

Building Kurdistan Region - Iraq

THE SOCIO-ECONOMIC INFRASTRUCTURE FACTSHEET

December 2012

The need for sustainable growth in the Kurdistan Region

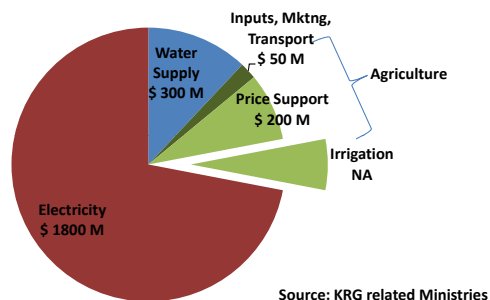
The Kurdistan Region of Iraq (KR-I) has achieved superior service standards that rival some of its closest neighbours.

Despite this, KR-I's current growth management patterns are not sustainable, financially or environmentally. In the future, a more strategic selection of investment projects is required. To make service provision sustainable, many infrastructure sectors will need to define and enact institutional, policy and legal frameworks that manage efficient supply, and moderate consumption.

The full investment programme of US\$ 30.5 billion is feasible, with \$ 23.8 billion being allocated over the next eight years from the Kurdistan Regional Government's (KRG) budget and the remaining \$ 6.7 billion coming from the private sector.

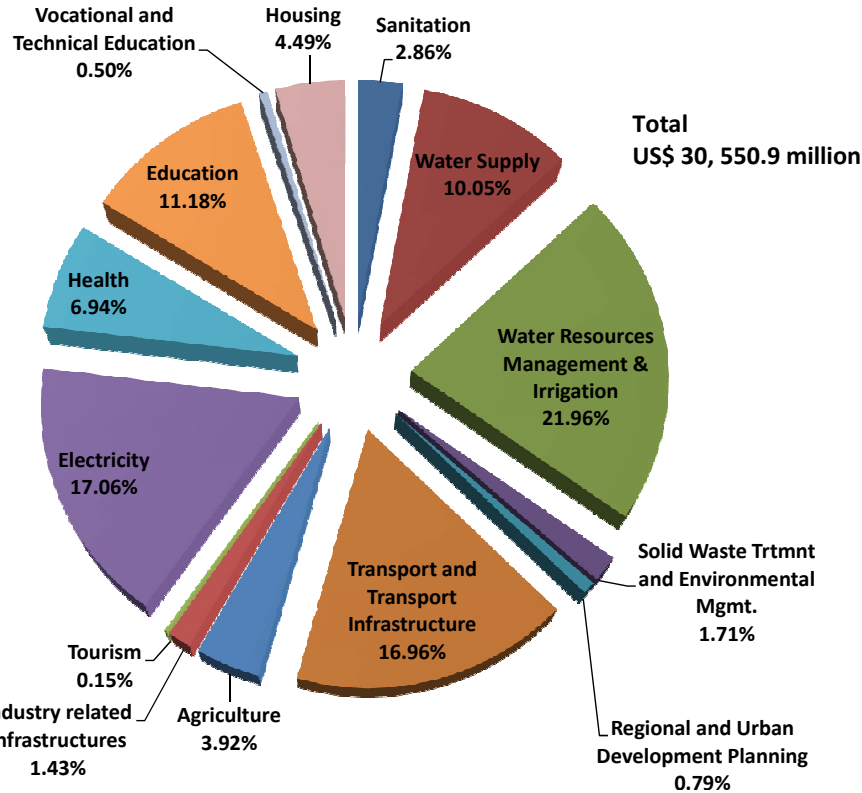
Subsidies and Sustainability

In the absence of appropriate pricing policies, the cost of these services will fall on the budget. As a result, the KRG will spend \$ 2.35 billion each year to subsidise electricity, water supply, and agriculture (equivalent to about 75% of the Region's annual investment expenditure).



Source: KRG related Ministries

Financial Subsidies 2011 from KRG Budget



Total investment required to build the infrastructure in KR-I 2013-2020

Key Priorities

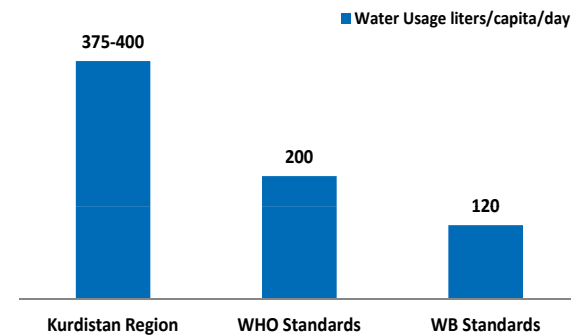
First priority in both policies and investments should be water, sanitation and the environment. Immediate action is needed on pricing of publicly-supplied goods/services to cut the unconstrained consumption of water and electricity. Simultaneously, it is necessary to start building the institutional, policy, and regulatory frameworks that will make these services more sustainable, together with controlling levels of pricing and consumption.

Water, Sanitation and Environment

Water supply in the region covers 85 per cent of KR-I's population but water consumption is excessive, ranging from 373 to 400 litres per capita per day (LPCD) compared to World Bank standards of 120 LPCD.

The excessive consumption of water is due in part to a lack of incentive for water conservation because of very low tariffs (with actual tariff less than US\$ 1 per capita per year) and coupled with a

lack of consumer awareness of water conservation. Immediate protective measures should be put in place including a halt on well-drilling; a substantial increase in water tariffs and the rapid introduction of irrigation charges. Similarly, in order to protect surface water which are threatened by a large volume of untreated sewage; sewers and waste water treatment plants are required for cities, towns, and villages to avoid the pollution of rivers, lakes, shallow aquifers, and fertile ground. Preventing the pollution of this water is more economical than cleaning it up.



Source: Study Estimates/ MinMunicipalities, WHO, WB.

Water Usage liters/capita/day

It is necessary to immediately adopt and enact new water tariffs. Initially, a higher flat rate is suggested, but eventually water consumption will need to be metered and charged by volume.

A public awareness programme should also be conducted to inform people about the scarcity of water in the KR-I and the need to conserve it.

KR-I should also seek private partnership funding for recycling and proper disposal of solid waste, along the same lines as the successful pilot project recently carried out in Dohuk.

Electricity

Access to electricity in KR-I is virtually universal; 80% of generation capacity is privately owned and 20% is government owned.

Subsidised tariffs and high electricity losses are the most critical issues, contributing to the rapid growth of demand and consequently, to the need for rapid system expansion and investment.

Technical losses, due to the phenomenal growth in demand that overloaded the transmission and distribution networks and commercial losses due to poor management and lack of commercial orientation at the Ministry of Electricity total 40 per cent to 45 per cent of electricity generation.

Complete reform of the electricity business is necessary, perhaps starting with a new Ministry in charge of the entire energy sector, which focuses on policy, normative, and regulatory matters, and relinquishing operations to newly-created utilities.

Agriculture and Irrigation

Progress in agriculture and irrigation is hampered by both inefficient and/or outdated regulations and insufficient infrastructure such as irrigation networks and systems.

The sector lacks evidence-based, strategic long-term planning and identification of potentially competitive products and value chains. Improvement and modernisation of agriculture infrastructure including irrigation networks are essential for improved agriculture productivity. Rehabilitating the existing large and small irrigation schemes before creating new ones is faster and more cost-effective.

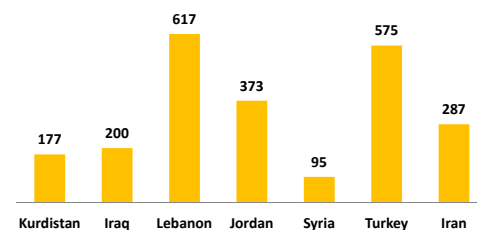
Major investment is required to introduce new agricultural and irrigation methods in addition to the hard infrastructure mentioned above.

Health services

The KR-I meets and in certain areas exceeds national health standards and those of neighbouring countries. There are 65 public hospitals and 52 private hospitals (containing approximately 7,684 beds and 235 operating rooms), and 933 Primary Health Centres (PHCs).

However, the shortcomings include:

- 25% of health facilities require rehabilitation and additional hospitals and PHCs are needed.
- Insufficient numbers of qualified medical personnel to meet projected needs over the next five to eight years.
- A shortage of equipment and medicines
- A lack of an operating Health Information System (these store referrals, patient information and statistical analysis)



Source: World Bank Data, 2009; For Kurdistan: MOH, 2010

Per Capita Health Expenditures (US\$)

Investment is needed in the rehabilitation of existing health facilities and policy changes are required to improve their capacity, utilization and efficiency by extending working hours and improving incentives.

Industry

Underdeveloped infrastructure, mainly unreliable water supply, poor transport and access to finance represent major obstacles for rapid and sustainable industrial development.

Resource-based industries have the brightest prospects (cement, oil, minerals). It is recommended that research is conducted on the economic and environmental sustainability of these extractive industries. The Government has provided land for the creation of four integrated industrial zones (total area, 5,050 donums or 1,263 ha) near the capital cities of the three governorates. The intension of this is to provide infrastructure in these zones to serve as a basis for developing a number of industrial projects.

Urban Planning

The KR-I is heavily urbanised and therefore some method of consolidating rural settlements without unduly inconveniencing the population must be sought.

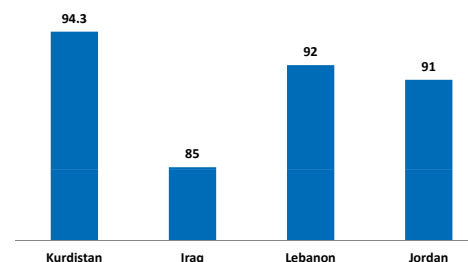
Coordinating the many institutions that operate at city level to resolve such a complex issue in the absence of a true city-level administration is exceedingly difficult. To this end, the KRG should consider the introduction of an established municipal government at city level in each of the main cities.

Education

Net enrolment for primary and secondary education stands at approximately 95.9% and 88.9% respectively in the 2010-2011 academic year.

Many public schools run additional shifts, share buildings with other schools or use old, dilapidated or mud buildings.

75% of primary teachers lack key skills and have weak academic backgrounds and lack incentives. In order to accommodate the growing population and increase enrolment (especially in secondary schools) it is estimated that 3,253 new schools are needed to be built and 1,323 schools need to be rehabilitated.



*for KR the % refers to 9 years of basic education
Source: KRG MinEd, World Bank

Net primary school enrollment ratio

Transport

Domestic transport is entirely by road at present with the number of vehicles expanding rapidly.

Major investment in roads is necessary, together with programmes for their maintenance and investment in public transit. The main cities should consider bus services but also experiment with light rail, light rail designs are tested by building one priority route before an entire network of trams.

Affordable Housing

In 2012, over one million households were estimated in KR-I. The annual housing requirement to accommodate population growth in KR-I is estimated to be 30,390 units across all income levels. The KR-I Housing Strategy in 2012 estimated that approximately 25% of existing households require new or improved housing in order to replace inadequate or overcrowded housing.

Worryingly 10 per cent of households have limited incomes and are unable to meet their housing needs adequately without some form of government support. To meet the annual demand for government-supported housing in KR-I and to replace inadequate and sub-standard housing is estimated at 5,869 units per year.

Tourism

The sector needs investment in infrastructure mainly to increase access and investment in the sites to make them more welcoming to visitors. In order to exploit the potential of this sector, it is crucial to reform the Tourism Board so that it can work on developing an appropriate strategy and develop indicative plans to guide private sector investment. The number of qualified staff is insufficient and many foreign workers are currently being used. More opportunities to learn tourist-related trades must be offered in the KR-I, requiring coordination between the Tourism Board and the Ministries of Education and Higher Education.

Vocational & Technical Education

The secondary vocational and technical schooling system in KR-I is in disarray. Enrolment has dropped from 7,744 in the academic year 2003-2004 to 6,307 in the academic year of 2009-2010, in spite of the increase in the number of vocational schools and teachers.

The KRG should re-think its entire approach to Vocational Training and Employment (VTE), starting by twinning with potential employers and designing and delivering skills that are required by the market. The KRG should also consider adopting and adapting the very successful VTE approach carried out by the World Bank and Jordan.