in 2007, at an increase rate of 8.98% from 2006, and 58.4% from 2004.

Wholesale and retail sector contribution also rose from ID 301.8 billion in 2004 to ID 729.7 billion in 2006, at an increase rate of 141.8%, to rise again to ID 794.7 billion in 2007, at an increase rate of 8.9% from 2006 and 163.3% from 2004.

Manufacturing industries sector contribution rose from ID 50.8 billion in 2004 up to ID 97.6 billion in 2006, at an increase rate of 92.1%. It registered further increase of up to ID 108.5 billion in 2007, at an increase rate of 11.2% from 2006, and 113.6% from 2004.

Building and construction sector registered a remarkable contribution, reaching ID 46.8 billion in 2004, which rose up again to ID 355 billion in 2006, then to ID 388.6 billion in 2007, with an increase rate of up to 9.5%, compared to 2006, and 730.3% from 2004.

The other sectors also registered different increases, outlined in the table(4):

| Table 4 | GDP by Economic Sector at Current Prices 2003-2007 (ID billion) | | | | |
|---|---|---------|---------|---------|-------|
| Year | 2004 | 2005 | 2006 | 2007 | % |
| GFSY | 353.9 | 424.8 | 514.3 | 560.5 | 5.5% |
| Mining and Quarries | 0.8 | 0.8 | 0.9 | 1.2 | 0.1% |
| Crude Oil | | | | | |
| Other Kinds of Mining | 0.8 | 0.8 | 0.9 | 1.2 | 0.1% |
| Manufacturing Industry | 50.8 | 80.5 | 97.6 | 108.5 | 1.1% |
| Electricity and Water | 9.5 | 14.2 | 17.1 | 17.7 | 0.2% |
| Building and Construction | 46.8 | 293.2 | 355 | 388.6 | 4% |
| Transportation, Telecommunication and Storage | 726.1 | 1,847.9 | 5,211.8 | 5,672.2 | 57% |
| Wholesale, Retail and Hotels | 301.8 | 403.6 | 729.7 | 794.7 | 8% |
| Finance, Insurance and Aviation Services | 62.1 | 82.5 | 122.2 | 146 | 1.5% |
| Social Development Services | 867.8 | 1,050.8 | 1,768.9 | 2,257.8 | 22.5% |
| GDP | 2,419.6 | 4,198.3 | 8,817.5 | 9,947.2 | 100% |

Source: KRSO- Ministry of Planning/KRG

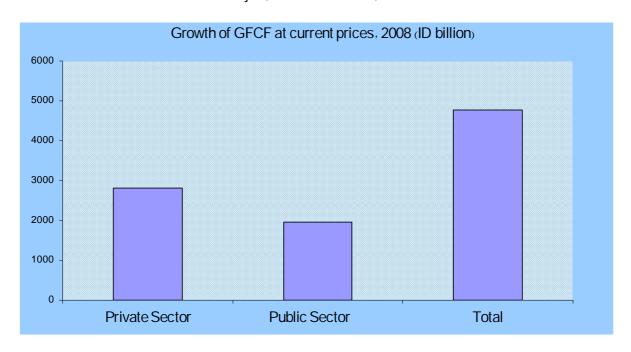
1.4. FCF

FCF refers to the material constituent arising from the investment process. It is mainly represented by the existing assets of machines, equipment, buildings, structures, transportation vehicles, in addition to other stationary elements, involved in the production process. FCF stages have a strategic importance not only at the level of long-run economic

changes, but also at the short-lived changes and their impact on overall economic activity. During 2004-2008 period, FCF experienced substantial revival as GFCF reached ID 4,780 billion at current prices for 2008. Its components are outlined in Table (5). Based on estimates released by a number of specialized researches, FCF increased by about 158% at current prices and by 114% at fixed prices, during 2004-2008. The boom experienced in 2004-2008 with respect to volume of FCF may be attributed to growing government and non-government investments with all their constituent elements.

| Table 5 | Growth of GFCF at Current Prices 2004-2008 (ID billion) | | | |
|----------------|---|------|--|--|
| Sector | ID billion | % | | |
| Private Sector | 2,820 | 59% | | |
| Public Sector | 1,960 | 41% | | |
| Total | 4,780 | 100% | | |

Source: Kurdistan Bayesian, KBSNA 2008 es mates: Kurdistan GDP Project, AUMMA and KRSO, 2010



1.5. Investment

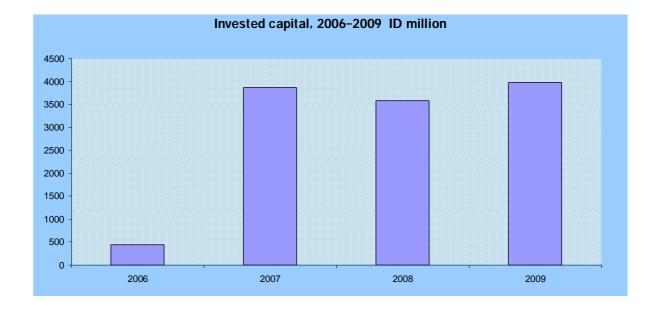
After 2003, the Region succeeded to attract both foreign and local (private) investors due to the promising and diverse investment opportunities thanks to the political and security stability achieved through the government's sustainable efforts in this regard, culminating in the enactment of Investment Law No. 4 of 2006. This law marks a substantial change towards enhancement and attraction of foreign and local investments, and creation of new investment opportunities.

BOI statistics indicate that value of the capital invested in the Region in 2006 reached US\$ 438 million (ID 516,840 billion). In 2007, this figure rose to US\$ 3,866 million at an increase rate of 782.6%. It maintained its level in 2008 despite the financial and economic crisis that swept the world at the time, and the consequent decline of foreign investments, caused by the

financial and economic conditions experienced by many countries and corporate companies. The Region, however, could soon regain its power to attract new investments. Total investments in 2009 rose to US\$ 3,976 million (about ID 4,691,680 billion), at an increase rate of 2.8% from 2007 and 907.8% from 2006, as it is evident in the table (6):

| Table 6 | Invested Capital 2006-2009 | | | |
|---------|----------------------------|--|--|--|
| Year | US\$ million | | | |
| 2006 | 438 | | | |
| 2007 | 3,866 | | | |
| 2008 | 3,588 | | | |
| 2009 | 3,976 | | | |

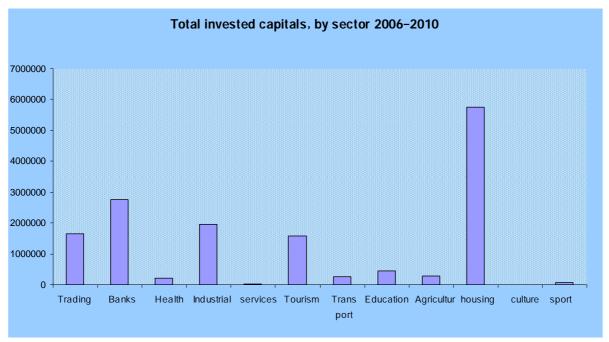
Source: BOI/KRG



Evidence and anticipations published by regional and international economic institutes and agencies, as well as BOI, refer to the steadily rising ability of the Region's economy through its all sectors to attract more investments, especially foreign investments. BOI latest statistics indicated that overall value of investment for the period from 1/8/2006 to 15/4/2010 reached US\$ 12,491 million, spread over 12 economic sectors, as it is outlined in the table (7):

| Table7 | Total Invested Capital by Sector 2006-2010 | | | |
|-------------------|--|-------|--|--|
| Sector | Capital (US\$ million) | % | | |
| Trade | 1,371 | 10.98 | | |
| Banks | 2,295 | 18.37 | | |
| Health | 173 | 1.39 | | |
| Industry | 1,634 | 13.08 | | |
| Services | 29 | 0.23 | | |
| Tourism | 1,311 | 10.5 | | |
| Telecommunication | 221 | 1.77 | | |
| Education | 375 | 3 | | |
| Agriculture | 237 | 1.89 | | |
| Housing | 4,792 | 38.37 | | |
| Technical | 2 | 0.02 | | |
| Sports | 51 | 0.41 | | |
| Total | 12,491 | 100 | | |

Source: BOI/KRG



Foreign investment accounted for about 24.98% of the investments registered at the beginning of 2010, totaling US\$ 3,120 million. Local investment, on the other hand, represented 69.7% of overall investments for the same period, amounting to US\$ 8,706 million. Mixed investments represented 5.32% of total investments, at an amount of US\$ 665 million. Foreign and local investment opportunities were distributed among the three governorates as shown in the table(8):

| Table 8 | Total Invested Moneys by governorate at the End of 2009 (US\$ million) | | | | | | |
|--------------------|--|-------|--------------|-------|--------|--------|--|
| Investment Type | (*) Erbil and Sulaymaniyah | Erbil | Sulaymaniyah | Duhok | Total | % | |
| Foreign | 150 | 1,415 | 1,555 | | 3,120 | %24.98 | |
| Local | | 5,575 | 2,657 | 475 | 8,706 | %69.70 | |
| Mixed | | 322 | 343 | | 665 | %5.32 | |
| Total | 150 | 7,312 | 4,555 | 475 | 12,491 | %100 | |

Source: BOI/ KRG (*) Joint investment in the two governorates

The demands for investments expansion and increasing its contribution to the development processes require activation of BOI activities, particularly in the field of drawing the Region's investment map, and promotion of available annual investment opportunities through media sources, Commission's website, and the government's official website. These demands also require cooperation with the stakeholders for advertising the existing opportunities and ensuring optimal attraction of foreign and local investors towards an effective involvement in the Region's economic and social development. It is also important to simplify and facilitate procedures and provide investors with fast services through one-stop shop.

1.6. Consumption Expenditure

Historical sources confirm that overall government and private consumption expenditure developed during the past years, reaching ID 19.721 trillion at current prices. Private consumption expenditure (real estate ownership) came to ID 14.505 trillion of final consumption expenditure. Private consumption expenditure rate to GDP reached 82% and to imports 18%. On the other hand, government consumption expenditure reached ID 5.216 trillion, accounting for 36% of total final consumption expenditure. No complete data of consumption expenditure are available for periods before 2008 for making comparison and observing its progress.

| Table9 | Total Consump on Expenditure at Current Prices, 2008 | | | | | |
|----------------|--|----------------|--------------|------|--|--|
| Sector | Out of GDP | Out of Imports | Total | % | | |
| Sector | (ID billion) | (ID billion) | (ID billion) | 70 | | |
| Private Sector | 11,898 | 2,607 | 14,505 | %64 | | |
| Public Sector | 5,216 | | 5,216 | %36 | | |
| Total | 17,114 | 2,607 | 19,721 | 100% | | |

Source: Kurdistan Bayesian, KBSNA 2008 es mates: Kurdistan GDP Project, AUM and KRSO, 2010

2. Strategic Challenges

1) Relative deficiency of economic sectors structure, evidenced by the contribution rates made by these sectors to GDP. Agriculture contribution to GDP is still at 10%, tourism 4.9%, industry 6.6%, and trade 4.9%. These rates are relatively low, compared to other sectors, like personal services (14%) or real estate ownership (14%).

- 2) Severe exposure of the Region's economy to the outside world as a natural result of declined commodity sectors contribution to GDP generation, forming 11% only with regard to the commodity activities, while distribution activities reached 65% and services activities 24%, based on 2008 figures. These rates explain the need for increasing imports to cover mounting local demand, stimulated by the rise of the volume of state budget current expenditures and public and private consumption expenditure, which ultimately translates to increased demand at the local market.
- 3) The relatively limited role played by the private sector in the development process, evidenced in its reduced contribution rates to the economic activity, job opportunity creation, and meeting the increased local demand. This situation caused this sector to be of limited flexibility, and unable to quickly respond to the changes targeted by the present Strategy, unless a conducive and attractive business environment is created to empower it to be a participatory, competitive and proactive sector.

3. Future Trend

3.1. Vision

Achievement of sustainable economic development and prosperity for the population of Kurdistan Region

3.2. Mission

Improvement of population's life quality and laying out conducive economic policies and legislations through an efficient management geared to develop business and investment environment through the support, rehabilitation and participation of the private sector, in addition to proper and highly efficient exploitation of human and material resources, and utilization of modern technology.

3.3. RDS Goals

- 1) Improving economic environment and enhancing balanced development at regional and sectoral levels
- 2) Improving business environment and supporting professional safety and security.
- 3) Enhancing investment, aimed to support economic comprehensive development policies.
- 4) Increasing trade volume and supporting exports.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- National income increase by 7% in five years, coupled with an 8% GDP increase.
- Increased number of licensed businesses in all fields by 15% annually.
- Heightened competitiveness of the Region's, aimed to create new economic projects, based on reduced construction costs and minimized project execution time, ensuring that these indicators will be less than the corresponding figures of Iraq by 2012 and of the neighboring countries by 2016.

- Increased investment rates, in relation to economy (total annual GDP) to go up to 20% within five years.
- Investment map prepared and developed during the first year of Strategy implementation, then publicized to interested persons, in addition to promoted recommended projects contained thereat.
- Region's share of the federal investment projects increased to approximately 20% within five years, and maintained.
- The ground for starting exports prepared, aimed to support the economy at progressive rates within a five-year period.
- Increased tourists' spending from US\$ 320 million in 2009 to US\$ 1 billion by 2016.
- Increased rate of mining and extracting-based economic activities, and related metal industry to over 25% of overall industrial contribution to GDP, within a period of five years.

4.2. Goal-Achievement Monitoring Indicators

- Annual GDP growth
- Annual national income growth
- Annual growth rate of economic sectors' contribution to GDP
- Annual growth rate of private sector contribution to GDP by economic activities
- Annual sector-wise growth of GFCF
- Annual growth of overall investments
- Annual overall investment by governorates
- Annual overall investment by sectors
- Annual net flow of FDI
- Annual net flow of local investment
- Exports and imports overall development
- Annual growth of achieved added value by sector
- Annual growth of total direct and indirect revenues



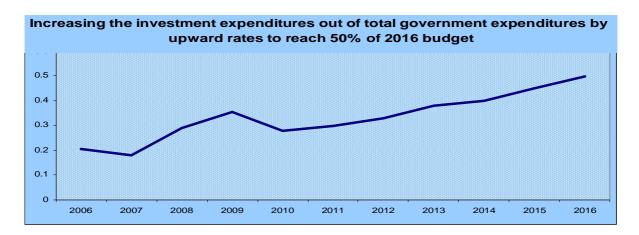
Chapter Two: Financial Sector

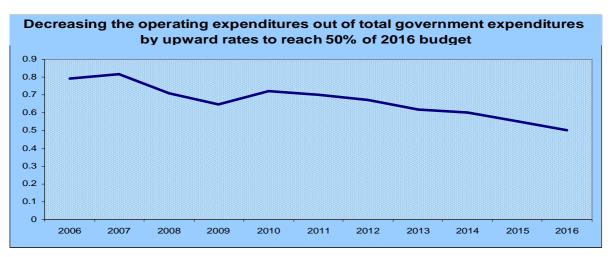
State budget reflects the contents of the pursued financial policy philosophy, its economic trends, social options, and the scope of its impacts on the different economic activities, conducive to economic stability characterized by anti-inflation and anti-recession advantages. It also leads to the achievement of SD and equitable distribution processes.

Article (114) of the Federal Constitution states that the country's comprehensive development and planning policies are regarded as a joint jurisdiction shared by the Federal Government and KRG, with respect to developing the country's fiscal policies. The Region's priorities must accordingly be planned by the Region itself within the limits of allocated public expenditure. Thus, KRG is responsible for planning its strategic development and construction option. The designed plans, however, must be commensurate with the allotted spending limits, reflected in the present Strategy.

This chapter covers public expenditures, public revenues, and the banking sector. An analysis of the present situation of the financial sector will reveal the key challenges facing this sector, which are the essential elements for setting down the sector's future trend (vision, mission and strategic goals). Major targeted strategic goal-achievement indicators will be expressed in percentages, figures, or amounts targeted during the Strategy's years. Major indicators will also be identified for monitoring achievement of set goals and indicators during this Strategy.

A chart outlining the most important expected results compared with the current situation:



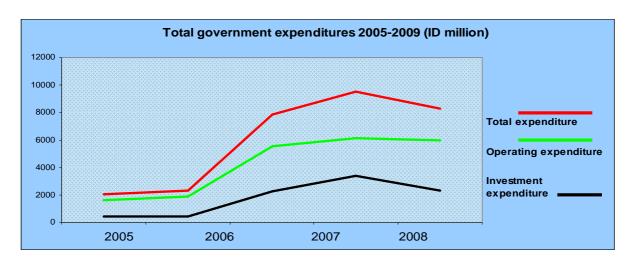


1. Current Situation 1.1. Public Expenditures

Public expenditure increased steadily in the past years, aimed to meet the obligations concerned with executing development and reconstruction projects, and achieve sustainable growth in respect of all activities and sectors. Special policies were needed to ensure that resources would go to the sectors which were likely to achieve development. Consequently, directed public expenditure policy was applied, with indicators revealing a rise of total public expenditure, outlined in the table (10), from ID 2,036,767 million in 2005 to ID 9,541,308 million in 2008, at an annual development rate of 51.7%. Operating expenditures came to 79.4% in 2005, then went down to 64.5% in 2008, in favor of investment expenditures, which constituted only 20.6% of overall public expenditure for 2005 and then rose to 35.5% in 2008. 2009 budget points to a decrease of overall public expenditure in relation to the previous year, totaling ID 8,283,172 million, with a decrease rate of 15.2%, compared to 2008. This is attributed to addition of the complementary budget to year 2008. Operating expenditure reached 72.2%, and investment expenditures reached 27.8% of 2009 budget.

| Table 10 | Total Public Expenditure 2005-2009 (ID million) | | | | | |
|-------------------------|---|---------------------------|----------------------|--|---|--|
| Year | Operating Expenditure | Investment Expenditure | Total Expenditure | Rate of Operating Expenditure to Total Expenditure | Rate of Investment Expenditure to Total Expenditure | |
| 2005 | 1,616,767 | 420,000 | 2,036,767 | %79.40 | %20.60 | |
| 2006 | 1,902,886 | 420,000 | 2,322,886 | %81.90 | %18.10 | |
| 2007 | 5,562,104 | 2,285,556 | 7,847,660 | %70.90 | %29.10 | |
| 2008 | 6,154,092 | 3,387,279 | 9,541,308 | %64.50 | %35.50 | |
| 2009 | 5,979,834 | 2,303,338 | 8,283,172 | %72.20 | %27.80 | |
| Compound Growth Rate | 43.6 % | %92.10 | %51.70 | | | |

Source: Ministry of Finance/KRG



These percentages explain expenditure policy trends for the period 2005-2009, which tend to register a considerable rise in the absolute figures of operating expenditure structure items, in proportion with the sustained state budget increase. Of overall operating expenditures for 2009, officials' compensations accounted for 61.29%; commodities, services and maintenance 18.85%; social benefits 2.1%; grants 2.58%; subsidies 1.22%; other expenditures 9.82%, while non-monetary assets came to 4.14%. The expenditure rates of these items are not expected to have a clear drop in the coming years. Therefore, RDS seeks to propose expenditure policy trends during 2012-2016, that are likely to support the increase of investment expenditures of overall public expenditure. Action will also be taken to rationalize operating expenditures to control consumption volume in order to be in conformity with flexibility of overall commodity and services presentation, designed to set limits for inflationary pressures which could develop through this type of expenditure, and to preserve public revenues.

1.2. Public Revenues

By monitoring public revenues development, we shall discover a sustained and progressive increase throughout 2007-2009, where they rose from ID 181,178 million in 2007 to ID 223,609 million in 2008, then to ID 375,129 million in 2009, at a compound annual growth rate of 46.88%. Taxes formed 45.7% in 2007, and increased to 63.4% in 2008, happening as a natural consequence of their increase in absolute figures from ID 82,794 million in 2007 up to ID 141,789 million in 2008. The increase went on, reaching ID 160,129 million in 2009, at a compound growth rate of 49% during that period. The remaining types of revenues concentrated on revenues other than taxes or social contributions, reaching ID 61,405 million in 2007, and ID 81,820 million in 2008, at an increase rate of 33.3%, then ID 215,000 million in 2009, with an increase rate of 162.8% over 2008, and 250.1% over that of 2007. Obviously, this increase may generally be attributed to the heightened economic activity during the mentioned period, which reflected on increased rates and values. Financial statements, on the other hand, did not reflect any grants released in the previous years.

In general, tax revenues account for approximately 49.3% of total revenues during 2007-2009. Other revenues also represent 45.9% for the same period, while social contributions represent 4.8% of overall revenues during those years. The table (11) outlines these figures:

| Table 11 | Total Public Revenues 2007-2009 (ID million) | | | | | |
|----------|--|------------------------------------|--------|-------------------|---------|--|
| Year | Tax Revenues | Social Contribution Revenues | Grants | Other Revenues | Total | |
| 2007 | 82,794 | 36,979 | 0 | 61,405 | 181,178 | |
| 2008 | 141,789 | 0 | 0 | 81,820 | 223,609 | |
| 2009 | 160,129 | 0 | 0 | 215,000 | 375,129 | |
| Total | 384,712 | 36,979 | 0 | 358,225 | 779,916 | |
| % | 49.30 % | %4.80 | %0.00 | %45.90 | %100 | |

Source: Ministry of Finance/KRG

1.3. Banking Sector

Extensive efforts were exerted after 2003, aimed to set up a flexible banking system capable of responding to the local and international economic, fiscal and banking changes. Efficiency, profitability and financial and monetary certainty were adopted as guiding principles for the banking transactions. For that reason, the task of developing this sector and improving money markets was viewed as a top priority. Private banking activity carried out after 2003, registered a remarkable expansion, aimed to enhance the role played by the private sector in the economic activities, in addition to the escalating role played by the market forces in the management of economy. Number of private banks rose from 16 to 24 banks during 2004-2009. This increase raised the size of their capitals to about ID 2,012.280 billion by the end of 2009, which is attributed to the improved public revenues, and anticipated growing demand for banking facilities, in relation to credits and deposits. That increase was associated with a rise in the size of private banks' deposits, coming to about ID 361.561 billion, ID 110.455 billion of which are deposits by companies and associations, and ID 251.106 billion are individuals' deposits. Commercial state-run banks are represented by Rafidain Bank and Rasheed Bank. Total deposits at these two banks during 2009 reached about ID 1,507.044 billion, with public sector share coming to ID 1,107.317 billion, representing 73.5%, and ID 396.912 billion for companies, associations and individuals, representing 26.3%, in addition to ID 2.815 billion for the joint-sector, representing 0.2%, outlined in the table (12):

| Table 12 | Deposits at Branches of Rafidain Bank and Rasheed Bank in the Region in 2009 (ID billion) | | | | | |
|----------|---|---|--------------------------|-----------|--|--|
| Banks | Public Sector Deposits | Companies, Associations and Individuals' Deposits | Joint Sector Deposits | Total | | |
| Rasheed | 739.564 | 108.129 | 0.919 | 848.612 | | |
| Rafidain | 367.753 | 288.783 | 1.896 | 658.432 | | |
| Total | 1,107.317 | 396.912 | 2.815 | 1,507.044 | | |
| % | 73.5 % | %26.3 | %0.2 | %100 | | |

Source: Ministry of Finance/KRG

Despite the limited number of financial figures released in the past years, a report published by a specialized organization revealed that total deposits at the banks in 2008 reached ID 266 billion, with a GDP contribution amounting to approximately 1.3%.

2. Strategic Challenges

- 1) Underperformance of finance management and the need for introducing changes into the government financial system, aimed to adjust revenues and public expenditures, coupled with proper economic and social guidance, commensurate with the set development goals priorities.
- 2) Lack of clear strategic planning of state budget, especially goal prioritization, due to applying the conventional method (line-item budget) which tends to address immediate needs only.
- 3) General trend with respect to public expenditure structure in favor of the operating expenditures at the expense of investment expenditures, resulting in an increase of

- effective overall demand, and rigidity of the production system flexibility. This situation made imported goods thrived at the expense of locally produced goods.
- 4) Insufficient capacity to create job opportunities, caused by reduced investment expenditures against overall public expenditure, which led to spread of unemployment among labor eligible groups, posing a major challenge for RDS.
- 5) Certain components of government subsidies resulted in some cases in severe disruption of public expenditure structure, over and above the disruptions sustained in the operating expenditure structure itself, which overloaded the budget with unproductive expenditures, according to economic criterions.
- 6) Decline in the percentage of revenues other than the Region's share of the federal budget out of overall public revenues. This trend was further aggravated by the ineffective tax policy, which had relatively undermined its social and economic significance as well as minimized its contribution to development funding, stimulating private sector activities and reducing the acute disparity in income distribution.

3. Future Trend

3.1. Vision

Achieve necessary fiscal reform, so that state budget becomes an effective tool used for SD support.

3.2. Mission

Create a modern and effective financial system, develop banking systems, reduce financial and administrative formalities, rationalize government current expenditure, improve the performance of tax and customs body, handle inflation through science-based methods, and diversify production sources.

3.3. RDS Goals

- 1) Financial restructuring of public revenues and public expenditures, controlling development rates of public expenditure in general, and operating expenditure in particular, and raising investment expenditures rate in relation to overall public expenditure.
- 2) Improving budget resources, diversifying revenue sources, and exerting special efforts for rehabilitation of the infrastructures of tourism, agriculture, and manufacturing industries in support of exports.
- 3) Adopting scientific methods in preparing the state budget and changing its type from line-item budget to planning and programming budget.
- 4) Identifying goals priorities when preparing the budget, guided by scientific and realistic principles.
- 5) Adopting cost/benefit criterion which is the essential economic requirement for budget projects selection.
- 6) Strengthening financial management, monitoring and control.
- 7) Developing workable mechanisms to ensure transparency.
- 8) Encouraging saving through credit activities.
- 9) Establishing competition basics among banks.
- 10) Supporting banks' capitals.
- 11) Encouraging the process of setting up branches for foreign banks.

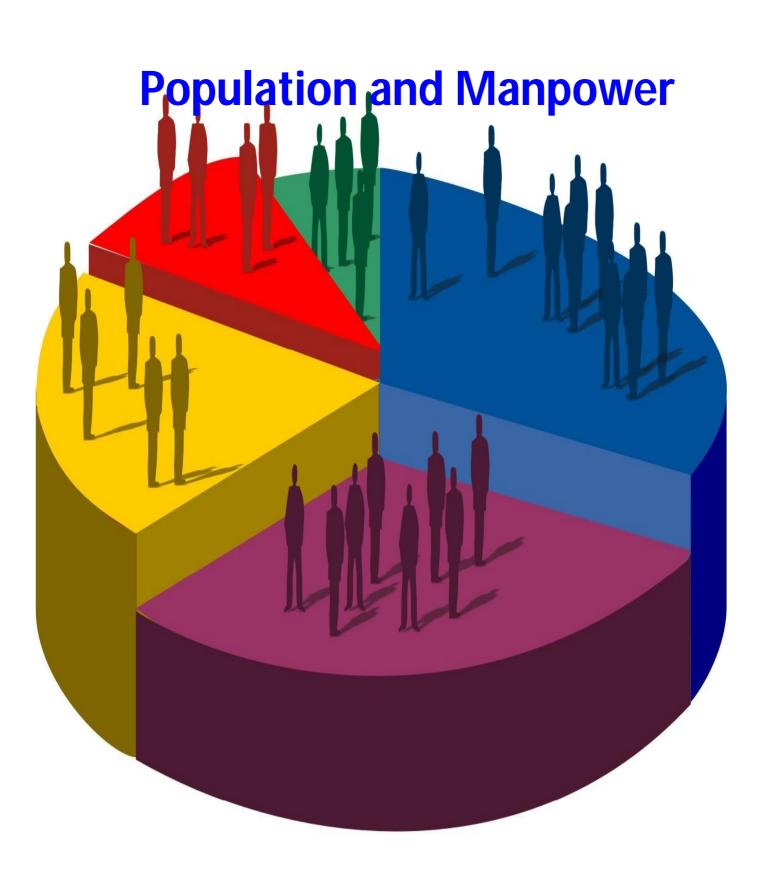
4. Strategic M&E

4.1. Goal-Achievement Indicators

- Increasing investment expenditures in relation to overall public expenditure at progressive rates to reach 50% of 2016 budget, achieved through rationalizing non-basic operating expenditure.
- Developing budget preparation mechanism, based on clear identification of goals and related priorities, within a maximum period of two years through assistance of local and international consultancy firms.
- Preparing the tools for the adoption of economic principles when preparing investment budget projects (conducting economic feasibility studies and developing cost/benefit criterion), and their relation to development priorities, with effect from 2012.
- Preparing the ground for exports at progressive rates, starting with 2% in the first year, and reaching 10% by the end of 2016.
- Increasing annual tourists' spending by 10% to reach US\$ 1 billion by 2016.
- Increasing the economic activities based on prospecting, extracting and processing the industrial raw materials, to reach over 25% of overall industrial contribution to GDP within 5 years.
- Establishing an automated (electronic) system to ensure fast and accurate monitoring, control and verification procedures between ministries, on the one hand, and the Ministry of Finance and Financial Control Office, on the other. This system must be ready for efficient use by the end of 2012, and must also be compatible with the proposed changes in the budget preparation system.
- Launching a promotional campaign, and preparing the logistic environment and needed facilities to increase the number of branches of foreign banks to 12-15 branches within the next five years.
- Finalizing the needs for launching the Stock Exchange Market.
- Establishing competition standards among banks, used to evaluate internationally recognized private banks. The Region's Central Bank will set these standards during the first year of the Strategy, and prizes will be awarded to excelling banks according to the laid down standards.

4.2. Goal-Achievement Monitoring Indicators

- Overall annual public revenues and expenditures.
- Annual revenues growth rate in relation to public expenditures.
- Annual growth rate of investment expenditures in relation to public expenditure.
- Annual rationalized operating expenditures in relation to overall expenditures.
- Rate of individual revenue sources in relation to annual overall revenues.
- Annual growth rate of banks' deposits
- Annual growth rate of banks' capitals.
- Rate of banks' deposits contribution to GDP
- Annual growth rate of number of banks operating in the Region.
- Annual growth of foreign banks' branches in the Region
- Growth rate of overall credit facilities offered by the banks to public and private sectors.

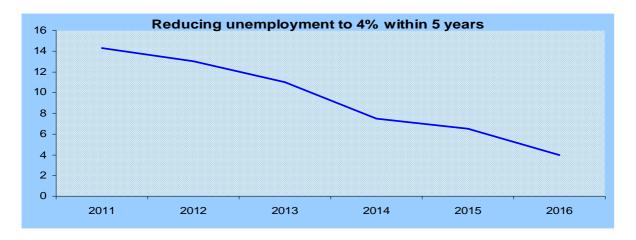


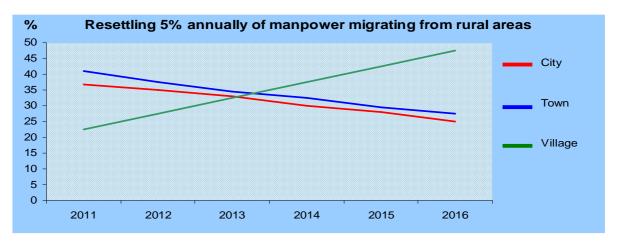
Chapter Three: Population and Manpower

This Strategy seeks to have a meaningful translation of the joint development relationship between the population and the development process. This may be achieved through adopting an effective development policy which reflects the genuine meaning of this relationship, expands people's choices and ensures human rights, based on the fact that development means "development of people, by the people and for the people." Therefore, the real development challenge for this Strategy, with respect to population, lies in its ability to meet the needs of the present generations and improve their standard of living without affecting the next generations' ability to meet their needs, in addition to enhance development opportunities capable of withstanding the challenges facing the individuals, community and labor market.

This chapter is focused on the basic subjects, represented in the population size; its development; its structure by age, gender and environment; as well as the economically active groups; and employment/unemployment. An analysis of the prevailing circumstances, based on the adopted indicators, reveals the major challenges facing economic development. The results of this analysis are a basic reference for setting the future trend of vision, mission and strategic goals. Key strategic goal-achievement indicators will also be identified in the form of percentages, figures or quantities targeted during the Strategy years, in addition to identifying key indicators for monitoring of strategic goals achievement during the Strategy years.

A chart outlining the most important expected results compared with the current situation





1. Current Situation 1.1.Population and PGR

PGR has, in absolute form, experienced fast, sustainable and regular growth. Absolute population increase figures have not been affected by the economic changes happening throughout the successive stages of development. This situation has been confirmed by the surveys and pertinent population estimates, carried out by the competent technical authorities. Statistical figures indicates that the Region's population increased from about 3,910,329 million inhabitants in 2003 to 4,382,167 million inhabitants in 2008, at an increase rate of 12.07%. In 2009, population was 4,698,790 million, with an increase rate of 7.05%, compared to 2008 and 19.96% in comparison to that of 2003. Population is expected to rise to about 5,601,227 million in 2016, if the growth rate remained the same as in the past five years, in terms of birth and mortality rates and other relevant changes.

This absolute increase is a natural result of population growth rise, which maintained the same high pace over the past two decades, due to adoption of a series of programs and measures aimed to encourage reproduction by offering material and moral incentives, such as encouraging early marriage. Annual growth population rate by governorate, based on the figures released by KRSO and the results of IHSES, was 3.2% in Erbil, 3.1% in Sulaymaniyah and 2.6% in Duhok, with an overall annual growth rate of 3%.

After 2003, the Region experienced a transformation stage, characterized by certain changes which impacted population's demography. These changes were evident in a group of demographic indicators, like increased overall reproduction rate to 4% in 2006 in the Region as a whole, 4.9% in Erbil, 4.1% in Duhok and 2.9% in Sulaymaniyah, which exceed the internationally recognized world rate of 2.6%. Other indicators are high birth rates of 29.9 per one thousand inhabitants for 2004-2009, based on MOH figures, coupled with a relative stability and a slight rise in IMR to 11.5 per one thousand live births, during the same period.

PGR maintained its pace, and is expected to stand at 3% or slightly more in the medium and long term, assisted by the rising birth rates and stable mortality rate, and achieved through expanded preventive and medical services. The present RDS, therefore, seeks to deal with these population-related facts through a host of well-studied and adequately calculated measures and programs, based in their contents on properly planned and regulated trends, in which the demographic quantity and quality provide needed guidelines for the Region's development policy and sustainable growth.

1.2. Population Structure

a) Age-wise

The natural circumstances of population growth have given rise to certain aspects, which were not limited to PGR, but also covered other areas, like age structure and population pyramid. A look at the population statistics may reveal substantial changes regarding age structure for the different population groups.

Population belonging to the age group ranging between under one and 14 years increased from 32% in 1970 to 37% in 1987, then later declined to 33.2% in 1997. The decline of fertility rates of women, coupled with high rising mortality levels, happening as a consequence of the disastrous circumstances, displacement and genocide committed by the

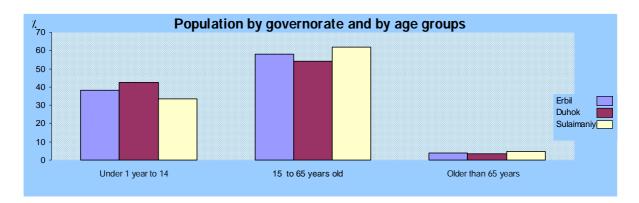
overthrown regime against Kurdistan people, were the most likely reasons for this situation. After 2003, these rates began to rise steadily again, reaching 38.1% in 2006, as a general rate in the Region, and at 38.4% in Erbil, 42.5 in Duhok, and 33.4% in Sulaymaniyah. This rate, on the other hand, does not exceed 19.6% in countries with high HRD levels, given that this situation is likely to overburden the budget as a result of the increased expenditures on education and health. It will also cause pressure on the economic resources to meet the needs of this consumer group, lying outside economic activity limits.

This demographic trend has expanded the population pyramid base, and gave it the acquired quality of young pyramid with high economic vibrancy.

Rate of working-age population (15-64) rose gradually from 56.7% in 2003 to 57.9% in 2006, and then rose again to 58.2% in 2008. Rate of population of age group 65 years and above declined from 4.4% in 2003 to 4% in 2006 and to 3.9% in 2008, as a result of the relative importance of the first age group, outlined in the table (13):

| Table 13 | Population by Age Group and by Governorate | | | | |
|--------------|--|---------|----------------|--|--|
| Consequence | Age Groups % | | | | |
| Governorate | Less than 1 – 14 | 15 – 64 | 65 – and older | | |
| Erbil | 38.43 | 57.77 | 3.79 | | |
| Duhok | 42.67 | 54.05 | 3.28 | | |
| Sulaymaniyah | 33.41 | 61.72 | 4.87 | | |
| Average | 38.17 | 57.84 | 3.98 | | |

Source: KRSO/KRG (based on ration book) 2006

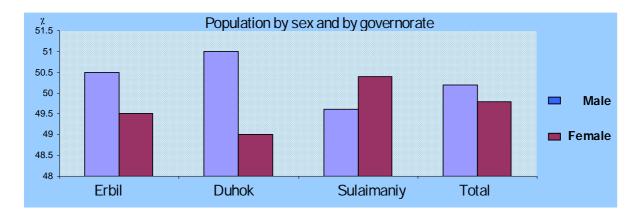


b) Gender-wise

Rate of female population compared with male population remained nearly balanced from 1970 till 2008, with negligible impacts caused by foreign immigration on the rate of male population. The rate of male population was 50.2% in 2006, against 49.8% for females in the Region, 50.5% males and 49.5% females in Erbil, 51% and 49% in Duhok, and 49.6% against 50.4% in Sulaymaniyah, outlined in the table (14):

| Table 14 | Population by Sex and by Governorate | | | |
|--------------|--------------------------------------|---------|--|--|
| Governorate | Sex % | | | |
| | Males | Females | | |
| Erbil | 50.5 | 49.5 | | |
| Duhok | 51 | 49 | | |
| Sulaymaniyah | 49.6 | 50.4 | | |
| Average | 50.2 | 49.8 | | |

Source: Results of IHSES, 2006/2007

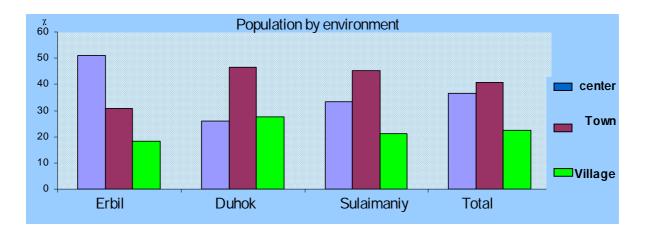


c) Environment-wise

Available figures and statistics based on ration book (rations distribution) in 2007, and IHSES results, indicate that population distribution by environment (urban/rural area) was 77.6% urban population against 22.4% rural population. At the level of the governorates, the urban population in Erbil was the highest (81.6% urban population in the governorate center, district and sub-district) against 18.4% rural population; in Sulaymaniyah 78.8% against 21.2%; and in Duhok 72.4% against 27.6%, as the table (15) demonstrates:

| Table 15 | Population by Environment | | | | |
|--------------|---------------------------|-----------------------------|-------------|--|--|
| Covernorete | Population % | | | | |
| Governorate | Governorate's Center | Districts and Sub-Districts | Rural Areas | | |
| Erbil | 50.9 | 30.7 | 18.4 | | |
| Duhok | 25.9 | 46.5 | 27.6 | | |
| Sulaymaniyah | 33.4 | 45.4 | 21.2 | | |
| Average | 36.7 | 40.9 | 22.4 | | |

Source: Results of IHSES, 2006/2007, and ration book details (2007)

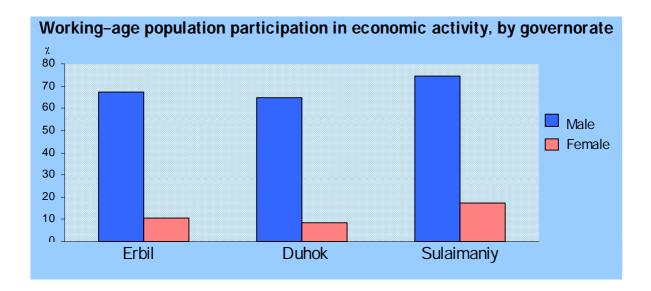


1.3. Economically Active Population

Economically active population belongs to the 15-64 years age group, representing the available manpower in the economy. They may be classified as employed or unemployed, in light of their basic activity. The general population census carried out in 1977, covering Iraq as a whole, including the Region of Kurdistan, indicated that the rate of participation in the economic activity was 23.5% of total population. It rose to 24.8% in 1987, and then dropped to 23% in 1997. Statistics of the Federal Government (MOPDC/COSIT) indicate that this percentage rose to 29% in 2003 in Iraq in general. Due to unavailability of pertinent integrated figures about the Region before 2003, these figures may be tentatively used for this chapter. The results of IHSES indicate that the rate of working-age population's participation in the economic activities is 40.2%. Some research and academic studies results carried out by the Region's universities shows a slight improvement on the previous figures in 2008-2009, reaching to about 41%. This percentage reflects a decline of working-age population's involvement in the economic activities to one quarter, viewed to be an evident and statistically confirmed fact for spread of unemployment among the actual manpower groups. As far as gender-wise distribution of economically active population groups is concerned, overall rate of males is 69.7% and 12.9% for females in 2007. This reflects a decline in women's economic activity involvement, despite the fact that specific population structure demonstrates close male and female proportions of overall population size, as well as similar rates with regard to working-age population. These facts are detailed in the table (16):

| Table 16 | Participation of Working-Age Population in Economic Activity by Governorate | | | |
|--------------|---|---------|-------|--|
| Covernouste | Rate of Participation in Economic Activity % | | | |
| Governorate | Males | Females | Total | |
| Erbil | 67.2 | 10.4 | 37.5 | |
| Duhok | 64.8 | 8.6 | 36.2 | |
| Sulaymaniyah | 74.4 | 17.3 | 44.6 | |
| Average | 69.7 | 12.9 | 40.3 | |

Source: Results of IHSES, 2006/2007



1.4. Employment and Labor/ Unemployment

Working-age population represents the social potentials and the manpower available in the economy, a number of which may drop out due to voluntary and compulsory unemployment. This situation leads to heightened dependency level in economic, which is proportionate to PGR compared with manpower growth levels. These were reflected in statistics over the past thirty years, where the general PGR was 3.0%, against a manpower growth rate of 1.9%.

Economic surveys carried out after 2003, reveal a substantial decline in dependency level in economy in 2008, in comparison with PGR of 3%. The situation was influenced by the change of the population's age structure in favor of working-age population, which rose, according to some sources, to about 58% in 2009. This rise, however, does not only mean a decline of dependency level, but it also refers to availability of an additional manpower, estimated at around 300,000 workers in 2009, who are geared up to enter labor market. This will represent a challenge in terms of the RDS ability to create new jobs for present and future additional manpower, in view of the existing productive, financial and institutional constraints, and some disturbances in terms of manpower volume and distribution by economic activity and by sector. Total number of public and private sector manpower is estimated at more than 3.8 million in 2007. Manpower employment rate at the public sector reached 38% occurring as a natural development of the change of employment conditions, in both form and content, after 2003. The private sector share, on the other hand, was much higher, reaching 52.3%, detailed in the table (17):

| Table 17 | Employment of Working-Age Population by Economic Sector and by Governorate | | | | | |
|--------------|--|-------------------|--------------|--------|--|--|
| Carramanata | | Employment Rate % | | | | |
| Governorate | Public Sector | Private Sector | Joint Sector | Others | | |
| Erbil | 37.2 | 49.2 | 1.3 | 12.3 | | |
| Duhok | 51.9 | 40.1 | 0.1 | 7.9 | | |
| Sulaymaniyah | 33.3 | 59.1 | 0 | 7.6 | | |
| Average | 38 | 52.3 | 0.5 | 9.2 | | |

Source: Results of the standard of living survey, carried out in Iraq in 2004, in addition to recalculating data to reflect 2007

Based on this situation, the RDS seeks to provide appropriate institutional environment for supporting and developing the private sector as a key and effective partner for implementing development goals, and enabling it to create new job opportunities to take in the steadily increasing manpower, according to statistical figures. The inconsistent manpower distribution between public and private sectors was associated with a clear difference in respect of workers' distribution by economic activities for 2007. The commercial sector registered the highest employment rate (14.3%) followed by government sector (13.4%), the agricultural sector (12.8%), and building and construction sector (11.0%). The table (18) outlines the rates of manpower distribution by sector:

| Table 18 | Participation Rate of Working-Age Population by Economic Sector and by Governorate | | | | | |
|---|---|-------|--------------|---------|--|--|
| Sector | Governorate | | | | | |
| Sector | Erbil | Duhok | Sulaymaniyah | Average | | |
| GFSY | 6.6 | 6.9 | 19.4 | 12.8 | | |
| Quarries and Mining | 0.2 | 0.4 | 0.8 | 0.5 | | |
| Manufacturing Industry | 6.9 | 2.4 | 4.2 | 4.8 | | |
| Electricity, Water and Gas | 1.4 | 1.2 | 1.1 | 1.2 | | |
| Building and Construction | 11.1 | 11.4 | 10.8 | 11 | | |
| Business | 15.9 | 7.3 | 15.8 | 14.3 | | |
| Restaurants and Hotels | 1.5 | 1.8 | 2.1 | 1.9 | | |
| Transportation and Telecommunication | 7.8 | 6.4 | 7 | 7.2 | | |
| Real Estate and Finance | 3.4 | 10.5 | 4.2 | 5.1 | | |
| General Administration, Defense and Social Services | 23.3 | 24 | 0.9 | 13.4 | | |
| Education | 5.4 | 7.8 | 8.1 | 7.1 | | |
| Health | 1.2 | 1.6 | 2.4 | 1.9 | | |
| Others | 4.6 | 7.9 | 18 | 11.6 | | |
| Undefined | 8.7 | 10.4 | 5.2 | 7.2 | | |

Source: Results of IHSES, 2006/2007

Urbanization impacted the nature of employment tendencies which were negatively reflected on the employment structure, especially after 2003. Rate of workers involved in non-commodity sectors rose from 54.1% in 2006 to 62.5% in 2008, of overall number of manpower, reflecting a failure by the commodity activity sectors (manufacturing industry, mining, agriculture...etc.) to accommodate manpower increase. Only 45.9% of total manpower worked in these sectors in 2006. It rose to 47.5% in 2008, which highlights the negative impact of increased urbanization level reaching about 77.6% in 2008. This also shows that the shift of manpower from rural areas to the cities was not due to industrial or

other attractive factors, as it was the case throughout the historical stages of development in the advanced countries, but it was caused by factors of expelling from the rural areas. If we look at manpower structure by gender, we shall find that women's participation in the economic activities is low, due to a number of institutional, cultural, economic and legal factors which deeply impacted women's participation in comparison with males.

After 2003, unemployment problem received more attention by the government, given its rising rates, diverse tendencies and causes. The circumstances of the past years intertwined with the present conditions, causing unemployment levels to reach 17.86% in 2009. The governorates obviously have different unemployment rates; 21.04% in Duhok, 17.78% in Erbil and 14.62% in Sulaymaniyah. There is also a discrepancy between male and female unemployment, with females' unemployment rate (10.02%) tending to be higher than that of males (7.8%), detailed in the table (19):

| Table 19 | Unemployment Rate of Working-Age Population by Governorate | | | | |
|--------------|--|-----------|-------------|---------|--|
| Carramanata | Unemployment Rate % | | | | |
| Governorate | Center | Outskirts | Rural Areas | Average | |
| Erbil | 7.24 | 16.03 | 23.9 | 13.22 | |
| Duhok | 14.26 | 18.2 | 17.51 | 16.91 | |
| Sulaymaniyah | 10.45 | 13.36 | 11.26 | 11.88 | |
| Average | 10.65 | 15.86 | 17.55 | 14 | |

Source: KRSO/ Ministry of Planning /KRG

The difference becomes even more evident when we compare urban areas with the rural districts. Several available cases can be cited to confirm the declining unemployment rates in urban areas, compared with the rates in the rural areas, outlined in the previous table. These rates emphasize that unemployment has taken on a geographical dimension, with unemployment being concentrated at specific locations. The Governorate of Duhok registered the highest unemployment rate, reaching 16.91%.

2. Strategic Challenges

- 1) The high PGR poses a major challenge, as a natural result of mounting FTR, which requires sustainable consumption expenditure increases to meet the needs of consumer groups in economy (population group under or above working age). This expenditure may take place at the expense of investment expenditures.
- 2) The high rates of dependency in economy represent another feature, where the demographic situation indicates that half the Region's population is consumers and the rest is producers, responsible for supporting themselves and the consumer groups. This situation is likely to cause pressure on the available economic resources, and pose a threat to the labor market and its capacity to create new job opportunities.
- 3) The rate of contribution of working-age population (15-64) to the economic activities declined, despite the rising rates within the relative distribution of overall population size.

- 4) The unemployment rates, especially among university and institute graduates, pose an economic, social, and population challenge that has to be tackled through well-planned and clear policies. Unemployment has particularly spread among young groups, with women's share being higher than that of males, as a result of poor employment policy response.
- 5) The rising urbanization level has negatively impacted employment trends. Statistical figures revealed that manpower concentration was on non-commodity activities, at the expense of commodity activities, which results in increasing their size.
- 6) Poor employment policy performance in responding to local labor market demands, due to the latter's disregard of the economic regulations controlling its components.

3. Future Trend 3.1. Vision

Achieving a balanced population distribution and development, capable of supporting development processes, and exploiting manpower efficiently to contribute to a sustainable HRD that takes into consideration labor market needs and ensures optimal employment standards.

3.2. Mission

Adopting a good population policy that aims in the long run to have an effective role in controlling FTR and PGR; pursue efficient employment policy capable of setting a balance between supply and demand of available manpower; assess the actual needs of available manpower to ensure its sound quantitative and qualitative sectoral tendencies, used as a tool for handling any structural deficiencies with regard to proper distribution of present manpower among the commodity and non-commodity sectors; and reduce the unregulated population motion towards urban areas through prioritizing rural areas development, encouraging investment in these areas, and creating elements of attraction and settlement for migrating manpower.

3.3. RDS Goals

- 1) Adopting a well-guided population policy capable of affecting FTR and PGR.
- 2) Raising investment absorption capacity, aimed to increase level of productivity and product.
- 3) Adopting training and rehabilitation programs in line with local manpower market needs.
- 4) Adopting a strategy, geared to elevating women's social and economic situation, and expanding their choices and contribution opportunities, in addition to gender equality with regard to gaining access to available job opportunities.
- 5) Empowering young groups and increasing their effective involvement in the issues that support development processes.
- 6) Aligning supplied and demanded manpower, and assessing actual development process needs, in addition to ensuring their quantitative and qualitative sectoral tendencies at the same time.
- 7) Supporting integrated rural development, to reduce unregulated population movement caused by urbanization, in addition to encouraging investment in the rural areas, and developing farming and animal resources, based on an integrated set of agricultural incentives.

- 8) Selecting and supporting the sectors that absorb large numbers of manpower (use of labor-intensive and low-capital production approaches, such as building and construction sector, and services sector), aimed to tackle disturbed manpower distribution structures among commodity and non-commodity sectors, and unemployment problem.
- 9) Setting a legal, institutional and economic framework that ensures integrated and activated PPP.

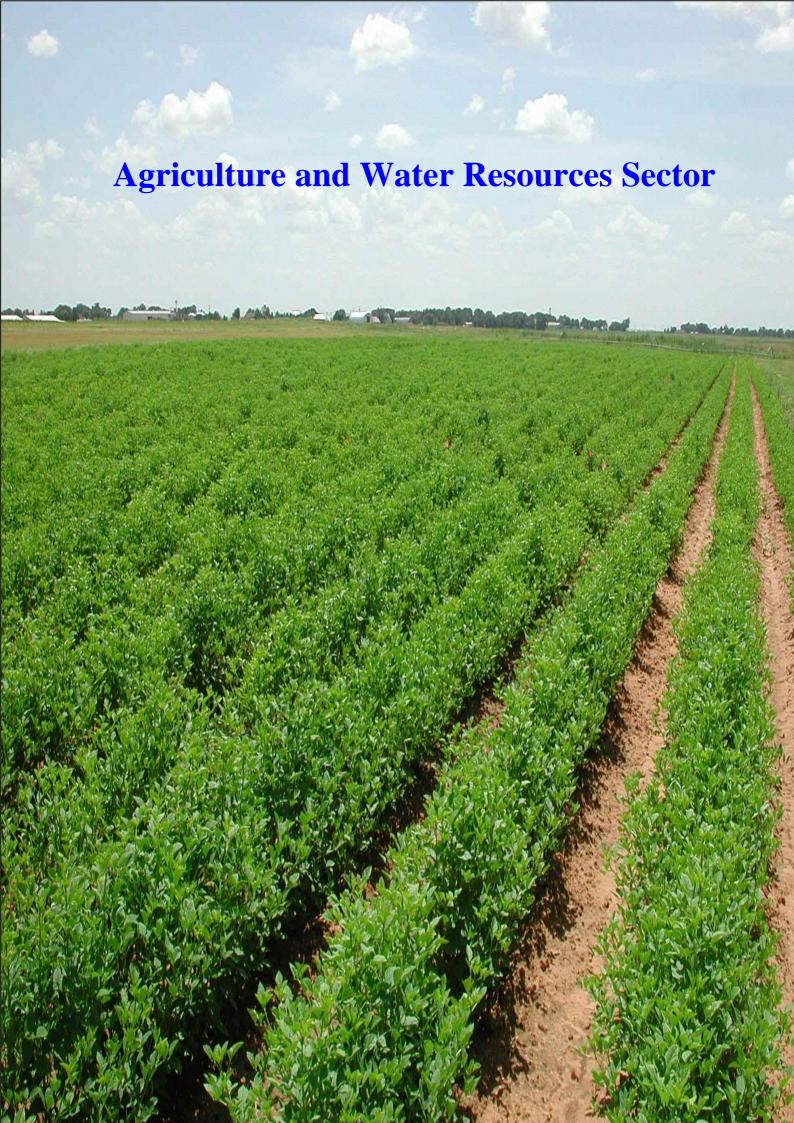
4. Strategic M&E

4.1. Goal-Achievement Indicators

- 1) Increasing manpower productivity level to 4% per year.
- 2) Reducing unemployment rates from 14% to 4% during the Strategy years.
- 3) Creating 100,000 job opportunities every year, coupled with ensuring balanced manpower distribution.
- 4) Increasing economic participation in general and women's involvement in particular.
- 5) Achieving 15% matching per annum between education and training outputs and labor market needs (public and private) for scientific and educational specialties, to reach 80% or more matching between scientific specializations and educational programs on the one hand, and market needs on the other after 5 years.
- 6) Developing a training strategy, aimed to provide training to at least 5% of public sector manpower every year, through concentration on modern management principles and knowledge economy demands.
- 7) Establishing a rehabilitation and vocational training institute in each governorate within 5 years, in addition to rehabilitating and developing the present institutes and providing them with necessary human and material resources.
- 8) Reducing migration to the cities, and resettling 5% of the manpower migrating from the rural areas every year, through preparing a spatially well-balanced employment policy and increasing investment allocations for the rural areas.
- 9) Reducing non-working days by 3% per year during five years.

4.2. Goal-Achievement Monitoring Indicators

- 1) PGR.
- 2) Overall population by gender (males and females), age groups, environment (urban and rural), and any other population indicators.
- 3) Annual birth and mortality rates.
- 4) Annual FTR.
- 5) Rate of age-based dependency in relation to working population (elderly and young groups).
- 6) Annual rate of internal immigration factor.
- 7) Employment rate in relation to population (especially age-group 15-64).
- 8) Rate of working-age population to total population.
- 9) Rate of actual manpower to population (employment rate).
- 10) Unemployment rate
- 11) Total employment rate in the different economic activities (agriculture, industry, tourism...etc.)
- 12) Percentage of manpower employed in the economic sectors (public, private, joint...etc.)



Chapter Four: Agriculture and Water Resources Sector

Kurdistan lies south-west of Asia, between latitudes 34-37 and longitudes 41-46. Kurdistan's climate belongs to the northern moderate region, considered to be continental and semi-tropical. Rainwater pattern is influenced by the Mediterranean climate. The Region is divided into three areas in terms of annual quantity of rainfall, ranging between 350-1,200 mm.

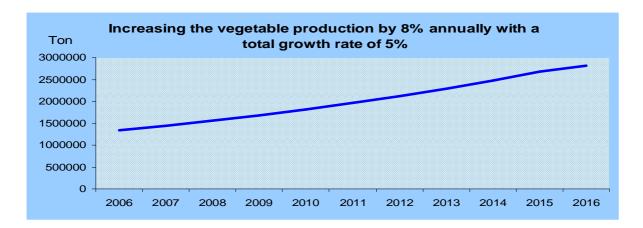
Kurdish people have lived in this geographical stretch of land for thousands of years. Kurdistan is famous for its rich agricultural and natural resources. The Region had suffered campaigns of repression, displacement and sustainable infrastructure destruction since 1961, reaching their apex in 1988 when more than 4,000 villages were destroyed, their inhabitants were driven out of their homes, and forced to live at compulsory residential areas. Water supply sources, including rivers and water springs, were destroyed; forests and rangelands were burned; large areas of cultivable lands were devastated and planted with millions of mines which are still posing a threat to the population and preventing them from reclaiming and rehabilitating these lands.

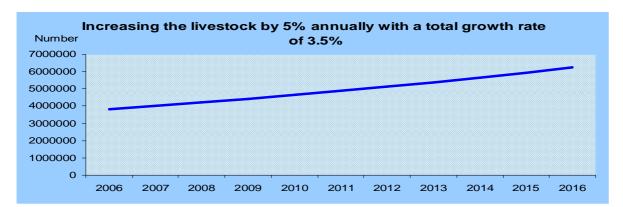
The agricultural activity has generally many distinctive features that distinguish it from other economic activities, including high sensitivity to the natural, seasonal and biological circumstances; particularity of agricultural management; as well as the association of this activity with ensuring an essential human need and food security. These aspects as a whole are influenced by the policies adopted throughout their different development stages.

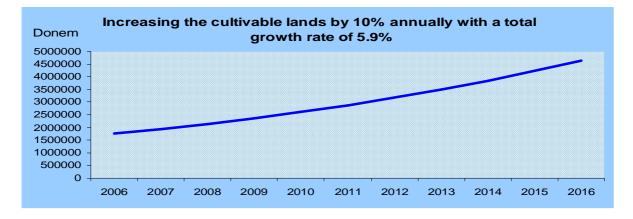
In addition to presenting the most important results expected to be achieved during this RDS in the form of graphic representations, this chapter includes an analysis of the agricultural and water resource situation over the past years through focusing on: vegetable production (cultivable land, production and yields of field crops, vegetables, orchards, forests, and rangelands), animal production (livestock, poultry, and fisheries), in addition to analyzing efficiency and competitive capacity of local agricultural and animal production, discussing the present water resources situation, acquisition of agricultural land and sector regulatory legislations, identifying private sector role in agriculture, discussing the social aspects concerning agricultural and rural development, and identifying the present sector capacities.

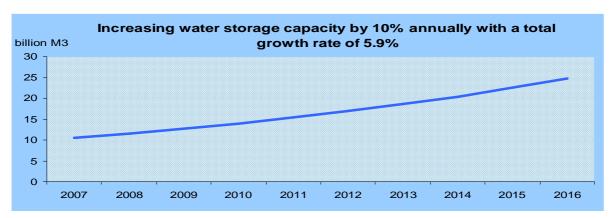
Based on the analysis results of the present circumstances of the agricultural and water sector, key strategic challenges will be presented, given the essential nature of these elements for delineating the sector's future trends, represented in (vision, mission, and strategic goals). The last section of this part also includes a presentation of the major quantitative indicators, to be used for achieving the set strategic goals, in the form of percentages, figures or quantities targeted during the Strategy years. The key indicators to be adopted with respect to monitoring the achievement of the strategic goals and their identified indicators will then be demonstrated.

A Chart outlining the most important expected results compared with the current situation









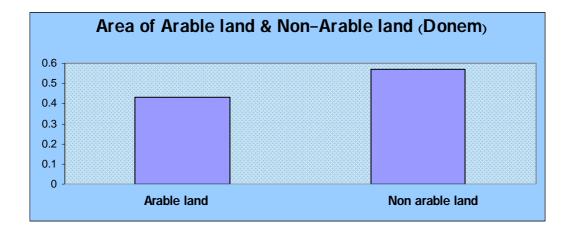
1. Current Situation

1) Vegetable Production 1.1) Agricultural Land

Large areas of cultivable land are available in the Region. Total area of rainfed and irrigated lands is over 1,219,821 hectares, representing 34.96% of the Region's total area. The remaining 65.04% is uncultivated.

| Table 20 | Area of Cultivable and Uncultivable Lands (hectare) by Type of Irrigation and by Governorate, 2007 | | | | |
|--------------|--|------------------|--------------------|------------------------------|-----------------------|
| Governorate | Total Area | Rainfed Lands | Irrigated Lands | Total Cultivable Lands | Uncultivable Lands |
| Erbil | 1,514,120 | 580,645 | 45,635 | 626,280 | 887,840 |
| Duhok | 931,398 | 254,892 | 46,650 | 301,542 | 629,856 |
| Sulaymaniyah | 1,042,808 | 232,700 | 59,299 | 291,999 | 750,809 |
| Total | 3,488,326 | 1,068,237 | 151,584 | 1,219,821 | 2,268,505 |
| % | %100 | %30.62 | %4.34 | %34.96 | %65.04 |

Source: MAWR/KRG



Total area of rainfed cultivable land is 1,068,237 hectares, representing about 87.6% of overall agricultural land, and 30.62% of total area of the Region. Area of irrigated land is 151,584 hectares, representing about 4.34% of total cultivable land and 5.3% of overall area of the Region. Covering these cultivable areas with irrigation networks depends, of course, on water availability, given the large-scale plans by upstream countries to exploit the existing water flow, in light of the present inequitable use of rivers water by the river-basin sharing states.

Field crops cultivation dominates a large area of agricultural lands, totaling about 720,266 hectares, 52.8% of which is located in Erbil, 24.7% in Duhok and 22.5 in Sulaymaniyah. The area of wheat cultivated land is the highest, forming 50.7% of total field crops cultivated land, followed by barley (48%), outlined in the table (21):

| Table 21 | Area of La | Area of Lands (hectare) Cultivated with Field Crops by Governorate, 2007 | | | | | |
|--------------|------------|--|-------|-----------|-------|---------|-------|
| Governorate | Wheat | Barley | Maize | Sunflower | Rice | Total | % |
| Erbil | 135,145 | 242,417 | 182 | 1,856 | 292 | 379,892 | 52.80 |
| Duhok | 122,652 | 52,207 | 74 | 1,608 | 1,606 | 178,147 | 24.70 |
| Sulaymaniyah | 107,500 | 51,375 | 437 | 2,098 | 817 | 162,227 | 22.50 |
| Total | 365,297 | 345,999 | 693 | 5,562 | 2,715 | 720,266 | 100 |
| % | 50.70 | 48 | 0.10 | 0.80 | 0.40 | 100% | |

Source: MAWR/KRG

Area of cultivated land on which basic vegetables are grown (tomato, cucumber and eggplant) is 34,915 hectares, 50.8% of which are in Erbil, 25.5% in Sulaymaniyah, and 23.7% in Duhok, as the table (22) shows:

| Table 22 | Area of Lands (hectare) Cultivated with Vegetables by Governorate, 2007 | | | | |
|--------------|---|----------|----------|--------|-------|
| Governorate | Tomato | Cucumber | Eggplant | Total | % |
| Erbil | 10,452 | 4,929 | 2,345 | 17,726 | 50.80 |
| Duhok | 7,007 | 1,035 | 222 | 8,264 | 23.70 |
| Sulaymaniyah | 6,440 | 2,110 | 375 | 8,925 | 25.50 |
| Total | 23,899 | 8,074 | 2,942 | 34,915 | 100 |
| % | 68.50 % | 23.10 | 8.40 | 100 | |

Source: MAWR/KRG

1.2) Production and Yields

Natural factors still play an essential role in determining the level of production and yields of the main crops. Production and yield indicators of field crops experience considerable fluctuation from one year to another, explained in the table (23):

Dra of Regional Development Strategy 2012-2016

| Table 23 | Cultivated Areas, Production and Yield for a Group of Field Crops and Vegetables of 2003 and 2006 | | | | | |
|------------|---|---------|----------|----------|-----------|------------|
| Crops and | Area (h | ectare) | Producti | on (ton) | Yield (kg | g/hectare) |
| Vegetables | 2003 | 2006 | 2003 | 2006 | 2003 | 2006 |
| Wheat | 473,142 | 338,112 | 569,494 | 391,776 | 0312 | 8,011 |
| Barley | 231,495 | 391,493 | 265,285 | 325,754 | 4,511 | 832 |
| Chickpeas | 712,072 | 721,472 | 76,433 | 98,684 | 107 | 136 |
| Lentils | 11,375 | 9,497 | 1,720 | 1,656 | 151 | 417 |
| Rice | 19,252 | 15,144 | 12,092 | 11,734 | 862 | 747 |
| Sunflower | 59,407 | 40,576 | 17,145 | 11,618 | 288 | 286 |
| Onion | 8,808 | 11,475 | 27,227 | 27,065 | 0913 | 2,358 |
| Tomato | 75,520 | 69,669 | 141,409 | 205,288 | 2,718 | 4,629 |
| Pumpkins | 9,913 | 10,799 | 19,662 | 17,891 | 3,198 | 6,561 |
| Eggplant | 6,679 | 6,932 | 18,063 | 21,032 | 7,042 | 3,034 |
| Cucumber | 30,667 | 30,399 | 60,519 | 69,439 | 9,731 | 2,842 |
| Watermelon | 24,234 | 19,440 | 202,533 | 155,434 | 8,357 | 7,995 |

Source: MAWR/KRG

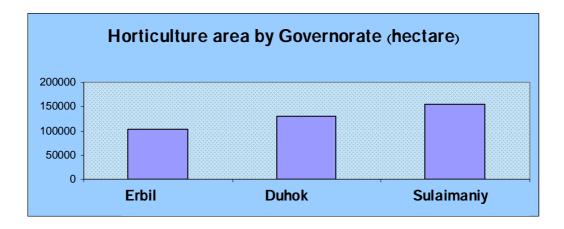
Wheat production in 2006 reached about 391,776 ton, and a per hectare productivity of around 1,180 kg. Comparing these figures with those of 2003, we find that wheat production came to about 569,494 ton, higher than 2006 production by 45.4%. Similarly, per hectare productivity was 1,203 kg, 2.9% greater than that achieved in 2006. On the other hand, barley production rose from 265,285 ton in 2003 to 325,754 ton in 2006. However, productivity declined from 1,177 kg per hectare in 2003 to 977 kg per hectare in 2006.

It is evident from the figures given in the previous table, that natural factors (quantity of rainwater, available water, and availability of other agricultural tools such as fertilizers, agricultural extension, type of seeds...etc.) have their effects on production and productivity rates.

Fruits represent an essential source of food, and locally produced fruits do not meet market needs. The need for fruits increases with improved living conditions. As a result, fruit imports are used to fill this need, costing huge amounts of money. This need can be met by local sources, if productivity conditions improve. Statistical figures released by FAO in 1999 (updated figures do not exist) indicate that total area of fruit gardens is about 87,685 hectares, spread over the three governorates, as indicated in the table (24):

| Table 24 | Area of Fruit Gardens by Governorate, 1999 | | | | |
|--------------|--|-------|--|--|--|
| Governorate | Area (hectare) | % | | | |
| Erbil | 25,770 | 26.65 | | | |
| Duhok | 32,468 | 33.59 | | | |
| Sulaymaniyah | 38,447 | 39.76 | | | |
| Total | 87,685 | 100 | | | |

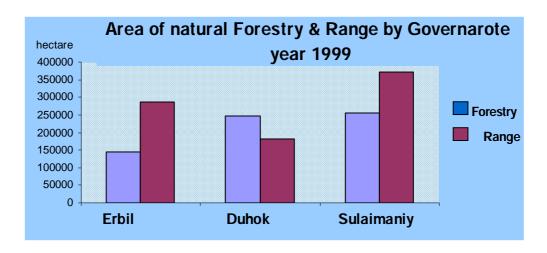
Source: MAWR/KRG



High capital costs needed to build additional fruit gardens, coupled with the long time from creation of these gardens to fruition of planted trees, in addition to flow of imported fruits at relatively low prices, has led to poor home grown fruits' ability to compete with imported fruits and other farming products which have short production cycle. In recent times, there have been substantial production shortages, in addition to reduced use of pesticides and fertilizer, as well as lack of modern garden-care technologies, insufficient high-yield seeds suiting local environment. This situation has reflected on productivity level, and started the imports process to fill the existing shortages.

Total areas of forests and rangelands reached 648,696 hectares and 839,719 hectares respectively, distributed as follows: Erbil 29%, Duhok 28.7% and Sulaymaniyah 42.3%, as indicated in the table (25):

| Table 25 | Area of Forests and Rangelands (hectare) by Governorate, 1999 | | | | | |
|--------------|---|------------|-----------|--------|--|--|
| Governorate | Forests | Rangelands | Total | % | | |
| Erbil | 145,825 | 286,410 | 432,235 | 29.0% | | |
| Duhok | 246,665 | 181,056 | 427,721 | 28.7% | | |
| Sulaymaniyah | 256,206 | 372,253 | 628,459 | 42.3% | | |
| Total | 648,696 | 839,719 | 1,488,415 | | | |
| % | 43.6 % | 56.4% | | 100.0% | | |



2) Animal Production 2.1) Animal Resources 2.1.1) Livestock

There are many kinds of animals, yet the most important and those who have the greatest numbers are cows, sheep and goats, given that they meet the population's food needs of meat and milk, which are rich in proteins, in addition to the skin and wool used in industry. Available statistical figures for 2006 indicate that numbers of livestock were 3,826,265 heads, distributed as follows: 372,791 heads of cattle, 2,195,319 heads of sheep, and 1,258,155 heads of goats. Sheep form 57% of total livestock, followed by goats (33%) and cattle (10%). At governorate level, livestock at Duhok represents 53.2% of the Region's total livestock, followed by Erbil (24.9%) and Sulaymaniyah (21.9%), outlined in the table (26):

| Table 26 | Total Livestock (head) by Governorate, 2006 | | | | |
|--------------|---|-----------|---------|-----------|--|
| Governorate | Sheep | Goat | Cow | Total | |
| Erbil | 399,442 | 468,749 | 82,680 | 950,871 | |
| Duhok | 1,281,195 | 530,753 | 225,313 | 2,037,261 | |
| Sulaymaniyah | 514,682 | 258,653 | 64,798 | 838,133 | |
| Total | 2,195,319 | 1,258,155 | 372791 | 3,826,265 | |
| % | 57% | 33% | 10% | 100% | |

Source: MAWR/KRG

The Region also has a group of animal fattening farms, totaling 31, based on 2006 statistics. 77.4% of them are calves fattening farms, and 22.6% are sheep fattening farms, spread over the governorates, as per the table (27):

| Table 27 | Number of Animal Fattening Farms by Governorate, 2006 | | | | | |
|--------------|---|---------------------------------|--------|--|--|--|
| Governorate | Calves Fattening | alves Fattening Sheep Fattening | | | | |
| Erbil | 11 | 1 | 12 | | | |
| Duhok | 2 | 5 | 7 | | | |
| Sulaymaniyah | 11 | 1 | 12 | | | |
| Total | 24 | 7 | 31 | | | |
| % | 77.4 % | 22.6% | 100.0% | | | |

Source: MAWR/KRG

Livestock has been affected by scarcity of rangelands and lack of sufficient veterinary services, leading to reduction of animal numbers, and livestock as a whole. Basic cattle of this size has a potential for multiplying its numbers, especially in areas where essential needs exist, like pasturelands, fodders factories and stores, and experienced animal breeders.

2.1.2) Fish

Some estimates state that the total quantities of fish production (fisheries and river fishing) reached about 4,300 ton in 2006. The production, however, was affected by a number of factors, like fishermen's non-compliance with fishing prohibitions during breeding season, in addition to fodder shortages, and insufficient monitoring.

Available statistics indicate that there are 204 fisheries in the Region, most of which are fish farms, while hatcheries are in Erbil and Sulaymaniyah. Each hatchery has 80 incubators. Total hatching capacity is about 15 million fish larvae, based on FAO reports of 2004.

| Table 28 | Number of Fisheries by Governorate, 2006 | | | | |
|--------------|--|------------|-----|--------|--|
| Governorate | Fisheries | Hatcheries | % | | |
| Erbil | 126 | 1 | 127 | 62.3 | |
| Duhok | 22 | 0 | 22 | 10.8 | |
| Sulaymaniyah | 54 | 1 | 55 | 26.9 | |
| Total | 202 | 2 | 204 | 100.0% | |

Source: MAWR/KRG

2.1.3) Production

Animal production is the basic and complementary part of food basket, especially with respect to its protein contents. It is also an important source of a number of raw materials used by many industries. Indicators show that animal production is not sufficiently developed to meet the population's food needs resulted mainly from the high rates of population growth, in addition to improved incomes and standard of living in general in recent years.

No reliable statistics or estimates are available to help us identify total animal production. However, there are evidences that production of red meats and poultry has not experienced substantial development since the beginning of this decade due to rising costs of production, particularly of fodders, competition failures as a result of dumping the local markets with cheap products, unregulated production procedures, and investors' reluctance to use their farms due to lack of well-considered support for this industry.

Although statistics indicate that total number of poultry farms reached 653 farms in 2006, as shown in the table (29), production volume is unstable and lacks accuracy:

| Table 29 | Number of Poultry Farms by Governorate, 2006 | | | |
|--------------|--|-------|--|--|
| Governorate | Number of Farms | % | | |
| Erbil | 347 | 53.10 | | |
| Duhok | 76 | 11.60 | | |
| Sulaymaniyah | 230 | 35.30 | | |
| Total | 653 | 100 | | |

Source: MAWR/KRG

3) Local Vegetable and Animal Production Efficiency and Competitive Capacity 3.1) Production Efficiency

In general, vegetable production is an end product ready for direct consumption, in addition to a number of products that are raw materials used in food processing and other industries. Although large areas of cultivable land are used for crops connected with food security, in addition to fruits and vegetables, the declining productivity per dunam for all crops impacts the produced quantities, and is consequently reflected on local needs. Shortages are therefore solved through imports.

Figures and statistics available on volume of imports have failed to classify these imports according to type, to help identify volume or quantity of imported food items. Estimates, however, state that total imports were worth ID 2,594 billion in 2008, and rose to ID 6,006 billion in 2009. Value of total imports for the first six months of 2010 reached about ID 3,049 billion.

Based on comparison between FAO estimates regarding per capita basic food consumption and available local production of these materials, most food products greatly fail to meet population's demands, which reflects the fragility of food security situation, notwithstanding the huge agricultural potentials.

3.2) Competitiveness

Quality and productivity level of basic vegetable products at present are relatively acceptable, while other products, like fruits and vegetables, may have a competitive capacity if production and marketing procedures are improved to elevate per dunam productivity level, reduce unit price, and protect local products from market dumping with cheap vegetable

products from the neighboring countries. This also applies to red meat, white meat, milk and eggs.

3.3) Storing Capacity

The Region possesses an acceptable storage capacity which may help support any production surpluses and store them for future marketing. Based on 2006 statistics, the storing facilities, belonging to MAWR, had a total storage capacity of about 22,800 m³, and number of silos of Ministry of Commerce and Industry was 6 with storage capacity of 262,000 ton, as shown in the table (30):

| Table 30 | Number of Silos and Storage Capacity by Governorate (Thousands of tons) | | | | |
|--------------|---|----------------------------------|------|--|--|
| Governorate | Number of Silos | Number of Silos Storage Capacity | | | |
| Erbil | 2 | 116 | 44.3 | | |
| Duhok | 3 | 106 | 40.5 | | |
| Sulaymaniyah | 1 | 40 (out of order) | 15.2 | | |
| Total | 6 | 262 | 100% | | |

Source: Ministry of Commerce and Industry/KRG

Two silos will be built in Erbil and Sulaymaniyah, with a 60,000 ton storage capacity for each, in addition to restoring the silo already existing in the latter. The Ministry of Commerce and Industry has obtained necessary approvals for these two storage facilities, which raises total storage capacity to about 382,000 tons at an increase rate of 31.4%.

4) Water Resources

The climate of Kurdistan Region is Mediterranean, with rainy and cold winter and dry and hot summer, except for the mountainous region which has moderate summer. Rainy season extends from October till..., while the rest of the months are almost dry. Snow covers high mountains throughout winter months. Based on average annual rainfall, the Region is divided into three area: assured rainfall area (over 500 mm); semi assured rainfall area (350-500mm); and unassured rainfall area (less than 350 mm). Rainfed agricultural land, in general, forms about 37.2% of overall cultivable land, considered to be relatively high in comparison with the irrigated cultivable land, forming about 5.3% of total cultivable land³.

Considerable efforts should be made to expand the area of agricultural land through concentrating on reclamation of uncultivable land, using different irrigation systems, as well as rationalizing consumption of available irrigation water. In addition, ground water exploitation has to be expanded, especially water wells. Statistical results for 2006 indicate that total number of exploited wells was about 19,448 wells, of which 79.7% were used for drinking, 18.3% used in agriculture, and the rest were exploited for industrial, and agricultural extension and research purposes. The table(31) outlines these numbers:

³ Translator's comment: should be "total area"

| Table 31 | Number of Wells by Type of Use and Governorate, 2006 | | | | | |
|--------------|--|---------------------------------|-------------------------------|--|--------|-------|
| Governorate | Wells Used for Drinking | Wells Used for Irrigation | Wells Used for Industry | Wells Used for Agricultural Research and Extension | Total | % |
| Erbil | 2,370 | 1,800 | 85 | 55 | 4,310 | 22.20 |
| Duhok | 1,122 | 235 | 235 | 0 | 1,592 | 8.20 |
| Sulaymaniyah | 12,022 | 1,524 | 0 | 55 | 13,546 | 69.60 |
| Total | 15,514 | 3,559 | 320 | 0 | 19,448 | 100 |
| % | 79.70 | 18 | 1.70 | 0.30 | 100.00 | |

Source: MAWR/KRG

Water resources are largely associated with the quantity of rainwater and snow falling on main water basins and with the policy of operating dams and water reservoirs built upstream the shared rivers in Turkey and Syria. The absence of international water sharing agreements among these states results in instability of available water resources from one year to another. The table (32) demonstrates the water resources available in 2007 by river, and the Region's share thereof:

| Table 32 | Available Water Resources by River 2007 | | | | | |
|----------------|---|--|-------------------|-----------------------|--|--|
| Rivers | Length (km) | Annual Water Amounts (billion m ³) | Inside the Region | Outside the Region | | |
| The Khabur | 160 | 2.2 | 42% | 58% | | |
| The Great Zab | 392 | 14.32 | 58% | 42% | | |
| The Little Zab | 400 | 7.07 | 64% | 36% | | |
| Awa Sipi | 230 | 0.7 | 100% | 0% | | |
| Serawan | 384 | 5.86 | 41% | 59% | | |
| Total | 1,566 | 30.15 | 59.80% | 40.20% | | |

Source: MAWR/KRG

More water shortages and reduced water quality are expected to occur in the future, after Turkey's completion of its irrigation projects and Syria's development of its irrigation projects. These two states seek to cultivate about one million hectares, with water fed from the Tigris water basin. Consequently, the Tigris will experience a water deficit reaching, according to some estimates, to 40% in 2016. MAWR is therefore required to have an updated water plan (comprehensive planning of water resources and lands). In light of subsequent results of conducted study, policies on optimal management and investment of water resources and lands will be developed.

At the international level, an appropriate diplomatic action should be taken to ensure equitable water sharing that would minimize the damage caused by water scarcity. Intensified negotiations with water sharing states should be made to have water acquisition rights through strategic agreements and treaties, based on a package of common interests with these countries.

The circumstances faced by the Region in the water year ending in 30/9/2008, represented a bitter experience which had negative impacts on the vegetable production and animal resources in particular due to the following reasons:

- 1) Drought and unfavorable weather conditions
- 2) Water shortage at the Tigris and its tributaries
- 3) Problems concerned with management and operation of some dams
- 4) Insufficient or absent water-related guidance

In addition to what has been mentioned above, the global climate changes are likely to cause more droughts in our region. Therefore, proper and flexible water policies, efficient and integrated water resources management systems, and long-term plans have to be adopted. Water consumers have to share responsibility and treat water as a rare commodity, given the foreseen difficulties and challenges vis-à-vis provision of sustainable water resources.

5) Agricultural Acquisitions and Sector Regulating Legislations 5.1) Agricultural Acquisitions

Agricultural sector is characterized by multiplicity of types and categories of acquisitions, in addition to reduced areas of cultivable land, as a result of recurrent divisions caused by inheritance, and ensuing fragmentation of large agricultural land into very small and economically unfeasible properties. This situation poses a big obstacle in the way of agricultural development, on the one hand, and a source for its instability and subsequent wastage of great potentials, on the other. Acquisitions are classified as follows:

- 1) Owned property; namely, the lands that are absolutely subject to private ownership, with owners having full rights to dispose thereof.
- 2) State-owned (public) lands.
- 3) Endowment lands.
- 4) Derelict (abandoned) lands, with ownership going to the state.
- 5) Wasteland or abandoned and unexploited lands.

MAWR statistics indicate that about 35% of total agricultural land is privately owned, and 65% is public (government owned) and is leased out to farmers.

5.2) Sector Regulating Legislations

Agricultural sector is one of the oldest sectors regulated by different legislations due to its importance as one of the earliest crafts practiced by man, the fact that large numbers of population work in it as a basic source of living, and its important position as food provider for all population.

Agricultural Property Ownership Law for 1932 is the first law regulating agricultural ownership in Iraq. In September 1958, Agrarian Reform Law No. 30 was issued regulating

agricultural ownership and setting maximum limits for individual ownership of lands inside irrigated and rainfed areas, as well as minimum limit of areas permitted to be distributed to farmers within the same concept. In 1970, Agrarian Reform Law No. 117 was issued tackling many legal loopholes of the 1958 Law. In 1983, Law No. 35 on leasing out agrarian reform lands to companies and individuals was issued. These three laws are the major legislations regulating this sector, and they are still enforced and operational in the Region.

In 2006, Investment Law No. 4 was issued allowing investment in the agricultural sector, beside other economic sectors. In 2007, the first amendment of Law of Agricultural Ownership Regulation in Iraq's Kurdistan (No. 90 of 1975) was issued. And, in 2008, a law on regulating the process of agricultural land disposal in the Kurdistan Region was issued.

Multiplicity of laws, legislations, and instructions as well as their tendency to limit area of agricultural acquisition, despite the fact that they take into consideration irrigation systems, fertility level, and type of crops, has negatively impacted the performance of agricultural sector, due to the fact that acquisitions in general are still below optimal economic standards, and been among the reasons for the agricultural sector underperformance and deficiency.

6) Private Sector Role

Despite the high rate of private agricultural property acquisition to about 35% of total agricultural areas, the role played by the private sector has remained limited and influenced by government policies supporting production tools. No serious efforts have been made by private sector to develop the agricultural sector and improve performance and productivity level. Private investment areas have been limited in most cases to animal development projects (fisheries and poultry), i.e. highly and quickly profitable projects, where turnover used in such projects is often faster comparing with vegetable and agricultural sector.

The agricultural sector historically faced problems, which did not originate from the sector itself, given that this sector was the focal point of most of the political changes and their consequences over the past decades. The enacted laws and legislations reflected the prevailing political concepts and the declared presumption that the present situation was better than the preceding one.

7) Social Dimensions of Agricultural and Rural Development

Agriculture was the source of livelihood for 35% of the Region's population in 2000. This trend declined gradually reaching 23% in 2007, based on the results of IHSES. The statistical figures of rural areas reveal two distinctive features: a drop in numbers of economically active groups of total workforce from about 37.2% at the beginning of 2000 to 34.4% by the end of 2007, based on the results of MICS. This was caused by the relative rise of unemployment rates among young groups in the rural areas, which encouraged these unemployed groups to immigrate to the city. The other distinctive feature lies in the increased dependence on women in the agricultural domain. The percentage of women involved in the agricultural sphere in 2006 reached more than 12.9% of total agricultural manpower. This is likely to rise to 14.1% by 2014, according to FAO forecasts, which will ultimately make women the main working force in the agriculture sphere. Escalating rural women's participation in the field work (besides household tasks) results in increased pressure on women, and is considered a major obstacle with regard to rural development.

Based on FAO estimates, the deteriorating land resources in addition to the elements of attraction available in the cities as well as the improved lifestyles add up to the reasons for migration. These circumstances further increase the magnitude of unemployment problem in the cities, and deepen the pressure on housing and services. Similarly, the rural areas in general suffer relative shortages of services and infrastructures, in addition to declining standard of living. Therefore, radical reform of agricultural and rural conditions is likely to have positive impacts on both the rural and urban sectors, reflected in stabilized rural manpower in the agricultural sector, reduced poverty in the rural areas, in addition to releasing the cities from the social, economic and services pressures caused by the population groups migrating from the rural areas.

8) Agricultural Sector Potentials

The agricultural sector possesses huge potentials that may empower it to play a leading part in supporting and diversifying national economy. These potentials, if properly invested, will be an essential component of the economic situation of the Region as a whole. It will also lead to an unprecedented development of the agricultural sector itself, in addition to strengthening the food security effort, creating new job opportunities, developing the rural areas, reducing poverty and having an effective contribution to economic diversification.

The existing potentials may be summed up as follows:

- 1) Availability of about 1,219,821 hectares of irrigated and rainfed areas, representing 42.5% of total area of the Region, 1,068,237 hectares of which are rain-fed, which form 87.6% of total agricultural areas and 37.2% of the Region's total area, and 151,584 hectares are irrigated, representing 12.4% of total agricultural areas, and 5.3% of the Region's total area. This will help the Region have a wide-ranging exploitation of the vegetable production and ensure diversified crops to greatly contribute to the achievement of food security.
- 2) Availability of a large basic livestock characterized by diversification, especially sheep, goats, cows and buffalos, which are a basic source of animal protein, in addition to potentials to develop fisheries, poultry farming and eggs production.
- 3) Diversity of environmental and natural conditions, which allows for diversifying the vegetable and animal production and exploiting these conditions to develop highly competitive varieties of products. In addition, the Region has a large biological diversity.
- 4) The northern and eastern areas have an average annual rainfall ranging between 500 and 1000 mm; other areas have this average between 350 and 500 mm. Needs of areas with an average of less than 300 mm can be met through complementary irrigation. Notwithstanding the water circumstances in the Region at present, per capita share of water is still higher than water deficiency rate.
- 5) Availability of huge human capital that can be invested in agricultural activities, forming about 23% of total population. Based on 2009 estimates, economically active groups represent about 42% of total population, which means that the 9.7% manpower groups employed in the agricultural sector can be efficiently exploited, taking into consideration their need for development and rehabilitation, to be able to contribute to advance and sustainable agricultural activities, given the high standard indigenous agricultural expertise.
- 6) Availability of policies and programs which support the inputs and outputs of the agricultural experiment.

- 7) Availability of basic foundations for enhancing private sector role and contribution to animal and vegetable production.
- 8) Availability of basic legislations and institutional regulations related to this sector, needing development and revision, which helps the sector stays abreast of the comprehensive agricultural developments, in which the private sector plays an important part.

2. Strategic Challenges

- 1) Insufficient food security, especially in respect of main products and crops
- 2) Poor competitive capabilities in the field of animal and vegetable production at both local and foreign levels.
- 3) Fragmented property ownerships and small agricultural acquisitions impede development of agricultural processes, particularly with respect to use of mechanization and modern technologies.
- 4) Irrationalized use of fertilizers and pesticides.
- 5) Inadequate and unregulated resources allocated for scientific research, coupled with insufficient coordination among research authorities and insufficient integration of their activities.
- 6) Shortage of production of red meat, white meat, and fish, in addition to their high prices compared with world prices.
- 7) Declining per dunam yield in respect of most crops.
- 8) Unplanned construction, made at the expense of old fertile agricultural areas.
- 9) A gap between scientific research results and pertinent implementation procedures.
- 10) Limited application of organic agriculture despite its positive impact on the environment and economic turnovers.
- 11) Failure to optimally make use of agricultural wastes, or apply pertinent research results.
- 12) Inadequate performance of training and agricultural extension centers.
- 13) Insufficient role played by women and NGOs in agricultural and rural development spheres.
- 14) Limited water resources available for agriculture, in addition to insufficient storage capacities existing at present, in comparison with actual needs.
- 15) Unregulated use of water in certain field, in addition to water wastage by the three major sectors of agriculture, industry and households.
- 16) Poor involvement of water consumers into water management procedures and lack of water conservation guidance.
- 17) Failure to rationalize field irrigation procedures, especially flood irrigation.
- 18) Insufficient government investments, in addition to the unattractive nature of agricultural environment for private and foreign sector investors.

3. Future Trend

3.1. Vision

Giving the agricultural sector a leading role in the achievement of development, diversifying economic sources, achieving food security, and pursuing efficient and rationalized water resources management policies

3.2. Mission

Achieving food sufficiency from the Region's food basket, realized through provision of basic needs; optimal exploitation of natural (land and water) financial and human resources; and proper utilization of modern technology and foreign expertise.

3.3. RDS Goals

- Improve economic environment.
- Expand local agricultural sector contribution to the realization food self-sufficiency.
- Increase areas of agricultural land and raise production and productivity levels.
- Achieve optimal exploitation of water resources.
- Protect agricultural lands.
- Develop human resources and manpower of the agriculture and irrigation sector.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Achieve agricultural sector growth rate by at least 15% per year.
- Minimize volume of imported food items by 7% per year of total imports, provided that total reduction rate of these items should not be less than 30% within 5 years. The reduction goal must be achieved by increasing and improving local products.
- Increase agricultural land exploitation by 10% per year, and provide protection for 80% of crop growing land against desertification and damage, within a period of 5 years.
- Increase water storage volume by 5% from water of rivers flowing into the Region, within 5 years, achieved through construction of 4 dams during (2012-2016).
- Achieve a sustainable investment of ground water.
- Increase production rate of basic crops (wheat, barely...etc.), fruits and vegetables by 8% per year.
- Increase animal production by 5% per year by raising numbers of livestock (sheep, cows, and goats).
- Increase production and productivity level of animal products (red and white meats, milk, and eggs) by 10% per year.
- Activate the role of agricultural bank and other financial houses, aimed to raise the credits issued to farmers and producers by 100% in 5 years.
- Increase agricultural extension services by 5% per year of total number of farmers, cattle raisers and projects owners, through concentrating on modern applications of technology and methods of cultivation, fertilizing, livestock and poultry husbandry, fish culture and irrigation systems.

4.2. Goal-Achievement Monitoring Indicators

- Percentage of agricultural sector annual contribution to GDP.
- Rate of annual growth of agricultural holdings, by their turnovers.
- Rate of annual growth of vegetable production.
- Rate of annual growth of animal production.
- Annual coverage rate with respect to the demand for basic food items from local production (by main agricultural products).
- Annual productivity growth rate of main agricultural products
- Annual percentage of cultivated land (actually exploited) of total area of cultivable land.

- Annual increase rate in respect of number and quality of agricultural and animal projects, by their turnovers.
- Annual increase rate of lands having integrated control for pesticide.
- Annual rate of quantities of organic and biological fertilizers used in agriculture.
- Growth rate of population working in agricultural fields out of total population.
- Annual growth rate of total amounts allocated for rural development for different sectors.
- Annual growth rate for total forest areas.
- Annual growth rate for total natural rangelands.
- Annual growth rate of agricultural extension services (number of extension and research farms and centers, veterinary clinics, and artificial insemination center), as well as number of beneficiaries.
- Annual growth rate of total credits received by peasants and farmers, by governorate and by type of agricultural activity.
- Annual rate of total agricultural areas available for investment.
- Annual rate of water share available for agricultural purposes.
- Annual rate of land, with allocated water share, of total area of cultivable lands.
- Annual rate of areas with assured rainfall of total rainfed cultivable lands.
- Annual rate of irrigated lands out of total rainfed cultivable lands.
- Annual rate of number of irrigation and drainage pumps, by output.

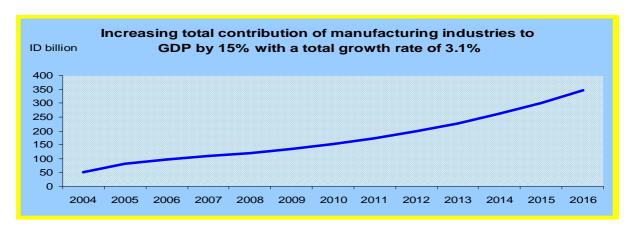
The term "yield" means the quantity of products produced by one dunam. The word "production" also means any human activity that achieves or increases benefits, aimed to satisfy human needs. Production tools are land, labor, capital and planning.

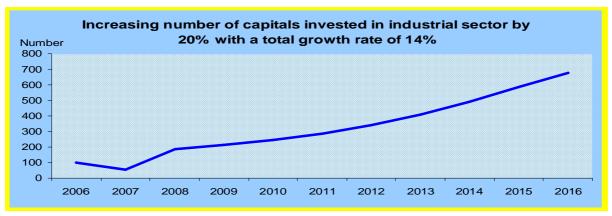


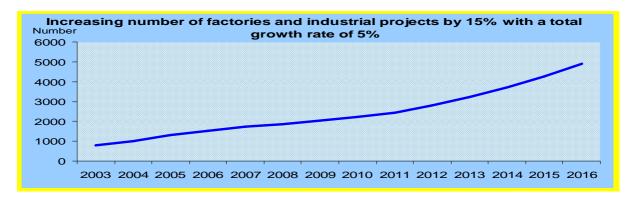
Chapter Five: Industry Sector

Industrial Sector is one of the most important economic sectors in promoting the material basis for any economy, the more important industrial sector, looking at the degree of its contribution to gross domestic product and the achievement of capital accumulation in fixed capital formation, and that this sector is a fundamental pillar of the pillars of achieving progress and development, and a major supporter of the other economic sectors. Based on that contains this axis identify the most important results target achieved in this strategic plan in the form of graphs, and then analyze the reality of the industrial sector over the past years by focusing on the review of the contribution of industrial activity in the gross domestic product, and the existing industrial projects and new in terms of the number and distribution to the provinces, and the total capital formation, industrial and industrial cities in the province in terms of the number, size and distribution to the provinces, and sources of mineral wealth in the region. As well as manufacturing industries (excluding oil). And finally display the reality of the event and the contributions of R & D activities. The results of analysis of the current reality of the industrial sector is to draw the most important strategic challenges facing the sector, as the basis in determining the future direction of the sector represented by the (vision, mission and strategic goals), as this chapter included at the end of a presentation of the key quantitative indicators that will be adopted in achieving the strategic goals form ratios percentage or numbers or quantities of target achieved during the years of the plan, and then specifically to the most important indicators that can be adopted to monitor the implementation of strategic objectives and indicators identified.

A Chart outlining the most important expected results compared with the current situation







1. Current Situation

1) Industrial Activity

1.1) Industrial Activity's contribution to GDP

Development of non-oil industrial activities' contribution to GDP at current prices for 2008 amounted to 2.1% which is higher in comparison with 2006 and 2007 rates. However, in spite of this rise, the contribution level is relatively low, compared with the other major economic sectors, as reflected in the table (33):

| Table 33 | Contribution of Non-Oil Industrial Activity to GDP at Current Prices 2004-2008 (ID billion) | | | | |
|----------|--|--------------------------------|---------------------|--|--|
| Year | Industrial Activity's GDP | Growth Rate Compared with 2004 | Contribution to GDP | | |
| 2004 | 61,9 | 0 | 2,6% | | |
| 2005 | 96,3 | 55,6% | 2,3% | | |
| 2006 | 116,5 | 88,2% | 1,3% | | |
| 2007 | 128,1 | 106,9% | 1,3% | | |
| 2008 | 197,1 | 218,4% | 2,1% | | |

Source: Ministry of Finance/KRG

1.2) Industrial Projects

Since 2003, the government has been issuing many licenses for setting up private industrial projects, covering different industrial sectors, and been shoring up industrial projects by issuing soft loans and facilitating investors' acquisition of land pieces for their industrial projects, as well as helping them get needed operation requirements, outlined in the table (34):

| Table 34 | Number of Granted Licenses to Establish Industrial Projects 2003- 2008 by Governorate | | | | | |
|--------------|--|------|------|------|------|------|
| Governorate | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| Erbil | 29 | 54 | 101 | 84 | 95 | 14 |
| Duhok | 9 | 27 | 77 | 45 | 36 | 43 |
| Sulaymaniyah | 63 | 135 | 190 | 104 | 87 | 57 |
| Total | 101 | 216 | 368 | 233 | 218 | 114 |

Source: Ministry of Commerce and Industry/KRG

Total number of capitals invested in the industrial sector in 2006 was 202, which rose to 374 in 2008, at an increase rate of 85.1%, as indicated in the table (35):

| Table 35 | Total Number of Capitals Invested in Industrial Sector 2006-2008 by | | | | |
|--------------|--|------|-------------|-------|-------|
| Tuble de | | | Governorate | | |
| Governorate | 2006 | 2007 | 2008 | Total | % |
| Erbil | 67 | 15 | 83 | 165 | 48,2% |
| Duhok | 15 | 16 | 12 | 43 | 12,6% |
| Sulaymaniyah | 19 | 23 | 92 | 134 | 39,2% |
| Total | 101 | 54 | 187 | 342 | 100% |

Source: Ministry of Commerce and Industry/KRG

Available statistics indicate that number of factories and industrial projects (small, medium and large) reached 1,529 by the end of 2006. This number rose up to 1,863 by the end of 2008, at an increase rate of 21.8%. Workers employed by these factories and projects came to 9,233 at the end of 2006. In 2008, this number rose to 13,331 workers, at an increase rate of 44.4%, outlined in the table (36):

| Table 36 | Number of Factories, Industrial Projects and their Workers by Size of Factory or Project (before 2007, 2007 and 2008) | | | | | | | |
|-------------------------|---|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|--------------------------|-------------------------|
| Factories | Before | e 2007 | 20 | 07 | 20 | 08 | To | tal |
| and Industrial Projects | Number of Projects | Number of Workers | Number of Projects | Number of Workers | Number of Projects | Number of Workers | Number of Projects | Number of Workers |
| Small | 1,300 | 5,946 | 190 | 759 | 72 | 316 | 1,562 | 7,021 |
| Medium | 175 | 1,762 | 24 | 358 | 17 | 250 | 216 | 2,370 |
| Large | 54 | 1,525 | 6 | 653 | 25 | 1,762 | 85 | 3,940 |
| Total | 1,529 | 9,233 | 220 | 1,770 | 114 | 2,328 | 1,863 | 13,331 |

Source: Ministry of Commerce and Industry/KRG

FCF of private industrial activity at current prices rose from ID 105,898 million in 2007 to ID 188,439 million in 2008, with an increase rate of 77.9%, reflected in the table (37):

| Table 37 | GFCF of Private Industrial Sector (before 2007, 2007 and 2008) (ID million) | | | | | |
|---|---|-------|-------|-------|-------|--|
| Factories and Industrial Projects | Before 2007 | 2007 | 2008 | Total | % | |
| Small | 135.6 | 15.5 | 7.7 | 158.8 | 16.2% | |
| Medium | 107.1 | 36.3 | 12.8 | 156.2 | 16.0% | |
| Large | 148.3 | 83.1 | 201.9 | 664.7 | 67.8% | |
| Total | 392.0 | 134.9 | 222.4 | 979.7 | 100% | |

Source: Ministry of Commerce and Industry/KRG

1.3) Industrial Zones

The Government has also given special attention to the establishment and creation of integrated industrial zones in the three governorates. It has provided needed infrastructures and services to ensure that these zones can serve as a basis for setting up and developing different industrial projects and turn into a focal point for local and foreign industrial investment sector. Total area of these zones comes to about 5,050 dunam (3,100 dunam in Erbil, forming 61.4% of total area; 420 dunam in Duhok, forming 8.3% of total area; and 1,530 dunam in Sulaymaniyah, forming 30.3% of total area). Actually occupied area of these zones comes to 2,295.570 Dunam, representing 45.46%, taken up by 1,844 factories and industrial projects, as the table (38) indicates:

| Table 38 | Area of Industrial Zones, Number of Factories and Project Established inside them, and Actually Occupied Area (dunam) by Governorates, 2008 | | | | |
|--------------|---|------------------------|---------------------------------|--|--|
| Governorate | Total Area of Industrial Zones | Actually Occupied Area | Number of Factories and Project | | |
| Erbil | 3,100 | 1,525.56 | 870 | | |
| Duhok | 420 | 147.56 | 301 | | |
| Sulaymaniyah | 1,530 | 622.45 | 673 | | |
| Total | 5,050 | 2,295.57 | 1,844 | | |

Source: Ministry of Commerce and Industry/KRG

1.4) Mineral Resources

Kurdistan Region abounds with large reserves of a wide range of minerals. The Governorate of Erbil is the richest in metal ores, including copper, chrome, nickel, manganese, iron, zinc and lead. The Governorate of Sulaymaniyah contains ores of copper, lead, nickel, iron, gypsum, limestone, gravel, sand, and cement mud, in addition to large quantities of dolomite, representing 57% of the reserve of this mineral resource in the federal Iraq as a whole. The Governorate of Duhok is famous for lead, zinc and barium. However, there are no extractive

industries for most of these metals, although they form a genuine wealth, which if utilized, can support the development efforts in the Region.

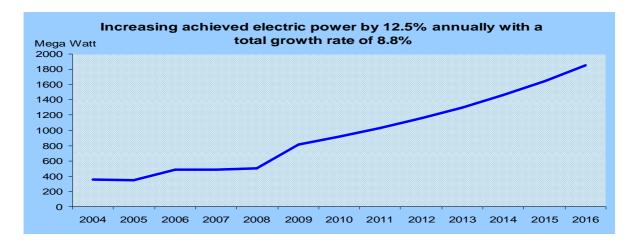


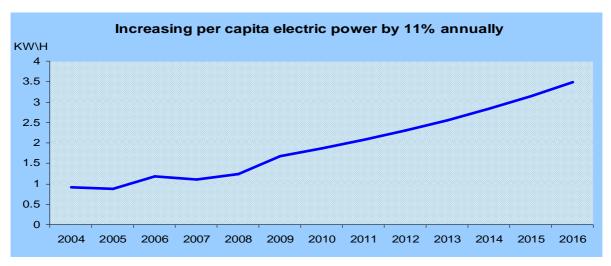
Chapter six: Electric Power

Energy sector is of important economic sectors for the clarity of role and significant contribution in promoting economic growth and advancing other economic sectors requirements and means of action and duration of exercise activities, and occupy the oil and activities of the extractive and manufacturing a distinctive place among the most important activities and events of this sector, we have DAI crude oil sector interest location, with initiative the provincial government over the past years working on exploiting this natural wealth, and actually has exploration operations and the results were fruitful, where it was in 2009, the direct export of oil from the region to world markets across the line passing through the national territories of Turkey. As a result of the exceptional importance of the oil sector, the policies and actions taken by the government in this area contributed to the achievement of important results in the production and export of crude oil, in the area of exploration has become a proven oil reserves in the region about 45 billion barrels, either natural gas about 200 trillion standard cubic feet . In addition to the foregoing has emerged with an investment interest in gas and widely in the region and resulted in the set up 3 plants (refineries), which with a capacity of 70 thousand barrels / day. It is hoped that the coming period would witness the development and to identify clear mechanisms between the provincial government and the federal government regulating the areas of coordination and cooperation in the future in the oil sector, for this sector to be the primary contributor to the achievement of current and future development in the region. The electricity sector, an important position in the activities of this sector as a source of essential and an important engine of the activities and the activities of various economic sectors (agricultural, industrial, commercial, service, etc.) and international standard to measure the levels of social well-being of society. Accordingly, the present chapter contains identifying the most important results target achieved in this strategic plan in the form of graphs, then review and analyze the reality of the electric power sector in terms of the volume of energy generated, sources and estimates the total demand in the coming years and percentage distribution to the provinces and the per capita share of

The results of analysis of the current reality of the energy sector has been to draw the most important strategic challenges facing the sector, as the basis in determining the future direction of the sector represented by the (vision, mission and strategic goals), and included a chapter at the end of a presentation of the key quantitative indicators that will be adopted in achieving the strategic goal formula percentages or numbers or quantities of target achieved during the years of the plan, and then specifically to the most important indicators that can be adopted to monitor the implementation of strategic objectives and indicators identified.

A Chart outlining the most important expected results compared with the current situation





2) Electric Power

Electricity is the driving force of economy, given its role in all economic, services and industrial activities. Per capita consumption of electricity is a major indicator for social welfare and prosperity.

2.1) Generated Electric Power

Total electric power generated in the entire Region in 2005 came to 348.4 MWh, approximately 2.41% less than that generated in 2004. The following years, however, experienced a steady rise. Taking 2004 as a basic comparison factor, the electric power generated in 2006 represented 136.55% for that year, a rate close to that of 2007, reaching 136.36%, compared with that of 2004. It then rose to 140.03% in 2008, followed by a large in crease in 2009, reaching 227.68%, compared with 2004.

2.2) Sources of Electric Power

Annual rate of locally generated electric power in 2004 was about 277.6 MWh. It had very slightly gone down in 2005, but rose again in 2006 and 2007 reaching 148.9 MWh in 2007. It rose once again in 2008 reaching 227.8 MWh then rose greatly in 2009, reaching 577.5% MWh, at an increase of 253.5% over that of 2008, and 387.8% over 2007.

Electric power received from Turkey during 2004-2009 also experienced fluctuations, rising from 79.4 MWh in 2004 to 156.1 MWh in 2006. These quantities went gradually down in 2007 and 2008, reaching 144.5 and 102.7 MWh, respectively. They then rose again in 2009 to 137.4 MWh. In addition, electric power received from Iran in 2008 came to 4.4 MWh, rising to 5.2 MWh in 2009. The Region's share of electric power provided by the federal government was 133.6 MWh in 2006. It went up to 193.4 MWh in 2007, and then declined to 92.7 MWh in 2009. The latter quantity represents less than half the quantity produced in 2007 and 56.2% of the quantity produced in 2008. The table (39) outlines these details:

| Table 39 | Produced Electric Power by Source 2004-2009 (MWh) | | | | | | | | |
|-----------------------|---|-------|--------|--------|--------|--------|---------|--------|--|
| Source | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | Total | % | |
| Locally Generated | 277.6 | 227 | 197.8 | 148.9 | 227.8 | 577.5 | 1,656.6 | 55.36 | |
| Turkey | 49.7 | 121.4 | 156.1 | 144.5 | 102.7 | 137.4 | 741.5 | 24.78 | |
| Iran | 0 | 0 | 0 | 0 | 4.4 | 5.2 | 9.6 | 0.32 | |
| Federal Government | 0 | 0 | 133.6 | 193.4 | 165.0 | 92.7 | 584.7 | 19.54 | |
| Total | 357 | 348.4 | 487.5 | 486.8 | 499.9 | 812.8 | 2,992.4 | 100.00 | |
| % | Base Year | 97.59 | 136.55 | 136.36 | 140.03 | 227.68 | | | |

Source: Ministry of Electricity/KRG

2.3) Electric Power Demand

Based on the Ministry of Electricity figures, electric power demand grew by 12.38% a year, during 2004-2009. Estimated demand in 2004 reached 673 MWh, and rose to 824 MWh in 2006, followed by another rise in 2009, reaching 1,156 MWh. The table (40) provides estimates about the demand for electricity for 2004-2009, against the total electric power produced during that period:

| Table 40 | Estimated Demands of Electric Power and its Produced Amounts 2004-2009 (MWh) | | | | | | |
|----------|--|----------------|------------|---------------------------------|--|--|--|
| Year | Demand | Produced Power | Deficiency | Rate of Deficiency to Demand | | | |
| 2004 | 673 | 357 | 316 | 46.90% | | | |
| 2005 | 742 | 348.4 | 393.6 | 53.05% | | | |
| 2006 | 824 | 487.5 | 336.5 | 40.84% | | | |
| 2007 | 914 | 486.8 | 427.2 | 46.74% | | | |
| 2008 | 1,037 | 499.9 | 537.1 | 51.79% | | | |
| 2009 | 1,156 | 812.8 | 343.2 | 29.69% | | | |

Source: Ministry of Electricity/KRG

2.4) Electric Power Distribution

Rates of electric power distributed to the governorates were 39.08% in Erbil, 19% in Duhok, and 41.92% in Sulaymaniyah, detailed in the table (41):

| Table 41 | Electric Power Distribution by Governorate 2009 (MWh) | | | | |
|--------------|---|----------------------|--|--|--|
| Governorate | Produced Power | % | | | |
| Erbil | 317 | 239.0% ⁴ | | | |
| Duhok | 154 | 119.0 <mark>%</mark> | | | |
| Sulaymaniyah | 341 | <mark>741.9%</mark> | | | |
| Total | 812 | %100 | | | |

Source: Ministry of Electricity/KRG

Percentages of distributed power by types of consumer reveal that the highest quantities were produced and sold to residential units (66.67%), followed by the government sector (19.18%), commercial sector (6.06%), industrial sector (5.27%), and finally the agricultural sector (2.81%) representing the least consumption rate, as outlined in the table (42):

| Table 42 | Electric Power Produced and Sold, by Types of Consumers and by Governorate, 2009 (%) | | | | | | | | |
|--------------|--|----------------------|----------------------|------------------------|----------------------|-------|--|--|--|
| Governorate | Residential Units | Commercial Sector | Government Sector | Agricultural Sector | Industrial Sector | Total | | | |
| Erbil | 70.00 % | 8.00% | 15.00% | 4.00% | 3.00% | 100% | | | |
| Duhok | 69.90 % | 8.70% | 14.18% | 3.20% | 4.02% | 100% | | | |
| Sulaymaniyah | 60.12 % | 1.48% | 28.36% | 1.24% | 8.80% | 100% | | | |
| Total | 66.67 % | 6.06% | 19.18% | 2.82% | 5.27% | 100% | | | |

Source: Ministry of Electricity/KRG

2.5) Per Capita Electric Power Consumption

Based on the figures released by the Ministry of Electricity, total electric power sold in 2009 was 786 MWh, number of subscribers (a residential unit, a plant, a company...etc.) was 739,049; thus, a subscriber's power consumption was about 9,000 kWh. To be more precise, when dividing total quantity of sold electric power by the total Region's population, we get the per capita share of about 1,308 KWh for 2009. Estimated demand for electric power, on the other hand, according to Ministry of Electricity figures for 2009, is approximately 2,500 KWh. This means that actual demand for electric power is almost double the produced and sold quantity, which itself forms one of the challenges this Strategy seeks to tackle, given that indictor of per capita consumption of electric power is one of the basic indicators of population's development and economic welfare.

⁴ Translator's comment: These rates should be: 39, 19 and 41.9 respec vely.

3) Non-Oil Manufacturing Industries

This sector experienced an escalating growth during 2004-2008. Its contribution to GDP for that period came to 1.1%, which is relatively low in comparison with the contribution made by some other economic sectors, or with the same sector in other countries. Total value of this sector rose from ID 50.8 billion in 2004 to ID 80.5 billion in 2005, registering a 58.47% increase rate. In 2006 it rose to ID 97.6 billion, with an increase of 21.25% over that of 2005, and 92.13% over 2004. It again rose to ID 108.5 billion in 2007, reflected in the table (43):

| Table 43 | Total Value of Manufacturing Industries Sector 2004-2007 | | | | | |
|----------|--|------------------------------|--|--|--|--|
| Year | Total Value (ID billion) | Growth Per Annum (from 2004) | | | | |
| 2004 | 50.8 | | | | | |
| 2005 | 80.5 | 58.47% | | | | |
| 2006 | 97.6 | 92.13% | | | | |
| 2007 | 108.5 | 113.59% | | | | |

Source: Ministry of Finance and Economy/KRG

The reason for the modest GDP contribution made by non-oil manufacturing and extractive activities may be attributed to poor production capacities; declining industrial environment caused by dumping the local markets with cheap imported goods; relative shortage of supply of electric power and gas to factories; and the existing laws and registrations which need to be reviewed in support of local production.

Most evidence indicate that private sector contribution in the field of manufacturing industries is larger than that made by the public sector. No accurate or trustworthy details are available to reflect the percentage of contribution made by these two sectors. However, the ongoing private sector expansion in the field of small, medium and large industrial projects, reaching 220 industrial projects in 2007 and 114 in 2008, reflects the active role played by the private sector. Total value of capitals invested in these projects amounted to about ID 124,96 billion in 2007, and ID 222,35 billion in 2008, at an increase rate of 78%.

4) R&D Activities

In the area of research and technological development, the post-2003 policies focused on encouraging R&D efforts, particularly in relation to conducting studies and research, sponsoring scientists and creative people, and honoring patents' holders. At present, there are 4 research centers in addition to Kurdistan Commission for Strategic Studies and Scientific Research. Scientific and applied research is focused on human and veterinary drugs, glands, chemical and petrochemical industries, packaging, environment, and new and renewable energy. Public and private sectors also establish cooperative relationship with government agencies and educational institutions for improving the infrastructure and industrial base and for technology transferring and using.

2. Strategic Challenges

- 1) Poor competitiveness of locally produced industrial products, compared with the imported goods, as a consequence of market dumping with cheap and sub-quality products.
- 2) Insufficient local and foreign investments in manufacturing industries.
- 3) Failure of present laws to provide proper legal environment to support the industrial sector.
- 4) Inadequate performance by Standardization and Quality Control Commission, as a supervisory system for quality control of imported and locally produced goods.
- 5) Declined banking system in respect of supporting the industrial sector and providing finance, loans and credit facilities, commensurate with the development at this sector.
- 6) Huge numbers of industrial public sector workers.
- 7) Obsolete production lines and failure of the existing projects to abide by the environmental conditions and terms.
- 8) Lack of sufficient awareness with regard to quality of the goods and services offered by the local industrial sector.
- 9) Limitedness of training concerned with skill development of industrial sector workers.
- 10) Shortage of energy (electricity, fuel, oil products...etc.) needed for different consumption forms (industrial, commercial, agricultural, household...etc.)
- 11) Insufficient local and foreign investments geared to supporting the local electric power generation capacities.
- 12) High rate of electric power (30%) supplied by sources outside the Region (Turkey, Iran, and the federal government).
- 13) Lack of sufficient public awareness vis-à-vis methods and mechanisms for rationalized consumption of electric power.
- 14) Unclear criterions of energy distribution in general, and electric power in particular, by areas (cities and rural regions) and by consumption sectors (residential units, government sector, industrial sector, agricultural sector, services sector...etc.).

3. Future Trend 3.1. Vision

Achievement of development in the fields of industry and energy and establishment of strategic PPP, aimed at strengthening both local and foreign investment, in addition to increasing sector contribution to sustainable economic growth.

3.2. Mission

Effectively and efficiently Exploiting natural resources, potentials and other available tools in the spheres of industry and energy; achieving self-sufficiency in the field of electric power, aimed to make it accessible to all consumers at standard specifications, high reliability, and affordable prices; and encouraging and supporting R&D activities and the use of modern technology in support of national economy.

3.3. RDS Goals

- 1) Increase GDP contribution by non-oil extractive activities and manufacturing industry.
- 2) Boost expanded and diversified energy sources and manufacturing industry as a basic source for supporting development.
- 3) Improve industrial investment environment.
- 4) Support integration between public and private industrial sectors.

- 5) Provide opportunities for establishing partnership between foreign and local (public and private) industrial sectors.
- 6) Expand exploitation of non-oil natural resources.
- 7) Increase electric power production to meet present and future needs.
- 8) Conduct research for application of alternative and renewable energy.

4. Strategic M&E

4.1. Goal-Achievement Indicators

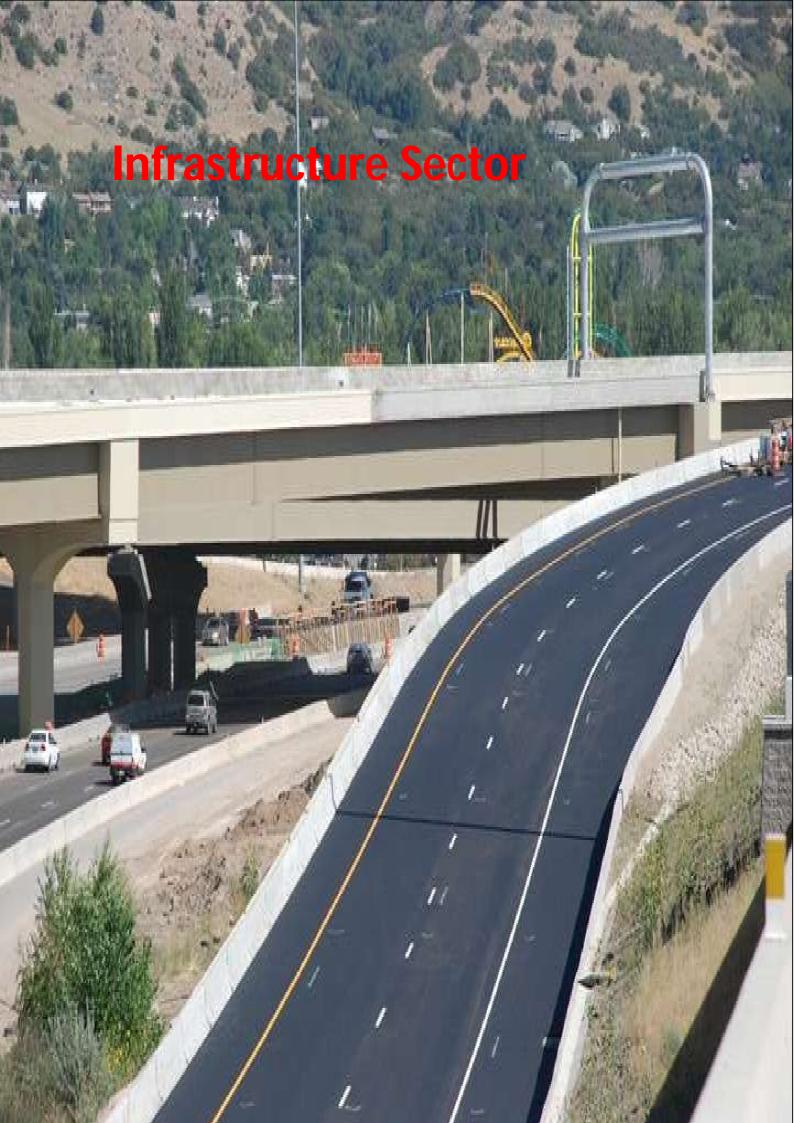
- 1) Increasing rate of GDP contribution made by manufacturing industry to 5% within 5 years.
- 2) Increasing industrial investment contribution to the economy (annual GDP) to 15% within 5 years.
- 3) Meeting the Region's total demand of oil products and natural gas within 5 years.
- 4) Rehabilitating the economically feasible public industrial companies, and privatizing the remaining companies within 5 years.
- 5) Establishing partnerships between local private sector or foreign companies and two public sector companies during 2012, two other companies during 2012, and three public companies by the end of 2013.
- 6) Setting up a fund to finance and support SMEs which provide their products to the existing industrial companies, create new job opportunities, and encourage integration between public and private industrial sectors.
- 7) Multiplying industrial bank capital within three years, amending the existing mechanisms with regard to granting loans to the private sector, and expediting the process of issuing needed licenses for project establishment, in accordance with the rates adopted in some countries, within a maximum period of 10 days.
- 8) Increasing per capita electric consumption to 3,000 kWh within 5 years.
- 9) Maintaining electric power reserve, aimed to meet the increased future demand whose growth is estimated at about 12.5% per year.
- 10) Expanding the infrastructure building process connected with R&D and HRD, in addition to increasing R&D contribution to GDP to 0.5% within five years.
- 11) Providing support to renewable energy development to ensure that it has 10% contribution to produced and consumed electricity by 2016.
- 12) Selecting and localizing advanced technology to serve the interest of society.

4.2. Goal-Achievement Monitoring Indicators

- 1) Annual rate of GDP contribution by the industrial sector (manufacturing industry).
- 2) Value of annual industrial production, by public and private sector.
- 3) Annual rate of natural non-oil resources exploration (metals and other ores).
- 4) Annual rate of natural non-oil resources extraction.
- 5) Annual production rate of oil products and natural gas.
- 6) Annual rate of number of registered small, medium and large industrial projects.
- 7) Annual rate of private sector employment (local investment volume).
- 8) Annual foreign investment rate in the industrial sector.
- 9) Annual rate of new implemented investment projects.
- 10) Annual rate of number of partnerships realized between public and private industrial sectors, and between local and foreign industrial sectors.
- 11) Annual production rate of public industrial companies.

- 12) Annual percentage of credit volume offered to industrial projects (small, medium and large).
- 13) Annual rate of days required to issue project establishment licenses.
- 14) Annual rate of investment projects in oil refining and gas projects.
- 15) Percentage of annual electricity sector contribution to GDP.
- 16) Percentage of annual increase of produced electric power.
- 17) Annual rate of electric power generation.
- 18) Annual rate of per capita consumption of electric power (kWh).
- 19) Annual rate of alternative and renewable energy research.
- 20) Annual rate of number of applied scientific research and patents.

21)



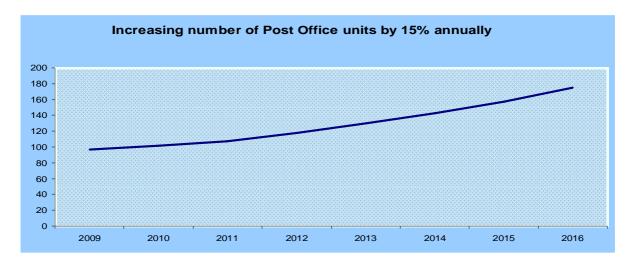
Chapter Seven: Infrastructure

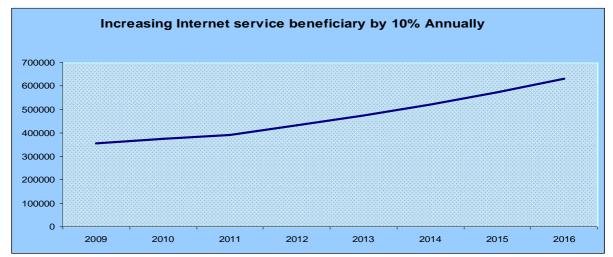
Kurdistan Region possesses huge natural and human resource potentials. These potentials are viewed as the foundation stone for achieving development and building the Region's infrastructure.

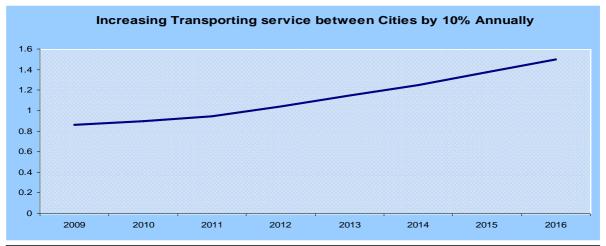
The Region experienced hard and destabilized circumstances. The sufferings experienced by this Region as a consequence of the policies pursued by the successive governments, which aimed at exterminating its population and preventing its economic, social and cultural development, as well as destroying its infrastructure and depriving it of the opportunity to keep abreast of the global development, are well known.

Following the birth of the new era in Iraq and the Constitution's recognition of Kurdistan Region and its share of Iraq's budget, and in spite of the internal and external threats, KRG embarked on a new stage, aimed to develop and achieve sustainable growth covering the multifaceted economic, social, cultural and political spheres through optimally utilizing available potentials to construct and develop the Region's infrastructure.

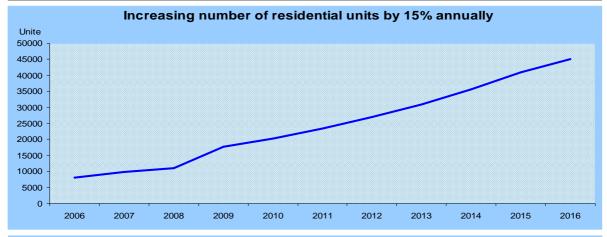
Graphic outlining the most important expected results compared with the current situation

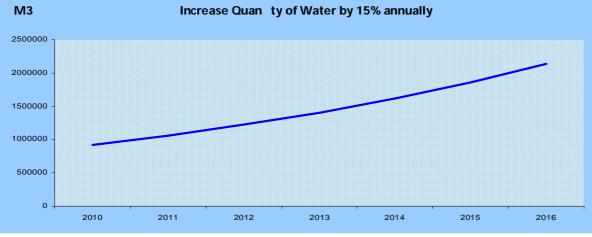












Part One: Transportation Sector

This sector has a number of characteristic features that distinguish it from the other sectors of economy, which have to be taken into consideration when setting the tools and means aimed to improve its current situation. Following are the most important features:

- 1. This sector is one of the highly important national economy spheres. Its importance originates from the direct and daily impact it has on citizens' lives.
- 2. This sector is closely interlinked with the other economic sectors, and has direct and effective impact on their development, as well as on the process of economic integration. The other economic sectors can never prosper or progress without proper and efficient services and infrastructures.
- 3. The sector infrastructures cover long distances, and the majority of this sector projects covers more than one area or governorate. Therefore, the projects of this sector require huge investments with regard to construction and maintenance.
- 4. This sector has huge opportunities for (local and foreign) private sector contribution, including investment in the area of implementation and operation of a large number of the sector projects.

1. Current Situation

The transportation sector consists of activities related to roads, bridges, passenger and goods transportation, and civil aviation. This chapter discusses each of these activities.

1) Roads and Bridges

These include the arterial roadways linking the governorate centers with each other as well as with the border crossings, secondary roads that connect between districts and sub-districts, and rural roads which link between the residential areas at the villages and link rural areas with the arterial and secondary roads.

Total length of road network in the Region is about 11,179 km, of which the arterial (main) roads represent about 20.9%, secondary roads about 36.5%, and rural roads about 42.6%, as outlined in the following table (44):

| Table 44 | Roads Lengths (km) by Governorate, 2008 | | | | | | |
|--------------|---|--------------------|-------------|--------|---------|--|--|
| Governorate | Arterial Roads | Secondary Roads | Rural Roads | Total | % | | |
| Erbil | 960 | 900 | 1,550 | 3,410 | 30.50% | | |
| Duhok | 926 | 882 | 1,100 | 2,908 | 26.00% | | |
| Sulaymaniyah | 449 | 2,304 | 2,108 | 4,861 | 43.50% | | |
| Total | 2335 | 4,086 | 4,758 | 11,179 | 100.00% | | |
| % | 20.90% | 36.50% | 42.60% | | | | |

Source: MOCH/KRG

Total lengths of concrete bridges are about 10,718 meters and of iron bridges are 6,443 meters spread all over the governorates. Tunnels, available at the Governorate of Sulaymaniyah only, have a total length of 3,230 meters, detailed in the table (45):

| Table 45 | Types and Lengths (m) of Bridges and Tunnels by Governorate 2008 | | | | | | |
|--------------|--|--------------|---------|--------|---------|--|--|
| Governorate | Concrete Bridges | Iron Bridges | Tunnels | Total | % | | |
| Erbil | 2,910 | 1,610 | - | 4,520 | 22.17% | | |
| Duhok | 2,212 | 2,053 | - | 4,265 | 20.92% | | |
| Sulaymaniyah | 5,596 | 2,780 | 3,230 | 11,606 | 56.91% | | |
| Total | 10,718 | 6,443 | 3,230 | 20,391 | 100.00% | | |
| % | 52.56% | 31.59% | 15.85% | | | | |

Source: MOCH/KRG

Road network, however, does not meet the present total demand, especially the rural roads, which are one of the essential needs for rural community development. Based on international standards, each 100 inhabitants/km² of population density need 1 km/km² of roads. The road density in the Region is about 0.1 km/km², while this figure should reach 0.4 km/km², i.e. the road network length should be approximately 44,720 km.

2) Transport of Passengers and Goods

Number of passenger buses up to 2009 comes to 5,525 buses, of which 3,957 intra-city buses, and 1,568 intercity buses. A decline in public transport contribution of total available buses may be observed, as the highest percentage goes to the private sector. Total number of operating lines for the same period was 67, spread as per the following table (46):

| Table 46 | Passengers Transportation Services by Governorate, 2009 | | | | | | | | | |
|--------------------------------|---|------|--------|------|---------|-------|--------|------|--------|-----|
| 1 able 40 | Ert | oil | Duh | ok | Sulayma | niyah | Karma | ayan | Tota | al |
| Transportation services | Number | % | Number | % | Number | % | Number | % | Number | % |
| Number of Intra- city Lines | 24 | 35.8 | 6 | 8.9 | 26 | 38.9 | 11 | 16.4 | 67 | 100 |
| Number of Intra- city Buses | 772 | 19.5 | 829 | 21.0 | 1,738 | 43.9 | 618 | 15.6 | 3,957 | 100 |
| No. Intercity Lines/ Buses | 25 | 37.9 | 5 | 7.6 | 17 | 25.7 | 19 | 28.8 | 66 | 100 |
| Number of Intercity Buses | 458 | 29.2 | 161 | 10.3 | 466 | 29.7 | 483 | 30.8 | 1,568 | 100 |
| No. Intercity Lines/ Taxis | 25 | 28.0 | 22 | 24.7 | 24 | 27.0 | 18 | 20.3 | 89 | 100 |
| Number of Intercity Taxis | 781 | 29.7 | 583 | 22.1 | 892 | 33.9 | 376 | 14.3 | 2,632 | 100 |
| Number of Intra- city Taxis | 20,000 | 32.0 | 15,000 | 24.0 | 17,500 | 28.0 | 10,000 | 16.0 | 62,500 | 100 |

Source: MOC/KRG

Total number of passengers using this service in 2008 came to 3.989 million, and then rose to about 4.350 million in 2009. The previous number is distributed as follows: 3.750 million passengers of intra-city taxi; 0.515 million passengers of intra-city buses; 0.395 million passengers of intercity taxi; and 0.470 million passengers of intercity bus.

Based on the figures published by MOC, passengers transport, especially outside the Region, was carried out by 17 transport companies up to end of 2009, of which 16 companies were in the Governorate of Erbil, and one company in Sulaymaniyah. The number of passenger transport offices came to 50 offices, 25 of which were in Erbil, 16 in Duhok and 9 in Sulaymaniyah, as detailed in the table (47). Number of passengers transported in 2009 came to about 6,496 passengers.

| Table 47 | Passengers Transportation Services by Governorate, 2009 | | | | | | | |
|--------------|---|---|-------|-----|--|--|--|--|
| Governorate | Passengers Transportation Companies | Passengers Transportation Offices | Total | % | | | | |
| Erbil | 16 | 25 | 41 | 61 | | | | |
| Duhok | | 16 | 16 | 24 | | | | |
| Sulaymaniyah | 1 | 9 | 10 | 15 | | | | |
| Karmayan | | | | | | | | |
| Total | 17 | 50 | 67 | 100 | | | | |

Source: MOC/KRG

Number of goods and oil products transportation companies was (297), 270 of which were goods transport companies and 27 for transport of oil products. In addition, offices specialized in transport of goods and oil products totaled 42, of which 29 offices for goods transport and 13 for transport of oil products, distributed as indicated in the table (48):

| Table 48 | Goods and Oil Products Transportation Services by Governorate, 2009 | | | | | | | | |
|--------------|---|------------------------------------|---------------------------------------|---|-------|-----|--|--|--|
| Governorate | Goods Transportation Companies | Goods Transportation Offices | Oil Products Transportation Companies | Oil Products Transportation Offices | Total | % | | | |
| Erbil | 204 | 26 | 10 | 11 | 251 | 74 | | | |
| Duhok | 20 | 2 | 2 | 2 | 26 | 8 | | | |
| Sulaymaniyah | 45 | 1 | 14 | | 60 | 17 | | | |
| Karmayan | 1 | | 1 | | 2 | 1 | | | |
| Total | 270 | 29 | 27 | 13 | 339 | 100 | | | |

Source: MOC/KRG

3) Railway Services

Railway transport represents one of the important and essential activities in this sector, for both passenger and cargo transportation services. It also has the ability, especially for cargo, to transport for long distances with reasonable costs compared with other transportation.

It has ample opportunities for development and modernization, given that the Region's area and geographic location qualify it to expand the rail service network. A large number of present and future imports and exports of both the Region and the federal government takes place through the Region's border points with the neighboring states. There is also the added advantage of expanding the transit trade, which can be invigorated through these border points, given that cargo transportation over long distances and in large quantities is more efficient and less costly by this type of services.

The Region lacks this service at present; however, there are promising opportunities to develop and modernize railway transportation activity through using the best available technologies. Moreover, the international transport network between the East and the West (East Asia and Europe) will not be integrated unless it goes through the territories of this Region and Iraq. Consequently, there will be a persistent need to develop the infrastructure of the Region's transport network, especially the railway network due to its suitability and low-priced long distance transport costs, as expanding the railway transport network is likely to contribute to the minimization of the pressure on goods transportation through highways and arterial intercity roads, and will consequently reduce the damage caused to these roads as a result of excessive truck weights which often exceed normal limits.

4) Civil Aviation

Civil aviation and airports activities are supervised by the two civil aviation authorities in Erbil and Sulaymaniyah, as they control civil aviation affairs in general, civil air traffic, and domestic and overseas commercial air transport.

The Region has two international airports in Erbil and Sulaymaniyah. Work is underway for building a third airport at Duhok Governorate.

- 1) Sulaymaniyah International Airport: An international airport, class (CAT I), consisting of two parts: the first part is a 3.5 km long/45 m wide runway, in addition to a sidetrack alongside the runway at a 3.5 km long and 30 meters across. There are additional sidetracks and a parking area designed to accommodate 3 aircraft. The second part consists of a one-level terminal capable of handling 350,000 passengers/year, in addition to a fuel depot.
- 2) Erbil International Airport: An international airport, class (CAT I), consisting of two parts: the first part is a 2.8 km long/ 30 m wide runway, in addition to a parking area designed to accommodate 5 aircraft, along with additional sidetracks. The second part consists of a small one-level terminal capable of handling 150,000 passengers/year, in addition to a fuel depot, and buildings for firefighting vehicles, ground equipment, and electric power facilities.

The table (49) details numbers of flights and passengers (departures/arrivals), and quantities of air freighted goods:

| Table 49 | Number of Arriving and Departing Flights, and Number of Passengers at Erbil Airport and Sulaymaniyah Airport, 2009 | | | | | |
|--------------|--|----------------------|-------------------|----------------------|--|--|
| Airport | Arriving | g Flights | Departing Flights | | | |
| Erbil | Number of Flights | Number of Passengers | Number of Flights | Number of Passengers | | |
| Duhok | 4,820 | 195,244 | 4,695 | 192,558 | | |
| Sulaymaniyah | 2,315 | 81,655 | 2,312 | 81,825 | | |
| Total | 7,135 | 276,899 | 7,007 | 274,383 | | |

Source: MOC/KRG

2. Strategic Challenges

- 1) Low number of highways among governorates and cities.
- 2) Lack of sufficient flyovers and bypasses in the cities.
- 3) Problems associated with land acquisition, such as objections raised by the original owners, especially peasants and farmers.
- 4) Road activities need for large investments to expand, and for executing new projects.
- 5) Poor control over truckloads which is likely to cause damage to road network.
- 6) Considerable pressure and damages to road network due to the high percentage of cargo transport in light of unavailability of railroad transport of goods.
- 7) Relative deficiency with regard to private sector role in supervising and arranging passenger transport services and operations.
- 8) No national carrier to provide passenger and cargo carriage services, and full dependence on private local, regional and international airlines.

3. Future Trend 3.1. Vision

Provision of high quality air and land transport services to passengers and goods at less time, lower cost, higher safety standards, and minimal environmental impact.

3.2. Mission

Construction of a road network with balanced structure that keeps abreast of the growing demand for transport services, in addition to modernizing and developing intercity and intracity transport system. This mission also aims to ensure modern specifications and high speeds that fall in line with the developments achieved in the other sectors, and link the Region's north with the south, and the east with the west, as well as the Region with the neighboring countries and the world, in the interest of national economy.

3.3. RDS Goals

- Increasing sector contribution to GDP.
- Improving and regularly maintaining present road network status, implementing rural road building programs, and intensifying these programs to cover the largest possible areas of villages and related agricultural projects, aimed to connect agricultural production sites with the markets.

- Increasing the efficiency of present land and air transport network systems, and raising their absorption capacity and integration of the their different services among them.
- Enhancing the Region's geographic location in respect of transport and transit trade.
- Strengthening the government's control and supervision regarding transport of goods by trucks.
- Developing railway transport as a means for preserving the existing road network, and protecting it from damage, since using railway networks for transport of goods would achieve large economies of scale.
- Expanding air passenger and cargo transport services.
- Enhancing private sector role in the different transportation activities, particularly operation and services systems.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Performing annual regular maintenance for 5% of road and bridges networks, through use of modern, advanced, fast and cost-effective technologies such as "Cold In-place Recycling of Asphalt Pavement".
- Constructing 3 highways within 5 years to connect city centers with each other, and with the neighboring countries.
- Constructing alternative routes for 10% of the arterial and main roads per year, especially the roads reaching maximum absorption capacity.
- Annually constructing or expanding 10% of inter-governorate highways which save considerable time.
- Constructing 3 bypasses for the cities within 3 years, to help minimize traffic congestions inside the cities, especially at the city centers.
- Increasing the lengths of paved rural roads to 45,000 km within 5 years, to ensure that the rates of these roads are in conformity with international standards (1 km² of paved roads per 100 inhabitants/km²) to link populated areas and the agricultural production sites with cities and markets.
- Installing or replacing 100% of the traffic signs and other warning and direction signposts at the highways and cross-border roads.
- Setting up 5 vehicle weighing stations per year, until standard number is reached, aimed to protect the road network from the adverse impact of overloaded vehicle.
- Minimizing the rate of annual road accident fatalities (especially intercity accidents) to less than 200 persons within a 5-year period.
- Minimizing the annual rate of serious injuries caused by road accidents (especially intercity accidents) to less than 2,000 injuries within 5 years.
- Increasing passenger transport services by 10% a year, taking into consideration that the largest increase should cover bus transport services instead of minibuses because the use of the former is more economic and helps reduce intercity and intra-city traffic iams.
- Increasing goods and oil products transport services through supporting, incentivizing and encouraging the private sector to enlarge its investments in this sector and increase the number of specialized companies by 5% per year.
- Developing economic feasibility studies during the first year of the Strategy for building a railway transport network for transporting passengers and goods, in addition to completing the processing of needed approvals and investment budget allocations for these projects.

- Increasing and expanding passenger and cargo air transport at Erbil and Sulaymaniyah international airports by 10% per year, realized through expanding the administrative, technical and logistic facilities.
- Setting up a national airline company for passenger and cargo transport, within 3 years, in addition to providing the financial allocations needed to start the process of owned or chartered aircraft.

4.2. Goal-Achievement Monitoring Indicators

- Annual percentage for maintenance of road and bridges (km) compared with total road and bridges network.
- Annual percentage of completed phases of highways (km).
- Annual percentage of completed phases of additional heats at the arterial and main roads (km).
- Annual percentage of built and expanded inter-governorate highways (km).
- Annual percentage of completed stages of bypass routes at the Region's main cities (km).
- Annual percentage of increased rural roads lengths (km).
- Annual percentage of installed or replaced traffic signs, including warning and direction signposts in the cities and highways.
- Annual percentage of large vehicles weighing stations, set up on the main roads.
- Annual rate of intra-city and intercity road accident fatalities.
- Annual rate of serious injuries caused by intra-city and intercity road accidents.
- Annual percentage of passenger transport services coverage inside and between cities and outside the Region, in comparison with the preceding year.
- Annual percentage of goods and oil products transport services coverage, in comparison with the preceding year.
- Percentage of annual coverage in respect of passenger and cargo air transport services, in comparison with the preceding year.

Part Two: Communications Sector

The communications sector has become an important and profitable sector, and its activities can be used to boost government revenues. In addition, the private sector has been given ample opportunities to contribute to building and operating a large number of projects belonging to this sector, through partnership contracts or full investments, with the government reserving the right to supervise and regulate the established projects.

This Strategy is geared to supporting the private sector and expanding its role in the communications field, given that communication sector activities are profitable and have fast turnover, in addition to the increasing demand for its services by citizens, government departments and companies.

1. Current Situation

The communications sector consists of landline services, Internet services, mobile services and postal services.

1) Landline Services

There are 65 landline exchanges in the Region at present, with an increase rate of 29% compared with 2006. Number of telephone lines in 2006 came to about 242,579 lines, with a penetration rate of 14%. In the end of 2009, telephone lines reached 568,932 lines, with a penetration rate of 9.8% (Erbil 5.96%, Duhok 13.98%, and Sulaymaniyah 9.59%). It has been observed that, notwithstanding the rising number of lines of total available exchanges between 2006 and 2009, penetration rate didn't increase because the population growth was much higher than the achieved increase in lines number. The table (50) details these facts:

| Table 50 | Number of Landline exchanges and Subscribers by Governorate, 2009 | | | | |
|--------------|---|-------|-------------|-----|--|
| Governorate | Exch | anges | Subscribers | | |
| Governorate | Number | % | Number | % | |
| Erbil | 24 | 37 | 311,443 | 55 | |
| Duhok | 15 | 23 | 69,326 | 12 | |
| Sulaymaniyah | 26 | 40 | 188,163 | 33 | |
| Total | 65 | 100 | 568,932 | 100 | |

Source: MOC/KRG

2) Internet

Internet services in the Region are relatively new. In 2009, number of ISPs totaled 26, where number of subscribers was about 355,740, outlined in the table (51):

| Table 51 | Number of ISPs and Subscribers by Governorate, 2009 | | | | | |
|--------------|---|-----|-------------|-----|--|--|
| Covernorete | IS | Ps | Subscribers | | | |
| Governorate | Number | % | Number | % | | |
| Erbil | 11 | 42 | 268,950 | 75 | | |
| Duhok | 4 | 16 | 16,940 | 5 | | |
| Sulaymaniyah | 11 | 42 | 69,850 | 20 | | |
| Total | 26 | 100 | 355,740 | 100 | | |

Source: MOC/KRG

3) Mobile Services

Numbers of mobile service subscribers have largely increased. Estimates indicate that the number exceeded two million for all mobile networks in 2009, at an increase rate of 38%, compared to that of 2006. Coverage percentage of these networks ranged between 44% and 89%. The main reason may be attributed to the inexpensive SIM, coupled with people's

tendency to have a handheld telephone and use it as a useful and civilized communication tool.

4) Postal Services

Although postal services in the Region are a traditional activity which became more popular in the past decades due to poor and limited performance of telephone services, and lack of modern means of communications like mobile and Internet facilities then, postal services situation indicates to development in the past few years. Number of post offices in the end of 2009 reached 97 (43 in Erbil, 13 in Duhok, 27 Sulaymaniyah, and 14 in Karmayan). Number of P.O. boxes at these offices reached about 600, demonstrated in the table (52):

| Table 52 | Number of Post Offices and P.O. Boxes by Governorate, 2009 | | | | | |
|--------------|--|--------|------------|-------|--|--|
| Carramanata | Post O | ffices | P.O. Boxes | | | |
| Governorate | Number | % | Number | % | | |
| Erbil | 43 | 44.3% | 232 | 38.7% | | |
| Duhok | 13 | 13.4% | 123 | 20.5% | | |
| Sulaymaniyah | 27 | 27.8% | 175 | 29.2% | | |
| Karmayan | 14 | 14.5% | 70 | 11.6% | | |
| Total | 97 | 100% | 600 | 100% | | |

Source: MOC/KRG

2. Strategic Challenges

- 1) Shortage of landline service coverage, against a growing demand, leading to a decline of penetration rate.
- 2) Limited expansion of services due to low quality and high cost of service provided by companies, despite the increased demand for the Internet services.
- 3) Failure to include postal service development projects into the communications sector priorities.
- 4) Inadequacy of the available postal capacities, and slow use of modern and sophisticated communications systems in the postal domain.
- 5) Faltering users' confidence in the standards of provided postal service.

3. Future Trend

3.1. Vision

Upgrading all types of postal and communication services to internationally recognized levels, aimed to ensure their good quality and inclusiveness.

3.2. Mission

Achieving advanced postal and ICT network service that provide high standard services and stay abreast the current global development achieved in this field. This network will be the foundation stone for the planned e-government.

3.3. RDS Goals

- Expanding the use of landline service in the cities and rural areas, in addition to achieving high penetration rates and integrated services.
- Improving the quality of communications and Internet services, as well as expanding computer applications and use of Internet services, achieved by reducing costs to levels suiting citizens' incomes, and making these services affordable by larger social groups, especially school and college students.
- Ensuring optimal exploitation of frequencies, and control of flow of international mobile calls and Internet service through access portals.
- Providing an adequate basic environment for implementation of e-government services.
- Introducing new postal services and improving the quality of internal and external postal facilities according to international postal standards.
- Incorporating a strategic partner into the postal establishment, to help develop capacities, administrative and technical expertise, and modern technological systems, aimed to improve performance and upgrade services standard.
- Necessity of applying commercially viable principles in regard to the offered postal services, to enable these services to enter into competition within free market environment and reduce their reliance on government subsidy.
- Encouraging private sector to invest in developing international centers for postal exchanges in the Region, as well as in the express post service.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Expanding landline service within 5 years, whereby penetration rate reaches at least 25%
- Increasing the number of Internet users by 5% per year, to be accessible to 50% of the population within 5 years. This can be achieved through supporting, incentivizing and encouraging private sector companies and offices to expand their services in the Region's governorates.
- Raising mobile networks' coverage to 90% of total population within 5 years, achieved through expanding government's supervision and regulation of this sector, in addition to supporting and encouraging the operating companies to reduce subscription cost and improve services quality.
- Increasing postal services by 30% per year through providing increased numbers of post offices every year at the urban and rural areas and increasing annual numbers of P.O. boxes at the same percentage, as well as enhancing users' confidence in the quality of the provided services.
- Involving a local or foreign strategic partner in the management and provision of postal services within 3 years, aimed to acquire experience, develop potentials and technical and administrative capacities, introduce modern technological systems, and improve and expand services standard.

4.2. Goal-Achievement Monitoring Indicators

- Annual percentage of increased landline services.
- Annual landline penetration rate.
- Annual percentage of internet coverage, in proportion with total population.

- Annual percentage of mobile service coverage, in proportion with total population.
- Annual percentage of postal services coverage (number of post offices and P.O. boxes), in comparison with the preceding year.
- Annual postal services coverage in urban/rural areas, in comparison with the preceding year's indicator.

Part three: Water and Sanitation Sector

Given the significance of these two services and their direct affiliation with man's health and day-to-day living, the government has strived to improve their status and ensure that they reach all governorates, with special emphasis on the rural areas. With regard to supply of potable water, the government's policy hasn't been confined to providing quality drinking water in sufficient quantities, but it also sought to provide this service at subsidized and affordable prices. Based on these policies, drinking water and sewerage networks have increasingly improved, in tandem with the improvement of financial and human capacities. Average of population accessing potable water reached about 93.1% in governorate centers and 61.7% in the governorates' outskirts and rural areas.

1. Current Situation 1.1. Water Services

Water is produced and supplied by municipal authorities at the governorates, and their related districts and sub-districts. Based on some initial estimates, number of population covered by this service comes to more than 4.5 million inhabitants, and actually served population to 3.85 million. There are 58 projects, running at different production capacities, in addition to 11 potable water pumping stations, 6 of which are in the Governorate of Erbil, 3 in Sulaymaniyah Governorate, and 2 in Duhok Governorate. Quantity of water produced on a daily basis is 924,600 m³, while daily demand comes to about 1.25 million m³. Therefore, present quantity of water deficit is 325,400 m³ per day, i.e. 26% of total demand and 35% of total water quantity produced at present. Total percentage of served population was about 77.4% in 2009, as illustrated in the table (53):

| Table 53 | Number of Potable Water Pumping Stations and Number of Served Population by Governorate, 2009 | | | | | |
|--------------|--|-----------------------|---------------|--|--|--|
| | Number of | Rate of Serv | ed Population | Volume of | | |
| Governorate | Stations | Governorate Center | Outskirts | Daily Produced Water (m ³) | | |
| Erbil | 6 | 96% | 65% | 410,600 | | |
| Duhok | 2 | 95% | 70% | 192,000 | | |
| Sulaymaniyah | 3 | 85% | 45% | 322,000 | | |
| Total | 11 | 92% | 60% | 924,600 | | |

Source: MOM/KRG

All indicators point to a tangible development with regard to this service since 2006. However, lack of sufficient and accurate details makes the task of historical comparison difficult and imprecise. This tangible improvement in water services may be attributed to the government policy, which has not been restricted to supplying quality potable water at high

quantities, but it also supplies this service on subsidized and affordable prices. In spite of these positive results, the following remarks may be observed:

- There is a discrepancy with regard to service level at the urban and rural areas. Potable water shortfall rate in the urban areas was down to 6.9%, while the shortfall rate in the rural regions was much higher (38.3%).
- There are substantial differences with regard to water shortfall rates among the governorates, ranging between 17.5% in Duhok, 18.5% in Erbil and 31% in Sulaymaniyah.

1.2. Sanitation Services

There is a lack of completed figures on percentage of population provided with sewerage network services during the past years. However, some indicators indicate that this percentage is low in the governorate centers, and very low at the outskirts of the governorates, where the rate of population provided with independent treatment systems (septic tanks) is on the rise. Percentage of population unserved with a sewerage system or septic tanks cannot be identified due to unavailability of accurate details in relation to volume of waste water treatment services.

2. Strategic Challenges

- 1) Need for increased financial allocations, earmarked for water projects, whether from the investment budget to establish new projects or from the current budget to meet operational needs, like fuel, sterilization materials, and maintenance.
- 2) Declined water levels at the sources used for providing projects with water, caused by reduced water resources level in the Region, in addition to scarcity of rainfall in recent years, which has negatively impacted the Region's water stockpile.
- 3) Pricing policy, based on subsidized water supply, and its effect on economic performance.
- 4) Low percentage of population covered with sanitation services, especially in the rural regions, coupled with the need for additional funds to increase coverage rate and improve quality of provided services.
- 5) Continuous and large horizontal expansion in the cities and towns, which increases the cost of this service, on the one hand, and impedes the increase of coverage rate, on the other.

3. Future Trend 3.1. Vision

Provision of potable water and sewerage network services at internationally recognized standards, for all urban and rural population.

3.2. Mission

Providing potable water and proper sewerage services in all governorates, including towns and villages, increasing the percentage of served population to suit MDGs, and ensuring quality control of waters flowing into the rivers so that this water is in line with international standards.

3.3. RDS Goals

- Provide potable water to the areas that haven't been served with these services yet.
- Provide urban and rural areas with potable water and household utility water, complying with international standards.
- Reduce water shortfalls through enhancement of stocked water supply.
- Minimize the discrepancy among governorates with regard to level of offered services, on the one hand, and between urban and rural regions, on the other.
- Increase the percentage of population provided with sewerage networks.
- Treat waste water flowing into the rivers and other water sources, in accordance with international standards.

4. Strategic M&E

4.1.Goal-Achievement Indicators

- Increasing potable water stations and projects by 15% per year, to overcome present water deficit reaching 35% of total produced water (6.9% in the urban areas and 38.3% in the rural areas). Coverage percentage of this service will come to 99% of the Region's urban and rural population, within 3 years.
- Increasing and improving sewerage network services by 10% per year in the urban areas and 15% per year in the rural areas.

4.2. Goal-Achievement Monitoring Indicators

- Annual percentage of drinking water services coverage, in relation to total population.
- Annual percentage of drinking water services coverage at urban/rural areas, in relation to total population.
- Annual percentage of sewerage network services coverage, in relation to total population.
- Annual percentage of sewerage network services at urban/rural areas, in relation to total population.

Part four: Housing Sector

Adequate housing is a human right and a basic need. Men in both rural and urban areas should be enabled to get housing within healthy and suitable conditions with integrated services and facilities.

Housing has an important role in economics and public welfare. Housing investment has generally represented 20-30% of GFCF in countries that have significant housing plans. Investment in housing, in countries with additional and unused human and financial resources, is one of the most important means of utilizing these resources and transforming them into productive resources, and is necessary for the continued growth of the national economy.

By virtue of the fact that housing investment has very limited links with imports compared to investments in other sectors, investment in housing is crucial to the revitalization of housing-

related sectors such as construction and engineering industries. Housing is also an activity that creates many job opportunities which contributes to addressing the economic and social aspects of the unemployment. Good housing results in improving the health of individuals, family and well-being in general.

1. Current Situation

1.1. Available Housing

Based on the assumptions adopted by some studies, economic and social surveys conducted recently, estimates for determining the standard housing unit suitable for residence, and assessments of the conditions of the existing housing, all of these estimates propose the following facts:

- 1) Comprehensive data on the size of the housing are not available, and relying on old data of the demographics and housing statistics conducted several years ago does not reflect the situation. Therefore, the size of housing is hoped to be carefully identified in the census planned for this year.
- 2) All evidences indicate a shortage of housing and the need to secure at least 250,000 housing units during the next five years according to MOCH estimates. These initial estimates will be adopted for the purposes of this Strategy.
- 3) There is still a significant number of households with no houses, and the current rate of housing occupancy is relatively high (1.37 household per each housing unit and 2.23 person/room) and exceeds acceptable rates.
- 4) There is considerable variation in the level of satisfying the need for housing among the different governorates.
- 5) The problems of the housing deficit, overcrowding and inadequate housing are much deeper in the rural areas than in the cities because the previous housing policies neglected these areas and excluded them from the privileges and facilities given to urban areas, where the study of housing deprivation show that more than 37% of rural population suffer a clear deprivation in this field.

The available housing sector data highlight the achievements made by MOCH and BoI (local and foreign investment projects in housing sector) but no accurate data about the achievements of private sector are available. Number of housings made by the Ministry during the past years until the end of 2009 was 25,331 units (45.5% in Erbil, 5.3% in Duhok and 49.2% in Sulaymaniyah). Number of apartments made by the Ministry during the same period was 4,456 apartment (77.6% in Erbil and 22.4% in Sulaymaniyah).

The number of completed housing units within the investment projects of BoI amounted to 11,240 units (24.5% in Erbil, 67.5% in Sulaymaniyah and 8% in Duhok).

1.2. Future Demands

The role of the public sector in housing must focus on developing the housing plans and studies; controlling the housing production in terms of quality, cost and service; ensuring that the housing supply is compatible with the demand; Achieving coordination among competent

authorities in securing infrastructure services for residential area; focusing on the needs of vulnerable groups, especially people with special needs; and finally addressing the legal, administrative and technical constraints to ensure that the growth of housing production is in line with demand.

Because of the large size of demand, it is necessary to engage a variety of influential actors in housing production to ensure diverse needs of housing seekers. Residents of urban areas need multi-storey buildings that accommodate huge numbers of people and are usually built by large construction companies with significant capital. At the same time, there is a great demand for single family housings that can be implemented by a wider range of construction companies. Most of the housings are usually built by small builders working for individual customers who design and finance the process. The housing policy must secure favorable conditions to enable each of these groups to perform their roles in meeting growing demand for housing.

Private sector remains the main provider of housing. Therefore, there is a need to develop specific policies to support the small, medium and large building and construction companies of the private sector. At the same time, the housing companies of the public sector must focus on underprivileged groups and/or remote areas that do not have the ability to attract the private sector investment in housing.

The rebuilding of the housing funding system is essential for the success of the housing program. Further development and expansion of main funding institutions is also required to empower short, medium and long term funding in order to develop, renew, expand and purchase housings.

Housing is a long-term investment and can be used to stimulate economic activity. Therefore, flow of resources in an efficient way and easily accessible by all low-income groups is vital. Commercial banks are also required to play an important role in funding the housing and be able to engage in real estate funding activity, from which they have been missing so far. The new housing funding system should consider real estate banks as a secondary financier of housing, which can buy and sell the current mortgages instead of providing direct loans to borrowers.

It is necessary to activate the decentralization; give local administrations a key role in managing land use, infrastructure and housing production for the underprivileged and marginalized groups and people with special needs; and secure effective flow of resources to secondary cities and rural areas, which cannot be achieved efficiently and fairly without the contribution of such administrations.

Systems of urban lands management must be developed in more systematic and transparent ways as there is a great need to increase the supply of affordable land in urban and surrounding areas. The demand for land for purpose of housing is beyond the capacity of suppliers in both the public and private sectors which creates a great challenge to local administrations. In order to achieve this, it is necessary to focus on the following:

- Shifting from deeply rooted centralization to the decentralized management of land and urban planning.
- Securing the infrastructure for land allocated for housing in city surroundings and undeveloped areas.

- Shifting to vertical housing style as a means to alleviate the pressure on housing land.
- Diversifying the size of housing plots to enable people with low-income to purchase them
- Creating new towns or cities outside the boundaries of major cities in order to preserve the surrounding lands that have feasible alternative economic uses.

In addition, the full infrastructures for all the planned residential areas should be prepared before developing these areas. Previous methods for housing construction should be abandoned before securing the infrastructure. Besides, a large proportion of housings in old neighborhoods and downtown areas is uninhabitable and needs structural reform which calls for securing sufficient funds for the repair and rehabilitation of such housings. Any development of the housing finance system must include the funding for this purpose.

Control and monitoring systems by the municipalities and local administrations must be strengthened to enable them to pursue maintenance and sustainability of the houses especially the rented ones which often suffer problems of maintenance as a result of lack of interest by both parties of the lease.

It is necessary to meet the needs of basic building materials, particularly cement, bricks, concrete blocks, gypsum, ceramic, and cobble, as well as manufactured goods such as windows, plumbing supplies, electrical appliances, etc. Locally available quantities of these materials are below the required level; thus, the implementation of the housing schedule of this Strategy requires more production and import to meet the demand. In addition, it is necessary to stimulate the manufacture of these materials, develop their quality, reduce the cost of production and make them more environment-friendly in order to back the housing program and contribute to its success through supporting the private sector factories, encouraging them to increase production and productivity and improving product quality, privatizing the public enterprises producing construction materials, and completing their rehabilitation.

Finally, the policies and the changes in the roles of key actors in the housing sector require a significant legislative support and expanding these policies' role in housing, especially in the field of urban administration and housing functions. There is also a need for laws and regulations of new types of housing production such as wholesaling lands from public to private sectors and mixed companies. The other key factor for developing the legislative environment is the regulations and rules of housing funds to ensure adequate opportunities for lenders to access to assets in the case of failure to repay loans, which requires a new comprehensive law that provides for mortgage, ownership and reselling the collateral.

2. Strategic Challenges

The Region is going to face real challenges in the housing sector in the coming years, many of which overlap with each other. Therefore, such challenges should be addressed as a package and in a comprehensive way. The main challenges are:

- 1) Large housing deficit (about 250,000 housing units are needed in 2016). There is also a need to renew and redevelop most of the housings in rural areas because most of them have been built with non-permanent building materials and are below the acceptable level of housing style.
- 2) Shortage of lands available for housing in urban areas, particularly large cities.
- 3) No sustainable system for the management of housing land which systematically converts land for this purpose.
- 4) Poor mechanism and system of securing residential land for developers (local and private sector companies, individuals and investors).
- 5) Limited capitals available to finance housing either by state budget or by the banking system, which is primarily based on providing loans for the purpose of housing unit construction in return for a mortgage.
- 6) Poor conditions of housing in city centers and old neighborhoods with heritage features, and poor procedures and plans to protect, redevelop and renew them according to the situation.
- 7) Increased number of households unable to obtain adequate housing, and a lack of programs and procedures to transform these households to potential consumers of housing in the real estate market.
- 8) Increased number of segments targeted by free housing (martyrs, victims of genocides and political prisoners), which consumes part of the government resources in the field of housing during the Strategy period.
- 9) Families prefer to live in single housing units rather than living in storied housing which aggravates the problem of securing land without violation against the agricultural land, especially those surrounding major cities.

3. Future Trend

3.1. Vision

Adequate housing is a right and a basic need. Men must be enabled to get it in both urban and rural areas.

3.2. Mission

Secure housing for the largest proportion of individuals and families in urban and rural areas according to housing policies that take into account the options of citizens in terms of type and location of housing. These policies should also be compatible with the plans of land uses and urban planning of cities within an environment of integrated services and facilities with the participation of the public sector and local and foreign investors.

3.3. RDS Goals

- 1) Secure suitable housing for the largest number of families.
- 2) Reduce the degree of residential overcrowding and BOR to acceptable limits.

- 3) Reduce the differences in the levels of residential satisfaction among the governorate, and between urban and rural areas.
- 4) Raise the efficiency of housing production and reduce its cost.
- 5) Increase the capacity of the government to address the needs of special groups that do not have access to adequate housing.
- 6) Improve the quality of new housing, including energy efficiency and environmental effects.
- 7) Improve the ability of homeowners to improve and expand their existing houses.

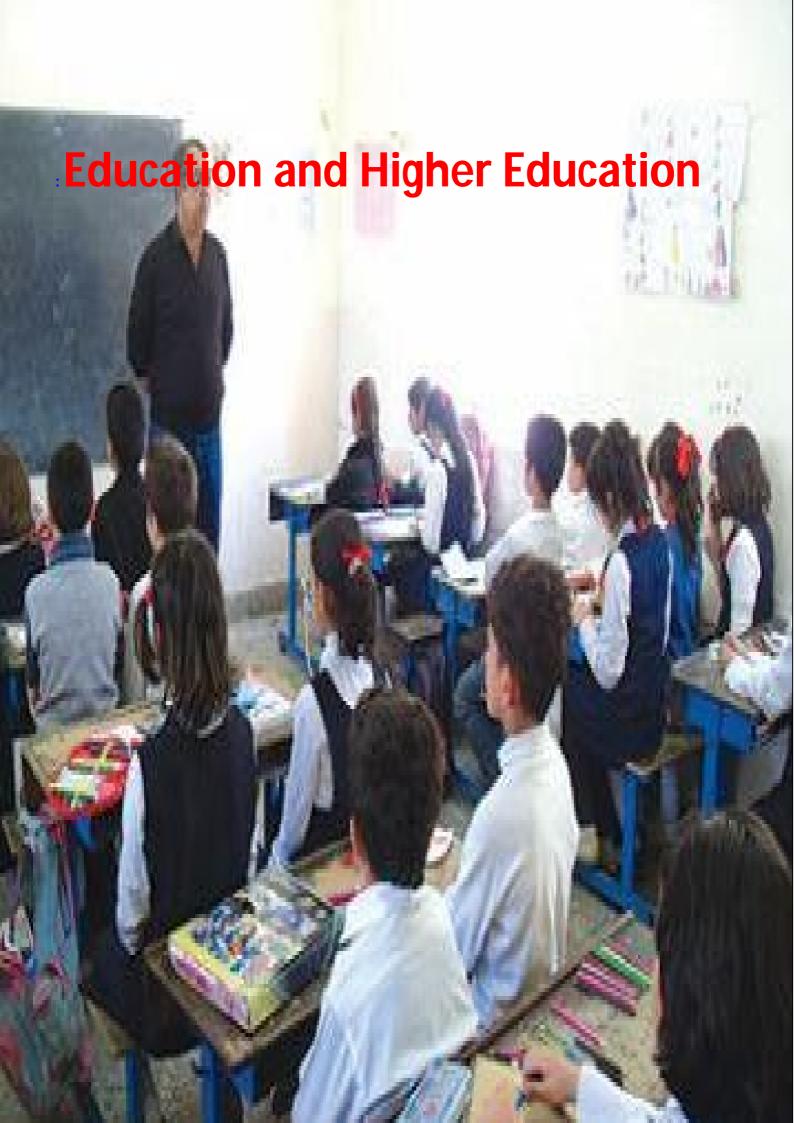
4. Strategic M&E

4.1. Goal-Achievement Indicators

- Increase the number of housing units available to citizens (public, and local and foreign private sectors) by 15% annually.
- Secure the distribution of land or housing units to the segments targeted by free distribution by 100% within 5 years.
- Increase real estate loans provided to citizens (especially for low-income people) by 100% of the total loan applicants, and their amounts by 100% within 5 years.
- Prepare integrated technical studies and adopt the results to raise the efficiency of housing production, reduce cost and increase energy efficiency and environmental effects in one year in order to be available to the beneficiaries.
- Update the Master Plan of governorates, cities, districts and sub-districts and determine land uses, including residential purposes.

4.2. Goal-Achievement Monitoring Indicators

- Annual percentage of the housing sector contribution to FCF.
- Annual growth rate of the number of housing units.
- Annual percentage of land allocated for residential purposes.
- Annual rate of number of real estate loans granted to citizens.
- Annual percentage of the number of the households targeted by free distribution of land or residential units.



Chapter eight: Education and Higher Education

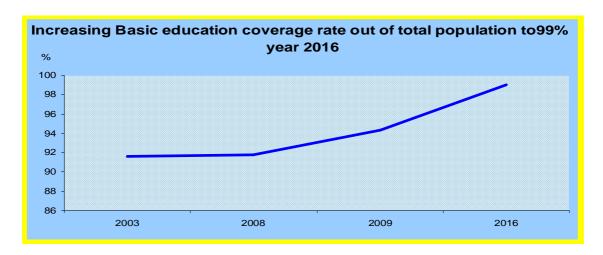
Over the past years, the government has made active steps to develop public services package of the sectors of education, health, housing, culture, tourism, and archaeology. It has also worked hard to overcome difficulties and challenges in the belief that the investment in human by increasing educational capacity and scientific level and qualification, providing public health requirements and promoting culture and heritage to communicate with the cultural and civilized dimension of the people of Kurdistan, are the most significant challenges to achieve progress, stay abreast of science and knowledge and bridge the gap experienced by the people of Kurdistan during the past decades, represented in marginalization, displacement and genocide, so that educated and enlightened people can be the tool and goal of development.

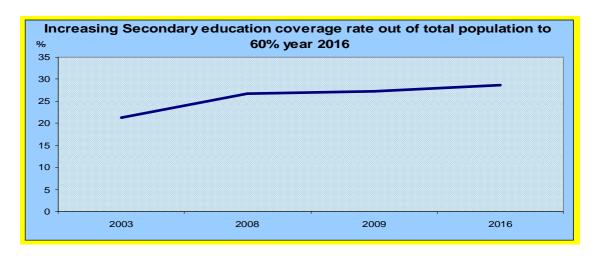
This chapter focuses on the core issues of the sectors of education, health, housing, culture, tourism and archaeology. In the field of education, several issues have been addressed such as: various stages of education (kindergarten, basic, secondary and vocational education, as well as Ministry of Education's institutes and university education); school buildings; governmental expenditure on education; levels of enrollment and dropping out; curricula; aligning educational outputs to labour market requirements; illiteracy, education and social dynamics of violence, gender gap, quality assurance of educational outputs and equity and justice in access to education.

In the field of health, issues of general health, reproductive health, family planning, IMR, CMR, MMR and LEB, have been addressed. In the field of housing, the chapter deals with available housing and projected future demands. In the field of tourism, culture and archaeology, tourism and heritage potentials which characterize the Region, as well as culture at various levels, have been addressed.

The most important challenges can be drawn from the analysis of current situation through the adopted indicators, as these challenges are the basis on which the future trend of vision, mission and strategic goals can be identified. The most significant indicators of strategic goals achievement will be displayed as percentages, numbers or quantities targeted during the years of the Strategy. Key indicators to monitor the achievement of the strategic goals identified during the same period will also be presented.







Part One: Education and Higher Education

1. Current Situation

1.1. Educational Stages

1.1.1. Kindergartens

The government recognizes the importance of education in this age group as a platform to promote the educational reality in later stages, and attain MDGs. One of the binding targets for the government is to expand educational programs to develop early childhood, which constitutes the basis for the construction of education. Over the past years, number of children enrolled in kindergartens increased from 15,484 in 2003 to 32,047 in 2008 and to 37,221 in 2009, at an increase of 16% from 2008 and 140% from 2003. Number of kindergartens also increased from 78 in 2003 to 198 in 2008 and to 241 in 2009. In addition, number of teaching staff in kindergartens increased from 1,104 teachers in 2003 to 2,259 in 2008 and to 2,722 in 2009. For the period 2003 to 2009, growth rate reached about 17.4% for number of students, 24.8% for number of kindergartens and 17.7% for number of teaching staff.

| Table 54 | Number of Kindergartens and their Students and Teachers (2003-2009) | | | | | |
|-----------|---|--------------------|--------------------|--|--|--|
| Year | Number of Kindergartens | Number of Students | Number of Teachers | | | |
| 2003-2004 | 78 | 15,484 | 1,144 | | | |
| 2004-2005 | 122 | 25,301 | 1,541 | | | |
| 2005-2006 | 123 | 26,837 | 1,787 | | | |
| 2006-2007 | 146 | 27,393 | 1,976 | | | |
| 2007-2008 | 198 | 28,568 | 2,259 | | | |
| 2008-2009 | 241 | 32,720 | 2,722 | | | |

Source: Ministry of Education/KRG

1.1.2. Basic Education (Grades I to IX)

Some improvement took place in the assimilation of the population aged (6-11) into education with a coverage rate that increased from 91.6% to 94.3% for the period 2003-2009, which indicates the failure to fully achieve compulsory education. The number of students enrolled in basic education increased from 550,042 in 2003 to 1,106,334 in 2008, and then rose to 1,126,781 in 2009 at a growth rate of 14.7% for the total period. In addition, the growth rate of the number of teachers of this stage reached 17.1%, as outlined in the table (55). The average number of students per teacher decreased from 18 to 17, and the number of schools increased by 15.5%.

| Table 55 | Number of Basic Education Teachers, by Governorate (2003, 2008, and 2009) | | | | | | |
|--------------|---|-------|--------|-------|--------|-------|--|
| | 2003 | | 2008 | | 2009 | | |
| Governorate | Number | % | Number | % | Number | % | |
| Erbil | 12,852 | %41.2 | 21,034 | %31.5 | 23,146 | %32.6 | |
| Duhok | 7,169 | %22.9 | 17,208 | %25.8 | 18,244 | %25.7 | |
| Sulaymaniyah | 11,204 | %35.9 | 24,839 | %37.2 | 25,241 | %35.6 | |
| Karmayan | | | 3,701 | %5.5 | 4,294 | %6.1 | |
| Total | 31,225 | %100 | 66,782 | %100 | 70,925 | %100 | |

Source: Ministry of Education/KRG

At the governorates level, basic education coverage rate increased in Erbil from 92% in 2003 to 93% in 2008, then increased to 95% in 2009; this rate in Duhok was 92% in 2003 and maintained the same level in 2008, then increased to 95% in 2009; while coverage rate in Sulaymaniyah increased from 91% in 2003 to 92% in 2008 then to 94% in 2009, as illustrated in the table (56):

| Table 56 | Basic Education Coverage Rate, by Governorate (2003, 2008, and 2009) | | | | | |
|--------------|--|-------|-------|--|--|--|
| Governorate | 2003 | 2008 | 2009 | | | |
| Erbil | 92.0% | 93.0% | 95.0% | | | |
| Duhok | 92.0% | 92.0% | 94.0% | | | |
| Sulaymaniyah | 91.0% | 92.0% | 94.0% | | | |
| Karmayan | | 90.0% | 94.0% | | | |
| Total | 91.6 % | 91.8% | 94.3% | | | |

Source: Ministry of Education/KRG

Rates of basic education students to total enrolled students by governorate varied in 2003, 2008 and 2009, as these rates in 2009 were 34.5% in Erbil, 30.6% in Duhok, 30.3% in Sulaymaniyah and 4.6% in Karmayan, as shown in the table (57):

| Table 57 | Number of Basic Education Students, by Governorate (2003, 2008, and 2009) | | | | | | |
|--------------|---|-------|-----------|-------|-----------|-------|--|
| | 2003 | | 20 | 2008 | | 2009 | |
| Governorate | Number | % | Number | % | Number | % | |
| Erbil | 233,636 | %42.5 | 370,897 | %33.5 | 388,183 | %34.5 | |
| Duhok | 170,254 | %30.9 | 345,220 | %31.2 | 345,011 | %30.6 | |
| Sulaymaniyah | 146,152 | %26.6 | 340,592 | %30.8 | 341,263 | %30.3 | |
| Karmayan | | | 49,625 | %4.5 | 52,324 | %4.6 | |
| Total | 550,042 | %100 | 1,106,334 | %100 | 1,126,781 | %100 | |

Source: Ministry of Education/KRG

1.1.3. Secondary Education (Grades X to XII)

Secondary education coverage rate increased from 20.33% in 2003 to 27.25% in 2009. The rise in the number of students enrolled in the stage (6.8%) is mainly due to the increase in population and school enrollment. In 2007, number of teachers increased by 0.96%; the average number of students per teacher declined from 22 to 16; and the number of schools increased by 16.9%. The total growth rate of the number of schools in 2009 reached 1.69% only due to re-considering the situation of schools which led to closing some of these schools and merging others with the basic schools in 2008. The table (58) illustrates this for 2008:

| Table 58 | Number of | Schools, S | Students and T | Ceachers, b | y Governorate | (2008) |
|--------------|-------------------|------------|-------------------|-------------|-------------------|--------|
| Governorate | Number of Schools | % | Number of Schools | % | Number of Schools | % |
| Erbil | 282 | %43.2 | 63,720 | %35.4 | 4,420 | %38.6 |
| Duhok | 160 | %24.5 | 44,758 | %24.9 | 2,792 | %24.4 |
| Sulaymaniyah | 188 | %28.8 | 64,480 | %35.9 | 3,767 | %32.9 |
| Karmayan | 23 | %3.5 | 6,894 | %3.8 | 463 | %4.1 |
| Total | 653 | %100 | 179,852 | %100 | 11,442 | %100 |

Source: Ministry of Education/KRG

At the governorates level, secondary education coverage rate increased in Erbil from 21% in 2003 to 28% in 2008, then to 29% in 2009; this rate in Duhok increased from 20% in 2003 to 27% in 2008, and then maintained the same level in 2009; while coverage rate in

Sulaymaniyah increased from 20% in 2003 to 27% in 2008, then maintained the same level in 2009, as illustrated in the table (59):

| Table 59 | Secondary Education Coverage Rate, by Governorate (2003, 2008 and 2009) | | | | |
|--------------|---|--------|-------|--|--|
| Governorate | 2003 | 2008 | 2009 | | |
| Erbil | 21.0 % | %28.0 | %29.0 | | |
| Duhok | 20.0 % | %27.0 | %27.0 | | |
| Sulaymaniyah | 20.0 % | %27.0 | %27.0 | | |
| Karmayan | | 25.0 % | %26.0 | | |

Source: Ministry of Education/KRG

Percentages of secondary education students to total enrolled students by governorate varied in 2003, 2008 and 2009, as these rates in 2009 were 36.1% in Erbil, 25.2% in Duhok, 34.1% in Sulaymaniyah and 4.6% in Karmayan, as reflected in the table (60):

| Table 60 | Number of Secondary Education Students, by Governorate (2003, 2008, and 2009) | | | | | |
|--------------|---|-------|---------|-------|---------|-------|
| | 2003 | | 2008 | | 2009 | |
| Governorate | Number | % | Number | % | Number | % |
| Erbil | 104,266 | %40.5 | 63,720 | %35.4 | 75,375 | %36.1 |
| Duhok | 64,708 | %25.1 | 44,758 | %24.9 | 52,641 | %25.2 |
| Sulaymaniyah | 88,444 | %34.4 | 64,480 | %35.9 | 70,992 | %34.1 |
| Karmayan | | | 6,794 | %3.8 | 9,602 | %4.6 |
| Total | 257,418 | %100 | 179,752 | %100 | 208,610 | %100 |

Source: Ministry of Education/KRG

Total number of teachers increased in 2008 as compared with 2003, but fell in 2009 as compared with 2008 as well as with 2003 as shown in the table (61):

| Table 61 | Number of Secondary Education Teachers, by Governorate (2003, 2008, and 2009) | | | | | | |
|--------------|---|-------|--------|-------|--------|-------|--|
| | 2003 | | 2008 | | 2009 | | |
| Governorate | Number | % | Number | % | Number | % | |
| Erbil | 4,976 | %45.6 | 4,420 | %38.6 | 3,040 | %37.4 | |
| Duhok | 2,052 | %18.8 | 2,792 | %24.4 | 1,999 | %24.6 | |
| Sulaymaniyah | 3,892 | %35.6 | 3,767 | %32.9 | 2,665 | %32.8 | |
| Karmayan | | | 463 | %4.1 | 414 | %5.2 | |
| Total | 10,920 | %100 | 11,442 | %100 | 8,118 | %100 | |

1.1.4. Vocational Education

Vocational secondary education coverage rate declined from 3.5% to 2.45%, and number of students enrolled in this stage declined by 8.4%. Number of teachers increased by 5.8% which led to a decrease in the average number of students per teacher from 10 to 5, and the number of schools increased by 10%, as illustrated in the tables (62) (63) (64):

| Table 62 | Vocational Education Coverage Rate, by Governorate (2003, 2008 and 2009) | | | | | | |
|--------------|--|------|------|--|--|--|--|
| Governorate | 2003 | 2008 | 2009 | | | | |
| Erbil | 1.5 % | %1.2 | %1.2 | | | | |
| Duhok | 2.0 % | %1.1 | %1.1 | | | | |
| Sulaymaniyah | 7.0 % | %6.5 | %6.5 | | | | |
| Karmayan | | %1.0 | %1.0 | | | | |

Source: Ministry of Education/KRG

| Table 63 | Number of Vocational Education Students, by Governorate (2003, 2008, and 2009) | | | | | | | | |
|--------------|--|-------|--------|-------|--------|-------|--|--|--|
| | 2003 | | 2008 | | 2009 | | | | |
| Governorate | Number | % | Number | % | Number | % | | | |
| Erbil | 3,029 | %39.1 | 1,389 | %19.3 | 1,399 | %22.2 | | | |
| Duhok | 2,014 | %26.0 | 1,286 | %17.9 | 1,037 | %16.4 | | | |
| Sulaymaniyah | 2,701 | %34.9 | 4,388 | %61.0 | 3,701 | %58.7 | | | |
| Karmayan | | | 125 | %1.8 | 170 | %2.7 | | | |
| Total | 7,744 | %100 | 7,188 | %100 | 6,307 | %100 | | | |

Source: Ministry of Education/KRG

| Table 64 | Number of Vocational Education Teachers, by Governorate (2003, 2008, and 2009) | | | | | | | | |
|--------------|--|-------|--------|-------|--------|-------|--|--|--|
| | 2003 | | 2008 | | 2009 | | | | |
| Governorate | Number | % | Number | % | Number | % | | | |
| Erbil | 349 | %40.5 | 481 | %35.2 | 497 | %39.6 | | | |
| Duhok | 92 | %10.7 | 177 | %12.9 | 132 | %10.5 | | | |
| Sulaymaniyah | 420 | %48.8 | 687 | %50.2 | 603 | %48.1 | | | |
| Karmayan | | | 23 | %1.7 | 23 | %1.8 | | | |
| Total | 861 | %100 | 1,368 | %100 | 1,255 | %100 | | | |

1.1.5. Institutes

Number of students enrolled in institutes increased from 5,296 in 2003 to 7,512 in 2007, at an increase of 41.8%.

Teachers are a major input in the educational process. Number of teachers increased by 2% which led to a decrease in the average number of students per teacher from 15 to 11, and the number of institutes increased by 10%.

Ministry of Education data indicate that the Ministry stopped admitting students in teacher training institutes in 2008 and converted 7 of these institutes to teach computer science, and 8 to teach sports. The tables (65) (66) show the number of students and teachers in 2003 and 2007 before converting the institutes.

| Table 65 | Number of Students Enrolled at Ministry of Education Institutes, by Governorate (2003 and 2007) | | | | | | | | |
|--------------|--|-------|--------|-------|--|--|--|--|--|
| | 20 | 03 | 2007 | | | | | | |
| Governorate | Number | % | Number | % | | | | | |
| Erbil | 2,614 | %39.4 | 4,555 | %60.6 | | | | | |
| Duhok | 2,682 | %50.6 | 2,957 | %39.4 | | | | | |
| Sulaymaniyah | | | | | | | | | |
| Total | 5,296 | %100 | 7,512 | %100 | | | | | |

Source: Ministry of Education/KRG

| Table 66 | Number of Teachers at Ministry of Education Institutes, by Governorate (2003 and 2007) | | | | | | | |
|--------------|---|--------|--------|---------|--|--|--|--|
| | 20 | 03 | 2007 | | | | | |
| Governorate | Number | % | Number | % | | | | |
| Erbil | 7 | %4.70 | 210 | %44.90 | | | | |
| Duhok | 41 | %95.30 | 257 | %55.10 | | | | |
| Sulaymaniyah | | | | | | | | |
| Total | 148 | %100 | 467 | %100.00 | | | | |

Source: Ministry of Education/KRG

1.1.6. Higher Education

The coverage rate of this stage aged (18-23) increased from 4.9% to 14.7% despite the decline in the number of enrolled students by 6% due to poor capacity of the universities and technical institutes.

The number of students in public higher education increased from 21,670 in 2008 to 26,080 in 2009 with a growth rate of about 20.3%. Number of students in private universities increased from 2,742 in 2008 to 4,363 in 2009 at a growth rate of about 60%. On the other hand, the percentage of the students enrolled in public and private higher education (universities and institutes) compared to the number of students in secondary and vocational education increased from 13.06% in 2008 to 14.17% in 2009. Number of teaching staff in public universities increased from 3,506 in 2008 to 3,926 in 2009, at a growth rate of about 12%. In addition, the number of teachers in private universities was 418 in 2009.

The average number of students per teacher increased from 12 in 2004 to 19 in 2009 because of the significant increase in the number of students enrolled, which was not matched by a comparable increase in the number of teaching staff – in addition to the increase in the number of colleges and institutes resulting from the horizontal and vertical expansion.

| Table 67 | Number of Higher Education Students, Teachers, Faculties and University in Public and Private Sector (2003, 2008, and 2009) | | | | | | | |
|----------|---|-------------------|-------------------|-------------------|---------------------|-------------------|------------------------|-------------------|
| | Number of Students | | Number of Teacher | | Number of Faculties | | Number of Universities | |
| Year | Public Sector | Private Sector | Public Sector | Private Sector | Public Sector | Private Sector | Public Sector | Private Sector |
| 2003 | 5,817 | | 1,753 | | 3 | | 30 | |
| 2008 | 21,673 | 2,742 | 3,506 | 396 | 17 | 12 | 70 | 39 |
| 2009 | 26,082 | 4,363 | 3,926 | 418 | 18 | 12 | 81 | 39 |

Source: MHE

Number of universities increased from just 3 universities in 2003 to 17 in 2008 and 18 in 2009; number of government colleges increased from 35 in 2003 to 70 in 2008 and then to 81 in 2009; and number of colleges in private universities reached 12 in 2008 and 2009.

Number of technical institutes and colleges increased from 13 to 23 institutes and from 2 to 3 colleges for the period 2003-2009. Despite the improvements achieved in various buildings and university facilities especially during 2007-2009, university facilities (classrooms, laboratories and others) suffer overcrowding as a result of the limited capacity of the existing universities and of FTE.

1.2. Buildings

Government funding and operational level has not financially, operationally or institutionally reached the extent necessary to correct the imbalances taking place and fill the gap in school buildings, educational requirements...etc. This led to increase in the deficit in school buildings as a result of pressure caused by the intensive use of buildings for more than one shift. Number of school buildings was 5,482 in 2009, of which 3,977 were full-time buildings accounting for 72% of total school buildings; 1,505 buildings with two shifts accounting for 22%; and 304 buildings with three and four shifts accounting for 6%.

Despite the efforts paid in constructing and renovating the school buildings, the rapid growth in demand for education coupled with increased school enrollment rates, the growth of schooling-age population, education spread in different urban and rural areas, reduced dropout rates and finally a huge inheritance of a shortage in the supply of public school buildings, all these factors contributed to the expansion of the gap between what is required of schools as educational establishments and the number of school buildings that can be offered, to the extent that made the reduction of this gap, and ending the deficit and shift system in many schools require greater efforts and funding than available at present, even though the deficit gap dropped from 49% in 2004 to 33,5% in 2008.

The limited capacity of educational buildings and the inability to provide and retain opportunities for education are ones of the main reasons for dropping out. The clear disparities in access to education and the lack of equitable access to educational opportunity contribute to the disruption of the optimal allocation of available resources and to the poor internal efficiency of the system.

On the other hand, the difference in the capacity of buildings among educational stages affects the inclusion of learners where the percentage of the secondary schools to the basic schools in 2006/2007 was 15.3% only, which makes the distribution of graduates from a stage to the next one subject to empowerment opportunities rather than to the requirements of academic empowerment, forcing some families to send their children to remote schools and thus increasing the expenses of the study.

1.3. Expending on Education and Higher Education

The current financial allocations for education and higher education sector increased from about ID 148,610 million in 2005 (7.81% of state budget) to around ID 1,092,265 million in 2008 (17.75% of state budget), at a growth of approximately 635%. The investment allocations increased from ID 10,500 million in 2005 to ID 102,765 million in 2008 at an increase of 160%.

The current allocations for higher education increased from ID 87,360 million in 2005 to ID 226,595 million in 2008 at an increase of 160%. The investment allocations increased from ID 22,500 million in 2005 to ID 161,317 million in 2008 at an increase of about 617%.

The total percentage of state budget allocations for the education and higher education sector increased from 13.2% in 2005 to 16.59% in 2008. More than 66% of the current financial allocations are paid as salaries, while the rest are spent on other things. This requires more funding to improve the level of quality.

However, data indicate unfair distribution of allocations among the different educational stages as well as the penchant of urban at the expense of rural areas and males at the expense of females. These features have appeared through the services provided to these groups.

1.4. Levels of Enrollment and Dropping out

Rate of enrolled students to education-age population (6-23) reached 94.6% in 2007/2008. Dropping out rates were 1% in basic education and 1.2% in secondary education, with disparity by governorate, sex and environment.

Dropping out rate in higher education was 1.3% during 2007/2008, which is an acceptable indicator for this stage in meeting the social demand.

1.5. Curricula

Despite the considerable efforts paid in recent years to develop curricula for the various stages of study and secure supplies associated with educational process (libraries, laboratories, modern educational technologies - smart board and mobile laboratories - creating electronic library and securing computers and accessories for a significant proportion of schools and institutions of higher education), there is still a great need to develop curricula and secure their associated supplies in the mentioned areas in order to keep pace with international developments in this area.

1.6. Poor Aligning and Coordination between Educational Outputs and Labour Market Requirements

Poor coordination among educational institutions on the one hand and between them and the labour market on the other has reflected in poor compatibility between the adopted

educational and applied programs and the needs of the labour market and economic system requirements, particularly in technical education programs.

Administrative and educational personnel capacity is clearly poor resulting from the lack of keeping abreast of new developments in the field of their professions and specialties due to the lack of ongoing training opportunities. Teacher training institutes and programs are also weak, which leads to poor teachers' motivation and lack of awareness aimed to develop, refine and renew their skills.

1.7. Illiteracy

The efforts to handle the problem of illiteracy led to a reduction in its rate over the past years where the results of IHSES (2006/2007) indicate that the rate of illiteracy was 27.4% of the total population aged 10 years or more. This rate decreased to 18.4% in 2009 according to the Ministry of Education. The table (68) indicates the number of centers for eradication of illiteracy and the number of learners in the past three years.

| Table 68 | Number of Centers of Eradication of Illiteracy and Number of Learners (2006-2009) | | | | | | |
|-----------|--|--------------------|--|--|--|--|--|
| Year | Number of Centers | Number of Learners | | | | | |
| 2006-2007 | 600 | 21,913 | | | | | |
| 2007-2008 | 640 | 19,200 | | | | | |
| 2008-2009 | 757 | 23,402 | | | | | |
| Total | 1,997 | 64,515 | | | | | |

Source: Ministry of Education/KRG

Illiteracy rates clearly vary between urban and rural areas and between males and females. Some estimates indicate that illiteracy rate in the governorates' centers is about 13.6% of the total population of governorates' centers; it rises to 16.3% in other urban areas of districts and sub-districts, and to 25.4% in rural areas, with overall rate of about 18.4%. In fact, there are no reliable data on illiteracy rates among women and men. However, it is noted that the previous ratios have contributed to the devaluation of HDI in the Region.

1.8. Education and Societal Variables 1.8.1. Violence

The crisis conditions has left deep scars in the soul of citizens and established serious challenges in the educational process that represent, among other things, high dropout rates, especially among females; low educational levels; poor training of the outputs of educational process; not to mention the impact of violence on the psychological structure of students and educational bodies.

1.8.2. Gender Gap

In most parts of the Region, females do not have same opportunities to access to the different levels of education as the males do. Customs and traditions, such as early marriage, play a role in restricting these opportunities. Poverty is another restricting factor which makes parents prefer to teach males at the expense of females. The most affected areas in this field are perhaps remote and other marginalized areas. Females often prefer to engage in areas or topics of arts and literature, while males prefer science and technology, which makes females unable to compete with their male peers in the labour market.

1.8.3. Ensuring the Quality of Outputs

The education sector has witnessed rapid growth that has been at the expense of quality as well as the equal education opportunities for everyone, especially in higher education and postgraduate studies.

The significant increase in the number of students involved in all stages of education without modernizing infrastructure and educational bodies, has led to relatively negative effects on the quality of education, and failure to keep up with the global transformations and the demands of globalization.

Although the private education has absorbed a number of students in basic and secondary schools (especially in urban areas), private education, like government education, is hampered by many obstacles such as a lack of educational facilities and supplies. Hence, many graduates of these stages are not qualified neither as inputs to the educational process at universities nor as outputs of the labour market.

1.8.4. Fair Opportunities

Data of statistical studies show clear discrepancy in educational levels among governorates and between rural and urban areas, which constitutes a major challenge for the development process. The poor quality and quantity of infrastructures are largely present in remote rural areas, urban squatter settlements and slums.

2. Strategic Challenges

- 1) High illiteracy rate among population aged 10 years and above despite the considerable efforts, which contributes to the devaluation of the HDI in the Region.
- 2) Limited capacity of buildings and inability to provide and retain educational opportunities, which are a major challenge facing the advancement of education. The apparent lack of school buildings is one of the factors leading to dropping out. The difference in the capacity of buildings among education stages affects the capacity to absorb learners which makes the distribution of graduates of a stage to the next one subject to empowerment opportunities rather than to the requirements of academic empowerment, forcing some families to send their children to remote schools and thus increasing the expenses of the study.

- 3) The requirements of a comprehensive education sector reform entail adequate funding to improve the level of quality, and address the problem of favoring urban areas at the expense of rural areas, which should be a top priority of this Strategy.
- 4) Great focus should be made to develop academic curricula at all levels, to keep these curricula abreast of the scientific developments, and to address the lack of supplies (libraries, laboratories, educational techniques etc.)
- 5) Poor capacity of administrative and educational personnel resulting from the lack of staying abreast of new developments in the field of their professions and specialties due to the lack of ongoing training opportunities.
- 6) Poor coordination between educational institutions and the labour market, which lead to poor compatibility between the adopted educational and applied programs and the needs of the labour market and economic system requirements, particularly in technical education programs.
- 7) Poor relation between scientific research and development programs, which is one of the major challenges encountering the requirements of linking the scientific and technical development with economic and social development programs and promoting the various sectors. This is evident in poor allocation for scientific research.

3. Future Trend

3.1. Vision

Achieve empowering and real development that contributes to the promotion of the scientific and educational level in accordance with quality assurance standards; establish an educational system to provide the basis for individuals to develop creative capacities so as to achieve SD goals; and create solidarity environment to promote the values of citizenship.

3.2. Mission

Reforming and developing the education system at all levels according to the nature of Kurdish society and based on its needs and development requirements, taking into account the national privacy of minorities, to enable this society to compete with the knowledge economy-based global community.

3.3. RDS Goals

- 1) Eradicating illiteracy.
- 2) Eliminating deficiencies in school buildings.
- 3) Providing education opportunities for all.
- 4) Increasing the financial allocations for the education sector in line with the requirements of development and modernization.
- 5) Modernizing and developing the curricula of all stages of education.
- 6) Ensuring the educational supplies (libraries, laboratories, educational techniques etc.)
- 7) Developing the capacity of educational and administrative personnel, increasing their knowledge and skills, and incentivizing them to stay abreast of new developments.

- 8) Adopting the international norms and standards for the development of education quality at all stages.
- 9) Eliminating educational gap between urban and rural areas.
- 10) Developing and completely changing the content and methods of education in order to be consistent and responsive to the requirements of the labor market.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Enabling all children aged 6 years to go to school, and enabling 99% of them to complete primary stage, during 5 years.
- Introducing the regional indicator system to measure the level of primary education for VI and IX grades in one year.
- Enabling 85% of students in VI and IX grades to achieve at least the lowest level required for the regional indicator system for primary education in 5 years.
- Reducing the number of students per teacher or teacher per classrooms by half over 5 years through increasing the number of school buildings and teachers.
- Developing a new system within two years for assessing secondary and vocational school students, compatible with international regulations and standards to qualify students for post-secondary education (similar to International Baccalaureate).
- Enabling 60% of student to obtain secondary certificate, within 5 years.
- Reducing illiteracy rates by 10% annually until eradicating it by 80% within 5 years.
- Increasing the proportion of people aged 15 years and above, involved in full-time studying and/or training for work to 80% within 5 years.
- Increasing the number of foreign fellowships by 10% annually to reach 5% of the total graduates in 5 years, with prioritizing scientific and technological departments.
- Developing a plan within one year to develop the curricula to keep pace with the planned economic development and provide the sectors contributing to the increase of GDP with qualified cadres, including intermediate (vocational and technical) cadres.
- Increasing higher education coverage to more than 25% within 5 years.
- Enabling 90% of university and institute graduates to get 5 marks or more in IELTS (or equivalent) within 5 years.
- Enabling 90% of university and institute graduates to get ICDL within 5 years.
- Doubling Arabic classes starting from the 1st grade and ensuring that basic education graduates know Arabic principles (communication, reading, writing and listening) within 5 years.
- Increasing the classes of and proficiency level in French, German, Spanish, Farsi and Turkish by 100% during 5 years.
- Increase the financial allocations of the operating and investment budgets for the education sector, including the increase in scientific and technical research allocations.

4.2. Goal-Achievement Monitoring Indicators

• Adult literacy rate (proportion of learners to all adults aged 15 years and above).

- Proportion of total government expenditure (operating and investment) spent on education (in all stages) and scientific research.
- Number of students per teacher in all educational stages.
- Proportion of single-shift schools to the total number of schools.
- Retention rates in education (in one stage, and between successive stages).
- Gender parity rate (number of male students to female students) for various stages of education.
- Proportion of educational services (the number of male and female students, and the number of schools and institutes) in cities, districts, sub-districts and villages.

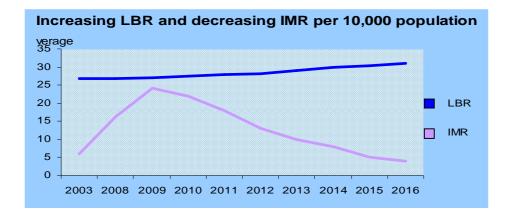
Proportion of experienced administrative and educational personnel to total staff.

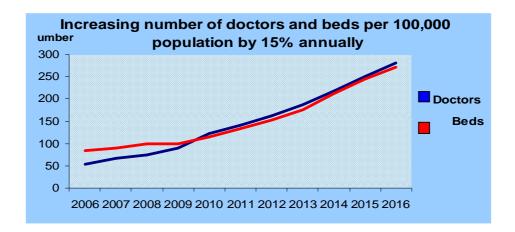


Chapter Nine: Health

Government has made over the past years rapid strides in the health sector through the development of which is directly linked to human life and health, out of a sense of its responsibility to improve the lives of citizens. He therefore worked hard to overcome the difficulties and challenges, including the belief that providing public health requirements it represents one of the real challenges of the journey toward progress and achievement of social security and reduce the gap suffered by the people of Kurdistan over the past decades. This includes Axis to focus on core issues relating to the health sector, so will be addressed to the public health and reproductive health and family planning and child mortality in infants and children under the age of five and maternal mortality of pregnant women and life expectancy at birth. An analysis of the current situation across the indicators adopted is to draw the most important challenges, as they are the foundation on which can be invoked in determining the future direction containing the vision, mission and strategic goals. Will be displayed as the most important indicators of strategic goals form of percentages or numbers Okmyat targets achieved during the years of the plan with identifying the most important indicators to monitor the implementation of the strategic goals identified during the years of the plan.

A chart outlining the most important expected results compared with the current situation





1. Current Situation

The comparison of indicators in the last ten years shows improved health status of the population; however, this requires constant efforts to promote it as its still suffers relative weakness in some aspects. The survey of 2004 on living conditions indicates that Iraq, including the Region, ranks low compared to other Middle East countries with regard to MDGs adopted by UN.

Health system comprises both preventive and curative institutions, including reproductive health centers, school clinics, fixed and mobile health centers, laboratories, pharmaceutical factories etc.

Over the past decades, the Region has encountered serious health problems because of marginalization; neglect; war; displacement; the decline of human, financial and technical resources of the health sector; environmental degradation; destruction of infrastructure; and decreased economic resources for the people. This has led to the increase in mortality rates, the deterioration of health services, and the increase in financial and psychological burdens upon the citizens.

1.1. General Health

The table (69) shows some indicators on health status based on MOH data in 2006. Number of public and private hospitals reached 49 and 16 respectively, containing about 5,931 beds and more than 103 operating rooms. In 2009, the monthly number of hospitalized patients reached about 38,249, and number of medical personnel reached about 2,508 doctors and 14,053 medical assistants.

| Table 69 | Some indicators of Health Status, by Governorate (2006) | | | | | |
|---|---|---------|--------------|---------|--|--|
| Indicators | Erbil | Duhok | Sulaymaniyah | Total | | |
| Number of Public Hospitals | 22 | 9 | 27 | 58 | | |
| Number of Private Hospitals | 10 | 5 | 18 | 33 | | |
| Number of Beds (Public and Private) | 2,730 | 1,334 | 3,038 | 7,102 | | |
| Monthly Number of Patients | 180,676 | 134,823 | 169,383 | 484,882 | | |
| Monthly Number of Hospitalized Patients | 12,621 | 8,427 | 17,201 | 38,249 | | |
| Number of Doctors | 2,450 | 663 | 2900 | 6,103 | | |
| Number of Medical Assistants | 8,762 | 4,264 | 8,122 | 21,148 | | |

Source: MOH/KRG

According to MOH data, number of doctors (specialists and general practitioners) per 1,000 population was 1.85, and number of population per hospital and per clinic increased. However, BOR did not rise to the required rate (90%) despite its increase during the period in question.

Primary health centers contain a delivery room and an emergency ward. These centers numbered about 753 at the end of 2007 with a growth rate of 3.8% during the period (2003-2008). In 2006, rate of health centers run by doctors per 10,000 of population was about 103.93, while rate of those run by medical personnel was about 196.06.

On the other hand, a survey of psychological health in 2006-2007 shows that about 18.3% of households were deprived of basic health needs, and that rural areas were more disadvantaged by 2.5 times than the urban areas, as it was 12.3% in the former and 24.2% in the latter.

Operations performed in all kind of hospitals (small, medium, large and huge) increased to about 79,815 in 2006 compared to 61,422 in 2004.

1.2. Reproductive Health and Family Planning

One of the positive indicators in the field of reproductive health is the high birth rates, especially those conducted under the supervision of health specialists. The data of 2006 shows that 58.5% of the total deliveries were carried out by doctors, 11% by nurses, 18.3% by authorized midwives, while the remaining deliveries (about 12.2%) were carried out by non-specialist personnel.

Number of live births increased from 98,540 in 2003 to 134,207 in 2008, at a growth rate of 36.2%, and then to 141,478 in 2009, at an increase of 5.4% from 2008 and 43.6% from 2003, which reflects a rise in the levels of health awareness. LBR per 1,000 population was 27.4 in 2003, then continuously increased to reach 31.3 in 2007, and then fell to 30.3 in 2008 and to 29.2 in 2009, as outlined in the table (70):

| Table 70 | Live Birth Number and Rate per 1,000 Population, by Governorate (2003-2009) | | | | | | | | | |
|----------|---|------|--------------------------|------|-----------------------------|------|-----------------------------|------|--|--|
| | Erbi | 1 | Duhok | | Sulayman | iyah | Total | | | |
| Year | Number of Live Births | LBR | Number of Live Births | LBR | Number of Live Births | LBR | Number of Live Births | LBR | | |
| 2003 | 41,506 | 30.4 | 25,332 | 30.7 | 31,702 | 21.1 | 98,540 | 27.4 | | |
| 2004 | 42,030 | 30.1 | 31,143 | 36.8 | 31,978 | 21.3 | 105,151 | 29.4 | | |
| 2005 | 36,873 | 25.8 | 36,361 | 40.1 | 32,001 | 21.3 | 105,235 | 29.0 | | |
| 2006 | 40,590 | 28.1 | 37,605 | 39.9 | 32,667 | 21.7 | 110,862 | 29.9 | | |
| 2007 | 39,764 | 26.9 | 40,596 | 41.4 | 39,472 | 25.7 | 119,832 | 31.3 | | |
| 2008 | 44,081 | 23.9 | 44,775 | 46.2 | 45,351 | 20.9 | 134,207 | 30.3 | | |
| 2009 | 45,813 | 24.3 | 46,931 | 41.2 | 48,734 | 22.1 | 141,478 | 29.2 | | |

Source: MOH/KRG

According to MICS, TFR (4.0 births in 2006) is still high compared to other countries and to the world rate (2.6 births). This rate varies between urban and rural areas with no reliable data. The proportion of hospital births in urban areas (79.4%) was higher than that of the rural

areas (54.8%). 70.1% of mothers giving birth at hospital were educated women (secondary and higher education) while 29.9% were uneducated women and housewives, which indicates the role of education in increasing health awareness and immunity of women.

1.3. IMR and CMR

According to MOH data and as illustrated in the bellow table (71), IMR continuously increased from 5.9 per 1,000 population (562 deaths) in 2003 to 24.1 (3,405 deaths) in 2009. This shows that IMR is high compared to neighboring countries (11 in Kuwait and 15 in Syria).

| Table | Infant Mo | Infant Mortality Rate and Number per 1,000 Population, by Governorate (2003-2009) | | | | | | | | | |
|-------|------------------|---|------------------|------|------------------|-------|------------------|------|--|--|--|
| 71 | Erbil | | Duho | k | Sulayma | niyah | Tota | .1 | | | |
| Year | Number of Deaths | IMR | Number of Deaths | IMR | Number of Deaths | IMR | Number of Deaths | IMR | | | |
| 2003 | 111 | 2.7 | 134 | 5.3 | 317 | 9.9 | 562 | 5.9 | | | |
| 2004 | 99 | 2.4 | 110 | 3.5 | 376 | 11.8 | 585 | 5.9 | | | |
| 2005 | 143 | 3.9 | 205 | 5.6 | 365 | 11.4 | 713 | 6.9 | | | |
| 2006 | 109 | 2.7 | 393 | 7.8 | 366 | 11.2 | 768 | 7.2 | | | |
| 2007 | 143 | 3.6 | 392 | 9.7 | 508 | 12.9 | 1,043 | 8.7 | | | |
| 2008 | 558 | 12.7 | 887 | 19.8 | 723 | 15.9 | 2,168 | 16.1 | | | |
| 2009 | 1,203 | 26.3 | 1,068 | 22.8 | 1,134 | 23.3 | 3,405 | 24.1 | | | |

Source: MOH/KRG

The analysis of the previous figures entails taking into account LBR which increased steadily in recent years; however, the table (72) shows the rise of IMR compared to the annual LBR per 1,000 population, where the ratio increased from 0.57% in 2003 to 2.4% in 2009.

| Table 72 | LBR and IMR per 1,000 population, by Governorate (2003, 2008 and 2009) | | | | | | | | |
|--------------|--|-----|------|------|------|------|--|--|--|
| | 2003 | | 2008 | | 2009 | | | | |
| Governorate | LBR | IMR | LBR | IMR | LBR | IMR | | | |
| Erbil | 30.4 | 2.7 | 23.9 | 12.7 | 24.3 | 26.3 | | | |
| Duhok | 30.7 | 5.3 | 46.2 | 19.8 | 41.2 | 22.8 | | | |
| Sulaymaniyah | 21.1 | 9.9 | 20.9 | 15.9 | 22.1 | 23.3 | | | |
| average | 26.7 | 5.9 | 26.9 | 16.1 | 27.1 | 24.1 | | | |

Source: MOH/KRG

CMR decreased from 40 per 1,000 live births in 2006 to 38 in 2007, maintained almost the same rate in 2008, and then dropped to 35 in 2009. Despite the slight decline, CMR is still high compared to some Arab countries (11 in UAE and 11.5 in Qatar) with the exception of Yemen (105).

1.4. **MMR**

One of the basic MDGs is to reduce MMR by 75% for the period (1990-2016). The Region's MMR decreased from 4 per 100,000 live births in 2003 to 3 in 2006. Unfortunately, no accurate data are available for 2009. MMR is high compared to UAE (0.01) and Saudi Arabia (1.8).

1.5. LEB

No accurate data are available on the Region's LEB; however, IHSES of 2006-2007 indicates that it decreased from 65 years in 1986 to 58.2 in 2006 for the whole Iraq, including Kurdistan. This rate is obviously low compared to neighboring countries (77.3 in Kuwait, 71.9 in Jordan and 73.6 in Syria).

2. Strategic Challenges

- 1) Relatively low and insufficient allocations for health sector compared to the recommendations of WHO which indicates that developing countries spend about US\$ 34 per person in the field of health care, despite the increased proportion of expenditure on this sector out of the total government expenditure from 4.97% in 2008 to 5.77% in 2009.
- 2) Shortage of health institutions (hospitals, main and sub health centers).
- 3) Shortage of medical and health personnel and of the number of institutions providing health services.
- 4) Relative variation in the distribution of health services among the governorates and between urban and rural areas.
- 5) Demographic changes among regions as a result of increased migration from the rural areas and villages towards cities, which represents a challenge in implementing health policies.
- 6) No clear or adopted demographic policy. The increased PGR leads to increased demand for health services.
- 7) Problems relating to water, electricity, sanitation, disposal of medical and non-medical waste, and environmental pollution, which adversely impacts the health situation.
- 8) Some families' deprivation of satisfying basic health needs. Rural areas are more disadvantaged than urban areas.
- 9) Poor legislation and laws governing the environment.
- 10) Poor contribution of society due to weak health awareness.
- 11) Limited private sector role in providing health services.

3. Future Trend 3.1. Vision

Providing high quality health services at proper cost, easily available to all citizens.

3.2. Mission

Achieving a comprehensive health system for all groups of society, based on primary health care as a keystone to ensure high-quality health services that meet, as much as possible, the needs of individuals and community according to the global health standards.

3.3. RDS Goals

- Developing infrastructures and realizing high quality services (accommodation services) for health institutions.
- Controlling communicable diseases in accordance with defined ratios for each disease.
- Establishing PPP and emphasizing that the responsibility of the health system is not a government matter only but it is a mutual responsibility between the public sector, the civil society and the private sector, whether in terms of funding, participation in vaccination campaigns, building the health centers, dissemination the health awareness, etc.
- Expanding health services by creating new institutions, especially in rural areas, and implementing alternative projects for the time being such as health convoys, mobile health centers, environmental survey teams, assessment committees for local communities health, etc.
- Achieving cooperation and integration between the activities of the official health institutions and the informal institution and associations, such as reproductive health association, family protection institution, and feminist organizations, to identify real needs, constraints, potential funding and participation.
- Developing the colleges and schools of nursing, encouraging people to enroll, developing medical institutes, increasing the number of graduates, and establishing further medicine colleges along with sophisticated curricula and renewed experiences.
- Using mass media to raise health awareness among citizens along with health culture that could be provided by educational institutions, CSOs and local councils through various courses, seminars and publications.
- Building the capacity of health system cadres (doctors, assistants and managers) through obtaining specialty certificates and acquiring expertise to contribute to the development of this system.
- Attracting migratory expertise that can contribute to the development of the health system.
- Providing advanced technology for both diagnosis and treatment.
- Developing a system of health insurance in the framework of a comprehensive system of social insurance.

- Adopting CQMS which includes active planning and performance assessment, and continuously improving and developing the performance through recognition system of health institutions and according to the needs of society.
- Creating a system of research and studies in line with health and environmental problems, and giving the private sector an active role to integrate and associate with the public sector in achieving health for all.
- Promoting school health and environment and enhancing coordination with educational institutions in order to spread the culture of school health.
- Ensuring food health and occupational safety to enhance the health and safety of society.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Reduce morbidity and mortality rates resulting from diseases by 10% per annum and increase LEB to 65 during 5 years.
- Reduce the number of people suffering chronic diseases to 3% over 5 years (1.5% per annum).
- Increase the proportion of people with healthy weight by 3% annually.
- Increase satisfaction with health services to reach 80% within 5 years.
- Increase participation in sport and physical activity to reach 60% of the population in 5 years.
- Reduce the rate of smoking youth by 30% within 5 years.
- Reduce the proportion of individuals with depression by 3% annually.
- Increase the government expenditures (operating and investment) on the health sector to 10% of the total government expenditure.
- Reduce the rate of people who need treatment outside the Region by 50% of the current one during 5 years.
- Increase the number of doctors per 100,000 population by at least 15% annually.
- Increase the number of beds per 100,000 populations by at least 15% annually.
- Reduce the number of cancer cases by 50% over 5 years.
- Increase the number of family medicine centers by 30% during 5 years.
- Reduce the proportion of morbidity by 40% over 5 years.
- Increase the proportion of admission to medical and health institutes and colleges in coordination with MHE by at least 10% annually within 5 years.
- Reduce the proportion of variation in the size of health and medical services provided between cities and rural areas to 20%.
- Reduce the proportion of children with low weight at birth by 60% over 5 years.
- Reduce CMR by 75% within 5 years.
- Reduce MMR by 75% within 5 years.
- Increase LBR by 75% within 5 years.
- Provide reproductive health services by 90% over 5 years.

4.2. Goal-Achievement Monitoring Indicators

- Proportion of total government expenditure on health per annum (at all levels) of the total government expenditure.
- Total annual rate of the number of medical and health institutions (for all levels).
- Annual rate of the number of hospital beds per 10,000 population.
- Annual rate of the number of doctors and nurses per 10,000 population.
- Annual rate of prevention of infectious diseases.
- Annual LBR (estimates for every 10,000 births).
- Annual percentage of children receiving basic vaccinations.
- Annual percentage of pregnant women receiving pre-delivery care.
- Annual MMR (estimates per 100,000 live births).
- Annual PBR (estimates per 10,000 live births).
- Annual TFR.
- Annual FMR (estimates for every 10,000 pregnancy).
- Annual CMR.
- Annual rate of the number of health institutions between cities and rural areas.



CHAPTER TEN: Tourism, Culture and Heritage:

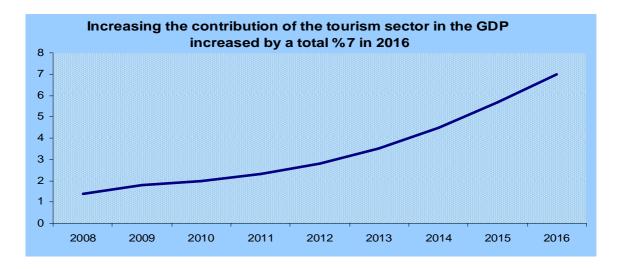
Tourism, along with its historical and cultural heritage bases, currently plays an important role in economic, social and cultural development in many developed and developing countries. Statistical, historical and economic indicators show that tourism will be one of the most important keystones of service economy in the twenty first century, and that there are three industries that are going to lead service economy in this century: telecommunications, IT and T&T.

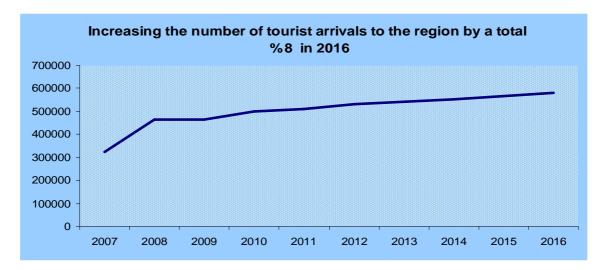
WTTC statistics indicate that the tourism sector contributes directly and indirectly to more than 10% to the world GDP as well as to the global FCF and tax revenue. In some countries, for example, the contribution of religious tourism in Saudi Arabia amounts to 12% of GDP, and tourism contribution in Lebanon reaches 10% of GDP in normal conditions. The role of tourism increases in the development of exports in countries with important tourism attraction, where the proportion of exports resulted from tourism amounts to 12% in the United States, 30% in Spain, 33% in Austria and 20% in Mexico, as such rates represent what the tourists buy and take with to own country.

In addition to the important role of tourism in enhancing and strengthening the national economy at the macro level, tourism has development roles and advantages in economic, social, cultural and other environmental aspects which can be summarized as follows:

- TM impact results from the boom and revival of dozens of industries and services which are estimated by specialists to more than fifty industries and services.
- How to use the labor force as a complex industry. This feature can thus be exploited to address unemployment.
- Tourism is one of the important means of social, economical and urban development of
 the facilities and places of tourist attractions, especially in areas that do not have
 effective economic potentials compared to their tourist ones. Tourism can also be a tool
 for the development of rural and remote areas that do not have tourist attraction
 potentials.
- Tourism contributes to the development of religious, historical and cultural sites since these places are important elements of the tourist attraction.
- Tourism contributes to the attraction of foreign investment as it provides good return to investors.
- Tourism contributes to the civilized and cultural convergence between the different cultures.

Chart outlining the most important expected results compared with the current situation





1. Current Situation

Through exploring the situation as presented in the table (73), we can note:

- Increased private investments in the tourism sector (number of hotels increased from 64 in 2007 to 167 in 2009, and number of motels increased to 59 in 2009). However, the distribution of these facilities is often concentrated in the governorates' centers, while the number of hotels, especially luxury hotels, in most districts and sub-districts is much less.
- Increased BOR in hotel (more than 66%) due to the economic and urban development, establishment of security and the significant increase in the number of tourists.
- Poor economic performance of the tourist activity in general, for example, tourism contribution to GDP didn't not exceed 1.4% in 2008. There are no accurate or comprehensive data about the size of employment in the direct or indirect tourist activity.

| Table 73 | S | Some General Indicators of Tourism Activity, by Governorate (2007-2009) | | | | | | | | | | |
|---|--------|---|---------|---------|--------------|---------|--------|---------|---------|---------|---------|---------|
| | Erbil | | Duhok | | Sulaymaniyah | | Total | | | | | |
| Indicators | 2007 | 2008 | 2009 | 2007 | 2008 | 2009 | 2007 | 2008 | 2009 | 2007 | 2008 | 2009 |
| Number of Hotels | | | 46 | 64 | 66 | 81 | | | 40 | 64 | 66 | 167 |
| Number of Motels | | | 12 | | | 22 | | | 25 | | | 59 |
| Number of Tourists | 99,432 | 112,410 | 175,816 | 145,893 | 247,243 | 127,332 | 77,933 | 105,837 | 162,102 | 323,258 | 465,490 | 465,250 |
| Number of Tourist Villages and Areas | 7 | 8 | 15 | 36 | 36 | 36 | | | | 43 | 44 | 51 |

Source: MOM/KRG

1.1. Tourism and Heritage Potentials

The Region has almost integrated tourism elements. It is one of the few areas that have diverse aspects of tourism, cultural combination and natural resources. It also has considerable assistant supplementary services that can be developed. On the natural side - the most important element of tourism - the Region has great natural diversity with charming nature landscapes of mountains, forests, valleys, plains, waterfalls, lakes, rivers and their tributaries, which creates an encouraging and attracting environment for tourism and tourists.

On the cultural and archaeological side, the Region is full of civilizational, archaeological and cultural diversity as it is the cradle of ancient civilizations that had spanned different areas.

On the religious side, shrines of righteous men, monasteries, churches and temples from time immemorial spread all over the Region.

Therefore, the Region is well qualified for providing various types of tourism such as natural, cultural, historical, therapeutic, treatment and eco-tourism, but only after securing supplementary requirements of tourism, such as luxury hotels, efficient and specialized hotel management and service, infrastructures, basic services and a banking system in line with the international standards. This is enhanced by the fact that most of these potentials are spread over different areas, creating the foundations for the prosperity of tourism across the governorates.

1.2. Culture

Culture (with all its aspects of press, publication, audio-visual media, theatre, fine arts, cinema, festivals, poetry and art forums, etc.) has received considerable attention from the successive governments in the Region. The table (74) shows this fact: the number of satellite and terrestrial TV channels increased from 2 and 5 in 2003 to 7 and 40 respectively in 2009.

Number of government and private newspapers and magazines increased from 17 newspapers and 18 magazines in 2003 to 29 and 48 respectively in 2009. 3 cinemas and 17 theatres have been opened, totaling 7 cinemas and 17 theatres. In addition, many festivals and cultural, literary and artistic forums were held.

| Table 74 | Some Cultural Indicators (2003, 2007 and 20 | | |
|-----------------------------------|---|--------|------------------------------|
| Indicators | 2003 | 2007 | 2008 |
| Satellite TVs | 2 | 3 | 7 |
| Terrestrial TVs | 5 | 28 | 40 |
| Government and Private Newspapers | 17 | 26 | 29 |
| Government and Private Magazines | 18 | 38 | <mark>84</mark> ⁵ |
| Theatres | 5 | 5 | 7 |
| Art Galleries | 2 | 6 | 9 |
| Cinemas | 4 | 2 | 1 |
| Cultural Festivals | 1 | 1 | 4 |
| Total | 54 | 109 | 125 ⁶ |
| % | 18.75% | 37.85% | 43.40% |

Source: MCY/KRG

2. Strategic Challenges

Tourist, cultural and archeological activities face a legion of challenges that must be addressed in order to build an effective and influential tourist and cultural activities. These challenges are:

- 1) Limited financial resources allocated by the government for the activity, which is confined to specific aspects, and poor investment of local and foreign private sectors in this activity.
- 2) Poor assistant supplementary services of infrastructure (roads and fast transportations, hotels and associated entertainment services) especially in tourist attraction areas such as archaeological and religious sites and resorts, in addition to the retardation of banking services according to the international standards.

⁵ Translator's comment: This number should be 48.

⁶ Translator's comment: This number should be 145

- 3) Poor tourism administration and hospitality elements in addition to non-smooth procedures for granting visas and tourist reception at border points.
- 4) Low awareness on tourism and poor methods of promoting tourism and tourism marketing.
- 5) Migration of tourism professional personnel as well as limited vocational centers for training alternative cadres.
- 6) Limited private investment companies and corporations in the field of tourism and culture which are restricted to individual investors with limited resources that do not commensurate with large investment requirements for tourism and cultural activity.
- 7) Multiplicity of agencies responsible for tourism, cultural and archeological activities, which causes overlap in their tasks.
- 8) No long-term strategy with specific features for the development of tourism, heritage and cultural activities.
- 9) Poor database available on tourism, heritage and cultural activities.

3. Future Trend

3.1. Vision

- 1) Developing tourism situation and creating the so-called tourism industry to market it competitively with neighboring countries to contribute to the diversification of the economic base of the Region.
- 2) Preserving, developing and exploiting the cultural and historical heritage as it is an essential element in the development of national tourism, and the continued assumption of an advanced position within the cultural and historical heritage of the world.
- 3) Preserving, reconstructing and developing the cultural and artistic identity of Kurdistan, and seeking to attract creative Kurds to the Region.

3.2. Mission

Enable the Region to exploit its touristic features (diversity of tourist aspects, cultural and heritage combination and natural sources, as well as the assistant supplementary services) that match tourism countries worldwide, in order to make the Region a magnet for tourists.

3.3. RDS Goals

- Strengthen the assumption of an advanced position in the historical and cultural heritage of the world.
- Preserve, reconstruct and develop the cultural and artistic identity of Kurdistan.
- Create tourism industry that is competitive with neighboring countries.
- Raise the level of economic performance of the sector by increasing its contribution to GDP, balance of payments and job opportunities, in order to make it an active contributor to the diversification of the economic base and to the reduction of unemployment and poverty, especially in remote tourist areas.
- Exploit the religious, historical, natural, cultural and civilizational tourism features and potentials.

- Invest the local elements of different areas in the governorates in tourism and cultural development.
- Make the private sector play the leading role in tourism and in management and operation of archaeological and cultural facilities.
- Secure the elements of attracting foreign tourists, especially supplementary services of accommodation, transport, hospitality and sophisticated banking services.
- Achieve interaction and integration among the activities of the tourism, archaeological and cultural sector through the achievement of a balanced and consistent growth among them as they complement each other.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Increase tourism contribution to GDP by 7% annually.
- Improve the infrastructure of tourism, culture and archeology by 2% annually.
- Increase governmental, and local and foreign private investment by 8% within 5 years.
- Activate the tourist, cultural and archeological information system through organizing three festivals at least annually.
- Increase tourism and cultural awareness through the coordination of the ongoing cooperation with audio-visual and print media.
- Expand scientific disciplines in tourism, archeology and languages in the institutes and universities and increase the number of students admitted by 5% annually.

4.2. Goal-Achievement Monitoring Indicators

- Annual percentage of tourism contribution to GDP.
- Annual rate of the number of tourists.
- Annual rate of the number of the completed tourism and cultural projects.
- Annual number of festivals and cultural, artistic and tourist forums.
- Annual BOR in resorts and hotels.
- Annual rate of amounts of revenue (in US dollars or ID) achieved by tourism activity.



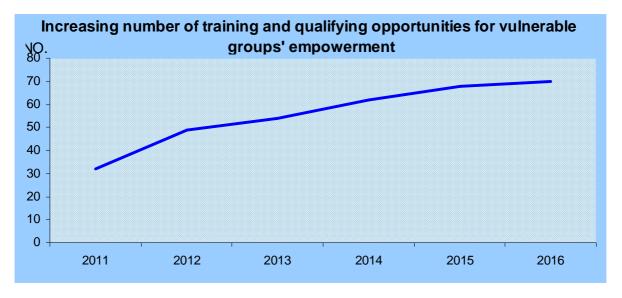
Chapter 11: Social Dimensions

The term "Social Dimensions" is defined as the dimensions involved in society change, development, organizing and all the problems posed and encountered by society. Accordingly, social policies that deal with such dimensions neither exist nor operate in a vacuum. They exist within complicated systems with structural and dynamic features that include the whole society and culture. Therefore, these multifaceted interrelationships and their significant mutual impacts should be taken into account.

In this regard, the three features of institutions, mechanisms, and the formation of society are of special importance in clarifying the meaning of social policies. The function of institutions and general programs, on the one hand, is to satisfy the human needs and the shared values neglected due to the weakness of competent institutions. On the other hand, they form the mechanism by which the government encourages opportunities for social development. Their aim is to run a comprehensive process to change society by society and for society; which is the ultimate goal of this Strategy.

Chart outlining the most important expected results compared with the current situation





Part One: Gender

1. Current Situation:

The issue of women forms one of the important changes in the social fabric in Kurdistan. There are many factors that contribute to the reduction of the scope of work available to women and to the impairment of their abilities to compete in official work outside their homes and get jobs that satisfy the needs of their families and insure them a decent social status. Such factors are cultural, social, as well as educational embodied in deficiencies in women's education and training, and their decreased scientific level and skills. In addition, there is a category of women working in unofficial economic activities that are not registered in official records. Among such women, there is a significant group practicing economic activities within their houses. Such activities, however, suffer negligence and lack of appreciation as they clash with other routine housework duties.

The social environment affects both the women's individual freedom to the extent of withholding them from public life, as well as their humane security. In spite of the continuous work of NGOs, researches and studies centers, and journalism, as well as the support provided by many international organizations, on gender equality awareness and promotion, there is still a clear lack of social awareness towards this issue.

Since its establishment, with varying degrees of clarity at the level of policies and procedures, the government has been keen to create opportunities of official institutional empowerment for Kurdish women (education, health, training centers, and others). However, the government has not noticed, intentionally or unintentionally, the fact that empowerment is not only technical procedures, but also a process of changing the culture of discrimination, and building the culture of equality in all dimensions related to value, psychology and law.

NRSHD 2008 indicates that the values of WEI in the governorates of Erbil (0.742) and Duhok (0.745) are higher than the national WEI (0.696), while the value of WEI in the Governorate of Sulaymaniyah is 0.672; slightly less than the national average. The Report attributes the rise in WEI values to the efforts paid to integrate women and promote their participation, particularly, in politics.

1.1. Women and Economic Activity

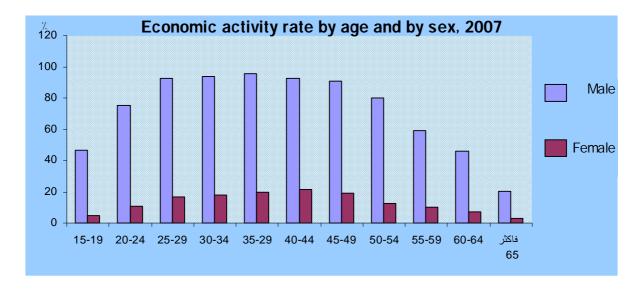
The current situation can be summarized in a brief sentence: "women's economic paid activity is limited compared with that of men". Apparently, as many researchers agree, there are many reasons for this, to which we will refer later. Neglecting the women endangers development and violates their indivisible rights.

Numerically, women are half the society; however, the number does not have a value unless accompanied with social weight. Though Kurdistan women have achieved important progress in many fields - in the forefront of which could be education, social work, and others - the rate of their economic activity is still low.

The table (75) shows relative differences between the two genders from all age groups. Such differences are highest in sequence among the age ranges 35-39, 40-44, and 30-34 where males are more than females.

| Table 75 | Economic Ac | Economic Activity Rate by Age and by Sex, 2007 | | | | |
|--------------|-------------|--|-----------------|--|--|--|
| Age Group | Males | Females | Males & Females | | | |
| 15-19 | 46.7 | 4.7 | 25.6 | | | |
| 20-24 | 75.4 | 10.8 | 42.9 | | | |
| 25-29 | 92.4 | 16.5 | 54.3 | | | |
| 30-34 | 93.9 | 18.1 | 56.4 | | | |
| 35-29 | 95.8 | 19.5 | 57.7 | | | |
| 40-44 | 92.5 | 21.3 | 56.8 | | | |
| 45-49 | 91 | 18.9 | 52 | | | |
| 50-54 | 80 | 12.4 | 42.3 | | | |
| 55-59 | 59.2 | 10.4 | 34.9 | | | |
| 60-64 | 46.1 | 6.9 | 26.6 | | | |
| 65 and older | 20.2 | 3 | 10.5 | | | |

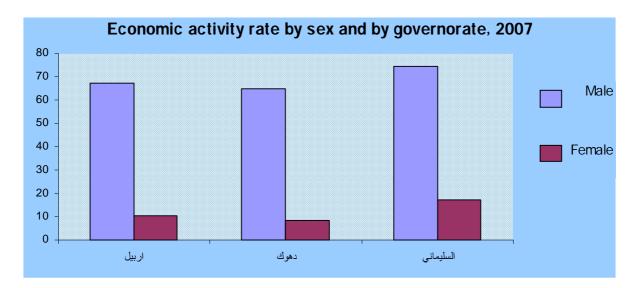
Source: IHSES, 2007



To complete the picture, the table (76) illustrates the rates of economic activity by gender and by governorates. The rates of women's participation are relatively low compared with men's rates and the overall rates. Women's participation rate in economic activity in Sulaymaniyah (17.3) is the highest compared with other governorates; 10.4 in Erbil and 8.6 in Duhok.

| Table 76 | Economic Activity Rate by Sex and by Governorate, 2007 | | | | |
|--------------|--|---------|-----------------|--|--|
| Governorate | Males | Females | Males & Females | | |
| Erbil | 67.2 | 10.4 | 37.5 | | |
| Duhok | 64.8 | 8.6 | 36.2 | | |
| Sulaymaniyah | 74.4 | 17.3 | 44.6 | | |
| Average | 69.7 | 12.9 | 40.3 | | |

Source: IHSES, 2007



The picture will be clearer if we consider the unemployment rate between the two genders, as it rises among females (42.66) compared with males (11.65). This is shown in the table (77):

| Table 77 | Unemployment Rates by Sex and by Governorate, 2008 | | | | |
|--------------|--|-----------------|-------|--|--|
| Governorate | Males | Males Females N | | | |
| Erbil | 7.49 | 36.03 | 13.22 | | |
| Duhok | 13.29 | 39.72 | 16.91 | | |
| Sulaymaniyah | 7.91 | 27.41 | 11.88 | | |
| Average | 9.56 | 34.39 | 14 | | |

Source: KRSO - Ministry of Planning/KRG

The fact that high rates of women work in rural areas should not be disregarded; however, their work is invisible in professional, humane or economic accounts. The situation is quite different in urban areas as the continuity of the traditional culture impact makes urban life a more open environment that recognizes the rights of women and children consistently. Furthermore, the available job opportunities become more diverse for women, which increase their choices.

The influence of traditional culture is general in the society; however, it becomes deeper in rural areas, and is related to an extent to female education. The register of education shows some opportunities that were mostly available to males more than to females, whether through enrollment rates, regular attendance, failure and success rates, or even through specializations - and consequently their matching job opportunities in the market - whose certificates and skills sought by women. For example, the enrollment rate of females in primary education is %92.2, compared with %96.7 for males. In middle education (12-14 years old), the gap increases to %53.7 for males, compared with %51.3 for females. Differences are also clear when rural and urban areas are compared. Another important note is that enrollment rates decrease more among poor families compared with rich ones.

A study on female heads of households shows that educational qualification is an essential identifier of incomes in the labor market and one of the anchors of differentiation at the level of incomes acquired from unqualified work. The study also demonstrates the linkage between the educational level and fixed income jobs and that any improvement in the educational levels of the family is positively reflected on its status in other domains. Rates of the denial of education increase for females to about %27 compared with %18 for males.

1.2. Women and Decision-Making Positions

Iraqi laws and legislations prohibit discrimination against women and ensure them the right to occupy leadership positions or high positions in the hierarchy of power; however, social and cultural factors may discourage this. The law gives women the right to equal pay for work of equal value compared with men.

Number of women in decision-making positions has increased during the past years as their number reached 111 by 2009 in different ministries; 13 general managers, 61 experts, 13 deputy general manager, 3 districts and sub-district chiefs, 16 advisors, 3 undersecretaries, one governor, and one chief prosecutor. Besides, the previous ministry had 3 female ministers, and the same number exists in the present one. The number of female MPs is 30.

1.3. Equal Access to Resources

Ensuring the women's access to resources and inputs required for production forms a basis for HD and an essential element that contributes to women's empowerment to participate efficiently in development. Accessing resources means the ability to use and control them, and make decisions related to such economic resources (land, loans, income, and inheritance).

Laws guarantee the right of ownership for all citizens without any gender discrimination. Nevertheless, women and men do not have equal access to basic resources and services since women in general have less financial assets than men do; besides, households headed by women have fewer assets compared with those headed by men, like the independent rights to own lands and housing, and run property and business. This is due to the difficulty of women's participation in public life.

Supporting projects led by women is an efficient strategy in building free economy and a supportive tool for equality. However, these projects can hardly find suitable opportunities due to prevailing conditions and family pressure on women; besides, microfinance projects are mostly limited to men, not due to certain traditions impeding women participation, but

due to the lack of capacity to access loans because of guarantees required by banks. Actually, both women and poor men suffer this situation.

2. Strategic Challenges

Major social challenges women encounter are:

- 1) High rates of illiterate women, especially in rural areas.
- 2) Lack of women's awareness of their rights, and their inability to claim them even when they are aware of them.
- 3) Traditional pattern of family upbringing that encourages the majority of women to consider marriage even before finishing education or finding a job.
- 4) Discrimination against women, which represents the most influential traditional and cultural factor.
- 5) Low rates of female enrollment in education, especially among poor families. Besides, traditional culture, low education, and poverty of the family are all factors that have mutual influence on women's professional conditions.

On the other hand, economic challenges are inseparable from and are not less important than the above-mentioned social challenges. Major economic challenges are:

- 1) Traditional culture challenging women's work in economic activity.
- 2) Low rates of women's contribution to the private sector due to values and traditions that define their roles.
- 3) Negative attitude against women employment in economic activities outside their homes, and preparing them, instead, for traditional family roles like marriage and maternity.
- 4) Traditional perceptions of Iraqi families regarding the suitable work for women still prefer government jobs though low incomes compared with the private sector.
- 5) High rates of women in marginal and informal labor markets, which represents a middle way between public and private sector jobs.

3. Future Trend

3.1. Vision

Creating development and empowerment opportunities for women in order to expand available choices, build their capacity, and provide them with a humane environment marked with justice and fairness.

3.2. Mission

Achieving quality changes in the prevailing culture based on gender discrimination, empowering women, integrating them in the political and development process, and providing equal opportunities and rights for women and men.

3.3. RDS Goals

- Empowering women and integrating them in the development process.
- Achieving quality changes in the prevailing culture based on gender discrimination. This requires concerted, comprehensive and continuous efforts in many domains by specialized institutions that are able to influence people's attitudes and perceptions, such as in education.
- Adopting a national strategy to advance women, empower them, encourage gender equality, and decrease the levels of differentiation among the governorates on the one hand, and between urban and rural areas on the other.
- Reforming economic and legal institutions to achieve equality in rights and opportunities for both men and women (family laws, protection against violence, rights of property ownership, employment, political rights, and inheritance.)

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Achieving a level of equal educational opportunities for males and females in all preuniversity educational levels within five years.
- Increasing the women's participation in all governmental institutions and commissions, permanent or temporary, to reach %40 within five years, and maintaining that.
- Increasing the women's participation in economic activity by %5 annually through spiritual and economic empowerment to take an active role in supporting the development processes.
- Amending the laws and legislations to enhance the values of equality and partnership and limit discrimination within two years.
- Establishing the mass media, launching the freedom of public opinion, encouraging the discussion and dialogue, and disseminating the information campaigns to raise awareness and change the image of women in the media, within five years.
- Reforming the educational systems and curricula within the first two years of the Strategy, which provides the opportunity to change the social perception towards violence against women and promotes a sense of responsibility towards them.
- Including the concepts that enhance the values of equality and equal opportunities within human rights programs, and promoting such concepts as a culture of anti-discrimination through coordination among stakeholders, within five years.
- Developing a national plan that encourages women's initiatives during the first year of the Strategy to expand opportunities and credit facilities and increase the amounts of loans to empower women and enhance their economic role.
- Allocating the appropriate amounts in state budget to support and enhance the work of feminist and non-feminist CSOs, during the years of the Strategy, through strengthening their structures to play an important role in establishing and disseminating a culture of gender equality, being a civilized demand that does not aim

- at confiscating men's rights, but enhancing the principle of partnership between the two genders in managing life affairs.
- Developing a national employment plan during the first two years of the Strategy, based on actual needs and scientific and professional specializations, through objective competition.
- Implementing at least 10 programs annually, which aim at training and empowering women in various income-generating specializations and domains in accordance with the needs and developments of the national economy.
- Taking legal and regulatory actions to expand social security in order to provide sufficient guarantees for all groups, especially women, within one year.
- Developing within one year and approving as well as implementing, in cooperation with the stakeholders, a comprehensive program to activate and expand women employment in a way that makes empowerment programs aims at not only technical training but also personality-building and creating civilized values to encourage taking initiatives, renewal, self-confidence, and a desire to participate.

4.2. Goal-Achievement Monitoring Indicators

- Annual rate of women's participation in social activities.
- Annual growth rate of the number of women working in business.
- Annual growth rate of the number of females enrolled in schools compared with males' enrollment rates.
- Annual rate of women's participation in permanent and temporary government commissions.
- Annual rate of activities implemented to enhance women's equality and partnership in society and development.
- Annual number of information and cultural raising-awareness campaigns on the role of women in society.
- Annual rate of activities implemented to enhance the values of gender equality and equal opportunities.
- Annual rate of the number of credit facilities, loans and opportunities provided to empower women economically.
- Number of annual activities implemented by CSOs, supported and funded by government agencies, aiming at emphasizing the principle of gender equality and enhancing the role of women in society and development.
- Annual number of employment opportunities for women in the national employment plan.
- Annual number of training and qualifications courses to empower women economically and socially.
- Annual rate of the number of women covered with social security.

Part Two: The Youth

The requirements of young people are not limited to job opportunities, but cover life opportunities (education, training, work, entertainment, health...etc.), as these requirements are the same as those of the society itself; hence, any decline or weakness in satisfying these needs endangers the whole society.

Nowadays, the number of young people is unprecedented. As shown in the current population pyramid, more than %20 of population fall within the category of young age (15-24). With the continuously increased TFR, the rate of young people is expected to increase during the next three decades.

In spite of the deficiency in available data that indicate the number and rate of young people compared with the total population, it is possible to identify the most prominent demographic characteristics of the youth category, as follows:

- 1) According to some estimations, the number of young population in 2008 was 0.964076 million (%21.8 of the total population). This number is expected to reach 1.232269 million in 2016. Apparently, the current and expected increase in the number and rates of young people is closely linked to temporal trends in fertility and mortality, in addition to the flow and size of immigration. Demographic prospects indicate that the rate of young people would be in continuous increase within the next two decades, it would stay stable after that, and then decrease.
- 2) The proportion of young population to working-age population (15-64) was %37.8 in 2008.
- 3) In 2008, the proportion of young people in urban areas to the total population in urban areas was about %20.6, which is lower than that in rural areas (%22.1).

From a purely economic perspective, the sharp rise in the number and rates of young people can be considered, on the one hand, a challenge to the economic policy as it is necessary to provide them with more educational services and infrastructure facilities and find them proper job opportunities. On the other hand, this rise can be considered a potential energy to be invested in national development programs.

1. Strategic Challenges

The youth are agents and tools of change when they live sustainably in an enabling environment that leads them to a healthy mental, psychological, and physical maturity, and where job opportunities, participation, and security are all available. However, young people can be sources of danger when they find themselves in an environment crowded with threats, violence, unemployment, and marginalization. Neglecting and marginalizing the youth's conditions trigger an increased rate of delinquency and crime. This will have dangerous social repercussions leading to an unstable and insecure environment unattractive for foreign capitals and investment, and consequently, to lost opportunities for development and progress. Furthermore, the lack of job opportunities, particularly for newly graduated students

with educational qualifications, pushes them to search outside the Region. This increases brain drain and clearly wastes human capital.

An active policy aiming at investing in youth power, employing them, and decreasing unemployment rates is hindered by certain challenges represented in the following:

- 1) No proper employment policies adapted objectively to factual circumstances, due to the poor role played by the private sector, its low organizational efficiency, and low use of local workforce in investment projects of foreign companies. If available, such policies might create new job opportunities for unemployed youth.
- 2) Absence of a comprehensive national policy directed to the youth, which makes services provided for the youth lack inclusiveness and desired positive impacts.
- 3) Multiplicity and variety of institutions providing their services for the youth, which leads to poor coordination and fragmented efforts. This requires a comprehensive, coherent system of individuals and institutions with integrated goals and objectives.
- 4) Limited political and social roles given to the youth.
- 5) Fear from the future due to the increased costs of living, increased unemployment level...etc. Hence, many young people live with great concerns and obsession pressing on their future life and employment.
- 6) Poor qualification and expertise of the cadre specialized in managing the youth's institutions from management and technical perspectives.
- 7) Relative deficiency in some sports and entertainment facilities, and the disparity among governorates in providing such facilities.
- 8) Limited financial resources allocated for youth activities with very low proportions of the state budget.

2. Future Trend

2.1. Vision

Developing the youth capacities, helping them in overcoming social challenges, and empowering them to participate efficiently in building a free and civilized society under the rule of law.

2.2. Mission

The youth are a significant power in the development process.

2.3. RDS Goals

- Mobilizing the governmental efforts to develop youth capacities to enable them to participate efficiently in the development process, and framing them in public life.
- Achieving optimal balance between the government needs and the youth needs.
- Increasing the efficiency of youth development program through adopting an integral approach to link between the objectives of the program.
- Providing proper job opportunities sufficient to include all the youth desiring to work.

3. Strategic M&E

3.1. Goal-Achievement Indicators

- Reducing unemployment rates among the youth by %10 annually, with a special focus on rural areas and on both genders.
- Preparing 5 annual programs aiming at deepening the idea of gender among the youth in order to insure constructive interaction between males and females in social life.
- Increasing the youth's participation in setting their own policies and programs, prepared and implemented by MCY, by %2 annually, and enabling them to contribute to all development domains.
- Implementing 5 training courses annually to develop youth leadership so that they can play a role in the advancement of civilization in the Region.
- Preparing and developing the current social policies according to the emerging needs in order to insure an efficient participation of CSOs in solving youth problems during the first year of the Strategy.
- Increasing the number of youth and entertainment centers by %25 within 5 years in order to educate the youth and engage them in fruitful and constructive activities.
- Preparing a comprehensive program within the first year of the Strategy with the aim of including the migrant youth and provide them with job opportunities that secure a decent life for them.
- Increasing the allocations in the state budget by a percentage suggested by the MCY in order to develop the youth capacities so that they become able to contribute efficiently to the development process and participate in the public life.
- Preparing a comprehensive working paper during the first year of the Strategy in order to increase the efficiency of the youth development program through adopting an integral approach to link between the objectives of the program.

3.2. Goal-Achievement Monitoring Indicators

- Number of youth programs implemented annually to enhance the principle of gender equality.
- Annual rate of youth participation in developing their own policies and programs.
- Number of qualifications and training courses implemented annually to develop the youth leadership and support empowerment programs for the pioneers.
- Annual percentage of CSOs' participation in the implementation of activities aiming at solving the youth problems.
- Annual growth rate of the number of youth centers.
- Number of implemented activities to absorb the youth, and their impact on reducing the youth migration rate.
- Annual percentage of financial government allocations dedicated to building youth's capacities.
- Annual rate of unemployment among the youth.

Part Three: Vulnerable Groups

The issue of vulnerability and addressing it is one of the most important issues of concern for public opinion and stakeholders concerned with development and achieving MDGs. Vulnerable groups refer to orphan and vagrant children, the disabled, the elderly, widows, divorced women, female heads of households, and others. These groups face daily obstacles and challenges, including a high level of poverty and different forms of deprivation. Besides, these groups are constantly exposed to a lack in capacities and loss of opportunities for adjustment with shocks. Such groups constitute a considerable proportion of the society due to the accumulated lack in social services over the past decades in many areas, leading to the increase of the phenomena of marginalization, poverty, alienation, and family breakdown.

Traditional safety nets (alms, endowment, outreaching family relationships, tribe, community, and the roles of religious institutions) used to limit social problems, particularly those of vulnerable groups like the disabled, orphans, beggars, vagrants and others. However, one of the positive steps taken by the government and its development partners to alleviate marginalization is the adoption of PRS, and the assurance of the fundamental rights of children within the framework of approved and recognized international rights. This Strategy should, therefore, aim at capacity-building of workforce among vulnerable groups to enable them to compete on the local level, through adopting programs and policies which provide them with constant empowerment and capacity-building.

1. Vulnerable Groups 1.1.The Disabled

The real numbers of the disabled of different types are not completely available at present. The comprehensive census is still awaited and necessary to address many questions we cannot answer today conclusively. In general, the data provided by MOLSA indicate that the number of all types of the disabled in its rehabilitation institutes reached about 1,140 people by the end of 2009, as shown in the table (78). Furthermore, the number of the disabled who benefit from the salaries offered to them reached about 57,410 by the end of 2009.

| Table 78 | Number of Beneficiaries from Care Services Provided to Families of People with Special Needs, by Governorate (2009) | | | | | |
|-----------------------|--|-------|--------------|-------|------|--|
| Type of Disability | Erbil | Duhok | Sulaymaniyah | Total | % | |
| The Deaf and the Dumb | 250 | 60 | 98 | 408 | 40.7 | |
| Physical Disability | 70 | 40 | 45 | 155 | 15.6 | |
| Mental Disability | 150 | 40 | 42 | 232 | 23.1 | |
| The Blind | 100 | 40 | 37 | 177 | 17.7 | |
| Speech Disorder | 40 | | | 30 | 2.9 | |
| Total | 600 | 180 | 222 | 1002 | 100 | |
| % | 59.9 % | 17.9% | 22.2% | | | |

Source: MOLSA/KRG

Notably, the development in health services indirectly contributes to the reduction of number of the disabled since the spread of a particular disease, such as heart disease, blood pressure, diabetes, and chronic diseases, might sometimes lead to a type of disability, like paralysis, or the inability to move or speak.

1.2. Widows and Orphans

Estimated numbers of widows and orphans considerably vary. The living conditions survey shows that 8% of the total number of surveyed women, from different age groups, is widows, while %55 of them is married.

The 2006 report on Human right in Iraq including Kurdistan, issued by UNAMI, showed that the numbers of orphan children and widows was constantly increasing. Some estimations state that the number of orphans might exceed %4.5 of the total children aged (less than one year-14 years old). Some data provided by MOLSA indicate that the number of orphans benefiting from the Ministry's services reached about 711 orphans by the end of 2009, distributed in the governorates of Erbil (613) and Sulaymaniyah (98). Clearly, these numbers do not reflect the real image of orphans in the Region. In general, these orphans constitute an enormous burden on their mothers and the whole society. Data of MOLSA shows that the number of widows and divorced women benefiting from its services was 22,686 as illustrated in the table (79):

| Table 79 | Number of Widows and Divorced Women Benefiting from Social Care Services, by Governorate (2009) | | | | |
|--------------|--|-----------------------------|-------|-------|--|
| Governorate | Number of Widows | Number of Divorced Women | Total | % | |
| Erbil | 5759 | 360 | 6119 | %26.9 | |
| Duhok | 1546 | - | 1546 | %6.8 | |
| Sulaymaniyah | 14089 | 932 | 15021 | %66.3 | |
| Total | 21394 | 1292 | 22686 | %100 | |
| % | 94.3 | 5.7 | - | %100 | |

Source: MOLSA/KRG

In the near future and in light of the constant economic difficulties and challenges, marginalized people are expected to continue to suffer financial pressure when contributing to the family income, and unemployment rates are expected to remain relatively high with limited job opportunities.

Helping the orphan children should start with addressing the real causes of the phenomenon through helping the families to satisfy their basic financial needs without depending on child labor. Furthermore, programs and policies that focus on poverty reduction should help ultra poor families to send their orphan children to schools.

1.3.Children

Children of 14-year old and less constitute more than a third of the population (around %38.1). Some of those children might suffer denial of many of their basic needs such as social protection, medical services, education, nutrition, water, and sanitation. Others suffer the conditions that lead to family breakdown and make them victims of maltreatment.

The crises suffered by the society have increased the proportion of vulnerable groups and have, hence, encompassed many children in the circle of vulnerability, and probably have trapped some of them in delinquency. Some children might encounter cruel actions and behavior from their families. There are no accurate statistics on violence against children; however, the data of the MOLSA indicate that more than 600 children benefit from the services provided by MOLSA's child protection centers in all governorates.

In spite of laws and legislations that obligate children to attend schools, the conditions of crises push many families to engage children in work outside their homes. Indicators show that most of the working children belong to poor families, and work in many areas in the cities, selling simple and light goods.

2. Strategic Challenges

- 1) Low institutional performance of official service and non-service bodies, which reflect negatively on their policies, plans, programs, initiatives, interaction types, and their actual response to the challenges faced by vulnerable groups in the society.
- 2) No comprehensive vision that helps enhance the social condition, and adopting, in most cases, the localized, partial and dispersed policies and procedures marked by poor interrelation among them.
- 3) Lack of coordination and integration among active bodies in the social sector, and between the public and private sectors.
- 4) No programs to elevate vulnerable groups, since the social policy lacks clear visions regarding social programs for these groups and for the most damaged and suffering areas.

3. Future Trend

3.1. Vision

Empowering the vulnerable groups, providing them with alternative opportunities to integrate in the society, and providing the necessary care to help them play positive roles in the development process.

3.2. Mission

Addressing the effects and burden resulted from weak governmental policies and poor focus by the different sectors of society on the vulnerable group, which have led to constant marginalization of thousands of widows, orphans, the disabled, and others.

3.3. RDS Goals

This Strategy suggests that the government should work in cooperation with its development partners to implement projects and programs that alleviate the burden of vulnerable groups. On the other hand, social care nets represent a social mechanism to protect groups suffering lack in their capacities to participate in social life. Within this framework, the most important goals are:

- Addressing the causes and effects that lead to the marginalization of thousands of widows, orphans, the disabled, and others.
- Empowering the vulnerable groups, attempting to integrate them in the society, and involving them in social responsibilities and SD plans.
- Achieving balance and fairness in the provision of services and infrastructures for these groups at all levels.
- Activating the roles of CSOs and municipal councils, being part of the social safety nets.
- Adopting programs aimed to achieve mutual benefits and interests, bringing the civil peace, and establishing partnerships that alleviate psychological, social, and economic pressures on vulnerable groups.
- Adopting an efficient system to provide social subsidies.
- Developing a new reference for social work to provide a base for formulating a necessary perspective for future social policies.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Preparing a study during the first year of the Strategy with the aim of addressing the effects and burden resulted from weak governmental policies and poor focus by the different sectors of society on vulnerable groups, which leads to the constant marginalization of thousands of widows, orphans, the disabled, and others, in addition to modifying such policies in light of the study results, and then adopting and implementing the modified policies during the second year of the Strategy.
- Providing at least 50 training opportunities annually to empower vulnerable groups through training, rehabilitation, and raising awareness, with the aim of integrating them in the society and involving them in social responsibilities and SD plans.
- Issuing regulations and instructions during the first year of the Strategy aiming at achieving balance and fairness in the provision of services and infrastructures for vulnerable groups at all levels, and following up the commitment to these regulations.
- Activating the roles of CSOs and municipal councils, being part of the social safety nets.
- Preparing a comprehensive program during the first year of the Strategy with the aim of
 coordinating efforts among stakeholders in bringing civil peace and establishing
 partnerships that alleviate psychological, social, and economic pressures on vulnerable
 groups.

- Issuing an efficient rule or legislation for social subsidies provision during the first two years of the Strategy.
- Holding a general conference during the first two years of the Strategy with the aim of
 presenting recommendations required to activate cooperation among stakeholders to
 develop a new reference for social work to consider replacing the semi-absolute
 dependence on government (official institutional frameworks) with activation of the
 role of NGOs (voluntary work) and of the individuals and groups in the community
 (hometown, region..etc.), in addition to adopting and implementing these
 recommendations.

4.2. Goal-Achievement Monitoring Indicators

- Annual rate of the amendment of the government policies directed towards vulnerable groups, or of the adoption of new policies.
- Annual rate of the number of people with special needs, covered with social services.
- Annual rate of the number of orphans cared for and provided with basic living needs.
- Annual rate of the number of widows and divorced women with no source of livelihood, but are cared for and provided with acceptable livelihood opportunities.
- Annual rate of the number of training and rehabilitation courses implemented for vulnerable groups to empower them and integrate them in the society.
- Annual rate of sheltering, housing, and secure accommodation for vulnerable groups.
- Annual rates of amounts of money allocated to social safety programs (social care), and the annual rate of the number of vulnerable groups included in such programs.
- Annual growth rate of the types of social services provided for vulnerable groups, by stakeholders (municipal councils, religious institutions almsgiving, charity...etc. CSOs, etc.)
- Annual rate of the number of new decisions and instructions issued to enhance the social subsidies programs, or to modify the current decisions and instructions.
- Annual rate of the total number of social safety programs implemented by governmental institutions, compared with the rate implemented by other society institutions.

Part Four: Poverty

The issue of poverty has been one of the major challenges over the past three years. However, development efforts were not paid well to address this issue due to conditions, policies, and changes witnessed by the Kurdish society over the past decades. The situation was worsened by the crises associated with the change of political, economic, and social conditions during the past period, accompanied with violence, displacement, marginalization, campaigns of genocide, and destruction of all institutional structures.

The long period of crises left structural ramifications on the overall conditions, most importantly; it worsened the levels of poverty. In spite of the large achievements over the past few years, many major challenges and obstacles still threaten the human security of the Kurdish society particularly and the Iraqi society generally.

The results of surveys and field studies of Iraq- including the Kurdish Region- indicate that about a quarter of the population live with deprivation and poverty as a result of the crises, lack of security and stability, wide disparity in income levels, gender inequality, and clear disparity in deprivation levels among regions and governorates.

1. Poverty

1.1. Poverty Characteristics

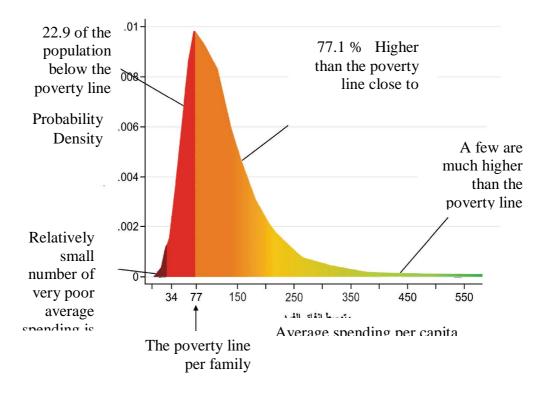
Recognizing the poor and their geographical locations in order to targeting them is the starting point for any view and initiative aiming to study and analyze the different dimensions of poverty when formulating short-term solutions and long-term strategies. PRSP has been issued lately by COSIT/MOPDC in cooperation with KRSO with the support of the World Bank. This paper is the key source to be adopted in order to discuss poverty in the Region.

1.2. **NPL**

In order to determine the NPL, PRS data, based on the results of IHSES, have depended on calculating the cost of calories necessary to sustain the individual's health. Depending on the above-mentioned survey results, the cost of per capita monthly basic food needs is ID 34,250; consequently, this amount is marked as the food PL. Based on the expenditures of households located at the food PL, the estimated PL of goods and nonfood services is ID 42,646 per person monthly.

By adding the cost of basic food needs to the cost of nonfood needs, PL for the whole federal government of Iraq is ID 76,896 per person monthly. Hence, about %22.9 (6.9 million) of the population of federal Iraq are below PL. It should be noted that food and nonfood expenditure used to calculate PL adopts the internationally recognized economic definition of expenditure, based on the market prices rather than paid prices, which might sometimes be less than market prices. Besides, this calculation of PL also includes expenditure on rationed goods.

The distribution of individuals by average per capita spending shows that the majority is located at PL, and a few are located far from it. Hence, if any family of the non-poor is exposed to any decrease in its incomes (losing job, losing breadwinner, illness of a family member, etc.) or increase in its consumer needs, it might fall below PL, as shown in the following chart:



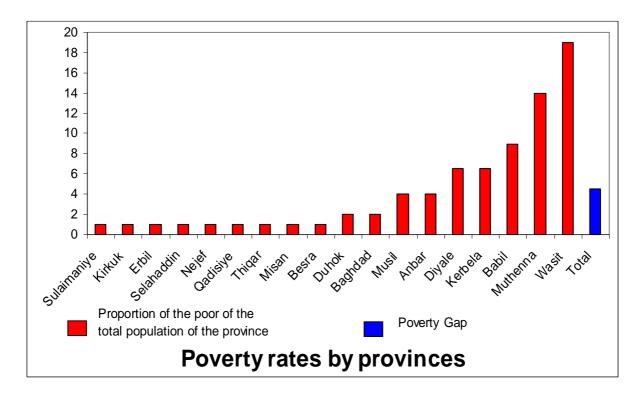
The poverty line and the average monthly spending

Federal Iraq has an estimated poverty gap of %4.5. This means that most poor people's consumption is very close to PL and that the relative improvement in their incomes or the increase of their share of government spending on public services can lift them out of poverty. The size of this gap varies sharply among governorates. The data of the next chart show that, in term of poverty rate, Sulaymaniyah ranks lowest among the eighteen governments in federal Iraq, followed directly by Kirkuk then Erbil, while Duhok is in the tenth place due to its high poverty rate.

1.3. Poverty Rate in Governorates

Governorates all over federal Iraq vary in terms of poverty rate and gap. However, according to the data provided by IHSES in 2007 and PRS in 2009, such rates in the governorates of Kurdistan Region are the lowest compared with the other Iraqi governorates, since the poverty rate and gap are lower than %10, while the rate and the gap exceed %40 of the population of some Iraqi governorates, as shown in the following chart:

Poverty rate by governorate



1.4. Poverty Rate in Urban and Rural Areas

Tracing the distribution of the poor between urban and rural areas shows that while three quarters of the Region's population live in urban areas (%77.6); half of the poor live in the rural areas. This indicates that the social and economic conditions in rural areas create a poverty-generating environment. This situation is aggravated by the increased TFR and LBR. According to some estimations, the Region's PGR is 3% (%3.5 in rural areas and %2.7 in urban areas).

1.5. Poverty and Unemployment Rate

IHSES data point to the weak correlation between poverty and unemployment in the federal Iraq's governorates. While the overall poverty rate of the governorates is %39 in rural areas and %16 in urban areas, the overall unemployment rate is %11 in rural areas and %12 in urban areas. The image might differ at the level of Kurdistan Region as the estimated poverty rate in the rural areas is about %13, and decreases to %6 in urban areas. Comparatively, according to the data provided by KRSO, the unemployment rate is about %17.55 in rural areas, and decreases to %10.65 in urban areas (governorates' centers, districts and subdistricts). These rates might indicate some kind of relation between poverty and unemployment rates.

2. Strategic Challenges

1) Alleviating the negative impacts of the economic boom witnessed by the Region, as it has sometimes led to inflation and rise in prices of some basic livelihood needs, costs of fuel, transportations, rent...etc.

- 2) Insuring GG to improve the economic and social structures, enhance the efficiency of government performance, improve mechanisms of decision-making and policy-developing, and establish and develop institutions that support economic growth.
- 3) Achieving PRS goals with a high degree of focus and seriousness, which is one of the major challenges confronting this Strategy.

3. Future Trend 3.1. Vision

Enhancing the social safety and coherence, and expanding the empowerment and efficient social protection to include the poor.

3.2. Mission

Establishing the institutional, economic, social, and political base for a development project that reduces poverty, changes views regarding it, empowers the poor and helps them enhance their integration in the society and play their role in the economic development and social coherence.

3.3. RDS Goals

During its implementation period, the Strategy seeks to contribute to the achievement of the goals that are in harmony with PRS goals and with national efforts paid to fulfill MDGs. Hence, the following goals are adopted:

- Higher work income for the poor through increasing productivity, creating job opportunities and soft loans.
- Improvement of the poor's health level through emphasizing the preventive and curative health services. Policies include improving primary health care, delivering drinking water and sanitation services to poor areas, increasing the coverage of these areas with the activities of the expanding immunization program and reproductive health programs, and improving the poor's nutrition.
- Education promotion and improvement among the poor as there is big disparity between the poor and the non-poor, and between urban and rural areas, and among the governorates. This shows the lack of awareness regarding the importance of education, and the failure of the educational system to provide sufficient schools and their needs.
- Better housing environment for the poor, which meet the minimum basic criteria and requirements of the individual's life in terms of suitability, and provision of drinking water, sanitation services, and electricity.
- Efficient social protection for the poor through rectifying the social care system and the targeted group, in addition to separating those who are included in permanent social care subsidies (the disabled, widows, the elderly...etc.) from those who are eligible to temporary subsidies until the change of the condition causing their denial of income. The social care policy should observe the two important aspects of the poverty rate and gap, being the standards defining the amount of the given subsidy.

• Less difference between poor men and women in favor of any of them, through achieving equality in education, job opportunities, and fair incomes. The reasons for the general disparity between men and women do not result from a legislative weakness, but from a collection of social and culture factors.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Providing the factors that increase the productivity of agricultural work for the poor by %5 annually.
- Setting a lending program for income-generating activities for the poor during the first year of the Strategy.
- Issuing a system that reviews the minimum daily wage according to the changes in NPL during the first year of the Strategy.
- Establishing efficient employment offices (at least 25 in all governorates during the first two years of the Strategy) easily accessible by the poor.
- Allocating the amounts of money required to provide governmental support to CSOs' initiatives to help the poor. These amounts should be decided annually by the MOLSA.
- Establishing or activating at least 5 evening craft centers and fast training programs in income-generating professions, especially for the poor, during the first two years of the Strategy.
- Including at least %10 of the poor households in primary health care services annually.
- Including %25 of the poor areas in drinking water and sanitation services annually.
- Covering %20 of the poor areas with the expanding immunization program activities annually.
- Setting strengthening programs for the poor's reproductive health during the first year of the Strategy.
- Issuing and activating a law and instructions on compulsory basic education, especially in rural areas and poor neighborhoods.
- Covering %90 of the poor areas with basic and middle education through establishing a sufficient number of schools during 5 years.
- Amending the law and instructions of the social care nets, and making them available only to those subsidized households who enroll their children in basic education.
- Increasing the procedures and activities that decrease the number of illiterates in the poor areas by %20 annually.
- Preparing and applying curricula that link vocational education to the labor market, especially in agricultural and rural sectors.
- Adopting a government program aiming at building suitable housing units for the poor with favorable terms. Amounts of money shall be allocated to such program by MOCH during the first two years of the Strategy.
- Reviewing and activating the implementation of procedures that guarantee the good application of the social care net system during the first year of the Strategy.

- Issuing instructions that obligate the use of NPL to identify the groups that should be subsidized, during the first year of the Strategy.
- Preparing a program directed to address the factors causing the decline in the rates of female enrollments in primary, middle, and secondary education in the poor areas, during the first year of the Strategy.
- Preparing and implementing 25 training programs annually in order to increase the number of available job opportunities for poor women.

4.2. Goal-Achievements Monitoring Indicators

- Annual rate of the productivity of the poor's work by economic sector, especially the workers in the agricultural sector.
- Number of loans given to the poor through the national poor-loan program for incomegenerating activities.
- Annual number of employment offices for the poor and the annual number of beneficiaries.
- Annual number of CSOs' implemented initiatives supporting the poor, funded and supported by government bodies.
- Annual number of evening fast training centers to qualify the poor to get incomegenerating professions, and the annual number of beneficiaries.
- Annual number of the poor benefiting from primary health care centers.
- Annual rate of the poor areas covered with drinking water and sanitation services.
- Annual rate of the number of the poor included in the expanded immunization program.
- Annual rate of the number of the poor included in the strengthening program of reproductive health.
- Annual number of the poor children enrolled in basic and middle education, and those who continue their study, especially females.
- Annual number of schools established in the poor areas.
- Annual rate of the decrease in the rate of illiteracy among the poor households.
- Annual number of housing units implemented in the poor areas.
- Annual number of the poor included in the social care net.
- Annual number of poor women participating in training and qualifications courses.
- Annual rate of the implementation of goals of the national PRS.

Part Five: Families of the Martyrs, Genocide Victims, and Political Prisoners

The government has been focusing on the sanctity of the matter of martyrs and genocide victims. It has sought to honor martyrs, perpetuate their memory as they have sacrificed themselves for the freedom of Kurdish people, and provide care and the best services for their families, being part of the Kurdish society's different groups looked after by the government.

During the past years, many achievements have been made in the area of honoring martyrs and perpetuating their memory. Nine events have been appointed annually as national occasions to celebrate the exploits of hero martyrs, praise their sacrifices, and honor their

families. Number of families of martyrs and genocide victims and families of political prisoners, who receive monthly salaries from MOMA, is more than 83,000 and 403 respectively. In addition to the monthly salaries allocated to the former families, the government provides them with health, educational, social, and housing services. This is illustrated in the table (80):

| Table 80 | Numbers of Families of Martyrs and Genocide Victims, Benefitting from Services (2007-2009), by Service Type | | | | | |
|---------------------------------------|--|--------|--------|--------|--|--|
| Service Type | 2007 | 2008 | 2009 | Total | | |
| Health | 46215 | 32932 | 65945 | 145092 | | |
| Social Services | 882 | 411 | 8672 | 9965 | | |
| Education | 490 | 3146 | 601 | 4237 | | |
| Housing (Lands, Residential Units) | Unavailable | 2713 | 1780 | 4493 | | |
| Total | 47587 | 39202 | 76998 | 163787 | | |
| % | 29.06 % | %23.93 | %47.01 | %100 | | |

Source: MOMA/KRG

Though the great effort paid in this domain, the government strives to include all the families of martyrs, genocide victims, and political prisoners under its care, and enhance the services package provided to them, in order to guarantee them a decent life worthy of the supremacy of the martyrs' sacrifices for the freedom and progress of Kurdish people and for guaranteeing freedom for future generations.

1. Strategic Challenges

- 1) The magnitude of the tragedy suffered by Kurdish people during the past decades, its enormous negative effects, and the large number of victims and their families are all factors that generate a major challenge in front of the government, and a wide variety of services that should be provided within the legally authorized rights of those families.
- 2) Honoring the martyrs and genocide victims, perpetuating their memory, and caring for their families are social issues, the concern about which is not limited to governmental institutions only, as it demands cooperation among governmental, nongovernmental, and social groups' efforts.
- 3) Sometimes, there is a need to amend and develop some of the current legislations related to honoring martyrs and caring for their families. This demands reviewing the legislative environment that supports the governmental institutions' efforts.
- 4) Slow procedures and delay in paying compensations for the families of martyrs and genocide victims by the federal government in spite of the approval of the Federal Parliament on 14/04/2008 that the crime committed against Kurdish people was a genocide crime.

5) Lack of cooperation and coordination from the side of the federal government regarding shared issues related to martyrs and genocide victims, especially with regard to unveiling the mass graves.

2. Future Trend

2.1. Vision

Honoring the martyrs and genocide victims, perpetuating their memory, caring for their families and ensuring a decent life that commensurate with the extent of the damage and suffering they have been exposed to.

2.2. Mission

Perpetuating the memory of martyrs and genocide victims, praising their sacrifices, providing their families with spiritual and material support to alleviate their suffering resulted from psychological and social pressure they have been exposed to, satisfying their livelihood needs, and guaranteeing their legal and political rights to compensations.

2.3. RDS Goals

- Honoring the martyrs and genocide victims, perpetuating their memory, holding events to revive this memory, and explaining the crimes against them.
- Providing the families of martyrs and genocide victims with spiritual and material support and means of decent life.
- Collecting and documenting facts and unveiling them locally and internationally to show how massive and horrible the crimes against the Kurdish people were.
- Researching and investigating the fate of missing people, disclosing the mass graves, attempting to recognize the victims' identities, and returning their remains to their hometowns.
- Enhancing the cooperation and coordination with the federal government and international governmental and nongovernmental organizations to acknowledge the crimes committed against the Kurdish people, and track down the perpetrators of crimes.
- Developing the legislative and legal environment related to issues of martyrs and genocide victims through employing and benefiting from international agreements and protocols, and the experiences and expertise of local and international organizations and countries.

3. Strategic M&E

3.1. Goal-Achievement Indicators

• Holding events to honor and perpetuate the memory of martyrs and genocide victims through increasing the number of local information programs by %50, number of memorials by %40, and numbers of perpetuation ceremonies by %100 during 5 years.

- Enhancing the various services package provided for families of martyrs and genocide victims as follows:
 - -Increasing the number of opportunities of treatment outside the Region by %10 for ill people, and covering health and medical needs inside the Region by %100 within 5 years.
 - -Increasing the number of land plots and housing units granted to beneficiaries by %20 annually until covering the total number within 5 years.
 - -Increasing the number of beneficiaries from educational services and training and qualification courses by %10 annually.
- Expanding the operations of collecting and documenting facts, supporting local capacities and expertise, and preparing field studies, by %5 annually.
- Increasing the degree of cooperation with the federal government by %10 annually in order to expand the scope of capacities and increase the local abilities to investigate and disclose mass graves, including establishing courses, forming work teams, preparing and disseminating reports,.
- Paying wider efforts to locally, regionally, and internationally explain how horrible and massive the crimes committed against the Kurdish people were, through increasing the number of conferences, seminars, exhibitions, and field visits, as well as forming advisory offices, by %5 annually.

3.2. Goal- Achievement Monitoring Indicators

- Annual rate of the number of events dedicated to honoring martyrs and genocide victims and perpetuating their memory, built memorials, and implemented information programs.
- Annual rate of the medical and treatment services provided to their families inside and outside the Region.
- Annual rate of the number of lands and housing units distributed to these families.
- Annual rate of the number of students included in educational services in their different educational levels among these families.
- Annual rate of the number of prepared and disseminated leaflets and reports, which show documents and evidences as well as collectibles of the martyrs and the genocide victims.
- Annual rate of the number of disclosed mass graves, identified martyrs and victims, and documented evidences and collectibles.
- Annual rate of the number of conferences, seminars, and exhibitions aiming at showing the crimes of the overthrown regime



Chapter 12: Spatial Development and ES

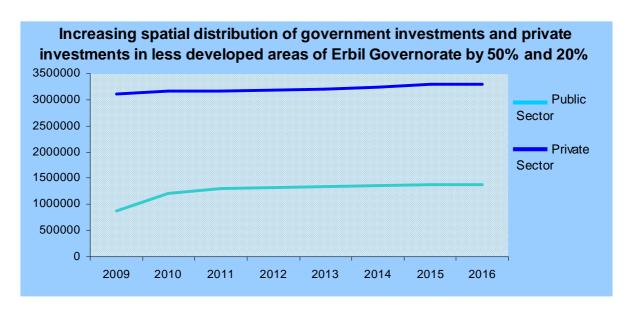
Comprehensive development and planning focus, inter alia, on spatial development and ES since they are pillars of the fundamental activities aiming at society advance. As spatial development contributes to infrastructure development, poverty reduction, job creation, education and healthcare provision etc., it allows distributing economic, social, cultural educational and health development among all cities and rural and urban areas. On the other hand, ES, the 7th MDGs, becomes a high priority issue world-wide.

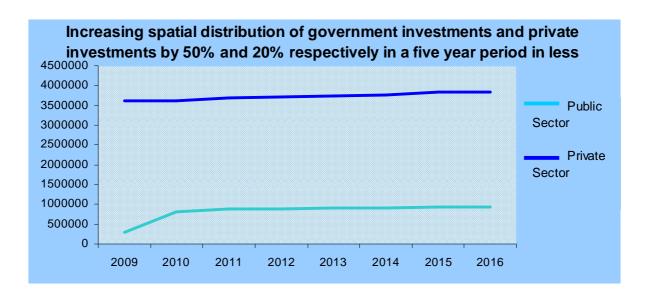
In its first part, this chapter presents key policies of spatial development, including those of industrial zones, newly established cities, GCs (poles), rural settlement and development, and spatial distribution of investment. It then discusses the Region's spatial development features in terms of spatial concentration of economic activity and population, and SV of economy. Also, CAIs of industrial localization, agricultural development, tourism promotion, road network and transportations are discussed. In addition, SV, DI and QLI at governorate level are addressed. This first part is concluded with presenting spatial development potentials.

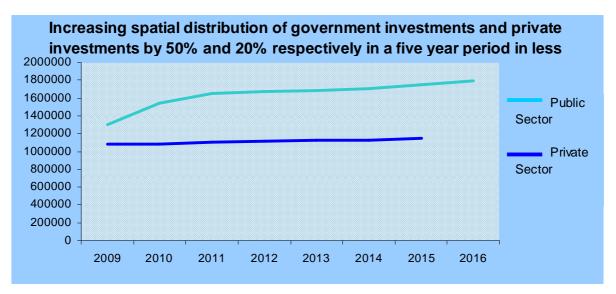
In the second part which is concerned with ES, causes of air, water and soil pollution, along with desertification, solid wastes and garbage are presented.

Basing on the challenges facing spatial development, future trend of vision, mission and strategic goals could be defined. Such challenges are determined by analyzing the status quo depending on the adopted indicators. Major goal-achievement indicators are presented in percentages, numbers or quantities targeted during the Strategy years. Also, goal-achievement monitoring indicators will be presented.

A chart outlining the most important expected results compared with the current situation







Part One: Spatial Development

Spatial development primarily aims at achieving a fair and balanced distribution of development and reducing economic, social and urban disparities among governorates and cities as well as between rural and urban areas by efficiently exploiting and investing the resources and CAs of each area. Complying with integrated development principle, spatial development aims at relative development balance, maximized economic development gains at national level and fair distribution of such gains among governorates and areas.

1. Current Situation

There are many factors standing behind channeling investments (both public and private) into certain areas without others. Such factors include areas potentials (or the so-called spatial advantage), human and physical conditions required to receive such investments, and market, as well as services and infrastructures needed by those areas. This applies to productive industrial, agricultural and tourism activities.

1) Spatial Development Policies

Generally, spatial development in the context of regional planning is based on the following key policies and principles:

1.1) Industrial Location Policy

There is a need for distributing economic development and industrial activities all over governorates, achieving spatial development balance, reducing social and economic disparities, distributing people in a balanced manner and reducing people concentration in large urban centers. To meet this need, industrial location policy has been adopted whether as individual projects or large industrial clusters.

Industrial development indicators (manpower and added value by governorate) reflect the relative domination of one governorate or area over others within the Region's industrial structure. Though the industrial GDP increased from ID 61.9 milliard in 2004 to ID 197.1 milliard in 2008, i.e. by 218.4 %, the industrial activity's contribution to GDP ranged between 2.6% in 2004 and 2.1% in 2008. Erbil, Duhok and Sulaymaniyah shares of industrial investment capital were 54%, 13% and 33% respectively as set out in the table (81):

| Table 81 | Total Capitals I | Total Capitals Invested in Industrial Facilities, by Governorate 2003- 2008 (ID million) | | | | | | | |
|----------|------------------|---|--------------|-----------|--|--|--|--|--|
| Year | Erbil | Duhok | Sulaymaniyah | Total | | | | | |
| 2003 | 12,626 | 11,800 | 60,180 | 84,606 | | | | | |
| 2004 | 140,420 | 21,240 | 81,420 | 243,080 | | | | | |
| 2005 | 186,440 | 41,300 | 100,300 | 328,040 | | | | | |
| 2006 | 265,500 | 69,620 | 122,720 | 457,840 | | | | | |
| 2007 | 283,200 | 77,880 | 149,860 | 510,940 | | | | | |
| 2008 | 381,140 | 92,040 | 258,420 | 731,600 | | | | | |
| Total | 1,269,326 | 313,880 | 772,900 | 2,356,106 | | | | | |
| % | %54 | %13 | %33 | %100 | | | | | |

Source: MTI/KRG

Additionally, industrial zone areas differ from one governorate to the others (about 3,100 dunam in Erbil, 420 dunam in Duhok and 1,530 dunam in Sulaymaniyah); of each only half is occupied.

| Table 82 | Industrial Zones by Governorate, 2008 | | | | | | | | |
|----------------------------------|---------------------------------------|------------------------------------|-------------------------|------------------------------------|-------------------------|------------------------------------|-------------------------|------------------------------------|--|
| | Erbil | | Duho | Duhok | | niyah | Tota | Total | |
| Governorate | Governorate's Center | Districts and Sub- Districts | Governorate's Center | Districts and Sub- Districts | Governorate's Center | Districts and Sub- Districts | Governorate's Center | Districts and Sub- Districts | |
| Number of Industrial Zones | 2 | 8 | 1 | 6 | 3 | 12 | 6 | 26 | |
| Area (dunam) | 2,030 | 1,070 | 100 | 320 | 840 | 690 | 2,970 | 2,080 | |
| Factories | 577 | 293 | 75 | 226 | 312 | 361 | 964 | 880 | |
| Occupied Area | 1,124 | 401 | 50 | 98 | 360 | 263 | 1,534 | 762 | |

Source: MTI/KRG

Erbil is obviously the most industrial activity attracting governorate while attraction rate clearly decreases in Duhok due to many factors, including the absence of a comprehensive policy for spatial development, which in turn undervalued the industrial location policy. As this policy was not implemented in the way intended to achieve spatial development goals integrally, population as well as economic, social and urban activities remained concentrated in certain cities without others.

1.2) New City Policy

This policy aims at limiting population concentration in certain areas and addressing the accelerated growth of population in central cities and larger urban areas due to concentrated economic development. New cities should be established around central cities to absorb population excess and create the proper environment for new industrial investments. The demographic situation indicates that 80% of population inhibits governorate's centers, while only 20% inhibit districts, sub-districts and rural areas. That city centers attract most industrial and investment activities, and consequently people, at the expense of other places is clearly manifested by this distribution which is enough to explain the reasons behind the increasing migration from governorate outskirts to the centers. This necessitates serious consideration for distributing the investments and developing the infrastructures in marginal cities in order to mitigate pressure on central cities. The table (83) shows some of population concentration features:

| Table 83 | | P <mark>opulati</mark> o | pulation by Environment and by Governorate, 2009 | | | | | | |
|--------------|--------------------------|--------------------------|--|-------|-----------|---------|--|--|--|
| Table 65 | Population (inhabitants) | | | | | | | | |
| Governorate | Governorate's Center | % | Districts, Sub-Districts and Rural Areas | % | Total | % | | | |
| Erbil | 795,609 | 46.33 | 921,675 | 53.76 | 1,717,284 | 36.55 | | | |
| Duhok | 312,874 | 26.57 | 864,840 | 73.43 | 1,177,714 | 25.06 | | | |
| Sulaymaniyah | 736,508 | 40.83 | 1,067,284 | 59.17 | 1,803,792 | 38.39 | | | |
| Total | 1,844,991 | 39.27 | 2,853,799 | 60.73 | 4,698,790 | 100.00% | | | |

Source: KRSO/KRG

1.3) GCs Policy

It is of the measures aiming at spatially distributing the development as well as at population re-distributing. It is implemented directly in conjunction with the previous section and according to the need to develop settlement plans and focusing on rural development.

1.4) Settlement and Rural Development Policy

Rural settlement policy focuses on the standards and principles of electing central villages as rural development (mother) poles able to encompass the near villages, in order to eliminate the problems of scattered rural settlements and the difficulty of providing them with public services.

Spatial development achieving requires developing a rural settlement plan according to a scientific and practical methodology that contributes to the identification of the villages elected depending on economic, social and urban data analyzing. The plan is to suggest decreasing the number of villages to support their development, provide them with public services and increase their ability to attract investment.

For the plan to be effective and of positive results, villages' representatives and farmers should be involved in electing villages. Such involvement stresses the role of communities in planning processes.

1.5) Policy of Spatial Distribution of Investment

Investment is an important dimension of spatial development reshaping, and a method attempting at limiting development variability among governorates as well as between rural and urban areas, and spreading industries, agricultural development, reclamation of land, and competence infrastructure development, especially roads.

For the purpose of tracing how investment is actually distributed among governorates, we should consider two aspects: private investment distribution (both local and foreign), and public investment distribution among governorates. Trends, goals and reasons incentivizing and attracting private investment obviously differ from those of public investment.

Concerning private investment, the table (84) shows that during 2007-2009, Erbil acquired the largest share (60.06%), while those of Sulaymaniyah and Duhok were about 36.19% and 3.74% respectively. This division reflects a significant difference in distributing the private investment to governorates, and represents a great challenge to be addressed in this Strategy.

| Table 84 | Spatial Distribution of Investments of Local and Foreign Private Sector, by Governorate 2007-2009 (ID billion) | | | | | | | | | |
|--------------|--|------|-----------|-------------------|-----------|------|------------|------|--|--|
| Table 64 | 2007 | | 2008 | | 2009 | | Total | | | |
| Governorate | Amount | % | Amount | % | Amount | % | Amount | % | | |
| Erbil | 3,174,002 | 73.4 | 1,398,618 | ⁷ .934 | 3,102,450 | 860. | 7,675,070 | .160 | | |
| Duhok | 8,944 | 0.2 | 207,948 | 25. | 361,612 | 95. | 478,504 | 3.7 | | |
| Sulaymaniyah | 1,139,242 | 426. | 2,404,818 | 59.9 | 1,081,106 | 24.3 | 4,625,166 | .236 | | |
| Total | 4,322,188 | 100% | 4,011,384 | 100% | 4,445,168 | 100% | 12,778,740 | 100% | | |

Source: BOI/KRG

Regarding the public investments, the table (84) shows a decrease in 2009 share disparities among governorates on the on hand, and between the governorates' centers (48%) and their affiliated districts and sub-districts (52%) on the other. This represents a proper downward trend in SV in terms of services and infrastructure. Investments in districts and sub-districts were larger in number than those of the governorates' centers; however, the former investment allocations out of total investment budget in 2009 (37%) were less than those for the latter (63%).

Such difference is attributable to many factors, some of which are mentioned in the previous sections of this chapter, including deprivation extent and each governorate population out of total population.

The table (84) also shows that these allocations for districts and sub-districts (less developed areas) in Erbil and Sulaymaniyah were less than those for governorates' centers (more developed areas). In Duhok, these allocations were a little bit more than the half.

The table shows that allocations of investment projects by governorate in 2009 were 44% for Sulaymaniyah, 39% for Erbil and 17% for Duhok.

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⁷ Translator's comment: Most of these percentages are incorrect.

| Table 85 | Spatial Distribution of Government Investment Projects by Governorate, 2009 (ID million) | | | | | | | | | |
|------------------|--|----------------------|--------------------------------|-------------------------------|-----------------------------|--------------------------------|-------------------------------|----------------------|--------------------------------|--|
| Table 65 | Governorate's Center | | | District | Districts and Sub-Districts | | | Total | | |
| Governorate | Numbe r of Project s | Their Amount s | Out of Total Amount s | Numbe r of Project s | Their Amount s | Out of Total Amount s | Numbe r of Project s | Their Amount s | Out of Total Amount s | |
| Erbil | 367 | 2,555 | %68 | 393 | 1,216 | %32 | 750 | 3,771 | %39 | |
| Duhok | 243 | 785 | %49 | 209 | 822 | %51 | 452 | 1,607 | %17 | |
| Sulaymaniya h | 559 | 2,678 | %63 | 656 | 1,540 | %37 | 1,215 | 4,218 | %44 | |
| Total | 1,159 | 6,018 | | 1,258 | 3,578 | | 2,417 | 9,596 | | |
| % | %84 | %63 | | %52 | %37 | | %100 | %100 | %100 | |

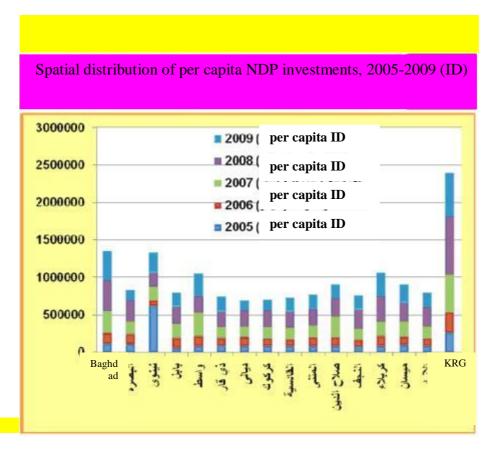
Source: Ministry of Planning/KRG

The relative variation in population employment rates among the governorates, as set out in the table (86), stresses the existence of overall variation. These rates are 37.2% in the public sector and 49.2% in the private sector in Erbil; 51.9% and 40.1% respectively in Duhok; 33.3% and 59.1% respectively in Sulaymaniyah.

| Table 86 | Employment of Working-Age Population, by Economic Sector and by Governorate | | | | | | |
|--------------|---|----------------|--------------|--------|--|--|--|
| | Employment Rate % | | | | | | |
| Governorate | Government Sector | Private Sector | Joint Sector | Others | | | |
| Erbil | 37.2 | 49.2 | 1.3 | 12.3 | | | |
| Duhok | 51.9 | 40.1 | 0.1 | 7.9 | | | |
| Sulaymaniyah | 33.3 | 59.1 | 0 | 7.6 | | | |
| Average | 38 | 52.3 | 0.5 | 9.2 | | | |

Source: KRSO/KRG

The following figure taken from NDP developed by MOPDC compare between per capita NDP investments (2005-2009) at the governorates level. Differences between the Region's governorates and other Iraqi governorates are clear. This distribution contributes to the explanations of spatial development theories, showing that the same level of development cannot be achieved in all areas at the same time, since development gains are distributed by stages and in a hierarchal manner. This means that GCs, which actively contributed to the comprehensive development of their areas and the surrounding ones, will maintain their supremacy.



In addition to the previous analyses, this Strategy aims at many other goals, including setting up regional development bases and standards basing on which some cities' shares of investments (especially those of the industrial sectors) are reconsidered when preparing investments budgets and distributing private investments (both local and foreign). Additionally, projects distribution should not be determined only by economic factors, but also by standards and indicators to be developed to prioritize governorates and central cities, and spatially define activities.

Some experiences, on the other hand, indicate that distributing allocations to governorates should be based on population and its relative importance in each governorate. Such standard largely meets the actual needs for investments as human beings are the ultimate goal of all development efforts. Thus, the more population governorate or large city has, the greater becomes its need for investments, especially regarding public services and infrastructures. The table (87) compares between population rates and project investment allocation rates of 2009 budget in the three governorates' centers, districts and sub-districts:

| Table 27 | Spatial Distribution of Government Investment Projects Compared to Governorate Population, 2009 | | | | | | | | |
|--------------|---|-------------|-------------------|---------|--------------|---------|--|--|--|
| Table 87 | Governora | te's Center | Districts Dist | | Total | | | | |
| Governorate | Population % | Amount% | Population % | Amount% | Population % | Amount% | | | |
| Erbil | %78 | %68 | %22 | %32 | %38 | %39 | | | |
| Duhok | %74 | %49 | %26 | %51 | %25 | %17 | | | |
| Sulaymaniyah | %85 | %63 | %15 | %37 | %37 | %44 | | | |

Source: Ministry of Planning/KRG

2) Spatial Development features in the Region

The mode of spatial distribution of investment varies according to the economic sectors and activities. To suppose a direct proportion between a governorate's investment volume on the one hand and its population, and the need for and deprivation of public services and infrastructure on the other, means that investment volume in productive sectors and tourism, for example, should also be in proportion with development capacities and CA of each governorate. Additionally, some of the economic activities have spatial requirements which channel them into certain area without others. Such activities service more than one governorate if not the entire Region; therefore, they cannot be considered only within the investment volume of the governorate they are located in. Spatial development in the Region has the following general features:

2.1) Spatial Concentration of Population and Economic Activity

Several data and statistics indicate a clear variation in economic and social development level among governorates on the one hand, and between governorates' centers and districts, subdistricts and rural areas on the other. This variation could be attributed to historical reasons that have continued over time, and resulted in a largely increased migration towards these centers in an arbitrary manner that contributed to this SV in development economic, social and urban dimensions. As cities of economic growth are themselves the centers of concentrated population, people distribution is affected by this variation. Additionally, the more urbanized and economically developed is an area, the more it attracts other areas' growth elements. For Example, Erbil attracted 60% of private investments during 2007-2009 and 39% of public investments in 2009, while Duhok attracted only 3.7% and 17% respectively for the same periods. Therefore, achieving the required balance in spatial development dimensions necessitates developing state development policies promoting state investments. Such policies were adopted by 2009 investment budget, and to be strengthened by this Strategy in the coming years.

2.2) SV of Economy

Drawn from spatial development experience is the so called development variability. This term refer to central and limited development centers (cities) characterized by a CA of developments and external economies (like economies of location), giving them preference over others regarding attracting private and public investments. Growth level in these areas

could be observed by sector growth rates of different economic activities, like number of industrial establishments and PGR.

| Table 88 | Numbers of Industrial Establishments, by Governorate 2003-2008 | | | | | | | |
|--------------|--|-------|-------|-------|-------|-------|-------|------|
| Governorate | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | Total | % |
| Erbil | 473 | 527 | 628 | 712 | 807 | 821 | 3,968 | %48 |
| Duhok | 74 | 101 | 171 | 223 | 259 | 302 | 1,130 | %41 |
| Sulaymaniyah | 248 | 383 | 492 | 596 | 683 | 741 | 3,143 | %38 |
| Total | 795 | 1,011 | 1,291 | 1,531 | 1,749 | 1,864 | 8,241 | %100 |
| Growth Rate | Base Year | 127% | 162% | 192% | 220% | 234% | | - |

Source: MIT/KRG

3) Spatial CA and Development Resources

The economic and geostrategic role of any governorate is determined at the macro-level by many factors, including its available resources, CAs, location, and demographic and ethnic peculiarities. For cities whose economic and cultural roles extend beyond the Region itself, these roles should be accurately defined and development programs and methods to perform them should be set up. Therefore, key CAs of development resources and their spatial distribution in governorates should be considered.

3.1) CAI and ILI

ILI is one of the most common indicators used in SA and estimation of a governorate's relative specialization in certain industries. ILI represents a certain area's relative share of a defined industrial activity in relation to a standard area's relative share of the same activity, which is used for national comparison. ILI is measured by diverse variables including workers' number, added value, and production value.

CAI indicate that Erbil, as set out in the table (88), attracted 48% of the Region's industrial activities, which reflects an industrial concentration in this governorate due to the various ILIs distinguishing it and attracting some industries.

3.2) CAI of Agricultural Development

There is variation in agriculture spatial advantage among governorates in terms of proper crop structure, vegetable and animal productivity. In 2007, average productivity of wheat was 1,180 kg/hectare (1,396 kg/hectare in Duhok and 1,088 kg/hectare in Sulaymaniyah). Duhok also came first in average barely productivity (1,268 kg/hectare) and was followed by Sulaymaniyah (964 kg/hectare).

As for livestock, there are many animal kinds in the Region, ahead of which come cattle, sheep, and goats as they provide food and other products as inputs for industry. As the table (89) shows, Duhok has the largest share of cattle (225,313 heads), and of sheep (1,281,195 heads), while Erbil has the largest share of goats (46,879 heads).

| Table 89 | Livestock (head), by Governorate 2006 | | | | | | |
|--------------|---------------------------------------|-----------|---------|-----------|---------|--|--|
| Governorate | Sheep | Goats | Cows | Total | % | | |
| Erbil | 399,442 | 468,749 | 82,680 | 950,871 | %42.85 | | |
| Duhok | 1,281,195 | 530,753 | 225,313 | 2,037,261 | %53.25 | | |
| Sulaymaniyah | 514,682 | 258,653 | 64,798 | 838,133 | %21.90 | | |
| Total | 2,195,319 | 1,258,155 | 372,791 | 3,826,265 | %100.00 | | |
| % | %57 | %33 | %10 | %100 | | | |

Source: MAWR/KRG

3.3) CAI of Tourism

The Region is enriched with diverse and important tourism potentials. Naturally speaking, climate and geographic diversity results in the existence of many tourism environments that are distinguished and competitive regionally and internationally. Diverse geographic features, moderate summers and snowy winters raise the tourism advantage of the attractive and fascinating mountainous northern areas. Other areas includes plains covered with orchards making them picnic attracting places, and pans filled with water turning them into lakes viable for many tourism activities.

Additionally, the Region is an important place for religious and archeological tourism as it is distinguished by cultural and religious heritage it has had since time immemorial. Antiques evidence indicates that the Region compromises about 56 historical sites, including cultural landmarks dating back to eras extending from the stone ages (one hundred thousand years ago) to the Islamic periods. Mosques with minarets and domes decorated with pure and glazed tiles are widespread, and most of which narrates ancient stories of prophets, holy men and scholars. Additionally, there are many old churches and monasteries.

3.4) Spatial Dimension and CA of Road Network

The Region has a considerable road network approaching 11,179 km; main (arterial) roads represent about 20.9% of it, secondary roads 36.5% and rural roads 42.6% as outlined in the table (90):

| Table 90 | Lengths of Roads (km) by Governorate, 2008 | | | | | | |
|--------------|--|--------------------|-------------|--------|---------|--|--|
| Governorate | Arterial Roads | Secondary Roads | Rural Roads | Total | % | | |
| Erbil | 960 | 900 | 1,550 | 3,410 | %30.50 | | |
| Duhok | 926 | 882 | 1,100 | 2,908 | %26.00 | | |
| Sulaymaniyah | 449 | 2,304 | 2,108 | 4,861 | %43.50 | | |
| Total | 2,335 | 4,086 | 4,758 | 11,179 | %100.00 | | |
| % | %20.90 | %36.50 | %42.60 | | | | |

Source: MOCH/KRG

4) SV, DI and QLI

The table (91) adopted by NRSHD 2008 and published in 2009, represents the guide of the unsatisfied key necessities since it shows levels of spatial deprivation of education, health, infrastructure, housing, housing environment, and economic situation.

QLI in Duhok was the lowest (12 points), followed by Erbil (5 point) then Sulaymaniyah (4 point) (the higher the points, the greater the level of deprivation).

As for deprivation level by the seven fields, Duhok had the highest deprivation level of education (44.4%) reflecting its poor educational sector, while Sulaymaniyah had the highest deprivation level of housing (35%). As for economic situation, Duhok had a deprivation level of (44.7%), which is twice Erbil's and more than twice Sulaymaniyah's. In rural areas, increased DI and decreased QLI are much evident compared with urban areas and large cities. Deprivation levels of education, health and housing in rural areas were two folds of those in cities. As rural areas experience much more suffering than urban areas, NRSHD indicates that QOL is closely connected to urbanization degree.

| Table 91 | Ra | Rate of Deprivation of Basic Needs by Field and by Governorate 2008 | | | | | | | | |
|--------------|--------------------|---|-----------|--------|-----------------|---------|------|--------|--|--|
| Governorate | Economic Situation | Protection and Social Safety | Education | Health | Infrastructures | Housing | QLI | DI (*) | | |
| Erbil | 22.4 | 31.3 | 33.7 | 38.3 | 32.9 | 31.1 | 26.4 | 5 | | |
| Duhok | 44.7 | 34.5 | 40.4 | 40 | 30.2 | 30.4 | 34.2 | 12 | | |
| Sulaymaniyah | 18.2 | 30.3 | 29.8 | 29.5 | 35.6 | 35 | 24.5 | 4 | | |
| Iraq | 34.1 | 32.6 | 27.9 | 27.2 | 52.8 | 28.7 | 28.7 | | | |

(*) 1/ the least deprived governorate, 18/ the most deprived governorate

Source: NRSHD 2008/ MOPDC and The House of Wisdom

NRSHD shows that Duhok ranked the 15th out of the 18 governorates in term of HPI due to a high illiteracy rate among adults (estimated at 41%). NRSHD reveals clear disparities among the Region's governorates as Erbil significantly outmatched Sulaymaniyah and Duhok with regard to education, healthcare and income; while Sulaymaniyah, as the table (92) shows, outmatched the two governorates in terms of rates of female education enrolment.

| Table 92 | HD Indicators by Governorate, 2008 | | | | | | | |
|--------------|------------------------------------|-------|-------|-------|--|--|--|--|
| Governorate | HDI | GDI | WEI | HPI% | | | | |
| Erbil | 0.652 | %0.62 | 0.742 | %26.4 | | | | |
| Duhok | 0.638 | %0.59 | 0.745 | %28.9 | | | | |
| Sulaymaniyah | 0.667 | %0.68 | 0.672 | %22.9 | | | | |
| Iraq | 0.623 | %0.58 | 0.696 | %18.8 | | | | |

Source: NRSHD 2008/ MOPDC and The House of Wisdom

5) Spatial Development Potentials

The Region has several factors that can constitute to the reorganization of spatial structure of development. These factors are diverse climate conditions, geographic areas, cultivable lands, constructive industries, water resources, carbohydrate riches, widespread infrastructure, and key and secondary DP. This re-organization aims at distributing economic activities and services in a more balanced and integrated way and in accordance with the economic, social and human advantages and peculiarities of the entire governorates or of their parts, so that development variability among governorates as well as between rural and urban areas are decreased, and SV of development as well as irregular distribution of human settlements is reduced.

Adopting the regional SA in this Strategy maximizes growth rates in many parts of the Region by properly exploiting the available resources, building regional partnerships and establishing development axes in line with the local resources.

2. Strategic Challenges

- 1) Continued SV of development presented in limited developed parts of large and central cities seizing most economic activity, services and infrastructure, while the remaining parts (especially in districts, sub-districts and rural areas) are less developed.
- 2) Persistent intensified spatial concentration in so limited number of large cities; Sulaymaniyah Governorate center attracts about 31.6% of total population, while that of Erbil is 29.9%, and they together attracts about two thirds (61.5%) of total population.
- 3) Continued migration from rural areas to cities and from small to large cities, resulting in exhausted productive human forces of rural areas and small cities, and pressured housing and public services in people attracting cities. Data and statistics indicate that urban areas have 80% of the Region's population.

- 4) Decreased incomes, poor quality public service and poverty concentration in rural areas, in addition to the difficulties faced in, and the non-economical feasibility of, delivering key services like education and healthcare to rural villages of less than 200-300 inhabitants.
- 5) Persisted variation in levels of public services, infrastructure and people concentration among governorates on the one hand and more clearly between rural and urban areas on the other; which deepens the gap in levels of deprivation and essential needs meeting between developed areas and underprivileged areas.
- 6) Urban sprawl at the expense of agricultural lands, and sometimes land use violation, especially within the cities master plans.
- 7) Increased desertification and deteriorated plant cover.
- 8) No master plans for rural settlements, which leads to unorganized uses of lands (mostly agricultural lands).
- 9) The necessary updating of long term master plans of land use, and developing new investments areas basing on scientific foundations, which spatially distribute investments.
- 10) Poor coordination between economic and industrial development policies in particular and those of urbanization and people concentration.
- 11) Poor exploitation of available resources in developing rangeland, which leads to decreased numbers of cattle, sheep and goat herds.
- 12) Poor exploitation of water bodies to improve the fish wealth.
- 13) Poor longitudinal and transverse connections between road networks and borders crossings.
- 14) Poor exploitation of tourism resources as well as the historical, archaeological, natural and recreational tourism though huge potentials.

3. Future Trend

3.1. Vision

Create a sustainable and integrated spatial development of equal opportunities for accessing services and infrastructure.

3.2. Mission

Achieve a spatial development balance responding to the needs, capacities and CAs of each area; narrow the development gap between rural areas and urban areas; and properly invest natural resources and CAs to minimize SV of development and the intensive concentration of people and economic activity.

3.3. RDS Goals

- Minimizing SV of development.
- Controlling population concentration in certain cities.
- Limiting the dominating cities phenomenon, and promoting the growth of small and medium cities.

- Prompting rural areas growth and receding its development differences from the urban areas.
- Minimizing the significant variation among governorates on the one hand and between a governorate's parts on the other in terms of public services and infrastructure.
- Filling the gap in key necessities meeting degree as a prerequisite of integral development.
- Adopting the principle of land use master plan in rural areas for the purposes of rational land use.
- Addressing desertification and plant cover deterioration effectively.
- Exploiting the resources of distinguished areas like mountainous areas, water bodies, grazing lands and forests by intense using depending on their natural peculiarities and CAs.
- Enhancing road network by building transverse roads for mesh connection among cities, especially small and medium ones.
- Minimizing poverty and improving rural areas economics as well as QOL.

4. Strategic M&E

4.1. Goal-Achievement Indicators

- Allocating at least 50% of state investment budget for service and infrastructure development in districts, sub-districts and rural areas, basing on their population volumes, deprivation levels in past periods, and peculiarities.
- Building at least one industrial zone in each of the three governorates outside districts cities. They should be environment-friendly, planned in accordance with the state-of-the-art standards and essentials, and provided with fully developed infrastructure, so that they are prepared to receive private sectors local and foreign investors.
- Increasing local and foreign private investment in less developed areas by at least 10% of annually invested funds by an incentive series proposed by BOI in cooperation and coordination with other government stakeholders.
- Electing 10 main villages of appropriate population volumes annually basing on scientific bases to be provided with service and infrastructure development programs.
- Developing and updating integral structural plans for organizing land uses during the first two years of this Strategy to promote development in GCs and achieve economic integration.
- Establishing a database for the Region during the first year of this Strategy.

• Raising the level of local planning staff's analytical capacities by annually providing 20 advanced training, qualifying or research opportunities contributing to the future development in future plans' preparing methods and approaches.

4.2. Goal-Achievement Monitoring Indicators

- Annual rate of total state investment expenditures allocated for service and infrastructure development in districts, sub-districts and rural areas.
- Annual number of industrial zones established, especially outside centers of governorates and districts.
- Annual growth rate of local and foreign private investment in less developed areas.
- Number of private investment (both local and foreign) incentives officially proposed and endorsed in order to channel investment into less developed areas.
- Annual increase in villages elected for service and infrastructure development.
- Annual number and types of services and infrastructures implemented in villages and rural areas.
- Annual increase in villages and rural areas population (by governorate) who benefit from service and infrastructure development programs.
- Annual number of developed and implemented land use plans.
- Annual number of the planning local staff's training, qualifying or researching opportunities implemented.

Part Two: ES

Over the past few decades, the Region experienced clear environmental negligence. Environment faced many problems and challenges of variant origins and future consequences that were not taken into account. Treatment of pollutants resulting from destruction, wars and genocides, through which Kurdistan people went, was insufficient. In addition, the bad relation on which environment could be with both the humanity and economy was not perceived. Combined together, these caused ecosystems to experience an obvious deficit, environment's natural features to change, water bodies to lessen, green area to diminish, and consequently the problems of desertification, salinity, water scarcity to exacerbate.

However, the environmental aspect has been paid special attention by the government in the few past years. Environmental work has no longer been viewed within the narrow perspective relating to specific service fields, but within a more comprehensive one evident by the many procedures and steps that have been taken. The Ministry of Environment was established within the Fifth Cabinet; a serious step towards changing the traditional and prevailing view that the environmental dimension is separated from economic and social dimensions of the developmental interactions. Also, the Parliament has endorsed the Law of Environment Development and Preservation which is one of the most effective laws addressing environment problems, setting up sever controls for this purpose, and adopting many goals such as developing an environmental database of pollution levels and origins; water, air, and biodiversity protection; noisiness controlling and raising the levels of environmental controls.

The importance of merging the environmental dimension with the economic and social ones in order to achieve SD is clearly manifested by the government trends towards abandoning

the traditional planning method based only on economic considerations and adopting, instead, the modern one which gives environment, having been clearly neglected for many years, the priority it deserves.

Accordingly, the determined projects and goals of this Strategy are to be based on urban, economic and social standards. Thus, environmental considerations will be part and parcel of the decision making process to align the strategic goals with the environmental goals.

1. Current Situation

1) Air Pollution

Major sources for air pollution are:

- Means of transportation, their increased numbers, and the bad quality of some.
- Industrial activity and poor gas treatment systems of some existing industries.
- Traditional production means adopted in different industries, especially using leaded fuel.
- Outdated ways of burning and burying house wastes and hospital hazardous waste.
- Supplying houses with electricity by small generators inconsistent with environmental efficiency requirements.

These sources have contaminated the air of cities and surroundings. Moreover, under the environment inefficient legislations and monitoring systems, the more cities expand and consequently have more diversified contaminating activities, the more pollution rates maximize. Materials causing air pollution include lead, particles, sulfur dioxide and the fallen dust.

Pollution resulting from means of transportation within cities is inevitably increasing due to the increased numbers of vehicles using low quality exported fuel during the past few years. Environment Commission statements indicate that most air pollution sources have exceeded their national thresholds. Lead concentration, for example, amounted to 6.6 micrograms/m³ in 2007 while its national threshold is 1.5 microgram/m³. Also, concentration of all kinds of particles for the previous two years has exceeded its national thresholds (350 microgram/m³) in most governorate centers.

2) Water Pollution

Industrial and different human activities alike contribute to water pollution, especially rivers, lakes and regional waters, by discharging untreated polluted water which affects quality. Of the most common water pollutants are industrial liquid pollutants, organic pollutants, hospital liquid wastes, sewerage, sunken ships and drainage water. Many industries lack the environmental conditions and requirements whether in terms of their location or the treatment of liquid wastes with highly pollutants concentrations, which immediately discharged into water or sewerage network.

There are 65 public and private hospitals, many of which discharge their liquid wastes into rivers or cannels, and most of which, especially the private ones, don't have treatment unites.

3) Soil Pollution

Soil is deteriorating in terms of components' quality and physical, chemical and biological characteristics, which leads to desertification and low productivity of lands. A vulnerable environmental balance has resulted from human activities; tree uprooting for purposes of agriculture, fuel and construction; increased soil salinity; the unscientific use of agricultural fertilizers and pesticides; over-irrigation; decreased plant cover and the unsustainable management of solid wastes.

4) Desertification

Arable lands are deteriorating due to poor management, inadequate techniques, wrong practices and/or hard natural conditions which increases the area of saline lands. After 1990, this problem started to exacerbate; i.e. increased area of saline land, deteriorated plant cover, and increased dune-covered spaces as a result of land deterioration and wind and water erosions. Environment Commission 2007 statistics indicate that rates of lands affected by desertification vary and increase according to the causes. Lack of accurate data and measurement and monitoring mechanisms has made the status quo of environment in general and desertification in particular much vaguer.

5) Solid Wastes and Garbage

No complete information on solid wastes management is available; however, the situation could be identified by the following:

- No complete data on quantities and characteristics of the hazardous wastes, poor identification and definition of wastes, and burying some cities' hazardous wastes with garbage.
- Waste burning processes by some economic activities in improper burning spots in order to reduce cost of disposing, noting that some burned wastes are hazardous and produce when burned the poisonous and public health harming compounds of dioxin and furan, thus causing significant environmental pollution.
- No utilities designed for wastes transporting, storing, treating, burying or burning, which imposes health and environment risks leading to air, soil and water pollution.
- Poor solid waste management due to the absence of qualified staff.
- Many hospitals burning spots are located near residential areas and contaminate the surroundings by toxic gas and vapors such as the carcinogenic dioxin and furan, as well as nitrogen, sulfur and carbon oxides which cause some diseases like eye allergy and diseases and respiratory system diseases.
- Poor environment requisites of most burying places. Burying is a mere random throwing of wastes in improper places; and sometimes considerable quantities of wastes are thrown outside the burying places because there is no monitoring system controlling the movement of wastes transporting means.

- Poor competent mechanisms of waste management process and poor skills of already insufficient staffs, in comparison with the needs required by international standards.
- Temporarily sites lack monitoring and controlling means, with no registers of quantities of wastes collected and transported to sanitary landfills.
- No units for the treatment of solid wastes (burning spots) and liquid wastes (treatment vats) at most slaughterhouses.

2. Strategic Challenges

Although the management of work, projects and services has noticeably improved in several fields, addressing the nature is still facing many problems and cases causing serious damages and impacts on environment in general. Major challenges are:

- 1) Polluted environment components, especially in cities, with no comprehensive systems for monitoring, controlling or following-up environment quality implemented to accurately define the status quo of environment components.
- 2) Insufficient environmental legislations, laws or determinants, and the need to update them to have them complied with the international developments, especially those of climate changes.
- 3) Poor financial, human and technical resources and expertise of the environmental establishments, especially at local level.
- 4) Excluded environmental dimension from development activities, which makes it apart from the economical and social dimensions and makes these dimensions apart from goals and mechanisms of SD.
- 5) Poor and limited participation in international environmental activity.
- 6) Poor capacities and insufficient concern for EIA especially of strategic projects in addition to the absence of expertise centers.
- 7) Poor concern for environment-friendly technology and clean energy supplies.
- 8) Poor environmental awareness at the level of citizenry in general, and investors seeking personal economic benefit at the expense of adhering to environmental standers, in particular.
- 9) Using heavy products like black oil in operating electricity generating stations, other industrial fields like bread stone oven, and electricity generators in residential and trade quarters.
- 10) Deteriorated green spaces as a result of the negligence, insufficient irrigation processes and irrational tree cutting, which leads to increased open soil spaces; the key source of dust.

3. Future Trend

3.1. Vision

Ensure achieving clean environment to greatly contribute to the improvement of QOL and public health, and to the achievement of SD.

3.2. Mission

Preserve the environment and eliminate environment pollution sources by planning for proper environmental management with the aims of approaching natural resources by a sustainable

method that preserves biodiversity, raising the environmental awareness and enhancing EC principle, to achieve MDGs.

3.3. RDS Goals

- Developing environmental legislations and policies and institutional frameworks.
- Minimizing health risks by controlling and preventing pollution.
- Minimizing air pollution, especially in urban areas.
- Improving drinking water management.
- Developing the infrastructure of water supply and sewerage systems.
- Minimizing greenhouse gas emission.
- Managing natural resources sustainably.
- Managing chemicals and wastes (domestic, hazardous and radiant) integrally.
- Managing shared water and water bodies (rivers, lacks and underground water) integrally.
- Protecting biodiversity and ecosystems.
- Considering environmental issues in economic and social development.
- Considering the environment when performing activities by different sectors (public, joint and private).
- Committing to the environmental determinants and considerations by the sectors of energy, industry, transportation, agriculture, forest and services.
- Taking proper actions to control projects' pollution impact on environment.
- Increasing funds allocated for environment preservation and improvement.
- Providing decision makers with environmental data.
- Developing the mechanisms for public participation in decision making process.
- Improving environmental education.
- Improving information management and environmental control.
- Acceding to and abiding by the international conventions and agreements maintaining the Region rights.

4. Strategic M&E

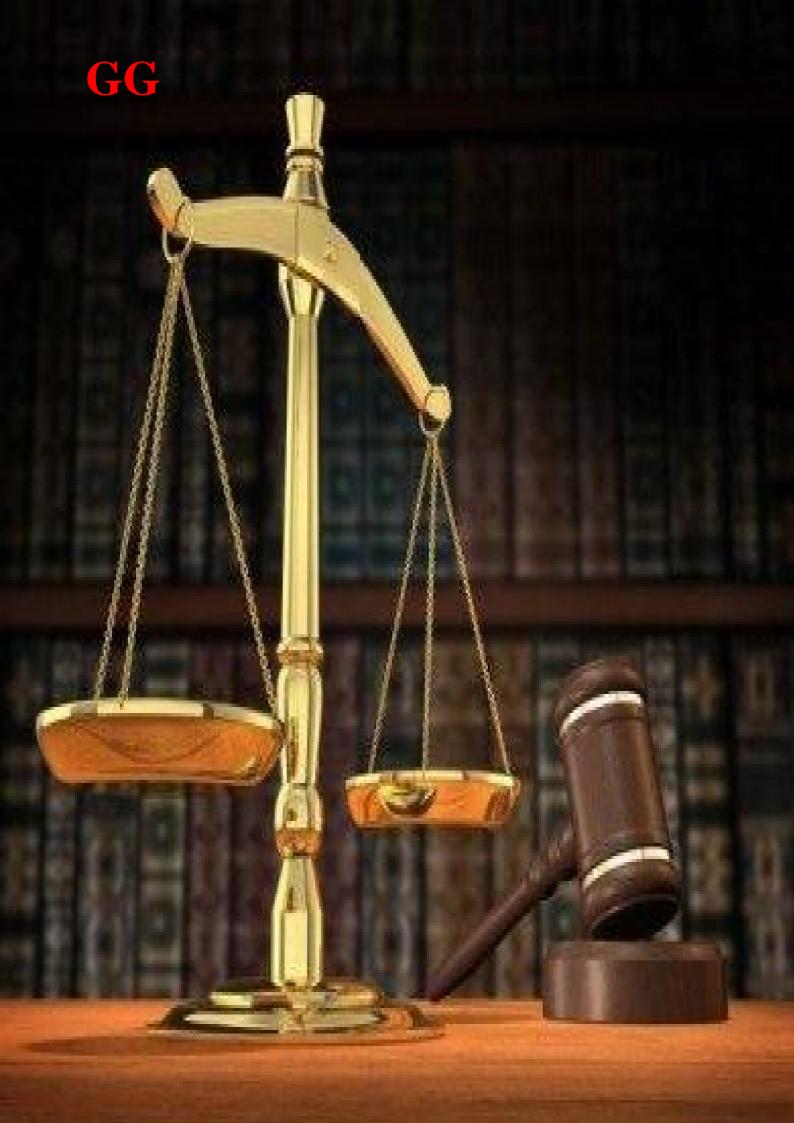
4.1. Goal-Achievement Indicators

- Increasing the drinking water supply to deprived areas and quarters (especially in rural areas) through safe networks by 10% annually.
- Decreasing the water-carried diseases by 15% annually through improving water sources.
- Decreasing water sources contamination by industrial waste water by 15 % annually.
- Decreasing water resources (rivers and lakes) contamination by agricultural chemicals by 5% annually and reaching the internationally permitted limits during 5 years.
- Increasing the operations of safe disposal of hazardous and radiant wastes (especially the medical and pharmaceutical) by 15% annually.
- Conducting an annually survey defining water sources (surface and underground water), volume of the renewable water resources and its strategic reserve.
- Preparing the annual budget for agriculture, industry, service and tourism allocations of water resources and committing to it.
- Developing and updating master plans for cities of more than 50,000 inhabitants to meet the requirements of basic, social and cultural services; identify special areas for industrial and crafts zones; and preserve archaeological places.
- Decreasing desertification by 5% annually.

- Increasing forests by 5% annually.
- Conducting a comprehensive survey of biological sources during the first year of this Strategy implementation and taking the proper actions to preserve biodiversity and establish greasy areas in cooperation with international and regional organization, especially the UNESCO.
- Building no less than 5 natural reserves in five year period, and managing them in accordance with the international standards.
- Achieving a gradual conversion of no less than 2% annually towards alternative, environment-friendly and clean energies; and promoting investment in this field.
- Developing an integrated environmental database during the first two years of this Strategy implementation, and connecting it to a communication network covering all stakeholders.
- Acceding to the environmental regional and international agreements, complying with them and working within an annual plan to implement all their obligations during 5 years.
- Implementing 5 programs annually for reviving rural areas and decreasing immigration to the urban centers by 5% annually.
- Reducing air pollution to international limits during two years and maintaining these limits by promoting mass transit instead of private cares, and having scattered shopping and entertainment centers.

4.2. Goal- Achievement Monitoring Indicators

- Annual rate of number of people accessing drinking water out of total population.
- Annual decrease rate in cases of infection with diseases transferred by water.
- Annual decrease rate of water resources contamination by industrial wastewater.
- Annual decrease rate of water resources contamination by agricultural chemicals.
- Annual rate of quantities of hazardous and radiant wastes safely disposed.
- Annual rate of volume of renewable water resources and its strategic reserve.
- Annual rate of committing to water shares allocated for agriculture, industry, service, tourism, etc.
- Annual reduction rate of desertification.
- Annual growth rate of forests area.
- Annual number of procedures implemented for biodiversity preservation.
- Annual growth rate of the natural reserves area.
- Annual rate of adopting alternative, clean and environment-friendly energies.
- Annual number of reports taken out of the environmental database.
- Annual number of regional and international agreements indorsed and acceded, and the annual number of their implemented obligations.
- Annual number of procedures implemented for rural areas revival.
- Annual decrease rate of immigration from rural areas to cities.
- Annual reduction rate of air pollution compared to nal standards.



Chapter 13: GG

As proper decision making is a cornerstone of development processes, progress to be achieved in whatever field, including economy, welfare and social fairness requires implementing principles and applications of GG and proper administration. The general framework governing GG differs in different times, places and themes. In this sense, GG is a flexible concept, yet has 8 major characteristics. It is participatory, consensus oriented, accountable, transparent, responsive, effective and efficient, equitable and inclusive and follows the rule of law.

Basing on the above mentioned description, GG is a wide concept including the mechanisms, operations, relationships and institutions, through which people express their interests, practice their rights, perform their duties and settle disputes among them. As the term is of a wide concept, this Strategy goals can't be achieved without improving capacities of all parts of the government at all levels and in whatever location, since government legitimacy, authorities and capacities are drawn from its action in cooperation with the citizens and for them. This is the proper way for achieving the Strategy goals aiming at improving the government's capacities, empowering it to perform its key functions and raising the level of services to actually respond to the needs of society.

This chapter focuses on the key issues of presenting general framework and key dimensions of GG, and stresses the fact that the interaction between all these dimensions is a prerequisite for achieving SD; the key target and goal of this Strategy. Also, this chapter analytically presents the status quo of GG implementations in the Region basing on the data and implications of the government program defining the key principles for development and the status quo improvement processes, and the goals to be achieved in the future period. The program also defines a set of strategic challenges that are likely to face GG implementation, since such challenges represent the starting point for defining future trend of vision, mission and goals.

Finally, this chapter presents key indicators of goal-achievement and goal-achievement monitoring during this Strategy years.

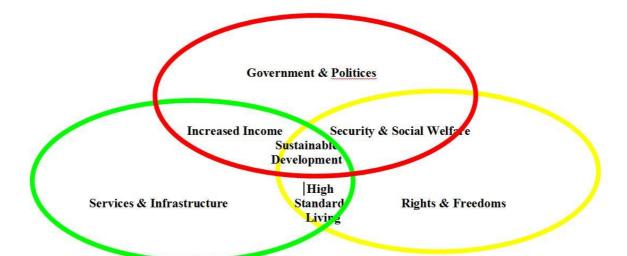
1. GG Framework and Key Dimensions

For the purposes of this Strategy, avoiding theoretical and academic assumptions, approaching the actual content of development fields of all society sectors as the responsibility of all at citizens and government levels, and based on the above mentioned information, GG components could be framed within the following three dimensions:

- 1) Government and policies.
- 2) Rights and key freedoms.
- 3) Economic sector services and infrastructure.

Government and policies, security and social welfare, increased income, SD, high QOL, rights and freedoms, services and infrastructures

Interaction between these dimensions results in achieving this Strategy goals as follows:



- 1) Interaction between the first and second dimensions results in the (citizen social security and welfare).
- 2) Interaction between the first and third dimensions creates the (opportunities to increase citizen income).
- 3) Interaction between the second and third dimension results in (**improving the citizen's OOL**).
- 4) Interaction between all the dimensions results in achieving this Strategy goal, i.e. (SD).

2. Current Situation

During the past few years, Kurdistan society has received significant attention by the government in terms of development at economic, social, cultural and political levels. Great achievements have been widely reached within a relatively short period of time at all levels and regarding all dimensions and fields of GG. Of the factors contributed to that are better total values of state budget; openness to foreign investment mainly following the issuance of Investment Law, which significantly contributes to the development of the economic structures; the increased participation of foreign capitals; and the opening to the regional and international economic communities. Another important factor is the clear development the Region's economy witnessed in other sectors and whose achievements are presented in details in the previous nine chapters.

However, we should not forget the Region's bitter reality over long decades of neglected, marginalized and consequently deteriorated economic infrastructure; genocides; displacement; and abuses targeting the citizenry. Undoubtedly, all of these add more to the distinctive features of Kurdistan experience in building human being as well as the society.

Following the same approach, and in order to continue the process of building and exploit the available resources in favor of the comprehensive development, the government in 2009 carried out free and fair elections, in which the citizens widely participated. The newly formed government at the time developed an integrated program; extending the previous programs and policies. The program presented the vision of leadership and government represented parties regarding society and the Region building within a modern view encompassing the three key dimensions of GG as well as their sub-implications.

This chapter summarizes the program's vision, horizons and prospects for the government's responsibilities and duties towards the society, as well as for the goals the government will strive to achieve. The program's points will be presented in line with GG dimensions and basing on CAM:

2.1. Key Principles

- Protecting the essential freedom of citizens.
- Respecting citizenship rights.
- Consolidating the principle of authority separation.
- Enhancing the principle that the political dimension is like the economic, social, cultural and administrative dimensions in that it is part and parcel of the comprehensive development.
- Adopting the principle that the Constitution is the first and foremost reference.

2.2. Goals

- Consolidating the rule of law and the government of institutions.
- Ensuring fairness and equality.
- Ensuring essential freedoms and human rights.
- Adopting democracy and intellectual and political pluralism.
- Reaching knowledge society and social welfare.
- Developing economy infrastructure and providing better services.

3. Strategic Challenges

- 1) Unemployment (including underemployment and disguised unemployment), employment, and the percentage of economically active people.
- 2) PL, deprivation rates, the UN seven adopted HD dimensions and SV of development (between rural and urban areas).
- 3) Low work productivity related in most aspects to (pre university, university and post graduate) education levels and vocational qualification.
- 4) Difficulty of establishing startups (especially SMEs), mainly because of administrative obstacles, poor funding and the commercial banks turning away from loaning.
- 5) Methods of preparing the state budget, distributing expenses and the financial policy.
- 6) Poor transparent and accountable public institutions.
- 7) Inequality between men and women; especially within labor market.
- 8) The economic policies, economy reshaping and the need to consider the privatization of many public firms.
- 9) Local and foreign investment and the need to enforce Investment Law, intensify promotion, develop and update the investment map, provide incentives to local and foreign investors, and simplify the measures.
- 10) Commercial competition against local industries and products and the poor protection measures for local products.

- 11) Addressing the significant deficit the commercial balance experiences as a result of low exports.
- 12) Poor educational services, high illiteracy level, and improper match of educational outputs with labor market requirements.
- 13) Poor public services and infrastructure including that of health (though increasing improvements).
- 14) Different standards of living among areas, especially between rural areas and cities.
- 15) Great dependency on centralization in governmental decision making, especially in terms of planning and implementing dimensions at the local levels.
- 16) Activating the fields of private sector contributions to development processes and establishing a strategic PPP.

4. Future Trend

The governmental program defines the government's vision and mission (the same as those of this Strategy) of GG for the coming years as follows:

4.1. Vision

Reaching SD

4.2. Mission

Improve the citizen's QOL, enhancing social welfare and security by further promoting the multifaceted development process aiming at increasing civil contribution to decision making processes; creating job opportunities; raising manpower employment rates; increasing citizen's income and QOL; achieving fairness, equity and opportunity equality; and consolidating the rule of law.

4.3. RDS Goals

- Increasing people's participation in decision making and enhancing the role of CSOs.
- Stressing and consolidating the principle of the rule of law and the independence of judiciary.
- Enhancing national safety and security according to the provisions of the Constitution.
- Building confidence between government and the citizenry.
- Adopting the principles of transparency, GG and objective responsible accountability.
- Enhancing the principles of social equality and opportunity equality.
- Upgrading economic and human resources, widening production and service basis, raising the level of (different sectors) productivity, and widening the gains of development in terms of space and sector.

The governmental program adopts many procedural goals aiming at improving government management in accordance with the principles and implementations of GG on the one hand,

and strengthening the governmental capacities to achieving the strategic goals the program determined, on the other. The most important procedural goals are:

- Enhancing the decentralization in authority distribution on ministries and governorate administrations.
- Issuing the Financial Management Law.
- Separating authorities and putting an end to partisan intervention in the work of government institutions.
- Forming the Commission of Integrity in Kurdistan, and issuing OIG Law to be applied in ministries and public institutions.
- Issuing the Declaration of Assets Law to be applied on incumbents of ministerial and high positions.
- Ensuring transparent competition in terms of state contracts, bids and tenders; and preventing illegal intervention in or holding monopoly over them.
- Supporting the fund of families of martyrs and victims of genocides by providing extra money subtracted from the salaries of holders of special ranks.
- Supporting administrative development centers, so that opportunities for training and qualifying government officers, and improving their capacities are provided.
- Benefiting from experiences and expertise of regional and international organizations and experts in order to support the efforts aiming at administrative development.
- Establishing a public civil service board to ensure equality in terms of job opportunities, position announcements and assignments.
- Taking the proper procedures and proposing the legal legislations to minimize unemployment and underemployment among society's different classes (especially the young people).
- Adopting the one-stop shop system to accomplish citizen petitions and eliminate increased bureaucracy.
- Limiting the inflation of ministries and state establishments administrative structures (in line with this procedural goal, number of ministries has been reduced to 21).
- Developing the e-government applications to organize relationships between ministries and other administration units, and to provide citizen with services in the required speed and accuracy.
- Drafting a new labor law according to the modern developments and successful international implementations ensuring workers' rights, and repealing the old law.

5. Strategic M&E

5.1. Goal-Achievement Indicators

 Accrediting ministries and governorate administrations with a minimum of 35% per year of the authorities and powers mainly required for running their work, and especially, authorities and powers contributing to the implementation of goalachievement indicators set out in this Strategy and in accordance with the legal and legislative frameworks.

- Issuing the Financial Management Law.
- Issuing the Law of Partisanship Non-Interference in public establishments work.
- Issuing the Integrity Commission Law.
- Issuing the Declaration of Assets and Interests Law to be applied on incumbents of ministerial and high rank positions.
- Issuing the new Labour Law and repealing the old one.
- Implementing all instructions of the applicable Contracts and Bids Law, issuing clear instructions authorizing state control authorities to completely enforce it, and obligating them to quarterly and yearly report on the findings.
- Increasing the capital of fund of martyrs and victims of genocides families by 5% per year, through state aid and foreign gifts and donations.
- Increasing the contribution of state budget to social care network by the percentage proposed by MOLSA in order to widen and enhance social services provided to people of special needs, widows, orphans, divorced women with no provider, the homeless and other vulnerable groups.
- Issuing the instructions regarding the establishment of a public civil service board.
- Reducing unemployment by 5% per year, and establishing a fund supporting the fight against unemployment.
- Developing a national program for applying e-government applications by 100 % among ministries and in 25% of services provided for citizens by the fifth year of this Strategy.
- Developing a national program (in line with the e-government applications) to facilitate 25% annually of procedures of providing public services to citizens in accordance with the one-stop shop.
- Increasing the state officers' participation in training courses (within and outside the Region) by 10% per year, provided that ministries' budgets are increased for this purpose.
- Developing a national strategy for training during the first year of this Strategy, providing technical and financial support proposed by the Ministry of Planning to extend its training centre's services to all state officers.

5.2. Goal-Achievement Monitoring Indicators

- Annual rate of powers authorized to ministries and governorates' administrations.
- Issuance of Financial Management Law.
- Issuance of Law of Partisanship Non-Interference in public establishment's work.
- Issuance of law of establishing the Commission of Integrity and OIG.
- Issuance of Declaration of Assets and Interests Law to be applied on ministerial and high rank positions incumbents.
- Issuance of the new Labor Law.
- Issuance of the directions for authorizing the governmental control bodies (Commission of Integrity, OIG, audit office, etc.) to enforce instructions and articles of Law of Governmental Bids and Tenders.

- Annual growth of the capital of fund of the martyrs and victims of genocides families.
- Annual growth of allocations for the social care net.
- Issuance of directions for establishing the public civil service board.
- Annual decrease of unemployment.
- Annual number of e-government applications carried out and adopted by ministries.
- Annual number of e-government applications carried out and adopted in providing citizens with public services.
- Annual number of public services with facilitated procedure, by ministry.
- Annual increase in the number of state officers' participating in training courses, by ministry.
- Developing and endorsing the national training strategy.
- Annual increase in the Ministry of Planning funds allocated for its training center.



Chapter 14: The Private Sector

This chapter focuses on the basic issues related to the private sector by presenting and analyzing this sector's situation over the past several periods, with reference to the inefficient economic policies adopted since the mid-20th century, starting from nationalizations in the 1960s; to the later public sector dominance over all economic activities; to the political and economic conditions and international sanctions in 1980s and 1990s and their implications on the role, volume and scope of the private sector in Iraq and Kurdistan Region; and ending with the government efforts that were channeled after 2003 into supporting and promoting that role and increasing the private sector contribution to economy and development.

Basing on the challenges facing the private sector role and volume upgrading, future trend of vision, mission and strategic goals could be defined. Such challenges are determined by analyzing the current situation depending on the adopted indicators. Major goal-achievement indicators will be presented in percentages, numbers or quantities targeted during this Strategy years. Also, goal-achievement monitoring indicators will be presented.

1. Current Situation

By the early 1970s, the public sector dominated all economic activities, while private sector role was almost neutralized. Moreover, the private sector's activities (commercial in particular) were largely declined with the food and cereals trade being totally controlled and their importation being monopolized by the Ministry of Trade of the Central Government in Baghdad. This decline, which continued till the first half of 1980s, affected the sector's contribution to FCF, agriculture, manufacturing industry and social development services, so that housing ownership continued to hold the largest share of private sector GFCF.

Under the international resolutions imposing economic sanction on Iraq after invading Kuwait, the private sector provided some contributions, though limited, to agricultural activity among others in 1991-1996. However, this didn't last long as its activity clearly declined once again with the issuance of UN Resolution No. 986 (so-called "Oil for Food").

During 1991-2003, KRG clearly oriented to support the private sector and pave the way for its growth. However, the growth of various commercial activities was limited due to the limited capabilities and insufficient liquidity of the Region to meet the requirements to support commercial activities. That is, KRG was unable to meet the requirements of increasing the monetary supply in the financial markets and promoting the commercial traffic due to the fact that the Region's currency is different from that of the centre. The private sector, therefore, did not get a real opportunity to reach the level enabling it to have a prominent role in raising economic growth rates, with the individual business and small enterprises (in terms of organization, investment or production) dominating the sector. Additionally, the investment trends were to invest in profit-insured activities through searching for businesses with short capital recovery period, let alone, the private sector's dependence on government subsidies that weakened its competitiveness against imported commodities.

The political changes that happened after 2003 opened new horizons toward developing the private sector. The Investment Law No. 4/2006 issued by the KRG enabled using the private

sector capacities in construction and development, and increasing the number of private factories and companies. Consequently, private sector contribution to FCF, as economic data indicate, amounted to 60% in 2008 and 2009, which means that its contribution to both GDP and GNI increased. The industrial sector contribution to the GDP, for example, reached about 1.11% in 2008.

There are currently more than 1,860 private factory (99.74% of total factories), with only about 10 state-owned factories (0.53%). The agricultural sector contribution to the GDP was about 5.62%, of which the private sector's share was about 95%. The private sector also managed to strongly compete against the public sector in commercial sector after 1991. Thus, the businesses became dominant at the expense of the investment activities aiming at meeting the needs for goods.

After 2003 in particular, the government has sought, in order to activate the private sector's role in developmental, to revivify the private sector as a key pillar of its main orientations through making it an active sector in the economic activity, a job opportunities generator, a sustainable growth driver and a contributor to financing development by maximizing its revenues and savings. This trend reflects the government commitment to reform the economy in line with the economic principles, which insures the best use of its all resources; diversifies its resources and promotes the private sector development.

Despite that, it's obvious that several impairments still exist in addition to the fact that the private sector is unfamiliar with its required role due to the ambiguity of the adopted economic policy, the fluctuation of development trends, the unspecified methods of economy management. The government trends, therefore, are required to remove this ambiguity, highlight the features of the economic policy which will be adopted in the next period and demonstrate the nature of the development activity required by the private sector in carrying out this Strategy goals, especially its contribution to finance this Strategy projects. Additionally, its sustainable interactive, participatory and competitive role should be reinforced, insuring the economy transformation into market economy at the lowest economic and social costs.

Redistributing the roles within the economic activity in the interest of the private sector over the Strategy life-time requires a set of supporting procedures; including streamlining and simplifying the government procedures in terms of business; carrying out reforms at the regulatory and commercial levels; developing simplified and transparent legal and institutional framework in order to encourage the private business; laying the bases of rehabilitation of public enterprises in order to become coherent, clear, transparent and inclusive; encouraging their privatization; and improving the role of banks and securities exchange in order to encourage integration and privatization and broaden the credit areas.

2. Strategic Challenges

- 1) Ambiguous private sector role in the development in light of no well-defined indicative vision for this role during the economy restructure and productive basis establishment;
- 2) Excessive bureaucracy in terms of business, which discourages the businessmen and investors entering the investment fields;
- 3) Failed laws and legislations in activating the private sector role in economic activity, which limits the possibility of maximizing this role and decreases its competitive capacities;

- 4) Limited credit capacity of specialized banking system, which restricts the loaning and borrowing processes by the private sector for financing its investment goals, and limits the efficiency of specialized banks;
- 5) Delayed opening of the securities exchange in spite of the issuance of stock exchange Act:
- 6) Increased interest rate which might affect the movement of credits provided to the private sector by banks for investment purposes;
- 7) Exaggerated demand by the private sector to depend on the subsidies and protection systems provided by the government instead of building on competitive systems, which makes private sector omits competition and competence standards from its investment considerations and decisions:
- 8) No economic, financial, legal or administrative elements included in economic reform programs, which are required for restructuring public institutions. This minimizes the opportunity for initiating privatizations or merges among the public or private establishments:
- 9) Poor infrastructure and main services of the private sector, which decline its competitive position locally, regionally and internationally;
- 10) Poor knowledge, IT and technological base of the private sector, which decreases its already low capacity for understand and keep abreast of the accelerating changes in the international market as an element of competition and access to foreign markets.

3. Future Trend

3.1. Vision

Towards interactive, participatory and competitive private sector strengthening SD.

3.2. Mission

Adopting a comprehensive economic policy with clear principles and platforms to reinforce economic construction process by determining, distributing and describing the roles between the private and public sectors to insure the transformation into market economy at the lowest economic and social costs.

3.3. RDS Goals

- Enhancing the private sector development role;
- Achieving PPP;
- Enhancing the environment enabling investment;
- Privatizing the public sector enterprises;
- Developing banking systems and supporting financial institutions;
- Developing the private sector competitive and export capacities;
- Enhancing the private sector role in governorates development.

4. Strategic M&E

4.1. Goal-Achievement Indicators

• Increasing the private sector contribution to GDP and capital accumulation through mobilizing its investment in agriculture, industry and tourism.

- Increasing the private sector contribution to job creation through expanding OPS;
- Identifying partnership kinds and choosing the most appropriate, such as cooperative partnerships, contractual partnerships (BOT, BOO and BOOT);
- Establishing technological businesses incubators and increasing their adoption;
- Incentivizing the establishment of economically feasible joint stock companies;
- Completing legislations and laws system (Labor Law, Social Security Law, etc.) supporting the private sector and market economy;
- Developing tax policy to strengthen the private sector role in economic activity and support its economic and financing role through incentive taxes, their rate and exemption;
- Developing banking systems, financial markets and credit schemes;
- Developing the government institutions capacities to contribute to the private sector development;
- Opening the stock exchange and equipping it with administrative, technical and technological requirements;
- Enacting a flexible and transparent privatization law to ensure the government and workers' financial, economic and social rights;
- Reviving the specialized banks to be an incubator of the private sector financial activities:
- Enhancing decentralization in managing the development facilities and involving the private sector in developing local and regional plans and projects;
- Encouraging the private sector to participate in governorate development projects which represent good investment opportunities;
- Developing national employment policy that adopts the principle that the private sector is the job creator and SD supporter.