



**Kurdistan Region Government**



**Ministry of Planning**



**Kurdistan Region Statistics Office**

# Kurdistan Region 2014-2018 Indicators

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**Kurdistan Region Government**  
**Ministry of Planning**  
**Kurdistan Region Statistics Office**

**Kurdistan Region**  
**2014-2018**  
**Indicators**

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## Minister Speech



In 2012 and 2013, Kurdistan Region Statistics Office (KRSO) within the ministry of Planning in cooperation with RAND Corporation, prepared two reports named “following up socio-economic monitoring report in Kurdistan region” consisted of many indicators. These indicators were selected from a number of surveys carried out in 2011, 2012, and 2013. The results were shown on charts and diagrams. The purpose of these reports was to collect all social, economic, health, education, agriculture, and many other indicators in one single report. It enables the users to have access to all indicators and results of the surveys with no need to read all reports one by one.

During and after economic crisis that hit the Kurdistan in 2014, KRG Statistics office has conducted a number of surveys financially supported by KRG, UN organizations and World Bank. These surveys are of great importance, as it reflects the situation of Kurdistan region following 2014 incidents. We realized that it is very important to prepare a new report to collect indicators since 2014 through 2018 in an effort to summarize the situation of Kurdistan region before and after 2014.

I would like to thank the president of KRSO and the head of statistical departments and all employees who were involved in preparing this report which serves the interests of Kurdistan region, also contributes to evidence based decision making.

Dr. Ali. Sindi  
Minister of Planning  
KRG

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## **Abbreviations and acronyms**

SDG	Sustainable Development Goals
MICS4	Multiple Indicator Cluster Survey round four
MICS6	Multiple Indicator Cluster Survey round six
SWIFT	Survey of Well-Being via Instant, Frequent Tracking for monitoring poverty
CFSVA	Comprehensive Food Security and Vulnerability Assessment
CHS	Continues Household Survey
IHSES2	Household Socio-Economic Survey round two
SD	Standard Deviation
KRI	Kurdistan Region- IRAQ
KRSO	Kurdistan Region Statistics Office
CSO	Central Statistical Organization

## Introduction

Following 2006, Kurdistan Region Statistics Office (KRSO) launched tens of surveys and statistics operations. The results of most surveys were documented in a number of reports so that the users could have access to all the data. However, we realized that reading all these reports is not an easy task especially for ordinary people. Therefore, in 2012, we initiated a comprehensive report in cooperation with RAND Corporation in which most of the indicators and data are included in a way that is easier for ordinary people to understand. The first report was completed in 2013.

Between 2014-2018, a number of surveys and statistics were conducted and all indicators were put together in a number of reports, however, some of the surveys were not organized in a report due to lack of budget. We tried to preserve the results of the surveys so that it would reach the users. Due to the endless efforts of the heads of statistical departments and all employees specially Data department as well as Data management department, we organized and prepared the current report which lasted 4 months.

This comprehensive report consists of 13 major sectors in which most of the significant indicators are included, among them is the analysis of the situation of Kurdistan region during the economic crisis through the years that followed. In this report all indicators that have a direct link to people's life have been highlighted such as poverty, unemployment, consumer price index (CPI), agricultural production, food security, tourism and many others. KRSO produces statistical data and makes it available for decision makers to make decision based on data.

Hereby, I would like to express my gratitude to Dr. Ali Sindi, minister of planning who has continuously supported us strengthen KRSO functionality.

Serwan Mohamed  
President  
KRSO

# Population

- Population distribution
- Sex ratio

## Population

The census 1987 was the last census which was conducted all over Iraq. Another census was carried out in 1997, but it is not considered as a general census as it did not cover the governorates of KRI. According to the census 1987, the population of KRI reported at 1, 910,905 individuals. What is strange is that, the living place of 120,199 individuals (70,503 of males and 49,696 of females) was unknown in census 1987. Iraq conducted another census in 1997, but KRI was excluded from this census and what is available on KRI population is only an estimation which has been provided by Ministry of planning of Iraq, where KRI's population has been estimated at 2,861,690 individuals.

According to the process of listing and numbering conducted in 2009 (a preparatory stage for conducting a general census which was to be carried out in 2010, but it was later postponed) the KRI population was 4,662,266 individuals, and according to the estimation provided by KRSO, the KRI population would be 6,033,814 individuals. Refugees and IDPs who fled to KRI after 2013 are excluded.

### Population distribution

In 2017, a demographic survey was carried out in Kurdistan region in which a significant number of important indicators were presented. One of these indicators is population distribution by its components where Population distribution by age group and sex is presented. Results show that age group 15-64 (working age) represents 61% of KRI population. This indicator shows that Kurdistan region is entering the demographic window which is considered as golden stage for countries with regard to population and demography, because the working age group population is in its top and the most human resource is in hand for planners and politicians to better plan their future programs. However, the duration of this period is linked to many factors (fertility rate, health, migration, etc...), but, generally, this period lasts for 30-40 years and the next demographic window needs centuries to be repeated.

Table 1 displays the population distribution of KRI by sex within age groups as well as by age groups for both sexes. We can see more clarification in Figure 1, as well as population distribution in KRI per governorate by age dependency and working age population in Table 2.

**Working age population** is defined as those aged 15 to 64 and **age dependent population** is defined as those who are out of working age (people younger than 15 or older than 64).

Table 1: Population distribution in KRI by age groups and sex in 2017 (%)

Age group	Sex distribution by age group			Age group distribution by sex		
	Male	Female	Total	Male	Female	Total
0-4	12.15	12.11	12.13	50.2	49.8	100
5-9	11.4	10.78	11.09	52.2	47.8	100
10-14	11.34	10.41	10.87	51	49	100
15-19	11	10.62	10.81	51.6	48.4	100
20-24	9.3	8.75	9.03	51.4	48.6	100
25-29	8.85	8.39	8.62	49	51	100
30-34	7.57	7.93	7.75	47.5	52.5	100
35-39	6.09	6.76	6.43	47.5	52.5	100
40-44	5.12	5.68	5.4	51.3	48.7	100
45-49	4.83	4.61	4.72	51.5	48.5	100
50-54	3.28	3.53	3.41	48.3	51.7	100
55-59	1.47	2.49	1.98	37.2	62.8	100
60-64	2.98	3.14	3.06	48.8	51.2	100
65-69	1.73	1.8	1.77	49.1	50.9	100
70-74	1.17	1.14	1.16	50.9	49.1	100
75-79	0.71	0.74	0.72	49	51	100
80-84	0.57	0.52	0.54	52.3	47.7	100
85+	0.44	0.59	0.51	42.9	57.1	100
Total	100	100	100	49.9	50.1	100

Figure 1: Pyramid of population in KRI 2017

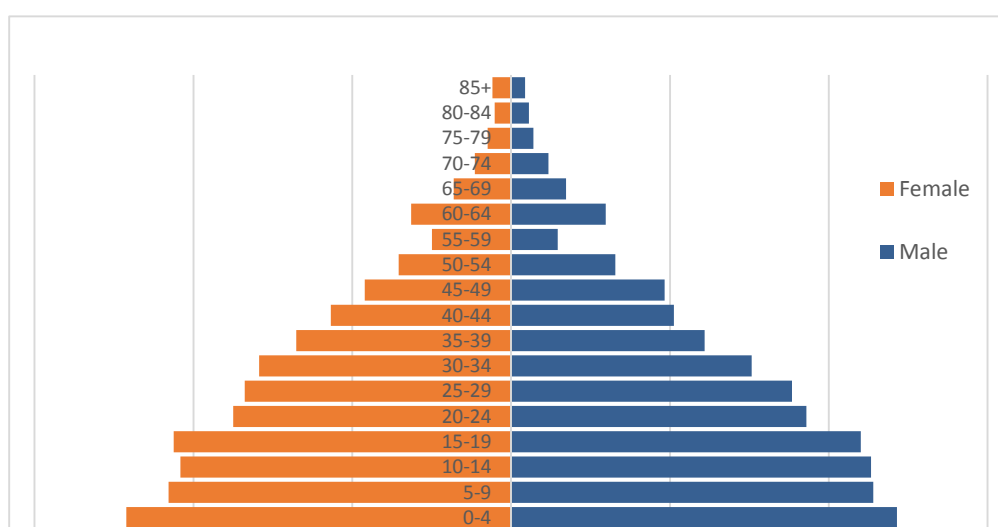


Table 2: Population distribution in KRI by governorate and age groups in 2017 (%)

Governorate	Age group	Male	Female	Both sexes
Erbil	0-14	35.9	33.9	34.9
	15-64	60.2	61.7	60.9
	65+	3.9	4.4	4.2
Sulaimani	0-14	32.2	30.7	31.4
	15-64	62	63.5	62.8
	65+	5.8	5.8	5.8
Duhok	0-14	37.8	36.8	37.3
	15-64	58.5	59.6	59
	65+	3.8	3.6	3.7
KRI	0-14	34.9	33.3	34.1
	15-64	60.5	61.9	61.2
	65+	4.6	4.8	4.7

### Sex ratio

Sex proportion indicator is used to reveal the ratio of males to female within a population. As it presented in Table 1, population in Kurdistan region is displaying an overall sex balanced, nearly half to half. However, a slight difference observed among different age groups which is normal to some extent as each age group has its own characteristics. But, there is imbalance in the sex ratio for the age group 55-59. Sex imbalance can be also observed in the census 1987 for the age group 25-29 and in the census 1977 for the age group 15-19, while, there is no imbalance for age group 5-9 in census 1965. In general, the decrease in men's ratio is mainly linked to the events of September uprising (1961) and the events before that in which a big number of men were killed or displaced.



# Labor force

- Population distribution in term of economic activity
- Participation in labor force by sex
- Participation in labor force by governorates
- labor force distribution

## Labor Force

All terms and concepts on labor force used in the labor force survey in KRSO have been taken from the standards of International Labor Organization (ILO). According to ILO, the working age is specified between the ages 15-64. The situation is different in Kurdistan region as workers looking for another job after being retired even those who involved in public services. For this reason, in Kurdistan region, the working age is 15<sup>+</sup>. All indicators which have been presented in the labor force section in this report are from the second half of the years, because all surveys from which these indicators have been driven have been done in the second half of the years, but in different months.

### Population distribution in terms of economic activity

**Labor force (economically active):** it consists of all individuals aged 15 years and older who are in labor force, whether currently working or not working and meet the international definition of unemployment (without job but available to work and searching for work). In KRI, in 2014, the labor force participation rate was 39.2% and near 39% in 2015 and 40% in 2017. As it can be seen, there is no significant difference in labor force participation during these years.

**Out of the labor force (economically inactive):** it covers all individuals younger than working age (under 15 year of age) or at working aged (15 and above) and don't meet the definition of employment and unemployment. In other words, they are not in the labor force and known as economically inactive. Out of the labor force includes: people who are schooling, those who are taking care of the family or engaged in housework, people who are not interested in working, guests, disables, the elderly, those who have a source of income and retired people.

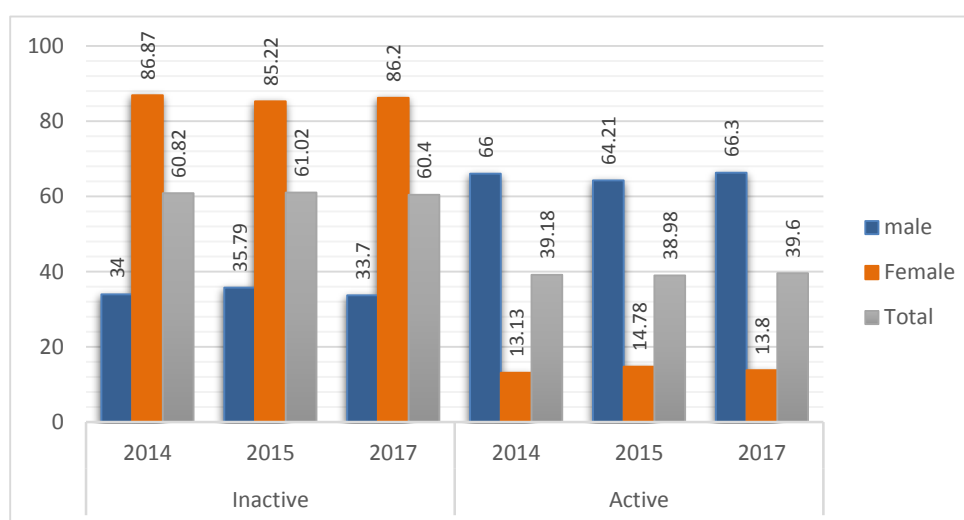
Out of the labor force population (economically inactive) in KRI in 2017 was 60.4% and 61% and 60.9% in 2015 and 2014 respectively. Labor force and out of labor force both form the total population. There is no significant change in labor force and out of labor force\* during these years as they are completion of each other as the total population. Table 3 and Figure 2 represent these two indicators by sex.

Table 3: Population aged 15 and over in and out of labor force by sex in Kurdistan region (%)

Sex	Inactive (out of labor force)			Active (in labor force)		
	2014	2015	2017	2014	2015	2017
Male	34.0	35.79	33.7	66.0	64.21	66.3
Female	86.87	85.22	86.2	13.13	14.78	13.8
Total	60.82	61.02	60.4	39.18	38.98	39.60

\* For 2014 and 2015 it was relied on labor force and for 2017 it was relied on demographic survey

Figure 2: distribution of economically active and inactive population in KRI by sex (%)



### labor force Participation by sex

Looking on labor force distribution by sex, it can be easily observed that sex difference is considerable. The men's participation in labor force is four times higher than women's, even at the time when women's participation is at its peak. Women in Kurdistan region recorded the lowest labor force participation rate in the area. This made KRI to prepare a project in cooperation with World Bank to increase the women's labor force participation rate and eliminate or reduce the obstacles to women's participation in labor force. This project was launched as a pilot project in 2018 and it will be continued in the coming years after evaluating the results of the pilot one.

From the results that come out from this stage of the project, 28% of women workforce is involved in private sector and a small rate of women workers provides children care services in their working place. The results also show, 54% of women who don't work like to work if they have opportunity to work and 60% of these women prefer to be involved in public

sector. It is notable that, the literacy among working women is twice that of women who don't work.

In table 3 and figure 2, a slight increase of 1.7 point can be observed in women's participation rate in labor force in 2015, but it came down again in 2017. The increase in women's participation in labor force for 2015 could be partially linked to the financial crisis in 2014 that led to stop economic and construction projects, where men lost their jobs and as a result women tried to work to fill the economic gaps in the family after losing jobs among men.

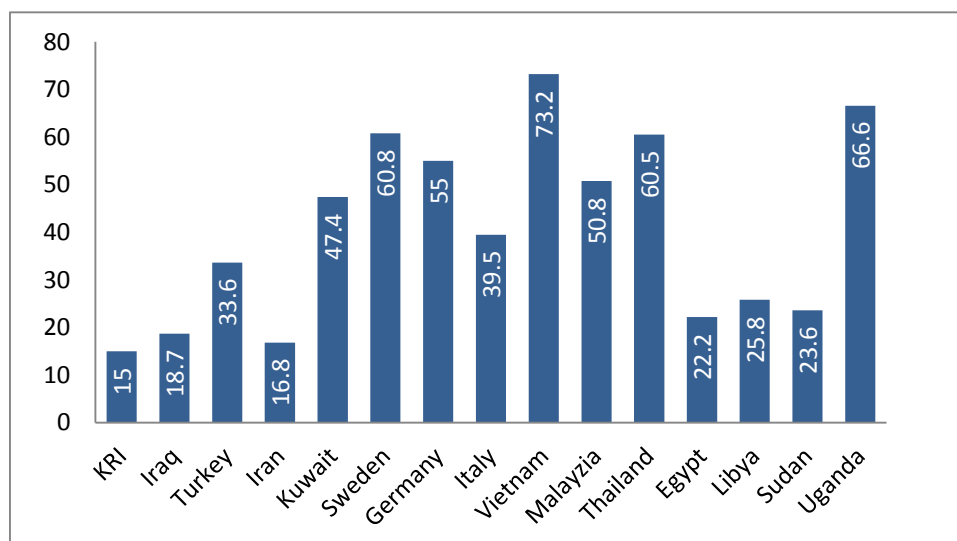
To enrich the text, the women's participation in private sector in Kurdistan region is presented in comparison to several countries in different part of the world. We can refer to some reasons that are behind women's active participation in the labor force in each country. for example, accepting women to work out of home by society, women financial support for the family, women desire to be financially independent, the law of equal employment opportunity regardless of sex, providing more facilities for women workers by job owners, having more free time at home and less responsibilities in running house work by women..., however these factors have different impacts levels on women's participation in labor force from one country to another. For instance, if we look at the data in table 4, we can see that the women's participation rate in labor force for a country like Italy as a highly developed country is not high enough comparing to the high rates of labor force recorded by women in countries like Kuwait, Vietnam, Thailand and Ugandan which are known as undeveloped or under-developing countries.

As results show, in Kurdistan region, the labor force participation rate among women is not satisfactory and this pushed World Bank to encourage KRI to take measures to raise the rate. For this reason, KRI prepared a four-step project which consists of: 1) reforming labor law in favor of women to encourage them to widely participate in labor force especially in private sectors, 2) to make contact with several women through telephone in a sample form to investigate the reasons behind their willing to work and job opportunities, 3) to encourage companies to practices actions in favor of families to attract women to work places especially in private sector, 4) doing a field work survey to identify those social barriers that prevent women to work.

Table 4: Comparison between the rate of women's share in labor force in KRI and several countries (%)

Country	2014	2015	2017
KRI	13.13	14.78	13.8
Iraq	18.36	18.42	18.73
Turkey	30,3	31,5	33,6
Iran	13.68	15.15	16.84
Kuwait	49.02	48.85	47.4
Sweden	60.34	60.62	60.76
Germany	54.51	54.6	55.03
Italy	39.4	39.003	39.53
Vietnam	73.91	73.39	73.24
Malaysia	49.95	50.32	50.79
Thailand	62.46	60.96	60.47
Egypt	22.52	22.22	22.18
Libya	25.87	25.77	25.81
Sudan	23.48	23.62	23.63
Uganda	66.39	66.42	66.58

Figure 3: Comparison between percentage rats of women's share in labor force in several countries 2017



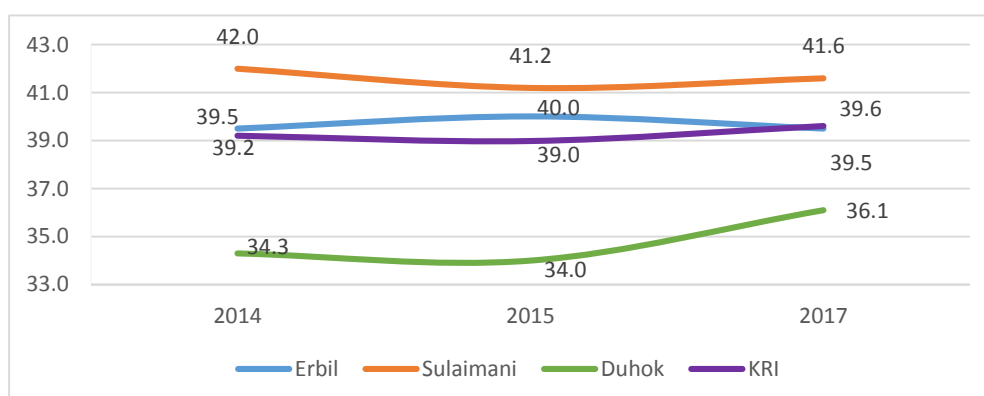
## Labor force participation by governorate

Comparison between labor force participation rates in governorates in KRI reveals a significant difference in Erbil and Sulaimani governorates compared to Duhok governorate over the years 2014, 2015 and 2017. There is no significant difference in labor force share at the level of KRI and the two governorates of Erbil and Sulaimani in 2014, 2015 and 2017, whereas, in Duhok governorate in 2017 and even after economic crisis, the labor force participation rate increased by 2 points and reached above 36% that is still higher than 2014 (Table 5). Difference between governorates can be better seen in Figure 4.

Table 5: Population aged 15 and over in labor force in KRI by governorate (%)

Governorate	2014	2015	2017
Erbil	39.5	40.0	39.5
Sulaimani	40.1	41.2	41.6
Duhok	34.3	34.0	36.1
Kurdistan region	39.18	38.98	39.60

Figure 4: labor force for population aged 15 and over by governorates in KRI (%)



## Labor force distribution

In general, labor force is divided over two groups of employed and unemployed who meet the international definition of unemployment.

**Employed (worker):** it refers to individuals aged 15 years and over who worked even for one hour during the specified period which is known as reference period. Reference period is defined according to the situation exists in countries. KRI follows International Labor Organization (ILO) in which the reference period is one week preceding the survey day. The work could be a paid work, in return for something, self-working, unpaid work, working in favor of family or a family farm working, and those who are on leave and are not present at work (because of illness, holiday, temporary stop of work, or other reasons). Here we want to refer to another subject which is job sector and it has been explained below.

**Work sector:** it refers to the ownership of the workplace. Here we reckon two types of work sector ownership:

- 1. Public sector:** It refers to the place or organization that is affiliated to government or owned by government and people who are engaged in any kind of work in this sector (administration, management, service, etc...) are paid by government.
- 2. Private sector:** it refers to that working place which is owned by a party / parties or a person/ persons either natives or foreigners. Governorate does not interfere in the administration and capital of the private sector. In this report, all jobs or works that are not in government sector recognized as non-government jobs.

Having a large number of employees in government sector is an issue that government confronts which can be linked to the benefits that are provided in government sector like, pension, less work hours, and providing land to employees. Limitation of job opportunities in private sector to attract people and unburden government is another crisis we can refer to. What is important to mention here is the shift between employment rate in government and private sectors following economic crisis in 2014 and government inability to pay employees in due course in the following years. Compared to previous years, in 2017, a slight decline can be observed in government sector which has been offset in private sector, where a slight improvement can be seen in employment rate (Table 6).

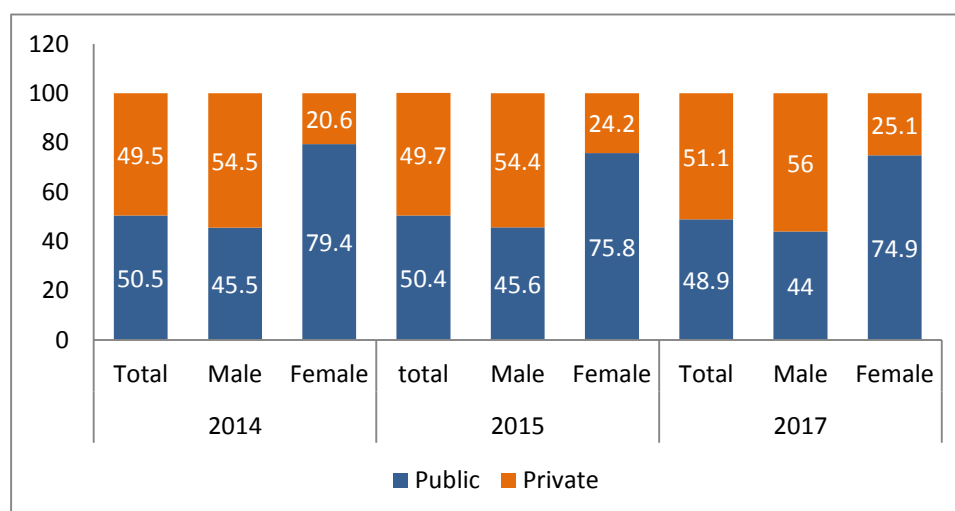
Table 6: Population age 15 years and over in labor force by sex and job sector in KRI (%)

Sector	2014			2015			2017		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Public	45.5	79.4	50.5	45.6	75.8	50.4	44.0	74.9	48.9
Private	54.5	20.6	49.5	54.4	24.2	49.7	56.0	25.1	51.1

As represented in table 6, labor force participation rate in the public sector is near 49% in KRI for 2017, a slightly lower than the records of 50.5% and 50.4% in 2014 and 2015 respectively. The male participation rate in labor force is 44% in 2017 and near 50% in 2014 and 2015. Due to economic crises in KRI, the male share in labor force in public sector has been decreased in 2017 compared to the previous years. As for female, a downtrend can be seen as well in respective years, 79.4% in 2014, 75.8% and 74.9% in 2015 and 2017 respectively.

Labor force has increased in private sector in KRI step by step. labor force is about 50% in 2014 and 2015, while it reached 51.1% in 2017. Male labor force participation rate in private sector is higher in 2017 (56%) compared to 2014 and 2015. An increase can be also observed for female participation rate in private sector in the years 2015 (24.2%) and 2017 (25.1%), an increase above 4 points compared to 2014 (20.6%). Male labor force participation rate in private sector is more than twice the females'\*

Figure 5: labor force population age 15 and over in KRI by job sector (%)





**unemployed** (as defined by the International Labor Organization (ILO)): it refers to those who are at working age (15 years and above) who did not participate in any paid work in the reference period (a week preceding the interviewing day) even for one hour, but looking for work through newspapers, registering in employment agencies, asking relatives or friends and other ways.

Unemployment recorded 13.5% in KRI in 2015, nearly twice the rate recorded in 2014, at 7.1%. From the results, it can be observed that economic condition in KRI during the years prior to 2015 had a great role in creating job opportunities. But, rising unemployment rate in 2015 is the reflection of KRI's economic crisis that started in 2014 and its outcomes in the next years. Three years after starting the economic crisis, unemployment rate declined and reached 10.1% in 2017 which was a good sign and indication of reduction of economic crisis and its outcomes in KRI\*\*.

Unemployment rate in Duhok governorates is higher than in Erbil and Sulaimani governorates during the years 2014, 2015 and 2017 (table 7). Surprisingly, unemployment rate in Duhok governorate was continuously rising even in 2017 despite the overall decline at the level of KRI which need to be taken into consideration.

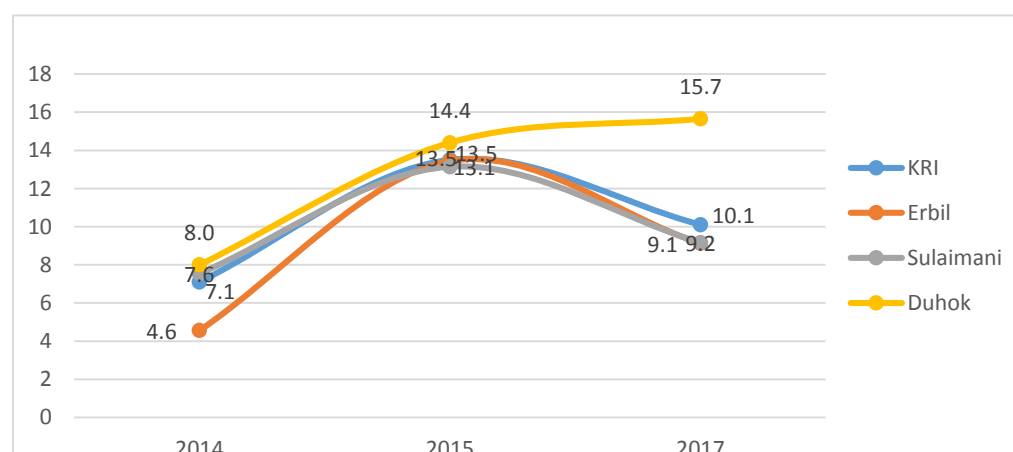
\*Source: labor force survey, second half of 2014 and second half of 2015

\*\*Source: Demography survey 2017

Table 7: Unemployment rate for population aged 15 and over (%)

Governorate	2014	2015	2017
Erbil	4.6	13.5	9.1
Sulaimani	7.6	13.1	9.2
Duhok	8.0	14.4	15.7
KRI	7.1	13.5	10.1

Figure 6: Unemployment percentage rate for population aged 15 and above by governorates in KRI



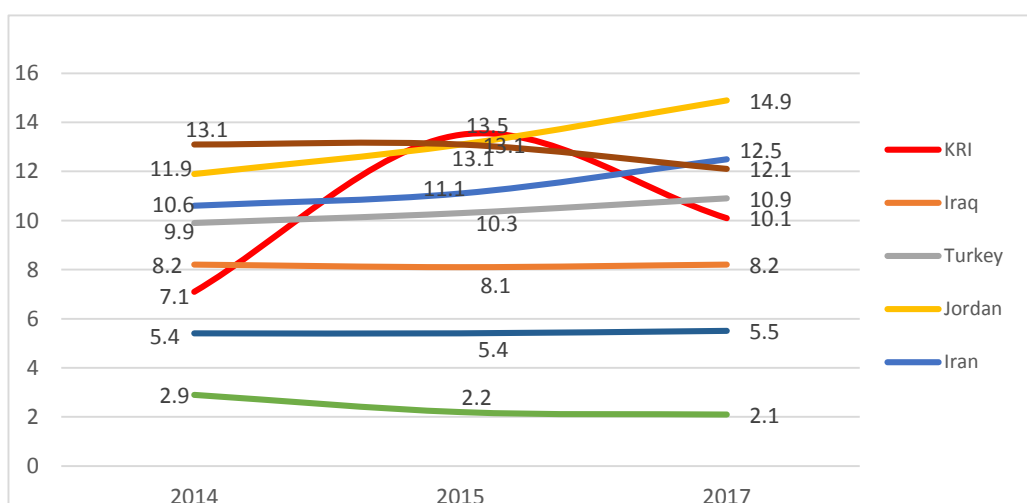
To better clarify the unemployment condition in KRI, it might be helpful if we make a comparison between KRI and several neighbouring countries. In 2014, in KRI, unemployment indicator was in a better condition comparing to most of the neighbouring countries due to the efforts were made in construction in KRI prior to the financial crisis (Table 8). What is notable in the table is the low unemployment rate in Iraq that stands in the third rank after Kuwait and Saudi Arabia.

In 2014 (Table 8), unemployment rate in Kurdistan region (7.1%) is lower than other countries excluding Saudi Arabia (5.4%) and Kuwait (2.9%). Unemployment rate increases in Iran, Turkey and Jordan, during the years 2014-2017, while it shows opposite in Kuwait, Egypt, and Kurdistan region.

**Table 8: Comparison between unemployment in KRI and neighboring countries (%)**

countries	2014	2015	2017
KRI	7.1	13.5	10.1
Iraq	8.2	8.1	8.2
Turkey	9.9	10.3	10.9
Jordan	11.9	13.1	14.9
Iran	10.6	11.1	12.5
Kuwait	2.9	2.2	2.1
Saudi Arabia	5.4	5.4	5.5
Egypt	13.1	13.1	12.1

**Figure 7: Comparison between unemployment in KRI and neighboring countries (%)**



# Education

- Children's school attendance
- Literacy
- Illiteracy

## Education

### Children's school attendance

One of the important indicators of sustainable development goals (SDG) is access to basic or primary education as legitimate rights of children. Education is an essential factor for combating poverty, empowering women, protecting children from hazardous and exploitative labor and sexual exploitation, promoting human rights and democracy, protecting the environment and influencing population growth. Hopefully, indicators on education are satisfactory in Kurdistan region. Providing access to education as a fundamental right of children is satisfactory in Kurdistan region. The following table represents the indicators on education as targeted by SDG.

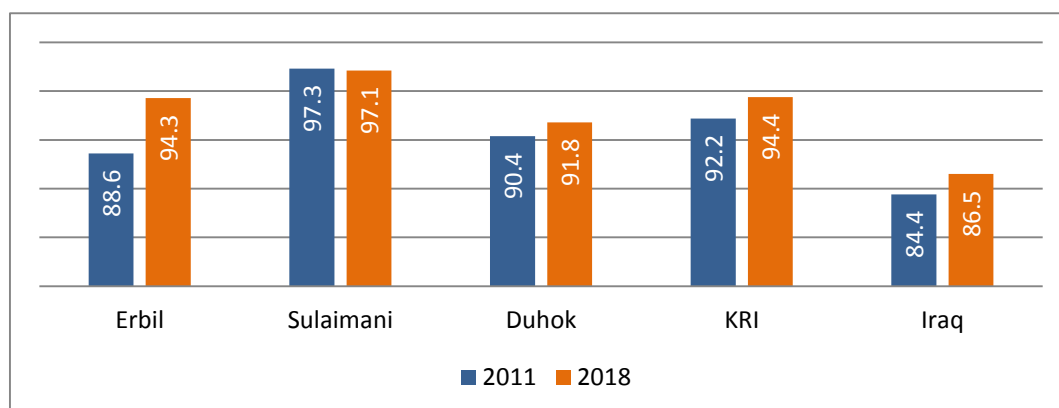
Table 9: Education indicators in KRI per governorate and Iraq in 2011 and 2012 (%)

Indicator	Erbil		Sulaimani		Duhok		KRI		Iraq		Source
	2011	2018	2011	2018	2011	2018	2011	2018	2011	2018	
Net percentage rate of Primary school entry age entering grade 1	88.6	94.3	97.3	97.1	90.4	91.8	92.2	94.4	84.4	86.5	MICS4,MICS6
Net percentage rate of children who are at primary school age attending to primary or secondary school	94.7	95.1	98	97.9	95	95.7	96	96	90	91.6	MICS4,MICS6
Net percentage rate of children who are at secondary school age attending to secondary school or above	69	66.6	79	76.4	66	68.9	72	70.2	49	57.4	MICS4,MICS6
Net percentage rate of children who are at secondary school age and still in primary school	10.5	10.4	9.5	8.6	9.7	8.3	9.9	9.4	14	12	MICS4,MICS6
Primary school completion percentage rate	69.7	91.1	62	91.3	62	80.9	65	89.1	44.4	75.7	MICS4,MICS6
Secondary school completion percentage rate	89.8	62.8	77.2	72.4	82	62.6	82	65.9	80.4	46.6	MICS4,MICS6
Percentage of students who completing preparatory school	-	66.8	-	65.9	-	57.3	-	64.5	-	44.3	MICS6

**Net student of Primary school age currently in grade 1:** is the ratio of the number of children of official primary school age (6 to 11 years of age) who are enrolled in the first grade of primary education to the total surveyed population of children of official primary

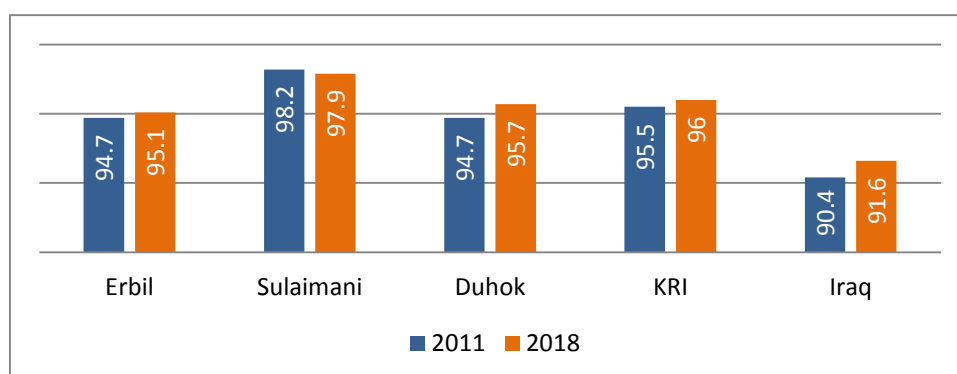
school age, expressed as a percentage. Net primary school enrollment in grade 1 increased to 94.4% in 2018 comparing to 92.2% in 2011 as presented in figure 8.

Figure 8: Net primary school enrollment rate for grade 1 in KRI per governorate and Iraq as a whole



**Net enrollment rate of student of Primary school age who participated in primary or secondary school:** is the ratio of the number of children of official **primary school age** (6 to 11 years of age) who are currently attending primary school or already in secondary school to the total surveyed population of children of official primary school age, expressed as a percentage. The net enrollment rate of student of Primary school age for Kurdistan was 96% comparing to 91.6% for Iraq in 2018. At the level of KRI's governorates, the records are high and no significant difference is there between 2018 and 2011 as presented in figure 9.

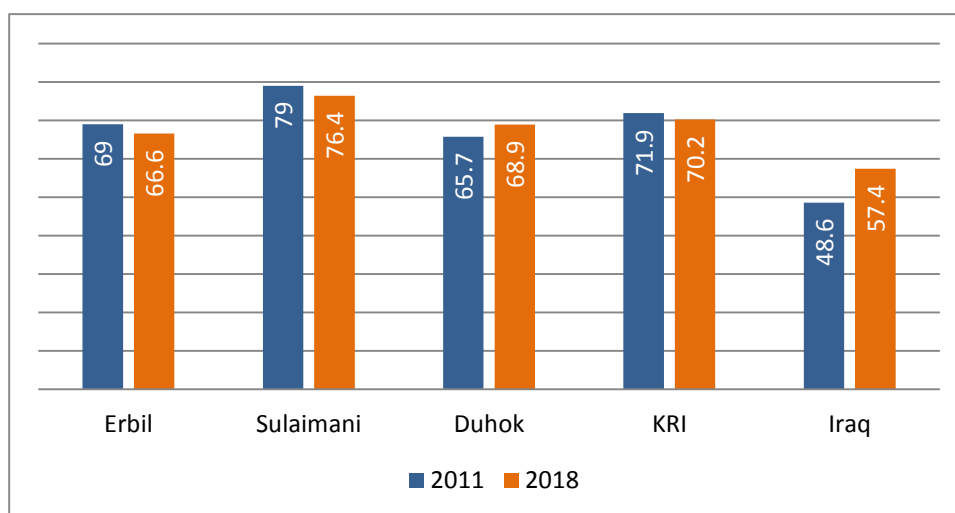
Figure 9: Net enrollment of student of Primary school age in primary or secondary school in KRI by governorates and Iraq as a whole (%)



**Net enrollment rate of student of secondary school age who participated in secondary or higher education:** is the ratio of the number of children of official secondary school age (12 to 14 years of age) who are enrolled in secondary school or higher education to the total surveyed population of children of official secondary school age, expressed as a percentage.

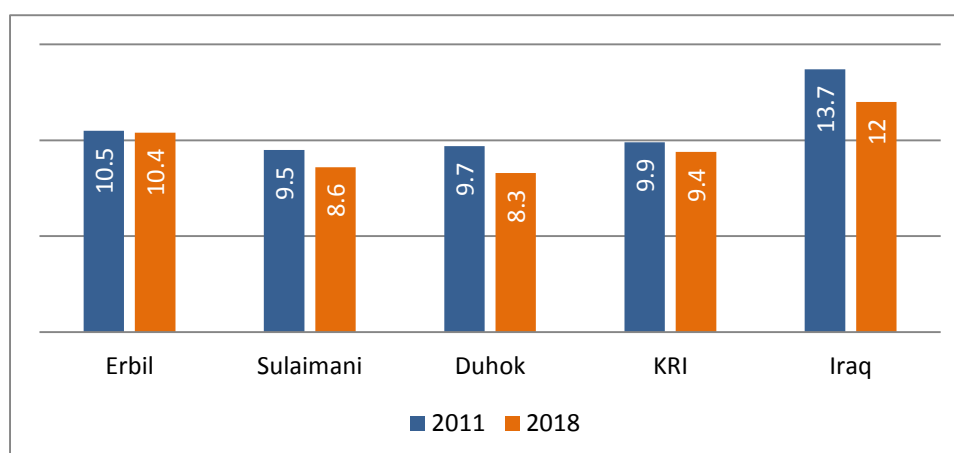
Attending to secondary school and higher in Kurdistan region for the secondary school age children (12 to 14 years of age) was 70.2% in 2018 that is a high rate comparing to 57.4% reported in Iraq. At the level of governorates, Erbil and Sulaimani governorates recorded decrease in 2018 compared to 2011, from 69% to 66.6% and 79% to 76.4% respectively, while Duhok governorate shows reverse direction and increased from 65.7% in 2011 to 68.9% in 2018, but still Sulaimani with higher rate stands first (Figure 10).

**Figure 10: Net enrollment of student of secondary school age who participated in secondary or higher education in KRI and Iraq as a whole (%)**



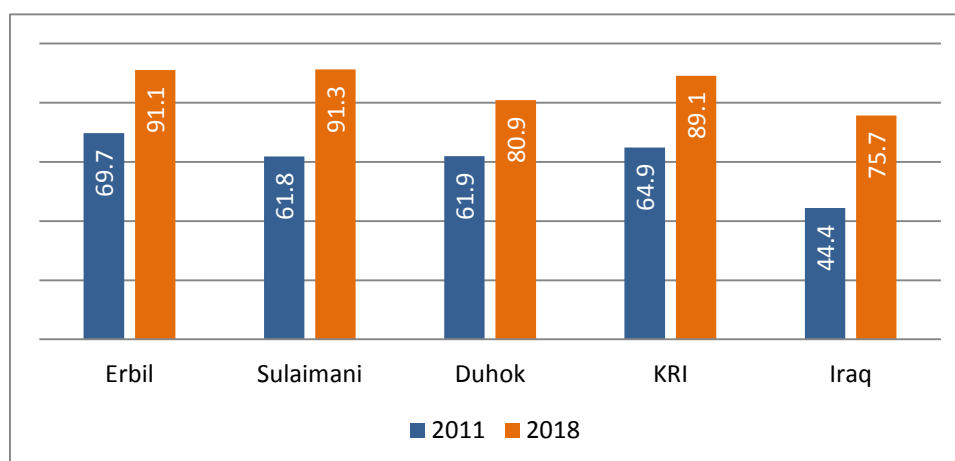
**Net enrollment rate of student of secondary school age who are still in primary school:** is the ratio of the number of children of official secondary school age (12 to 14 years of age) who are still in primary school and could not reach secondary school for any reasons (grades repetition, attending to primary school at higher age, out of education...) to the total surveyed population of children of official secondary school age, expressed as a percentage. In Kurdistan region, this indicator shows a decline of 0.5% in 2018 (9.4%) comparing to 2011 (9.9%). It also shows a decline comparing to Iraq (12%) as represented in figure 11.

Figure 11: Net percentage rate of students of secondary school age who are still in primary school in KRI by governorates and Iraq as a whole



**Primary School Completion Rate:** is the number of children at any age (excluding repeaters) who are in their final grade of primary education to the total surveyed population who are at the age of final grade of primary education, expressed as percentages. In 2018, this indicator is considerably high at the level of both Kurdistan region and governorates comparing to 2011 as well comparing to Iraq in 2018. In Kurdistan region, it rose from near 65% in 2011 to 89.1% in 2018 compared to 44.4% and 75.7% for Iraq in 2011 and 2018 respectively (Figure 12).

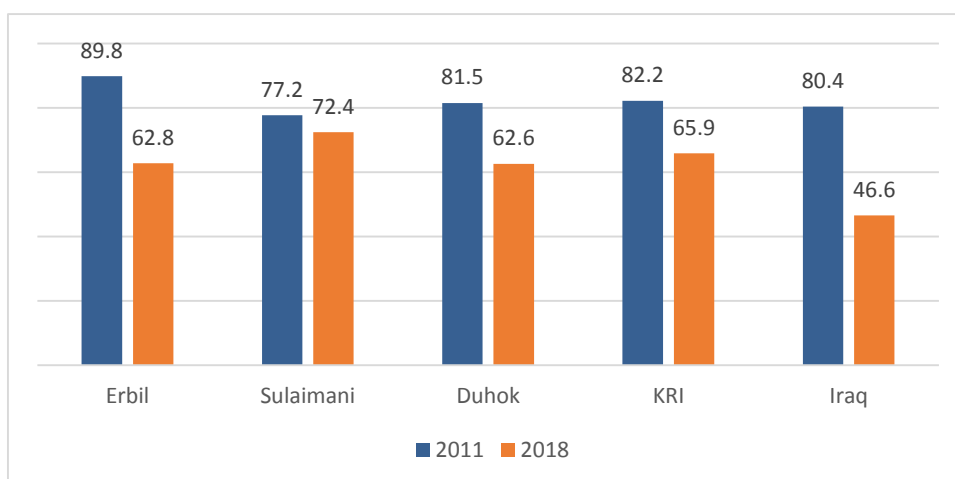
Figure 12: Primary school completion rate in KRI, governorates and Iraq as a whole (%)



**Secondary School Completion Rate:** is the number of children at any age (excluding repeaters) who are in their final grade of secondary education to the total surveyed population who are at the age of final grade of secondary education, expressed as percentages. At the level of KRI, governorates and Iraq as a whole, this indicator shows a significant decrease in

2018 comparing to the previous years. In KRI, it decreased from 82.2% in 2011 to 65.9% in 2018 and from 80.4% to 46.6% in Iraq (Figure 13).

Figure 13: Secondary school completion rate in KRI, governorates and Iraq as a whole (%)



**Preparatory school completion rate:** it refers to the number of students at any age (excluding repeaters) who are in their final grade of preparatory education to the total surveyed population who are at the age of final grade of preparatory education, expressed as percentages. This is a new indicator which was not included in the previous round of MICS conducted in 2011. To provide more indicators for SDG, this indicator was calculated in MICS6 in 2018. In Kurdistan region 64.5% of students completed preparatory school, of which 66.8% in Erbil governorate, 65.9% in Sulaimani governorate and the lowest rate in Duhok governorate accounted to 57.3%. Iraq as a whole, recorded a lower rate (44.3%) compared to Kurdistan region as presented in figure 14.

Figure 14: Preparatory school completion rate in KRI, governorates and Iraq as a whole in 2018 (%)

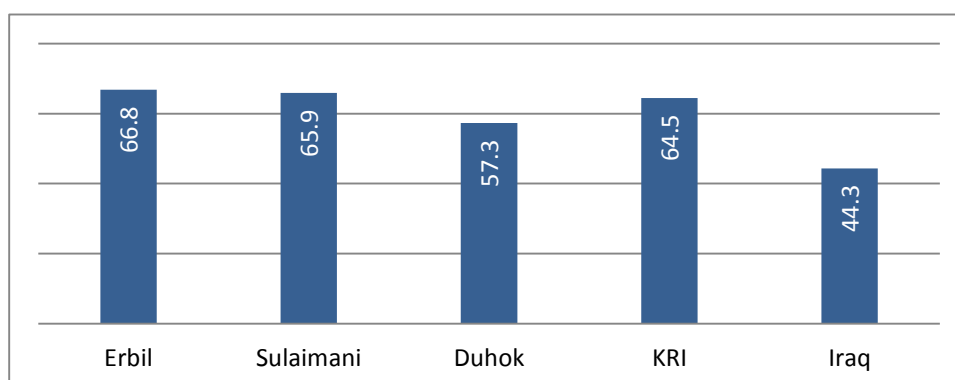




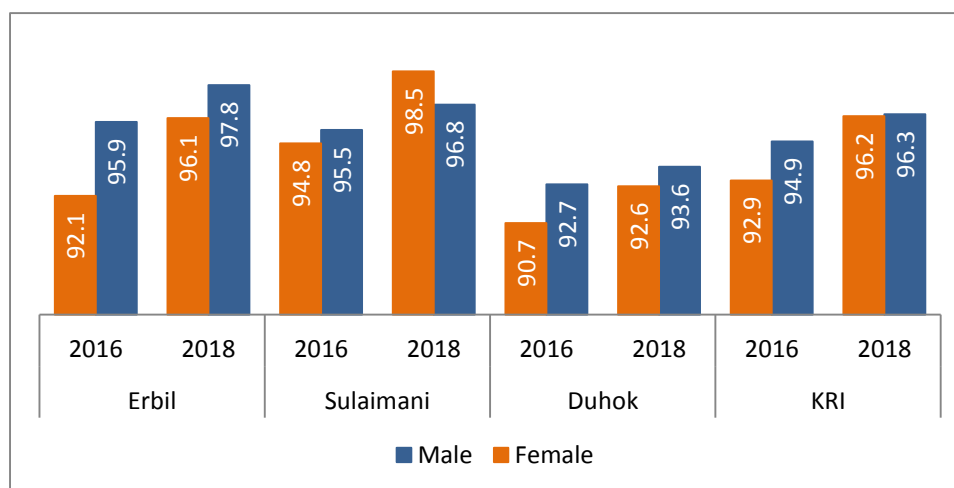
Table 10: literacy percentage rate by sex per governorate in KRI in 2016 and 2018

	Erbil		Sulaimani		Duhok		KRI		Source
	2016	2018	2016	2018	2016	2018	2016	2018	
Literacy: male aged 15-24	95.9	97.8	95.5	96.8	92.7	93.6	94.9	96.3	SWIFT,CFSVA
Literacy: female aged 15-24	92.1	96.1	94.8	98.5	90.7	92.6	92.9	96.2	SWIFT,CFSVA
Illiteracy: male aged 15-24	4.1	2.2	4.5	3.2	7.3	6.4	5.1	3.7	SWIFT,CFSVA
Illiteracy: female aged 15-24	7.9	3.9	5.2	3.9	9.3	7.4	7.1	3.8	SWIFT,CFSVA

## Literacy

Literacy is a basic measurement used for evaluating social skills level and achieving better job opportunity for a favored life. Generally, literacy rate is high among the age group 15-24 for both male and female at the level of KRI and governorates (figure 15). In 2016, literacy recorded 94.9% for male age group 15-24 and 92.9% for the female of the same age group. In 2018, literacy increased and recorded 96.3% for male and 96.2% for female (figure 15).

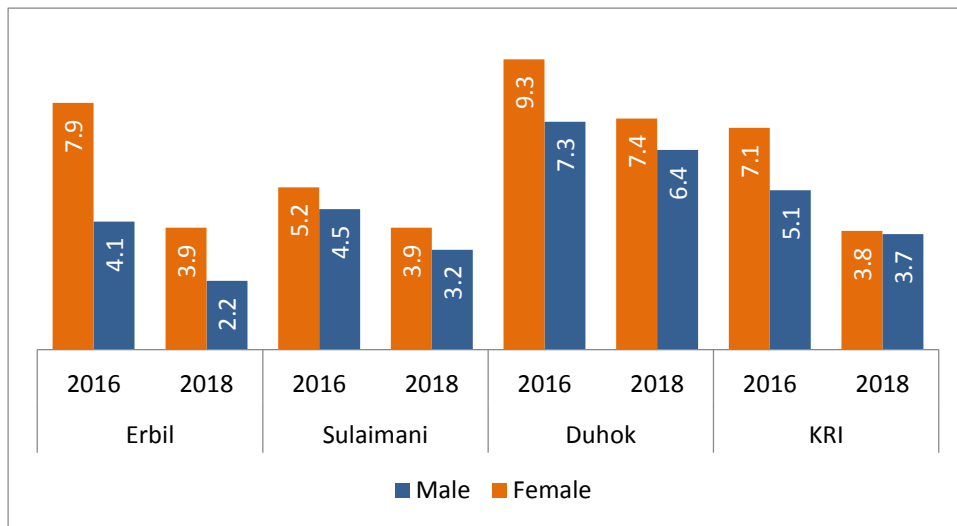
Figure 15: Literacy percentage rate for age group 15-24 in KRI and governorates by sex in 2018



## Illiteracy

Illiteracy rate is low among age group 15-24 for both male (3.7%) and female (3.8%) in KRI in 2018. It has been significantly decreased compared to 7.1% and 5.1% for male and female respectively for the same age group in 2016. Figure 16 shows comparison between governorates in KRI in 2016 and 2018.

Figure 16: Illiteracy rate for age group 15-24 in KRI and governorates by sex



# Poverty

## Poverty

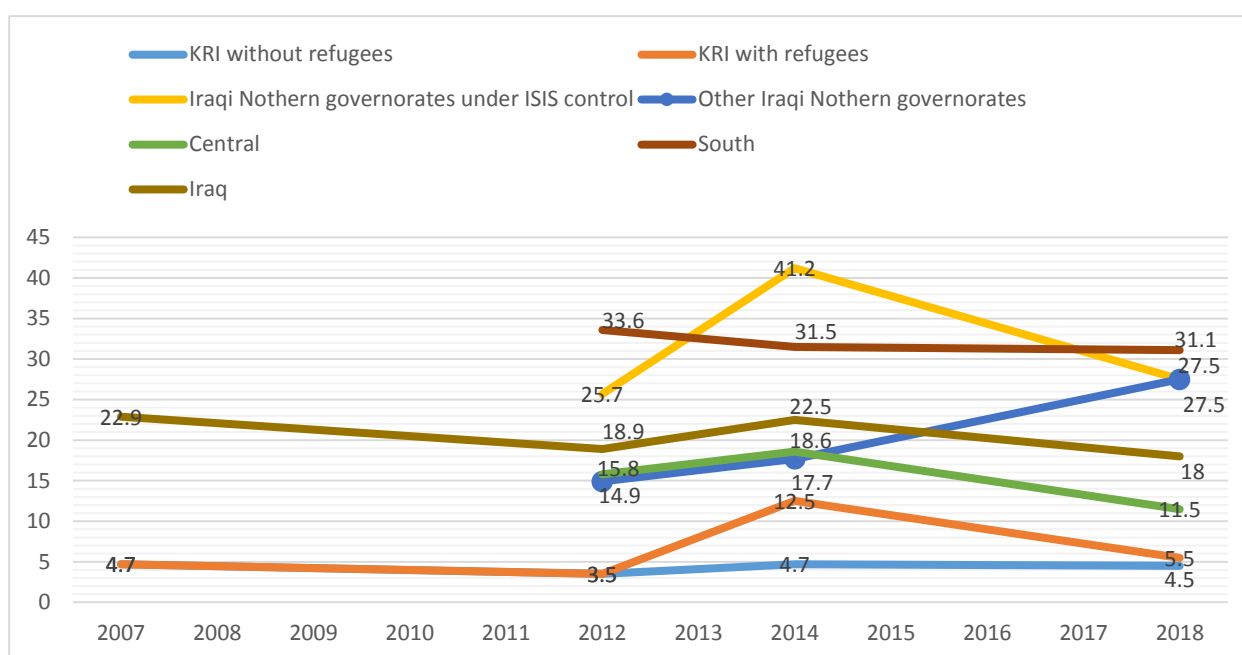
Table 11: Poverty rate in KRI and Iraq as a whole in 2014 and 2018 (%)

	SDG/CI	Erbil	Sulaimani	Duhok	KRI	Iraq	Source
Poverty rate in 2014 (host residents+ displaced+ refugees)	SDG	-	-	-	12.5	22.5	CHS 2014
Poverty rate in 2014 for host residents	SDG	1.5	1.2	12.4	4.7	-	CHS 2014
Poverty rate in 2018 (host residents+ displaced+ refugees)	SDG	-	-	-	5.5	18	SWIFT-2018
Poverty rate in 2014 for host residents	SDG	-	-	-	4.5	-	SWIFT-2018
Monthly income per capita in 2014 (1000IQD)	-	306.6	434.5	276.6	344	261*	CHS-2014
Monthly expenditure per capita in 2014 (1000 IQD)		497.3	674.1	429.1	471.3	-	CHS-2014

\* Average income per capita for 13 governorates of Iraq only

Poverty indicators include several monetary measures of poverty and inequality. Poverty indicators rely on household socio-economic survey to measure the household expenditure as a proxy for income. To measure new poverty rate in Iraq and Kurdistan region, the Continuous Household Socio-economic Survey was conducted in Iraq in 2014 which lasted for one year. As the sample size for the selected households in this survey was minimized, it was relied on the poverty line which was derived from the household socio-economic survey conducted in 2012. In 2012, the poverty line was estimated at monthly income of 105 500 Iraqi dinars per capita at the national level in Iraq. According to the inflation rate in 2018, poverty line was estimated at 110 880 Iraqi dinars per capita. Poverty rate arose among host households from 3.5% in 2012 to 4.7% in 2014. During the last 5 years, KRI was hit by several successive crises (budget cut, decline in oil prices, influx of internally displaced people and Syrian refugees) that had direct effects on the livelihood of KRI's residents and as a result, poverty significantly rose reached 12.5% in 2014. The poverty rate has been estimated through the last *Survey of Well-Being via Instant, Frequent Tracking* (SWIFT) for monitoring poverty for the post-crisis events (end of ISIS war, return back of refugees and rise of oil prices), where it experiences a progress in economic sector and declining poverty rate in 2018, accounted for 5.5%.

Figure 17: Poverty rate in Iraq and KRI in 2007-2018



Poverty rate has been depicted in the figure 17 for KRI, northern, southern and central governorates of Iraq during the years 2007-2018. After 2014, demography in Kurdistan region experienced a big change after Kurdistan opened its borders to more than one million and half refugees and displaced people. In KRI, poverty rate increase from 3.5% in 2012 to 12.5% in 2014. At the same time, Poverty rate shows increase on the rest part of Iraq, from 22.3% to 27.5% in the northern governorates, from 15.8% to 18.6% in the central governorates, but southern area recorded a decrease from 33.6% in 2012 to 31.5% in 2014.

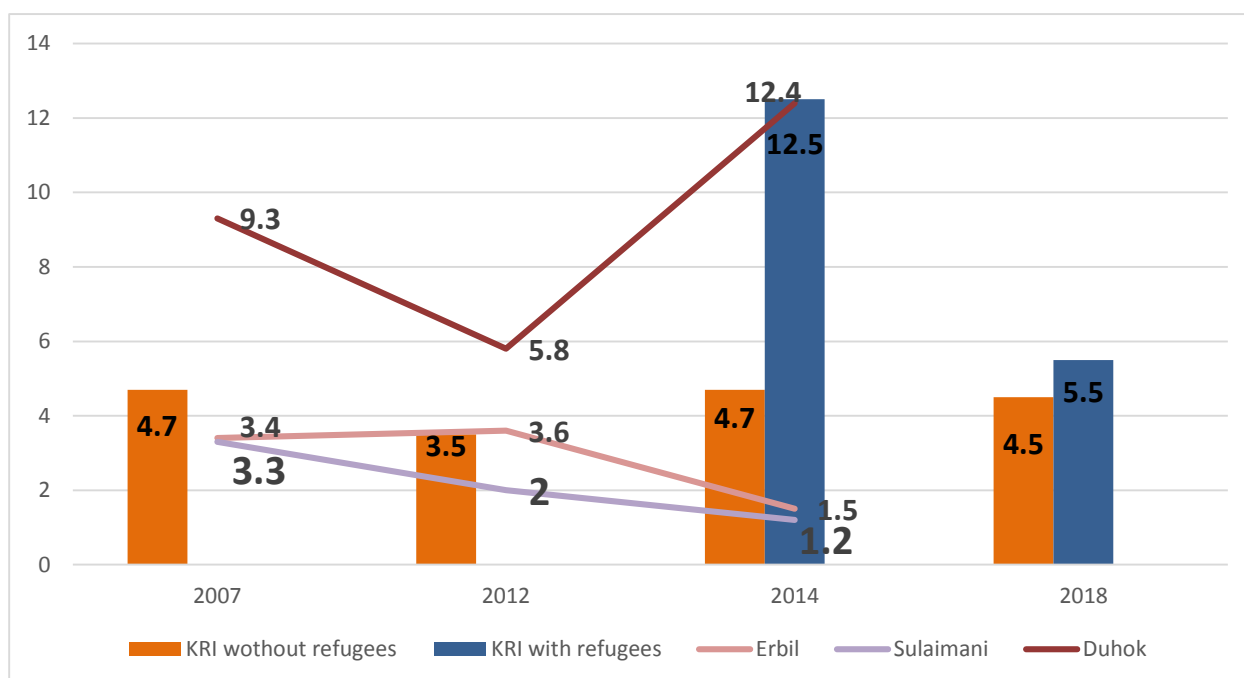
In continuous household survey conducted in 2014, poverty rate was calculated for KRI with and without refugees. As presented in figure 18, poverty rate is markedly higher among refugees compared to the host residents of KRI. In KRI, poverty rate is 12.5% with refugees and 4.7% without refugees.

Due to lack of budget, in the latest survey (household socio-economy swift survey) in 2018, the household sample size was minimized to a smaller size and the survey period reduced to one month to calculate detailed information on household expenditure within 12 month of the year. For this reason, the estimation for poverty rate was only done at the level of Kurdistan region, Iraq as whole and other governorates of Iraq. To measure the poverty line, like continuous survey in 2014, , this survey relied on the poverty line in 2012 from the second round of Iraqi household socio-economic survey (IHSES II) according to the inflation rate in 2018. As it can be seen in figure 17, in 2018, the poverty rate has been declined to 5.5% in Kurdistan region as a whole (with refugees and displaced people) and to 4.5% for host

people. The poverty rate decreased to 18% in Iraq as a whole, also a significant decrease can be seen in other parts of Iraq as well. It decreased to 11.5% and 31.1% in central and southern governorates respectively, but increased to 27.5% in northern governorates.

In KRI, in 2014, a significant decrease can be seen in poverty rate at the level of governorates, except Duhok governorate, where it increased and recorded the highest rate (12.4%) compared to Erbil (1.5%) and Sulaimani (1.2%) with lowest rate (Figure 18).

Figure 18: Poverty rate by governorates in KRI with and without refugees



# **Nutritional status of under-five children**

## Nutritional status of under-five children

Nutritional status of children is reflection of health condition of children. Well-nourished children are not exposed to recurrent diseases and they could have their growth potential. Malnutrition contributes to more than half of children death worldwide. Children who are exposed to malnutrition are more likely to die because of common children's diseases and those who survive would get ill frequently and face growth problem. Three out of four of deaths in children are attributed to low or moderate malnutrition that put children at greater risk of dying from common infections. For the death of these children no chronic disease has been reported. The aim of sustainable development goals (SDG) is to reduce the cases that suffer from starvation to the half for the period 2015-2030. Reducing malnutrition prevalence will lead to reduce children mortality rate. Table 12 shows some important indicators on nutrition for the years 2011 and 2018 regarded by SDG.

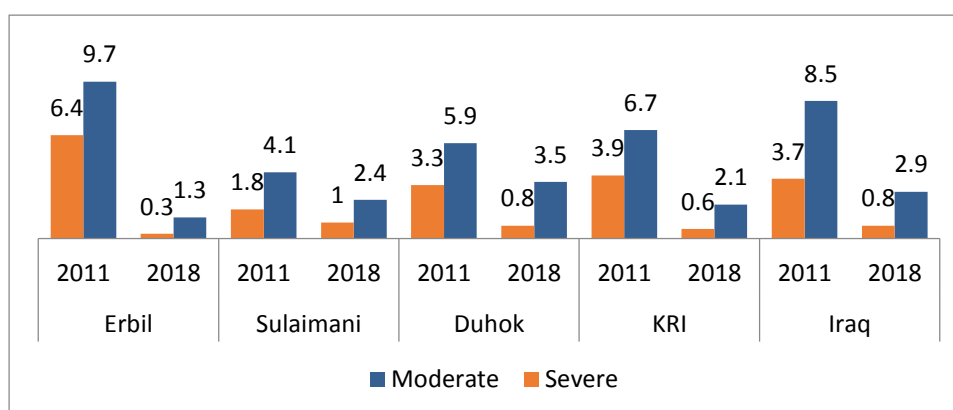
Table 12: Nutritional status of under- five children in KRG by governorates and Iraq (%)

	SDG	Erbil		Sulaimani		Duhok		KRI		Iraq		Source
		2011	2018	2011	2018	2011	2018	2011	2018	2011	2018	
Moderate underweight	SDG	9.7	1.3	4.1	2.4	5.9	3.5	6.7	2.1	8.5	2.9	MICS4,MICS6
Severe underweight	SDG	6.4	0.3	1.8	1.0	3.3	0.8	3.9	0.6	3.7	0.8	MICS4,MICS6
Moderate stunting	SDG	17.5	4.4	10	5.0	19.0	6.1	15.4	4.9	22.6	9.9	MICS4,MICS6
Severe stunting	SDG	7.7	1.5	3.6	1.0	7.1	1.5	6.1	1.3	9.9	3.2	MICS4,MICS6
Moderate wasting	SDG	7.2	1.1	3.4	3.4	4.0	1.8	5.0	1.8	7.4	2.5	MICS4,MICS6
Severe wasting	SDG	4.2	0.0	1.6	1.1	2.0	0.2	2.6	0.4	3.6	0.8	MICS4,MICS6
Moderate overweight	SDG	10.2	5.7	10.9	4.0	12.5	5.1	11.1	5.1	11.8	6.6	MICS4,MICS6

**Moderate or Severe Underweight Prevalence: Moderate Underweight** is the percentage of children under 5 years, whose weights for age are less than two standard deviation (SD) below the median weight for the references population. **Severe underweight prevalence** is the percentage of children under 5, whose weight for age are more than three standard deviations below the median weight of the reference population. In the KRI, in 2018, 2.1% of under 5 children were moderately underweight and 0.6% were severely underweight. This is notably lower than Iraq as a whole with 2.9% and 0.8% for moderate and severe underweight respectively. A notable decline is observed at the level of Kurdistan region and Iraq as a whole in 2018 compared to 2011(Figure 19).

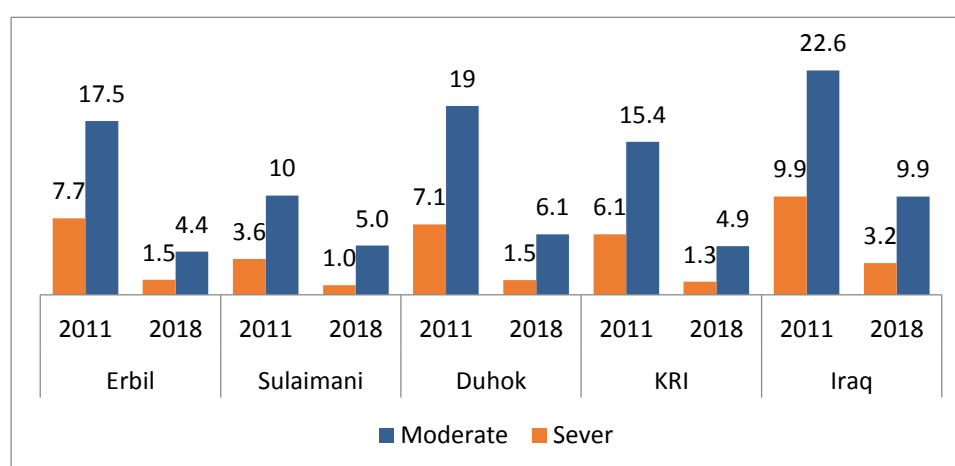


Figure 19: Comparison between moderate and severe underweight in 2011 and 2018



**Moderate or Severe Stunting Prevalence:** Stunting is reflection of chronic malnutrition resulting from a failure to receive adequate nutrition over a long period. It may also be caused by recurrent or chronic illness. **Moderate Stunting Prevalence** is the percentage of under 5 children, whose height for age is two standard deviations below the median of the high of the references population. **Severe Stunting Prevalence** is the percentage of children, whose height for age is more than three standard deviations below the median of the high of the reference population. In the KRI, 4.9% of under 5 children are moderately and 1.3% are severely stunted. These rates are significantly lower than Iraq as a whole with 9.9% for moderate and 3.2% for severe stunting. At the level of governorates of KRI and Iraq as a whole, these indicators show noticeable lower rates in 2018 comparing to 2011 (Figure 20).

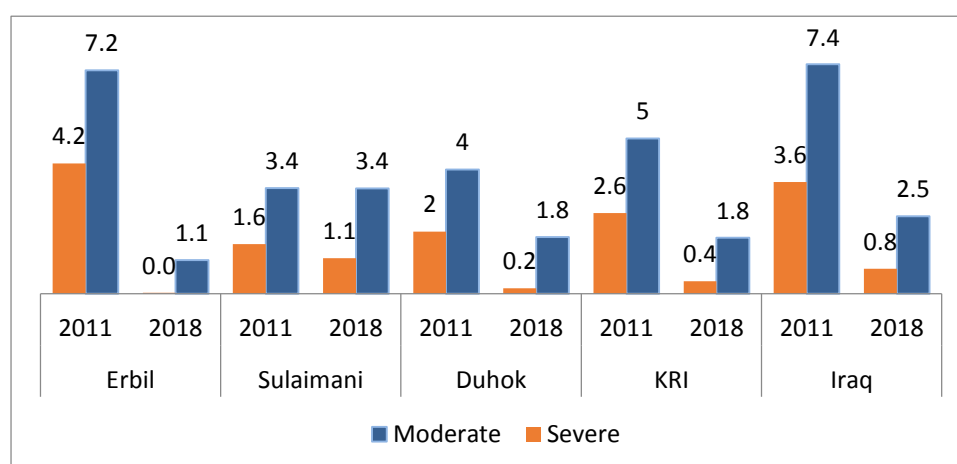
Figure 20: Comparison between moderate and severe stunting in KRI by governorates and Iraq as a whole



**Moderate and sever wasting:** **Moderate wasting** is the percentage of under 5 children, whose weight for high are more than two standard deviations below the median of the weight of the references population. **Sever wasting** is the percentage of under 5 children, whose

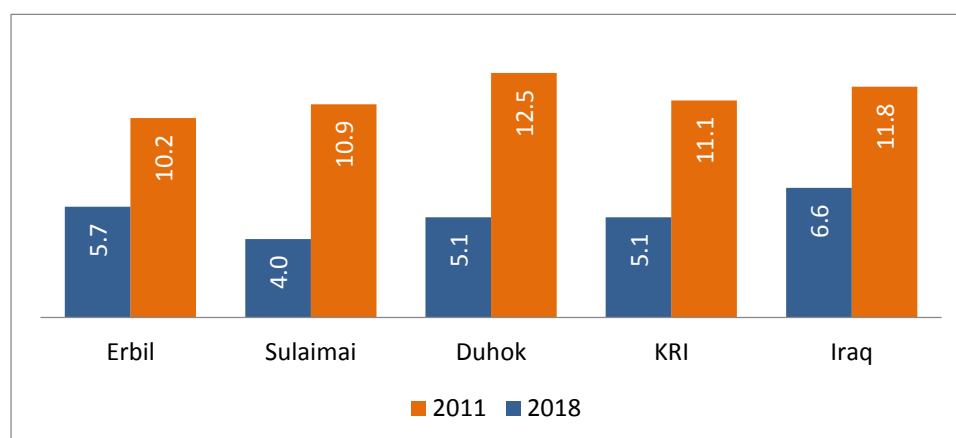
weight for high are more than three standard deviations below the median of the weight of the references population. In the KRI, 1.8% of the under 5 children are moderately wasted and 0.4% are severely wasted. The KRI is remarkably lower than Iraq as a whole, at 2.5% for moderate wasting and 0.8% for severe wasting. At the level of governorates of KRI and Iraq as a whole, these indicators show noticeable lower rates in 2018 comparing to 2011 (Figure 21).

Figure 21: Comparison between moderate and severe wasting in KRI by governorates and Iraq as a whole (%)



**Overweight:** is the percentage of under 5 children, whose weight for age are more than two standard deviations above the median of the weight of the references population. Overweight causes children several problems that risk their health. In the KRI, 5.1% of under 5 children are overweight comparing to Iraq as a whole, at 6.6%. At the level of governorates of KRI and Iraq as a whole, these indicators show noticeable lower rates in 2018 comparing to 2011 (Figure 22).

Figure 22: Overweight percentage rate in KRI by governorates and Iraq as a whole 2011 and 2018



## Households' food Security status

Household food condition is one of the important measurements of household's well-being. World food organization categorizes household food condition into three groups of food secure, food insecure and vulnerable to food insecurity. These are the most important indicators that reflect the households' food condition.

### Food security

**Food security** is defined as availability of food and one's access to it without resorting to any coping strategies. A household is considered food secure when its members do not live in hunger or fear of starvation or a situation when all people at all times have physical and economic access to a sufficient, safe, and nutritious food to meet their dietary needs and food preferences for an active and healthy life. The data on these indicators have been taken from Comprehensive Food Security and Vulnerability Assessment (CFSVA) survey in 2016. The results show that 38.5% of households are **food secure** in KRI compared to 44.3% of Iraqi households. KRI recorded a lower rate in term of food security compared to Iraq as a whole due to budget crisis imposed on KRI by Iraq, ISIS war against KRI in 2014, influx of refugees from other governorates of Iraq into KRI' border and decline in oil price. At the level of governorates, 47.6% of households in Erbil governorate are food secure compared to Duhok governorate (35.2%) and Sulaimani governorate (32.9%).

### Vulnerability to food insecurity

**Vulnerability to food insecurity** refers to the probability that a given household will not have access to sufficient food in the near future and at the same time to some non- food material entirely. Vulnerable to food insecurity is group of households that cannot cope with any shock or problem resulted in food inaccessibility. **For vulnerable to food insecurity**, Iraq shows a better condition comparing to Kurdistan region. Vulnerable households to food insecurity recorded 59.4% in Kurdistan region comparing to 53.2% in Iraq as a whole. At the level of governorates in KRI, Sulaimani governorate recorded a high rate of 65.2%, Duhok governorate comes next with 62.3% and Erbil governorate took the last rank in this range, at 50.3%.

### Food insecurity

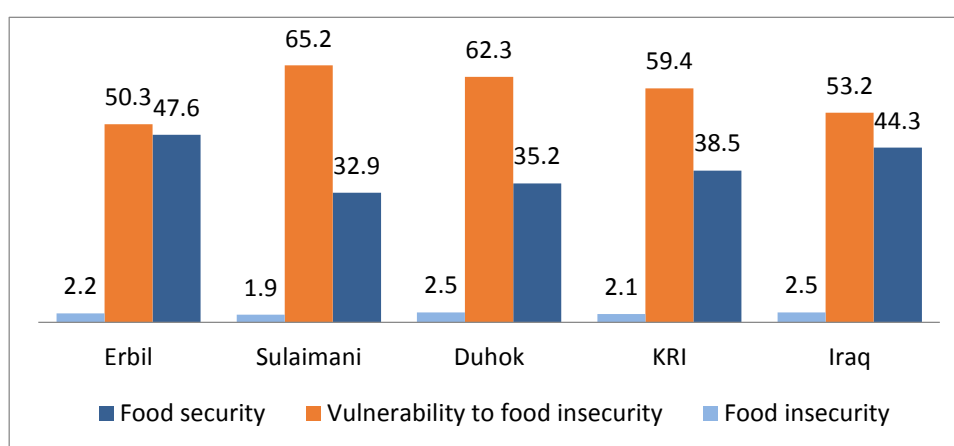
**Food insecurity** is defined as inability in access to food and losing livelihood resources in term of working and asset. **Food insecure households** in KRI recorded 2.1% compared to

2.5% in Iraq as a whole. At the level of governorates in KRI, Duhok governorate (2.5%) reported the highest rate compared to Erbil governorate (2.2%) and Sulaimani (1.9%).

Table 13: Households' food security status in KRI by governorates and Iraq as a whole (%)

	Erbil	Sulaimani	Duhok	KRI	Iraq	Source
Food security	47.6	32.9	35.2	38.5	44.3	CFSVA 2016
Vulnerable to food insecurity	50.3	65.2	62.3	59.4	53.2	CFSVA 2016
Food insecurity	2.2	1.9	2.5	2.1	2.5	CFSVA 2016

Figure 23: Households' food security status in KR by governorates and Iraq as a whole in 2016 (%)



### Food Security Status of IDPs households in KRI and Iraq

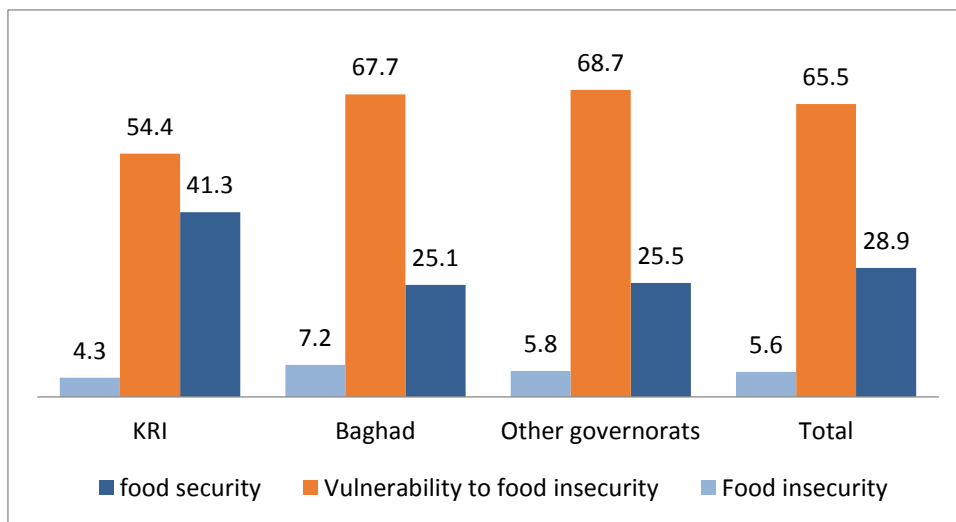
Table 14: Refugees household's food security status in KRI and Iraq in 2016 (%)

Indicator	KRI	Bagdad	Iraqi southern governorates	Total	Source
Food security	41.3	25.1	25.5	28.9	CFSVA 2016
Vulnerability to food insecurity	54.4	67.7	68.7	65.5	CFSVA 2016
Food insecurity	4.3	7.2	5.8	5.6	CFSVA 2016

In 2016, despite the economic crises in KRI, IDPs in KRI are highly **food secured** (41.3%) compared to Bagdad (25.1%) and other governorates in Iraq (25.5%) and Iraq as a whole (28.9%). **Vulnerability to food insecurity** is lower among IDPs in KRI (54.4%) compared to the IDPs live in Bagdad (67.7%) and other governorates of Iraq (68.7%) that recorded the highest rate in term of having problem to have access to food. 4.3% of IDPs in KRI are food

**unsecured** compared to those who live in Bagdad (7.2%) that recorded the highest rate at the level of Iraq as a whole (5.6%) and other governorates in Iraq (5.8%).

Figure 24: IDPs household's food security status in 2016



# Health

## Health

Health sector includes several important indicators which have been taken from MICS conducted in 2011 and 2018. These indicators are: infant mortality rate, under- five mortality rate, women aged 15-49 who give birth through cesarean section, giving birth in a governmental/ private clinic center, female circumcision and knowledge about HIV for women aged 15-94. These indicators have been represented in table 15.

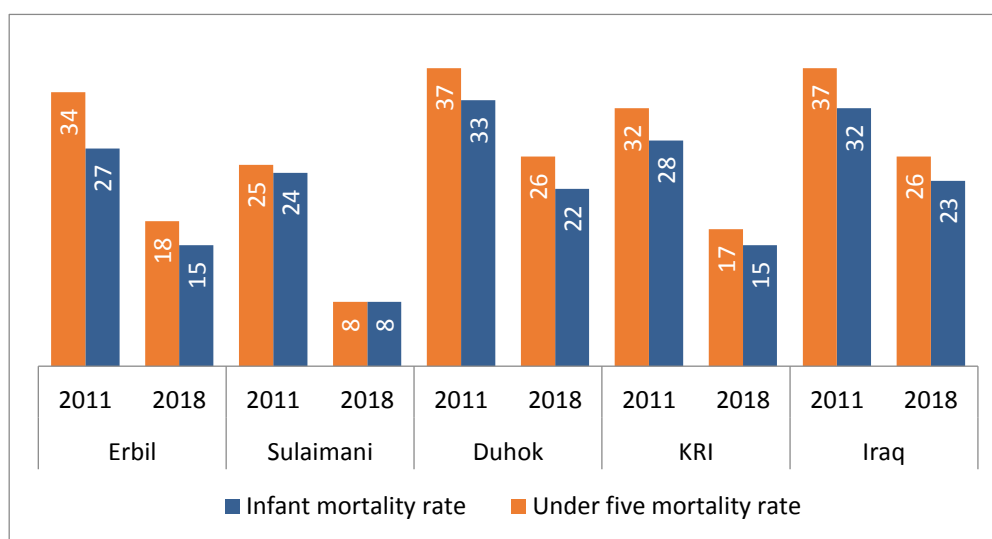
Table 15: Comparison between health indicators in KRI by governorates and Iraq as a whole (%)

Indicators	SDG	Erbil		Sulaimani		Duhok		KRI		Iraq		Source
		2011	2018	2011	2018	2011	2018	2011	2018	2011	2018	
Infant mortality rate	SDG	27	15	24	8	33	22	28	15	32	23	MICS4,MICS6
Under-five mortality rate	SDG	34	18	25	8	37	26	32	17	37	26	MICS4,MICS6
percentage of women aged 15-49 who give birth through cesarean section	-	28	49.1	36.5	46	20.5	34.5	28.4	45	22.2	33.3	MICS4,MICS6
percentage of women aged 15-49 who decide to do cesarean before feeling any labor pain	-		33		32.8		16.3		29.2		22.6	MICS4,MICS6
percentage of women aged 15-49 who decide on cesarean after feeling labor pain	-		16.1		13.2		18.2		15.8		10.5	MICS4,MICS6
birth delivery in governmental clinic centers	-	68.7	57.2	71.3	68.6	89.9	90.4	75.8	67.7	67.9	74.4	MICS4,MICS6
birth delivery in private clinic centers	-	6.8	28.8	18	26	2.2	7.7	9	23.3	8.6	12.2	MICS4,MICS6
birth delivery in both private and governmental clinic centers	-	75.5	86	89.3	94.6	92	98.1	84.9	91	76.6	86.6	MICS4,MICS6
Rate of circumcision for women aged 15-49	SDG	57.5	46.6	54.3	46.5	1.7	1.5	42.8	37.5	8.1	7.4	MICS4,MICS6
Comprehensive knowledge about HIV 15-24 years	SDG	2.3	3.9	4.5	6.4	2.2	7.7	3.2	5.4	3.5	4.9	MICS4,MICS6

**Infant mortality rates:** a range of health indicators on infant mortality are available for the KRI from the Iraq Multiple Indicator cluster surveys (MICS) conducted in 2011 and 2018. The infant mortality rate (IMR) measures the probability of death before the first birthday and is expressed as deaths per 1,000 live births. In KRI, in 2018, the **infant mortality rate** is 15 per 1000 live births compared to 23 per 1000 live births in Iraq as a whole.

**Under-five mortality rate:** it measures the probability of dying between birth and exactly five years of age expressed per 1,000 live births. In 2018, KRI recorded 17 per 1,000 live birth for under 5 mortality rate compared to 26 per 1,000 live births in Iraq as a whole. The records have been declined compared to 2011 at the level of KRI, governorates and Iraq as a whole (Figure 25). Improving health indicators is an important aim of sustainable development goals (SDG).

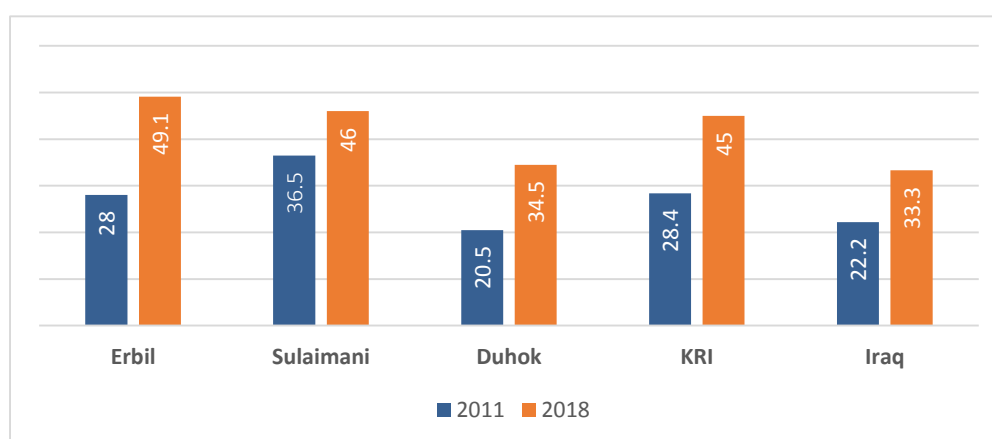
Figure 25: Infant and under five mortality rate in KRI by governorate and Iraq as a whole (%)



**Percentage rate of women aged 15-49 who give birth through cesarean section:** this is an important health indicator for women aged 15-49 who gave birth during the two years preceding the survey (MICS6) conducted in 2018. Whether at the level of Kurdistan region, governorates and Iraq as a whole, the records show increase compared to 2011 in MICS4. According to MICS6, in Kurdistan region, women aged 15-49 who give birth through cesarean section recorded a high rate of 45% compared to 28.4% which has been reported from MICS conducted in 2011. At the level of governorates, the records are high as well in KRI. For Iraq as a whole, it shows a lower rate than KRI, increase from 22.2% in 2011 to 33.3% in 2018 (Figure 26).

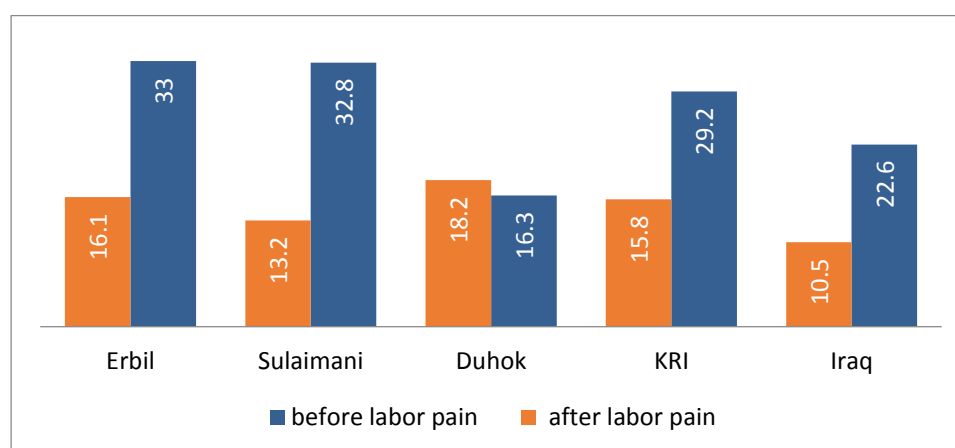


Figure 26: women aged 15-49 who give birth through cesarean section in KRG by governorates and Iraq as a whole (%)



For **women who decided on cesarean section before labor pain**, KRI recorded a higher rate (29.2%) compared to Iraq as a whole (22.6%). And **for women who decided on cesarean section after labor pain**, Kurdistan region recorded 15.8% versus 10.5% in Iraq (Figure 27).

Figure 27: women aged 15-49 who give birth through cesarean section before and after labor in 2018 (%)

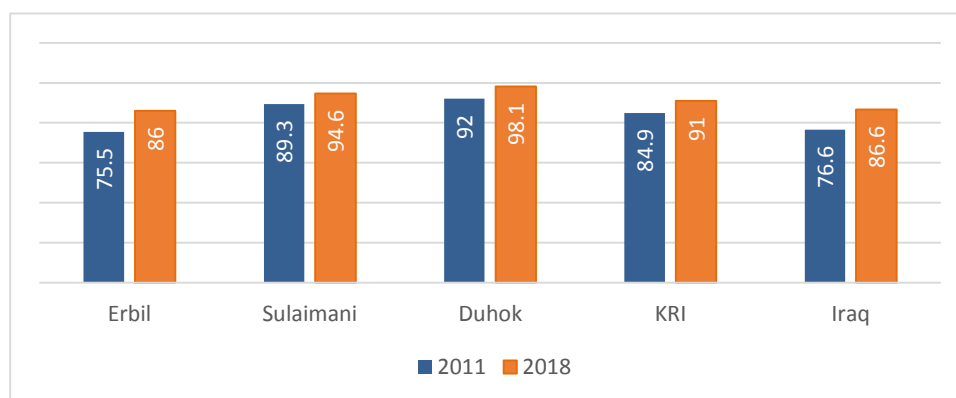


### Delivery in health clinic centers

Delivery in health clinic centers is an important factor in reducing risks on mother and infant health. Medical awareness and access to a healthy environment during delivery would reduce the risks on health that may result in mother or child death.

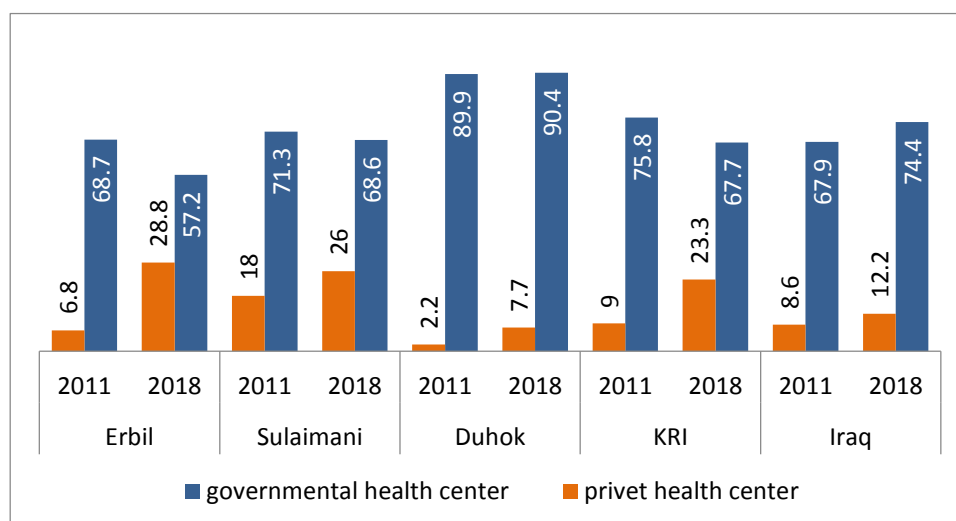
Delivery in health clinic centers (**governmental and private**) for women who gave birth two years prior to the survey recorded a high rate of 91% in KRI comparing to 86.6% in Iraq. In governmental center, this indicator shows rising in 2018 compared to 2011 at the level of KRI and governorates as well (Figure 28).

Figure 28: Delivery in health clinic centers in KRI by governorates and Iraq as a whole (%)



Unlike private health centers, **Delivery in governmental health center** shows decrease in 2018. Women prefer **private health center** than governmental center. The reason is unknown if it is because of the quality of services which is delivered in these centers or other reasons. The rate of delivery in governmental health centers declined from 75.8% in 2011 to 67.7% in 2018 comparing to private health center where it rose from 9% in 2011 to 23.3% in 2018. The following figure shows the rates at the level of KRI, governorates and Iraq.

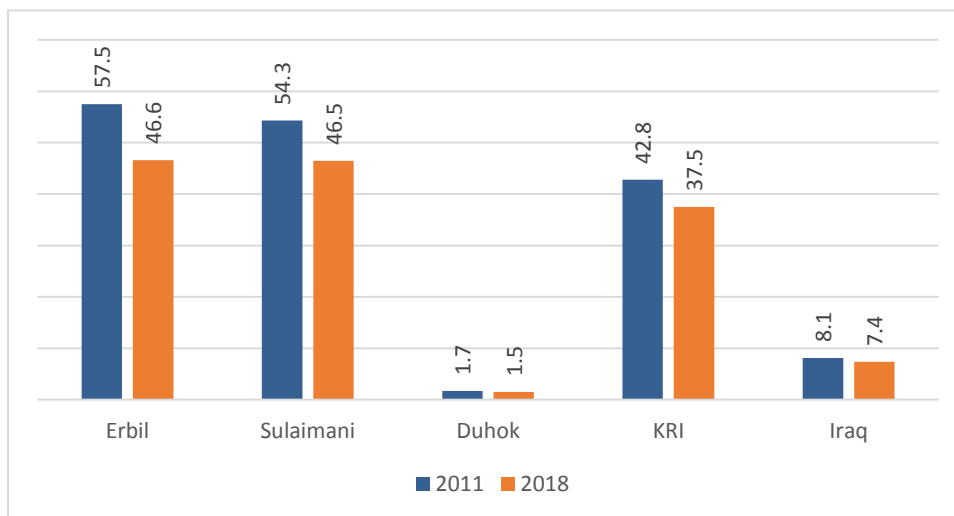
Figure 29: Delivery in health clinic centers by type of center in KRI by governorates and Iraq as a whole (%)



**Female circumcision for women aged 15-49** is cutting or removal of some or all of the external female genitalia. It may cause severe pain, shock, injury to other parts, blood poisoning, urination problems, barren, delivery problem and even death. Female circumcision is known as human rights violation. Circumcision has been a common practice in our society and women have been always suffering from that. This phenomenon is extremely high in KRI in 2011 and 2018. Due to household awareness, it shows decline in 2018 (37.5%) compared to 2011 (42.8%). Despite KRI, this phenomenon is not noticeable in other parts of

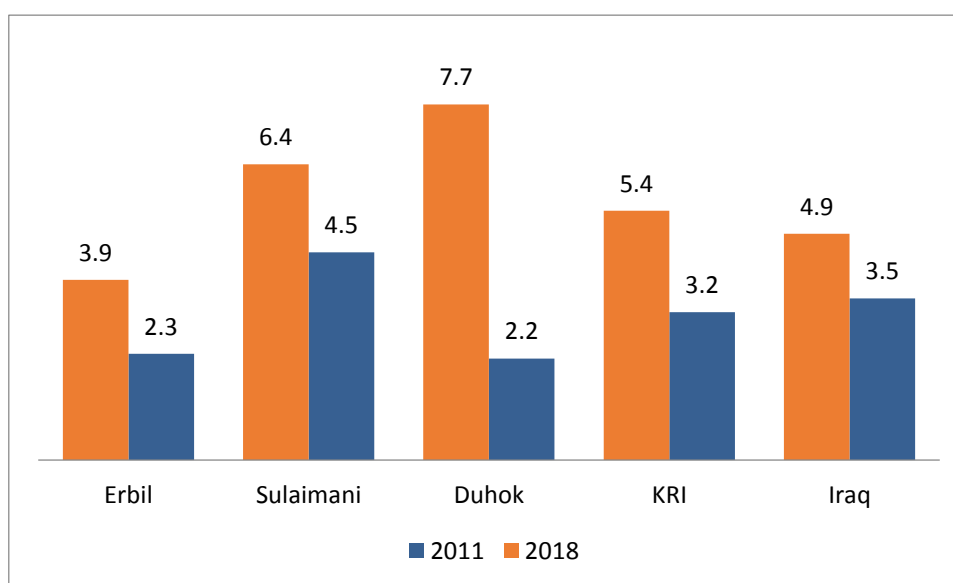
Iraq (between 8.1% and 7.4% in 2011 and 2018 respectively). At the level of governorates, there is a significant difference, ranged between more than 46% in Erbil and Sulaimani governorates and 1.5% in Duhok mostly in the area near to Erbil governorates (Figure 30).

Figure 30: Circumcision for women aged 15-49 in KRI, governorates and Iraq (%)



**Comprehensive knowledge about HIV for women aged 15-24 years** has been highly expanded in 2018 due to access to information through social media and internet. Knowledge about contagious HIV disease between women in KRI has been rose from 3.2% in 2011 to 5.4% in 2018 compared to 3.5% and 4.9% in Iraq as a whole in 2011 and 2018 respectively. This indicator shows increase at the level of the governorates of KRI as well (figure 31).

Figure 31: Knowledge about HIV for women aged 15-24 years in KRI, governorates and Iraq



# Sex parity

- Sex Parity in Education
- Women marital status

## Sex parity

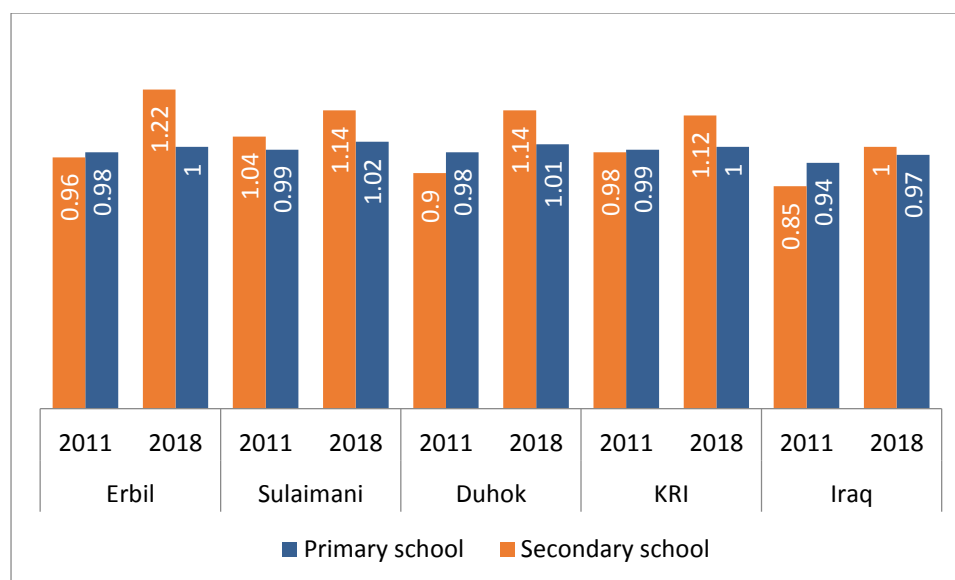
Table 16: Comparison for sex parity in Iraq, KRI and its governorates in 2011 and 2018 in percentage

Indicator	Erbil		Sulaimani		Duhok		KRI		Iraq		Source
	2011	2018	2011	2018	2011	2018	2011	2018	2011	2018	
Sex parity in primary school	0.98	1	0.99	1.02	0.98	1.01	0.99	1	0.94	0.97	MICS4,MICS6
Sex parity in secondary school	0.96	1.22	1.04	1.04	0.9	1.14	0.98	1.12	0.85	1	MICS4,MICS6
women age 20-49 years who were married before age of 15	6.4	6.9	5	3.8	6.2	5.5	5.7	5.6	5.5	6	MICS4,MICS6
women age 20-49 years who were married before age of 18	22.1	22.1	22.4	20.8	23.1	18.3	22.4	20.9	23.4	24.8	MICS4,MICS6
Young women aged 15-19 who are currently married	11.7	16.7	8.8	7.5	9.1	6.3	9.9	11.8	20.7	18.4	MICS4,MICS6
Women aged 15-49 in polygynous marriage	5.3	9.6	5.7	4.5	6.5	2.9	5.7	6.8	6.1	5.8	MICS4,MICS6
Satisfaction with life among women aged 15-24		7.8		7.3		7.6		7.6		6.4	MICS4,MICS6
Satisfaction with life among women aged 15-49		7.3		6.9		7.3		7.2		6.1	MICS4,MICS6
feeling safe among women aged 15-49		68.7		91		75.6		77		49	MICS4,MICS6
Child labor aged 5-14 years	2	6.7	1.6	5.9	3.4	6.3	2.2	6.3	6.4	5	MICS4,MICS6
Child labor aged 5-17 years		13.1		7.1		8.6		10.3		7.3	MICS4,MICS6

### Sex Parity in Education

**Sex parity in primary school** is the rate of girls to boys in primary school. In Kurdistan region, the primary school attendance rate for girls and boys was equal in 2018 (100 girls to 100 boys). Sex parity index in 2011 (99 girls to 100) is slightly lower than 2018. This indicator is an indication of providing equal education for boys and girls and removing old traditional behavior toward girls that prevent them from access to education. The equal rate is also observed at the level of governorates for both primary and secondary schools in 2018. For secondary education it shows increase as well, from 0.98% in 2011 to 1.12% in 2018 (Figure 32).

Figure 32: Sex parity in primary and secondary school in KRI by governorates and Iraq as a whole (%)

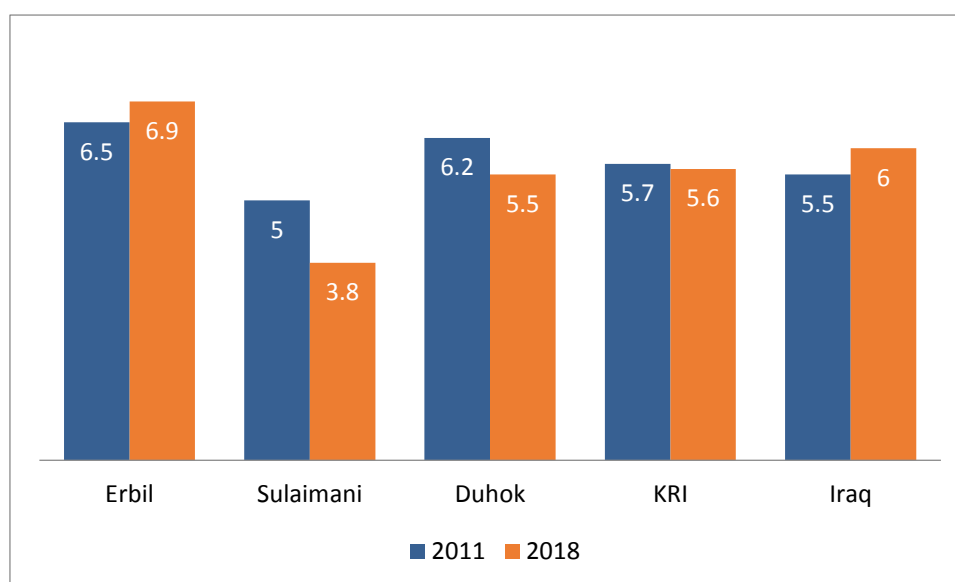


### Women marital status

**Women age 20-49 years who were married before age of 15:** the results from MICS6 conducted in 2018 show a significant number of women aged 20-49 were married before the age of 15. Child marriage is violating of human rights that prevents girls from development and resulted in early pregnancy and social isolation. In many societies Parents encourage girls to marriage while they are still children in hope that the marriage benefits them both financially and socially. Pregnancy related death is known to be the main cause of death for married women aged 15-19.

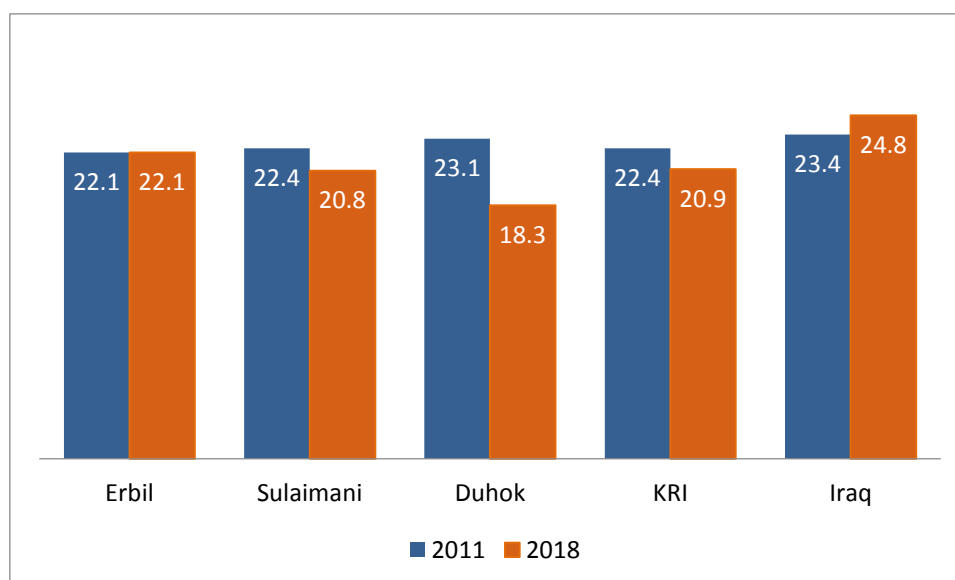
In KRI, in 2018, 5.6% of women aged 20-49 were married before the age of 15. This rate is close to what has been recorded in Iraq, at 6%. Comparing to 2011, no significant change could be observed in Iraq as a whole and at governments level in KRI except in Sulaimani governorate, where it declined from 5% in 2011 to 3.8% in 2018 (Figure 33).

Figure 33: Women aged 20-49 who were married before age 15 in KRI by governorates and Iraq as a whole (%)



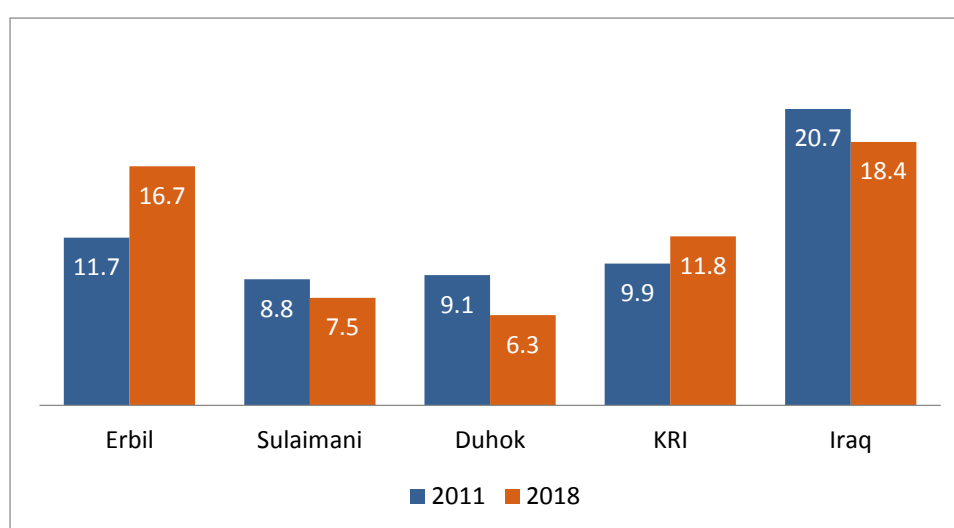
**Women aged 20-49 who were married before the age of 18** represent 20.9% in KRI and 24.8% in Iraq as a whole in 2018. Comparing to 2011, it shows decrease at the level of governorates in KRI and Iraq as a whole especially in Duhok governorate, where it decreases from 23.1% in 2011 to 18.3% in 2018 (Figure 34).

Figure 34: Women aged 20-49 who were married before the age of 18 in KRI by governorates and Iraq as a whole (%)



**Young women aged 15-19 who are currently married:** it refers to all women belong to this age group who are currently married. According to the results from the survey in 2018, in KRI, 11.8% of women in this age group are married against a significantly higher rate of 18.4% reported in Iraq. Difference can be seen at the governorate level in KRI between the years 2018 and 2011 especially in Erbil governorate, where it recorded a noticeable increase in 2018 compared to 2011 (16.7% versus 11.7%), while Duhok governorate recorded decline (9.1% versus 6.3%) and also a slight decline can be observed in Sulaimani governorate (8.8% versus 7.5%). The difference can be seen in Figure 35

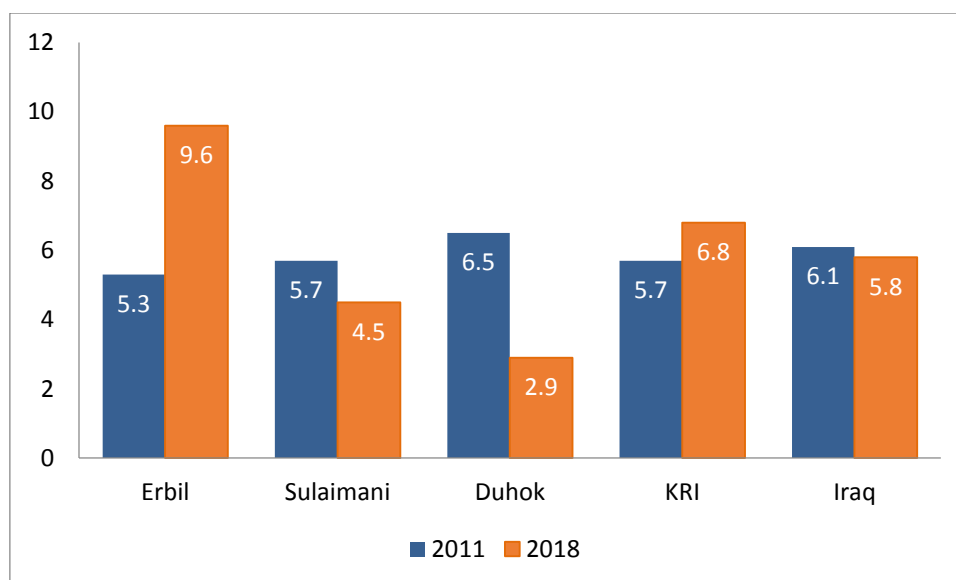
Figure 35: Women age 15-19 years who are currently married in KRI by governorates and Iraq as a whole (%)



**Women aged 15-49 in Polygynous marriage:** it refers to all currently married women who are in polygynous marriage. Polygamy is a traditional and customary practice in our society and allowed by Islamic religion. 6.8% of women aged 15-49 are in polygynous marriage in KRI in 2018 and it is 5.8% in Iraq as a whole. At the level of governorates, a significant difference could be observed in 2011 and 2018. Erbil governorate reported a noticeable increase in 2018 (9.6%) compared to 2011 (5.3%), while in Duhok and Sulaimani governorates the trend appears to be in the reverse direction, where it decreased from 6.5% in 2011 to 2.9% in 2018 in Duhok and from 5.7% to 4.5% in Sulaimani (following figure).



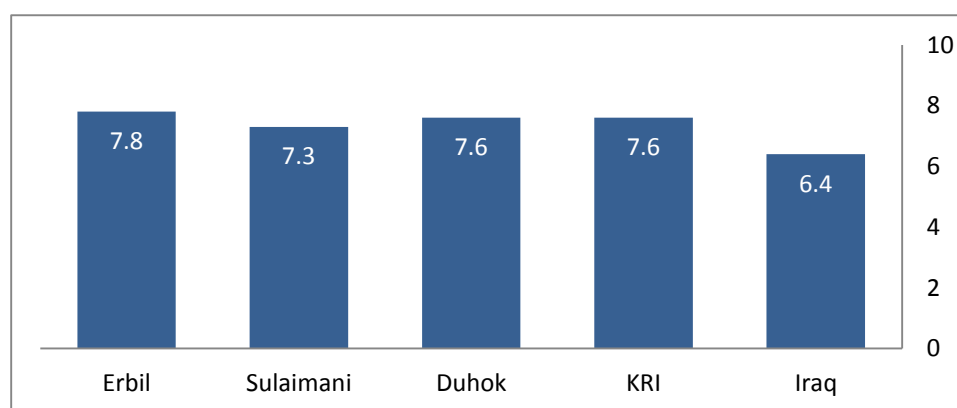
Figure 36: Women aged 15-49 in polygynous marriage in KRI by governorates and Iraq as a whole (%)



### Life satisfaction

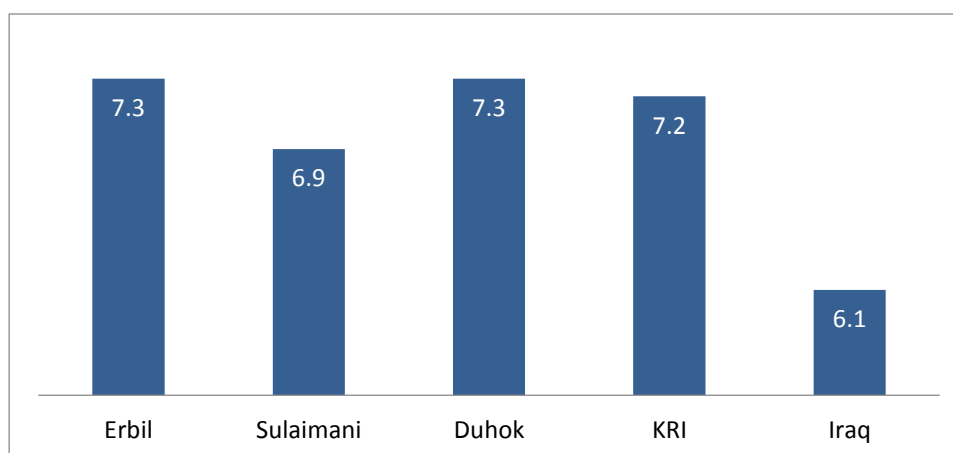
**Satisfaction with life among women aged 15-24:** in order to get more information on women's condition as a target of SDG, this indicator was added in MICS 2018. The target women were asked if they were satisfied with their life. This question was arranged based on the level of satisfaction with life in which 0 represents the lowest level of satisfaction and 10 represents the highest level of satisfaction. From the results, the average rate of life satisfaction among women aged 15-24 was 7.6% in Kurdistan region and at the level of Iraq it was 6.4%. At the level of governorates in KRI, the rates are close to each other as presented in the following figure.

Figure 37: life satisfactory among women aged 15-24 In KRI by governorates and Iraq as a whole in 2018 (%)



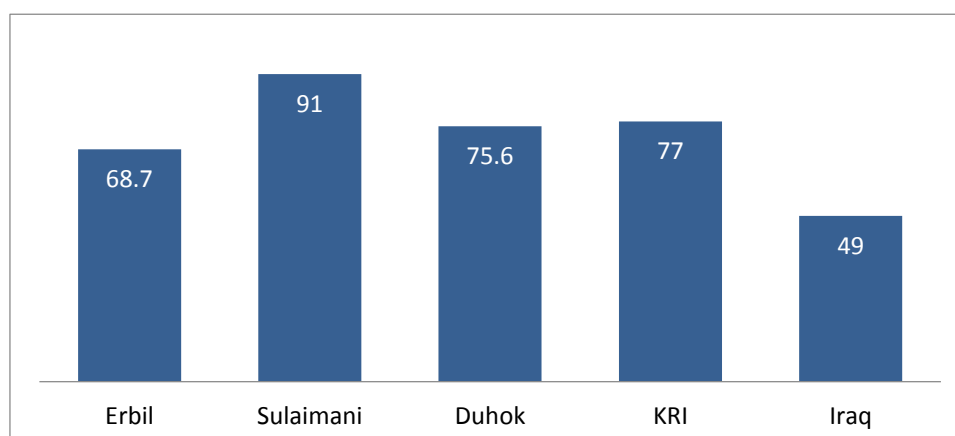
**For the women age group 15-49**, the average rate for life satisfaction was 7.2% in KRI and it was 6.1% for Iraq as a whole. No significant difference could be observed between governorates in KRI. See the following figure.

Figure 38: life satisfaction among women 15-49 years old In KRI by governorates and Iraq as a whole in 2018 (%)



**Feeling safe among women aged 15-49:** Among women aged 15-49, the perception of safety was one of the indicators covered in the MICS. The information on this indicator was collected through MICS by asking women the question “Do you feel safe walking alone in your neighborhood after dark?” The results from MICS 2018 show, 77% of women in KRI feel safe comparing to lower rate of 49% that has been recorded in Iraq as a whole. There is considerable variation across governorates in Kurdistan. The highest rate has been recorded in Sulaimani governorate (91%) followed by Duhok governorate (75.6%) and Erbil governorate (68.7%). see the following figure.

Figure 39: Feeling safe among women aged 15-49 in KRI by governorates and Iraq as a whole in 2018 (%)



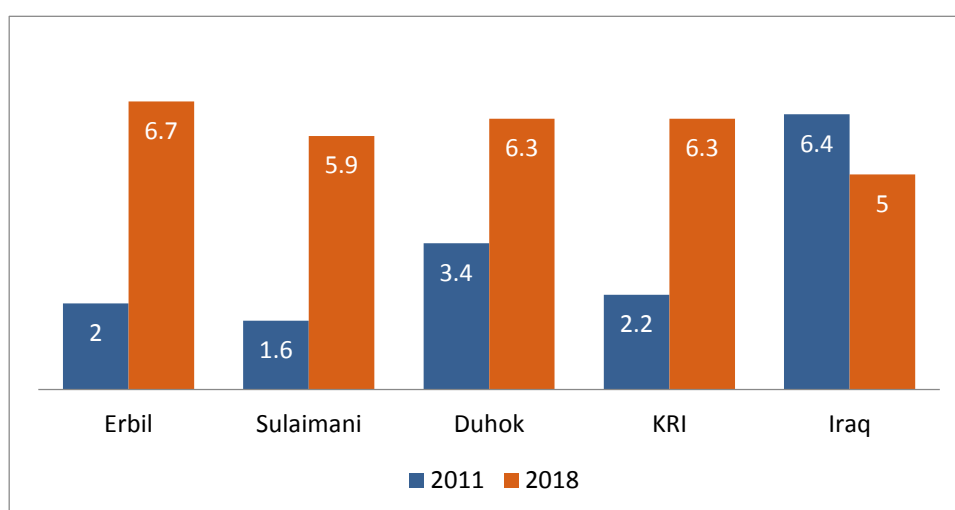
## Child labor

### Child labor aged 5-14 years

Article 32 of the convention on the rights of child states: “states parties recognize the right of the child to be protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child’s education, or to be harmful to the child’s health, physical, spiritual, moral or social development”. The world fit for children mentions nine strategies to combat child labor and MDGs call for the protection of children against exploitation. In the MICS questionnaire, a number of questions are addressed to mothers/ caretakers about all child members aged 5-14 of the household who involved in labor activities and about the number of working hours. The economic activity could be a paid or unpaid work outside household that child did for someone else or it could be a work for family business such as working in family farm, collecting fire wood, carrying water, cooking, sheep/cattle tending, or child care.

In KRI, 6.3% of children aged 5-14 years are involved in child labor in 2018 compared to 5% in Iraq as a whole. At the level of governorates, child labor has markedly risen in 2018 comparing to 2011: Erbil governorate rose from 2% in 2011 to 6.7% in 2018, Sulaimani governorate rose from 1.6% to 5.9% and Duhok governorate from 3.4% to 6.3%. At the level of KRI, it increased from 2.2% in 2011 to 6.3% in 2018 versus Iraq, where it shows decrease from 6.4% in 2011 to 5% in 2018. See Figure 40.

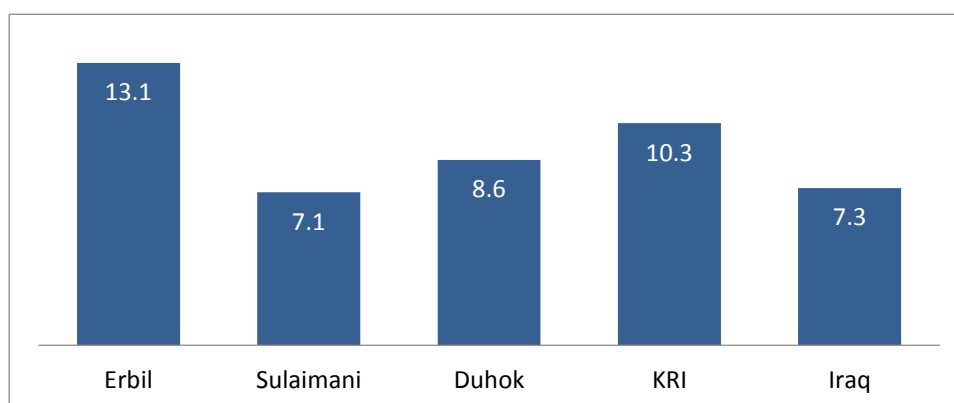
Figure 40: Child labor for age group 5-14 in KRI by governorates and Iraq as a whole (%)



### Child labor aged 5-17

In 2018, child labor for age group 5-17 was measured separately. This indicator was not included in the previous rounds of the survey. Child labor for age group 5-17 recorded a high rate in KRI per governorate in 2018. Erbil governorate with 13.1% stands first in this range group followed by Duhok and Sulaimani governorates at 8.6% and 7.1% respectively. KRI reported a high rate for child labor compared to Iraq as a whole (Figure 41).

Figure 41: Child labor aged 5-17 years in KRI by governorates and Iraq as a whole in 2018 (%)



# Sanitation

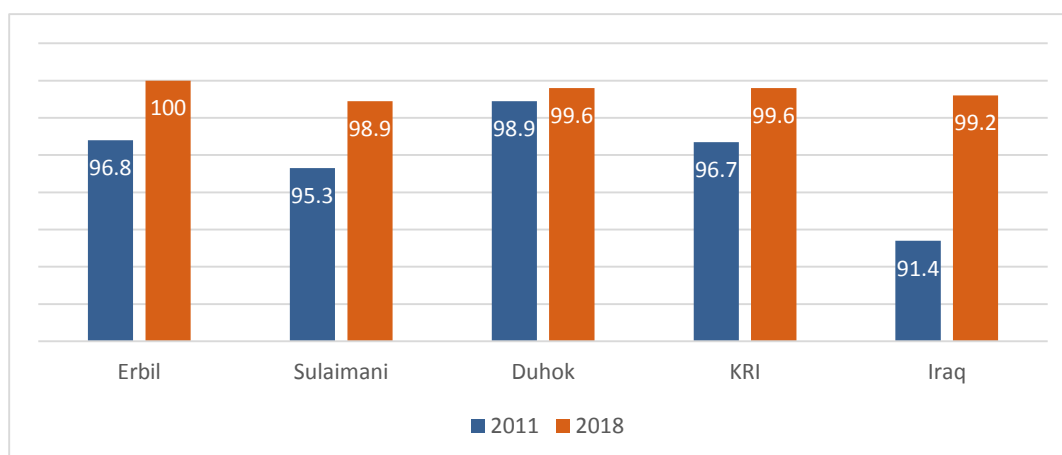
## Sanitation

Table 17: Access to services in KRI, governorates and Iraq as a whole

Indicator	Erbil		Sulaimani		Duhok		KRI		Iraq		Source
	2011	2018	2011	2018	2011	2018	2011	2018	2011	2018	
Using safe sources of drinking water	96.8	100	95.3	98.9	98.9	99.6	96.7	99.6	91.4	99.2	MICS4,MICS6
drinking water without chlorine	43	7.3	50.4	22	40.9	17.5	45.7	14.4	27.4	12.8	MICS4,MICS6
drinking water source without chlorine	-	7.7	-	23.2	-	17.1	-	14.9	-	12.8	MICS6
E-Coli effected drinking water	-	4.9	-	16.3	-	25	-	12.8	-	50.7	MICS6
E-Coli effected drinking water sources	-	4.6	-	10.5	-	20.7	-	9.9	-	40.4	MICS6
Using improved sewage network	99.5	98.8	98.9	96.9	98.7	99.2	99.1	98.3	96.8	94.8	MICS4,MICS6

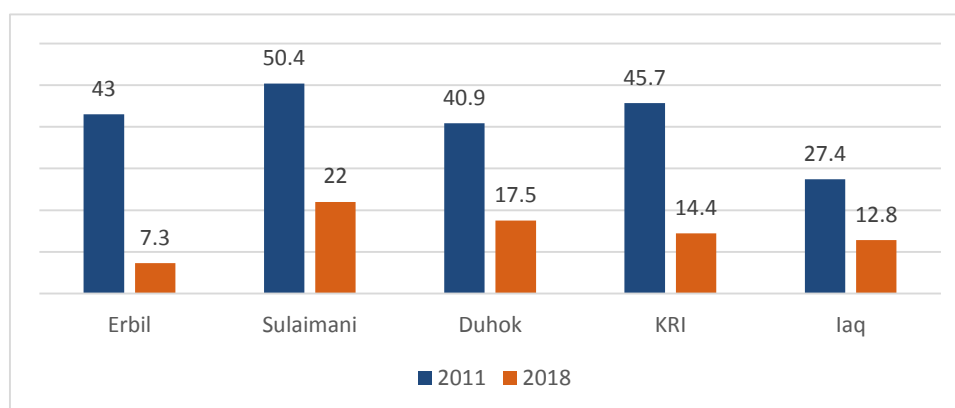
**Safe drinking water source** is a necessity for good health. Unsafe drinking water can be carrier of diseases such as cholera, typhoid, and diarrheal diseases such as amoebae and dysentery. Sometimes, drinking water is affected by dirty and chemical contaminants and could have harmful effects on human health. Of improved drinking waters we can refer to piped water (into dwelling, compound, and yard), public tap, tube well/borehole, protected well, protected spring and rainwater collection. Bottled water is considered as an improved water source only if the household is using an improved water source for other purpose such as hand washing and cooking. In 2018, in KRI, high percent of households use safe drinking water which recorded at 99.6% which is acceptable at the world level. Iraq recorded a slightly lower rate (99.2%) as a whole compared to KRI. This rate is high at the level of governorates as well, where Erbil governorate recorded 100% followed by Duhok governorate at 99.6% and Sulaimani governorate at 98.9%. See Figure 42.

Figure 42: Percentage rate of household using safe drinking water source in KRI by governorates and Iraq as a whole (%)



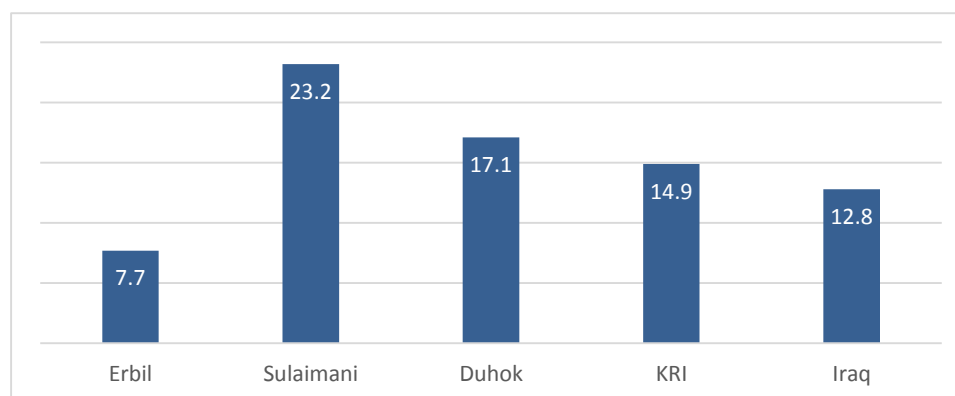
**Unchlorinated drinking water:** unchlorinated water is considered as unimproved drinking water. In KRI, this has been treated to some extent with adding chlorine to drinking water. In 2018, 14.4% of households in KRI have no access to chlorinated water, while Iraq (12.8%) reported a better condition than KRI. Between 2011 and 2018, a significant decrease can be observed among households who have not access to water with chlorine at the level of governorates and Iraq as a whole (Figure 43).

Figure 43: Household who have not access to chlorinated water in KRI by governorates and Iraq as a whole (%)



**Lack of chlorine in drinking water source:** ensuring water treatment and existing acceptable amount of chlorine in drinking water, chlorine test for the sources of drinking water was done in the field concurrently with the multiple indicator cluster survey (MICS6) in 2018. Results show that 14.9% of households in KRI have no access to chlorinated water, while it is 12.8% in Iraq as a whole. There is considerable variation across governorates, where Sulaimani recorded a high rate at 23.2%, Duhok comes next at 17.1% and the lowest rate has been recorded in Erbil at 7.7%. See figure 44.

Figure 44: Households who have no chlorine in their source of drinking water in 2018 (%)

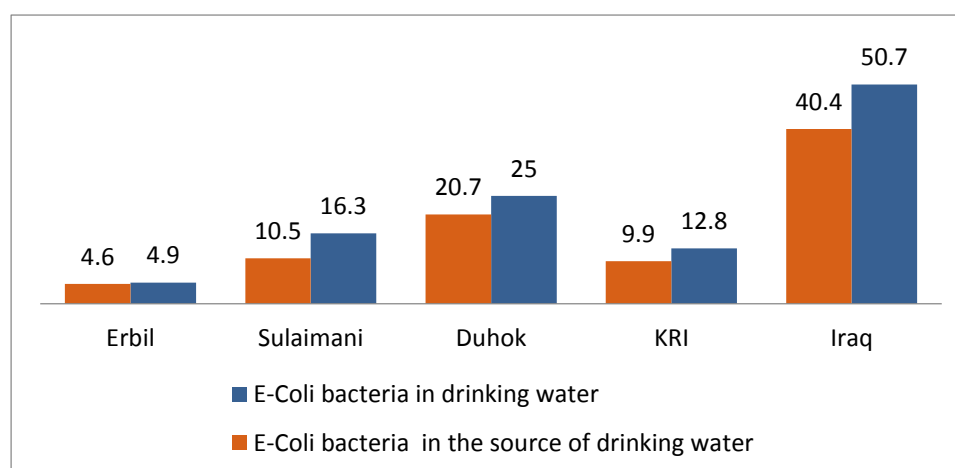


**E- Coli bacteria in drinking water:** ensuring about having a safe drinking water and protecting households' members and society from diseases caused by contaminated water sources is a key target of the Sustainable Development Goals (SDG). This indicator was first time calculated through MICS6 conducted at the level of KRI and Iraq in 2018. The households were asked “how and where do they obtain their drinking water?”. Then the intended water was tested and results were revealed after 24 hours. According to the results, 12.8% of the households in the Kurdistan region use E-coli infected water which caused by contaminated tanks or containers in which water is stored. Iraq has recorded a notable high rate amounted to 50.7%. At the level of governorates, records are far different, ranked from 25% in Duhok governorate, 16.3% in Sulaimani governorate and 4.9% in Erbil governorate.

**E-Coli bacteria in the source of drinking water:** similarly, the E –Coli test was done for the main water source from which households obtain their drinking water (dug well, public pipeline...). Results show a better condition in KRI compared to Iraq as a whole. E-Coli bacteria was reported in the drinking water source of 9.9% of the households in KRI comparing to 40.4% of households in Iraq. Finding E-Coli bacteria in the water source most probably caused during transferring drinking water to the households from the source and contacting with sewer through broken pipelines. At the level of governorates, households in Duhok governorate reported the highest rate (20.7%) of using E-Clio infected water source followed by Sulaimani governorate (10.5%) and the lowest rate reported in Erbil governorate (4.6%). See the following figure.

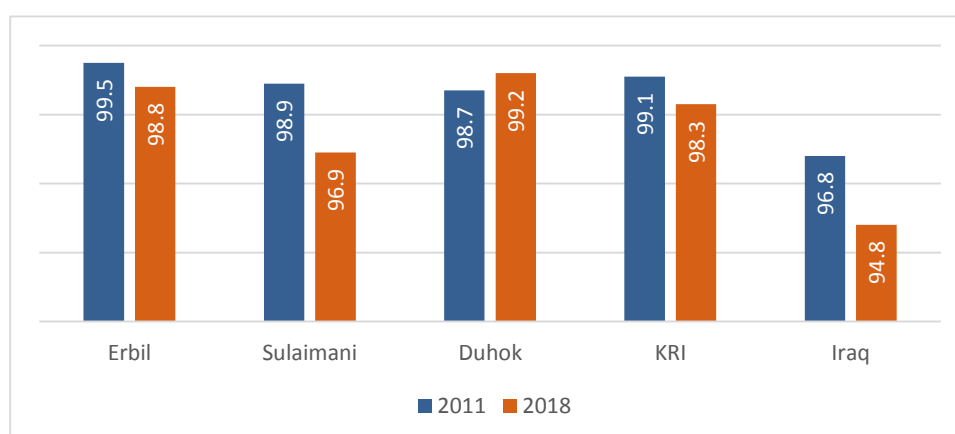


Figure 45: Households who have E-Coli bacteria in drinking water and in source of drinking water in 2018 (%)



**Use of improved sanitation facilities:** unsafe disposal of human waste associates to several diseases such as diarrhea and polio. Of improved sanitation we can mention the toilet connection to piped sewer system, toilet connection to septic tank, toilet connection to underground injection wells, and toilet connection to a covered pit. in 2018, In the Kurdistan region, 98.3% of households use at least one of the improved sanitation as mentioned above compared to the lower rate of 94.8% that has been recorded in Iraq as a whole. There is no significant difference between the years 2011 and 2018 at the level of governorates in KRI and Iraq. See figure 46.

Figure 46: Households who have access to improved sanitation in KRI by governorates and Iraq as a whole (%)



# Agriculture and Environment

- Wheat production and Cultivated Area
- Rice cultivated area, yield and production
- Summer crops
- Poultry farm projects
- Livestock asset
- Rainfall
- Temperature

## Agriculture and Environment

Table 18: Agriculture indicators at the level of KRI and governorates

Indicators	Erbil	Duhok	Sulaimani, Halabjah and Garmyan	KRI	Source
land in use for agricultural production(Millions of donums)-2017	2.14	1.11	3.18	6.43	Ministry of agriculture and water resources
Land under plantation for winter crops (Millions of donums)-2017	1.17	0.95	1.78	3.05	KRSO
Land under plantation for summer crops (Millions of donums)-2017	0.09	0.12	0.13	0.34	Ministry of agriculture and water resources
Percentage rate of employees in agricultural activities-2015	4.6	5	11.0	7.3	Ministry of agriculture and water resources

No doubt, agriculture sector is one of the most important sector in providing food security and raw material for a part of manufacturing industry.

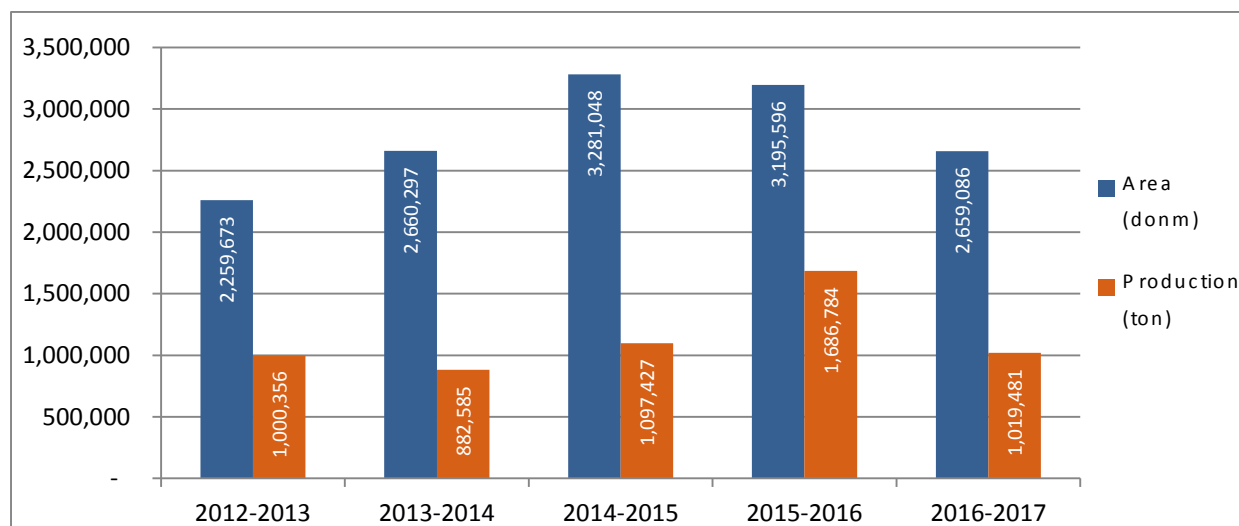
Agricultural land area in Kurdistan region is 6.4 million donums that covers 34% of the total Kurdistan region's land area reported by ministry of agriculture and water resources. At the level of governorates, Erbil governorate recorded 33% of the total agricultural land area followed by Duhok governorate at 17%, Sulaimani governorate and Garmyan administration together accounted for 50%. Access to water resources made this area more suitable for agriculture. About 30 billion cubic meters water annually enters into Kurdistan on average reported by ministry of agriculture and water resources.

Regarding using available agricultural land, Duhok governorate used most of its agricultural land (96%) compared to the governorates of Erbil (59%) and Sulaimani (60%) for growing season 2017.

Workers in agriculture sector recorded about 7% of the total workers in Kurdistan region in 2015 which is not a significant rate comparing to other sectors. Of this, Sulaimani governorate recorded the highest rate (11.0%) and the lowest rate has been reported in Erbil governorate (4.6%). Male workers who are involved in agriculture recorded 74.6% against female workers that reported 25.4% of the total workers who involved in agriculture field.

## Wheat production and Cultivated Area

Figure 47: Wheat cultivated area and production in KRI in 2013 - 2017



**Notes:** 1- Data source for the years 2013-2014, 2014-2015, and 2015-2016 is Ministry of agriculture and water resources

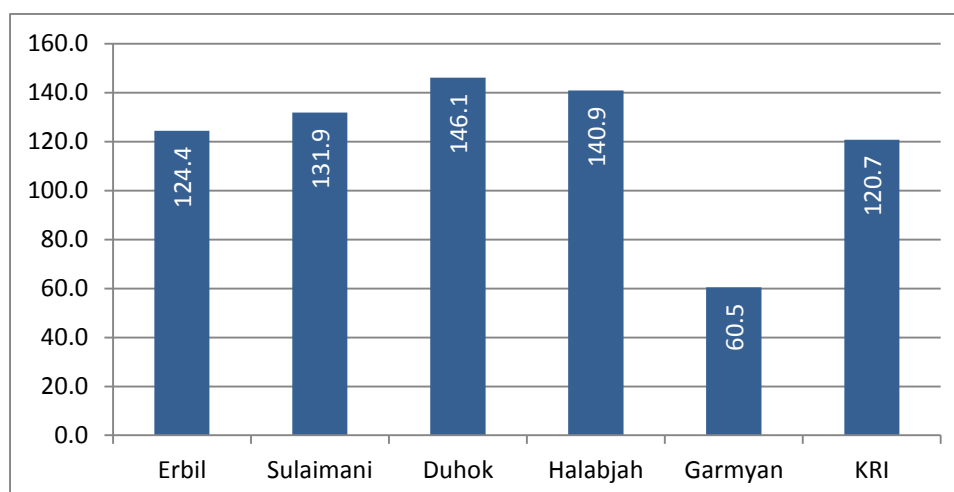
2- Data source for the years 2012-2013 and 2016-2017 is KRSO, winter planted area survey

Kurdistan region was self-sufficient in Wheat production in 2017 reported by ministry of trade and industry of Kurdistan region. According to the same source of data, wheat production recorded more than one million tons in KRI in 2017 against 676,217 tons for internal consumption and estimation of 117.5 kg per capita annual consumption.

Only 2% increase observed in wheat production in 2017 compared to 2013 despite 18% increase in cultivated land in 2017 which is attributed to decline in rainfall by 36% in 2017 comparing to 2013 reported by weather and earthquake office in Kurdistan region.

Results show a significant different between the yield of rainfed land and irrigated land per donum in Kurdistan region. Rainfed wheat registered 344 kg per donum comparing to irrigated land with 732 kg wheat per donum, while only 20% of agriculture lands are covered by irrigation projects against 80% of rainfed lands. Data shows that the level of rainfall had a direct effect on the level of yield wheat as it observed in 2017 and 2013. Through performing a workable plan on rainfed land, we can raise the yield wheat close to the yield that is produced in irrigated land.

Figure 48: Wheat production cost (1000 IQD) per donum at the level of KRI and governorates in 2016-2017



\*The source for wheat production cost is KRSO, “winter planted area 2016-2017”

Wheat production cost per donum estimated at 121 thousand IQD in KRI with the lowest cost recorded in Garmyan administration (60 thousand IQD) and the highest cost in Dohuk governorate (146 thousand IQD).

### Rice cultivated area, yield and production

Table 19: Rice cultivated area, yield and production in KRI by governorates

Year	Erbil		Duhok		Sulaimani		Garmiyana		KRI		
	Area/donum	Production/ton	Area/donum	Production/ton	Area/donum	Production/ton	Area/donum	Production/ton	Area/donum	Yield Kg/donum	Production/ton
2013	99	61	3,194	3,132	911	736	1,209	1,347	5,413	975	5,276
2014	147	22	5,954	5,061	1,705	1,364	1,075	797	8,881	816	7,244
2016	473	118	3,917	3,134	1,709	1,367	210	315	6,309	782	4,934
2017	81	28	9,764	7,811	2,095	1,876	1,783	1,159	13,723	792	10,874

**Notes:** 1. the data source for the years 2014, 2016 and 2017 is ministry of agriculture and water resources.

2. The data source for the year 2013 is KRSO, “Summer crop Survey 2013”

Rice is one of the most important food crop and the staple food in Kurdistan region. The rice production increases by 106% in 2017 comparing to 2013 because of cultivation area that increased by 154% in 2017 comparing to 2013. At the level of governorates, Duhok governorate allocated most of its agricultural land to rice cultivation accounted to 71% of the total agricultural land in this governorate. The lowest rice cultivated area recorded in Erbil

governorate, where only 1% of its agricultural land is allocated to rice crop that is the lowest comparing to other governorates for the growing season 2017. In 2017, rice consumption in KRI is 221,569 tons and its production is 10,874 tons for the same year. There is a noticeable difference between rice consumption and production of this crop in KRI and what is produced could only provide 5% of internal consumption. Annual rice consumption is estimated at 38.5 kg per capita in KRI in 2017.

## Summer crops

Table 20: Sumer crops (tomato, cucumber, eggplant, squash, beans, Potato, corn) in KRI by governorates in 2017

Type of products	Erbil	Sulaimani	Duhok	Garmiyani	Halabjah	KRI
Tomato	136,356	50,708	41,244	6,412	5,920	240,640
Cucumber	82,958	31,995	22,341	3,097	1,944	142,335
Eggplant	31,993	7,260	7,844	3,218	595	50,910
Squash	7,714	6,485	4,804	1,235	1,160	21,398
Beans	1,175	980	164	264	19	2,602
Potato	14,828	4,599	108,716	991	792	129,926
Corn	35,623	271	630	–	–	36,524

**Note:** the data source for the above table is ministry of agriculture and water resources

**Tomatoes** production recorded the highest rate (240,640 tones) amongst other summer crops. Tomato is the consumed vegetable in Kurdistan region and this made the farmers to give more importance to plant this vegetable in large scales. **Cucumber** is the next consumed vegetable after tomato then other vegetables with different scales that provide a part of internal needs in Kurdistan region.

Table 21: Summer crops expenditure per donum (1000 IQD) at the level of governorates and Garmyan administrator in KRI in 2013

Governorate and administration	Plowing	Seeding	Watering	Weeding	Fertilizing	Pastes controlling	harvesting	Total cost
Erbil	61	92	134	46	84	27	157	607
Duhok	61	66	124	53	58	18	129	509
Sulaimani	82	74	116	55	39	15	164	546
Garmyan administration	99	74	119	56	70	39	144	602
Total cost in KRI	76	77	123	52	63	25	150	566

**Note:** Data source is KRSO, “summer crops survey 2013”

Growing summer crops needs to pass several stages and each stage cost farmers. Of these stages we can mention plowing, seeding, watering, weeding, fertilizing, pests controlling and harvesting.

Table 21 represents the total cost for summer crops per donum in 2013. At the level of governorates, Erbil governorate recorded the highest cost per donum estimated at 607 thousand IQD and Duhok governorate reported the lowest cost per donum estimated at 509 thousand IQD. The highest cost per donum goes to harvesting stage estimated at 27% of the total cost followed by watering at 22% and the lowest cost goes to pests controlling at 4%.

### Poultry farm projects

Table 22: Poultry farms projects at the level of KRI and governorates in 2017

Type of project	Erbil	Duhok	Sulaimani	Garmiyan	Halabjah	Total projects	Capacity	Measurement unit
Poultry for meat	467	268	518	110	26	1,389	19,234,195	Chick/ series
Egg laying chicken	8	2	-	1	-	11	1,595,410,000	Egg/ year
Poultry slaughterhouse	4	1	2	-	-	7	27,500	Chicken/ hours

the results from Poultry farm survey conducted by KRSO in 2013 show that there are total of 1,179 poultry farms in Kurdistan region, of which, 888 farms are active with a production of 99,368 tons. The remainders (291) were closed because of different reasons (marketing, breeding high cost, death of poultry in large scale because of diseases, destroying of poultry farms due to cities extension ...etc.). According to the data from ministry of trade and industry, 62,576 tones chicken imported to Kurdistan region in 2013. The number of poultry farms rose to 1,389 farms with a production of 108,000 tons for the year 2017, reports ministry of agriculture and water resources. 2017's data has not referred to the number of active and not active poultry farms and it relies on the official work permits which are provided by this ministry. For this reason, the number of poultry farms is dealt with as the number of permitted poultry projects and not as the number of active poultry farms.

## Livestock asset

Table 23: Number of farm animals at the level of KRI and governorates in 2017

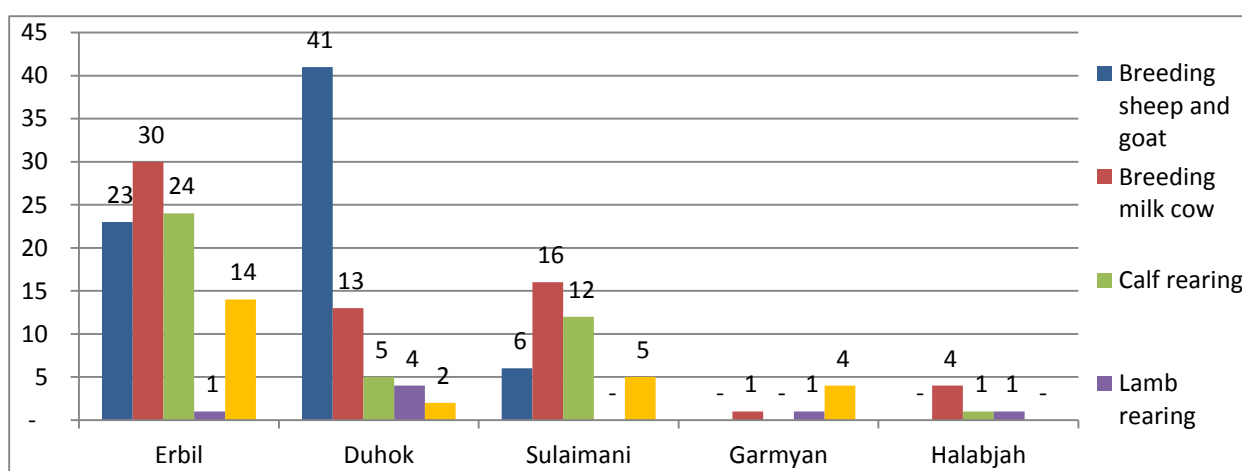
Type	Erbil	Duhok	Sulaimani, Halabjah and Garmiyān	KRI
Milk cow	65,000	47,863	144,136	256,999
sheep	79,300	776,323	1,543,553	2,399,176
Goat	507,000	273,223	443,726	1,223,949
Buffalo	-	-	3,120	3,120
Total	651,300	1,097,409	2,134,535	3,883,244

**Note:** Data source of livestock is ministry of agriculture and water resources

Livestock is of great importance in agriculture sector in providing meat, milk and its products. Having vast pastures in Kurdistan region gives opportunities to the region to make progress in livestock and its product. Sheep and goats are the most farm animals in Kurdistan region amounted to 2,399,176 and 1,223,949 respectively and buffalo recorded the lowest number amounted to 3,120 (Table 23).

## Livestock projects

Figure 49: livestock projects in Kurdistan region by governorates in 2017

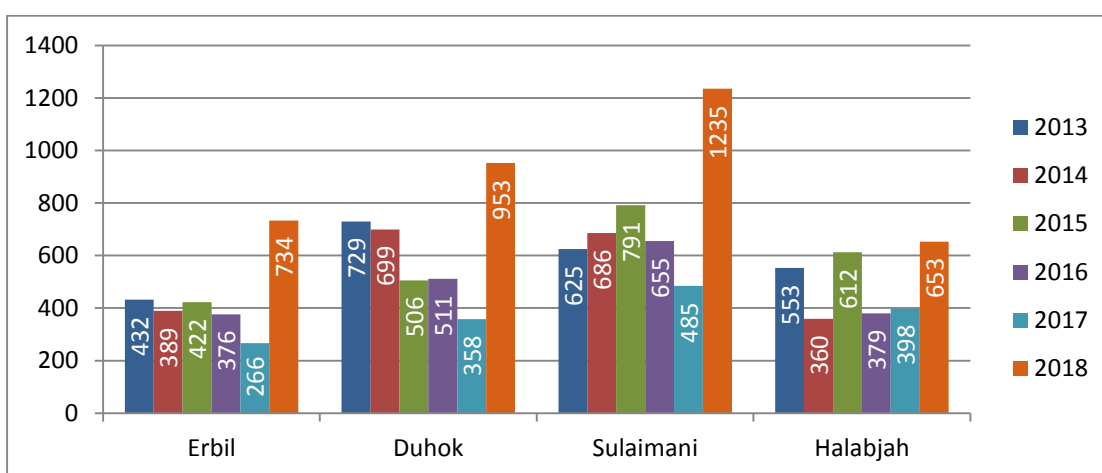




Despite other animal projects, milk cow project is the only project that found in all governorates across Kurdistan region and Garmiyani administration. The most milk cow projects (30) have been recorded in Erbil governorate and the most sheep and goat farming projects (41) are reported in Duhok governorate. As a whole, in Kurdistan region, the most animal projects are in Erbil governorate (92), Duhok and Sulaimani governorates reported 65 and 35 projects respectively, and 6 projects are reported for each Halabjah governorate and Garmiyani.

### Rainfall

Figure 50: Rainfall volume in Kurdistan region by governorates between the years 2013-2018



**Note:** data source is general office for forecast weather and earthquake in Kurdistan region

Above figure represents the rate of rainfall for 6 successive years at the level of governorates in Kurdistan region. The year 2018 recorded the highest level of rainfall for all governorates across Kurdistan region and the lowest level has been recorded in 2017. In 2018, Sulaimani governorate has the highest level of raining (1235 mm) followed by Duhok governorate (953 mm), Erbil governorate (734 mm) and Halabjah (653) has the lowest level comparing to other governorates.

## Temperature

Table 24: Monthly temperature in 2018 by governorates in Kurdistan region

Governorate	Year	Temperature	Month											
			Jan	Feb	March	April	May	Jun	July	Aug	Sep	Oct	Nov	Dec
Erbil	2018	Min	6.6	8.1	13.5	15.7	20.6	25.7	28.9	27.6	25.4	20.9	12.2	8.6
		Max	14.7	16.7	23.2	26.7	31.0	37.9	42.0	41.5	38.3	30.5	19.7	82.1
		Avg.	10.7	12.4	18.4	21.2	25.8	31.8	35.5	34.6	31.9	25.7	16.0	45.4
Duhok	2018	Min	4.8	6.6	10.9	13.3	17.5	22.3	25.5	25.1	22.3	17.9	10.1	7.1
		Max	13.2	15.0	21.8	25.2	29.3	36.3	40.9	40.2	36.9	29.1	18.3	13.1
		Avg.	9.0	10.8	16.4	19.3	23.4	29.3	33.2	32.7	29.6	23.5	14.2	10.1
Sulaimani	2018	Min	3.2	5.9	10.7	12.7	17.1	23.3	26.5	25.9	22.3	17.3	9.8	5.6
		Max	12.7	14.6	21.3	23.8	28.1	36.3	40.9	40.2	36.7	27.7	17.5	12.5
		Avg.	8.0	10.3	16.0	18.3	22.6	29.8	33.7	33.1	29.5	22.5	13.7	9.1
Halabjah	2018	Min	4.0	6.6	10.1	14.1	14.3	-	31.9	31.6	-	14.6	8.5	-
		Max	13.1	14.8	24.0	23.5	30.7	-	40.5	36.6	-	30.0	19.9	-
		Avg.	8.5	10.7	17.1	18.8	22.5	-	36.2	34.1	-	22.3	14.2	-

# Consumer price index (CPI)

## Consumer price index (CPI)

Consumer Price Index is an important indicator used in economic studies and development plans as it reflects the changes in the structure of production and consumption. Consumer price index is widely used to calculate the economic trends. It is also used to measure the changes in purchasing power of the national currency, national accounts, and all activities and expenditures related to fixed prices. To prepare an appropriate frame for goods and services, it was relied on the results of the second round of household socio-economic survey (IHSES2) conducted in 2012.

CPI for **base year** (2012) = 100 which has been used to calculate CPI for the years 2015-2018. Also, there is comparison made for CPI between two successive years (each year with the earlier one) to calculate CPI annual changes known as year on year comparison.

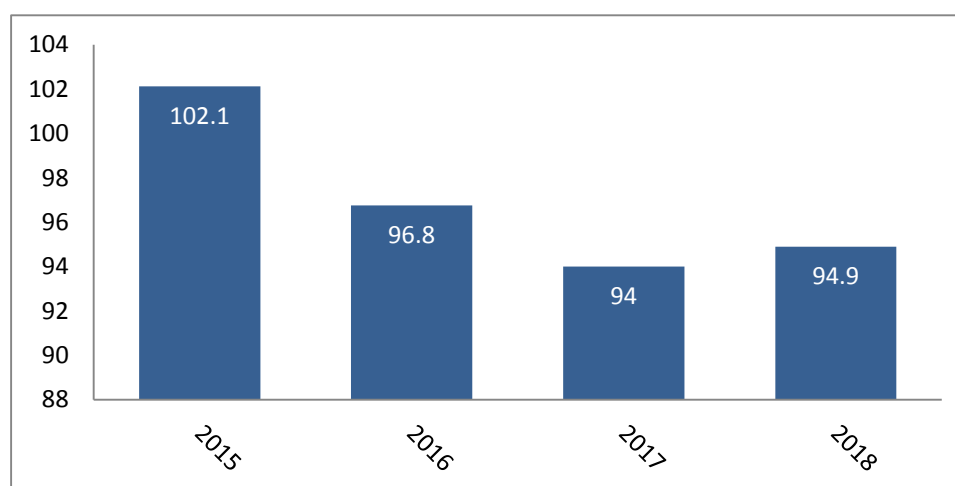
Table 25: CPI and inflation rate in KRI and its governorates during 2015-2018

Table 25: CPI and inflation rate in KRI and its governorates during 2015-2018

	Year	CPI	inflation rate by base year 2012	Inflation rate by year on year base
KRI	2015	102	2	
	2016	96.8	-3.2	-5.1
	2017	94	-6	-2.8
	2018	94.9	-5.1	0.9
Erbil	2015	102.6	2.6	
	2016	94.2	-5.8	-8.2
	2017	93.8	-6.2	-0.5
	2018	96	-4	2.4
Sulaimani	2015	100.9	0.9	
	2016	97.4	-2.6	-3.5
	2017	92.2	-7.8	-5.3
	2018	92.6	7.4	0.4
Duhok	2015	105	5	
	2016	99.7	-0.3	-5
	2017	98.1	-1.9	-1.7
	2018	97.7	-2.3	-0.4

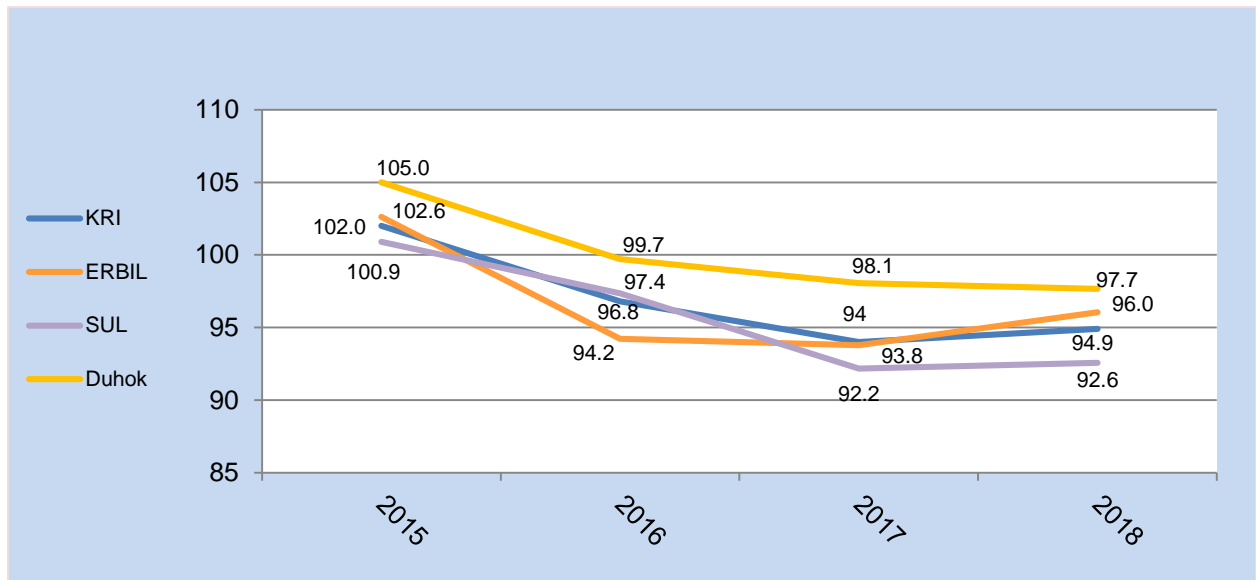
Through the above table we notice a continuous decline in CPI during 2015 to 2017. This decrease is mainly due to cutting the Kurdistan's budget share by Iraq's central government and the following financial crises that hit Kurdistan region that caused salary saving system. These factors limited the buying power of consumers in Kurdistan region, especially that more than 50% of population in Kurdistan region rely on public sector according to food security survey conducted in 2016.

Figure 51: The average of CPI in KRI in 2015-2018 comparing to the base year 2012



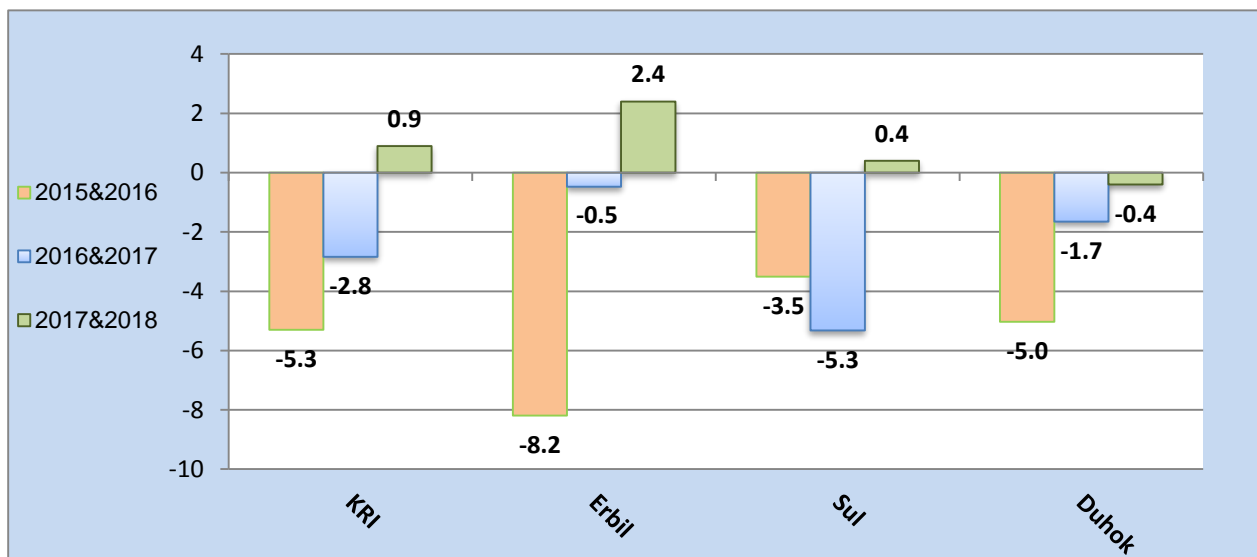
CPI recorded 102% in 2015 compared to the base year (2012) when the financial crisis was at its beginning. After 2016, it declined to 96.8% as the result of salary saving system that reduced the purchasing power and consumers spent mostly on food as a basic need. At the same time, the CPI for non-food items fell to less than half. Again, in 2017, with a significant decline in CPI, it reached 94% because of continuation of the financial crisis. The crisis not only strongly influenced the citizens' life but also influenced all aspect of market like, buying and selling residential units and house rental which decreased in an unusual way. In 2018, CPI increased and recorded 94.9% due to reducing the salary saving rate and paying the salary on a monthly basis as usual and returning stability to the region following the end of the ISIS war.

Figure 52: CPI in Kurdistan region and governorates over the years 2015-2018



A steady decrease can be seen in CPI at the level of governorates and KRI from 2015 till 2017 except for Duhok governorate, where it continued to decrease in 2018, while other governorates and KRI recorded increases in 2018. Despite increases in Erbil and Sulaimani governorates in 2018, still Duhok governorate has the highest rate.

Figure 53: CPI annual changes at the level of KRI and governorates



CPI annual change shows a decrease by 5.3% at the level of KRI in 2015-2016. At the level of governorates, Erbil recorded a decrease by 8.2%, Sulaimani by 3.5% and Duhok by 5%. Again, in 2016-2017, annual change shows decrease by 2.8% at the level of KRI. At the level

of governorates, Erbil decrease by 0.5%, Sulaimani by 5.3% and Duhok by 5%. Between 2017 and 2018, due to economic inflation rate, annual change increased by 0.9% in KRI. At the level of governorates, Erbil and Sulimani governorates show increase in annual change by 2.4%, and 0.4% respectively, while Duhok governorate recorded decrease in annual change by 0.4%.

Figure 54: Comparison between CPI in 2016 and 2018 by sections in KRI

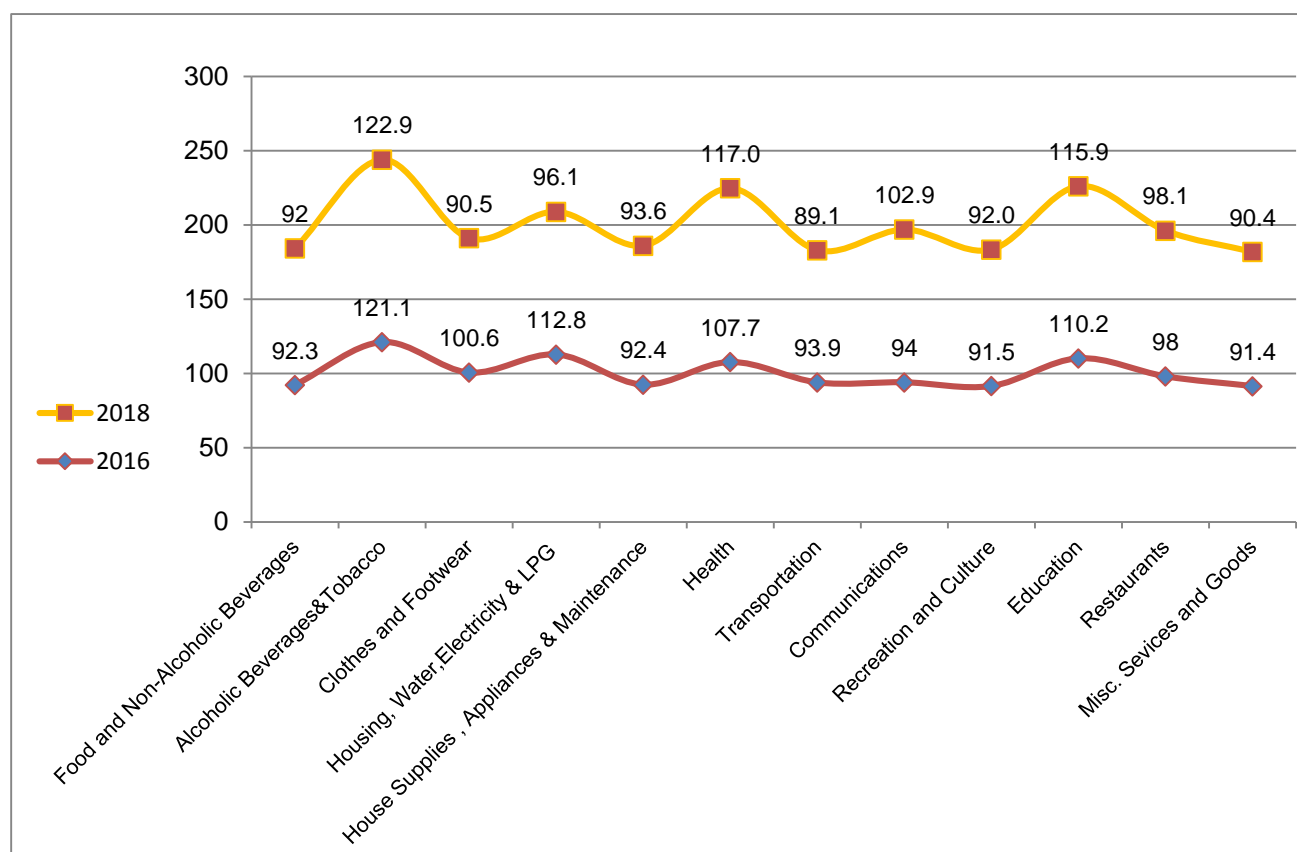


Table above shows the difference in CPI average for the years 2016 and 2018 according to the main groups for the basket of goods. KRI shows increase for some sections and decrease for others. Housing (house and apartment rental) was one of important section that shows decline in prices due to the influence of successive crises in 2014. In 2010 and for the following years, KRI's residents had a better livelihood and ability to buy residential units, but after the midyear 2014 and following the financial crises, the residential rental and housing prices decreased and continued by the end of 2018.

Figure 55: Comparison between CPI in Iraq as a whole, south/center of Iraq and KRI by the main sections November 2018

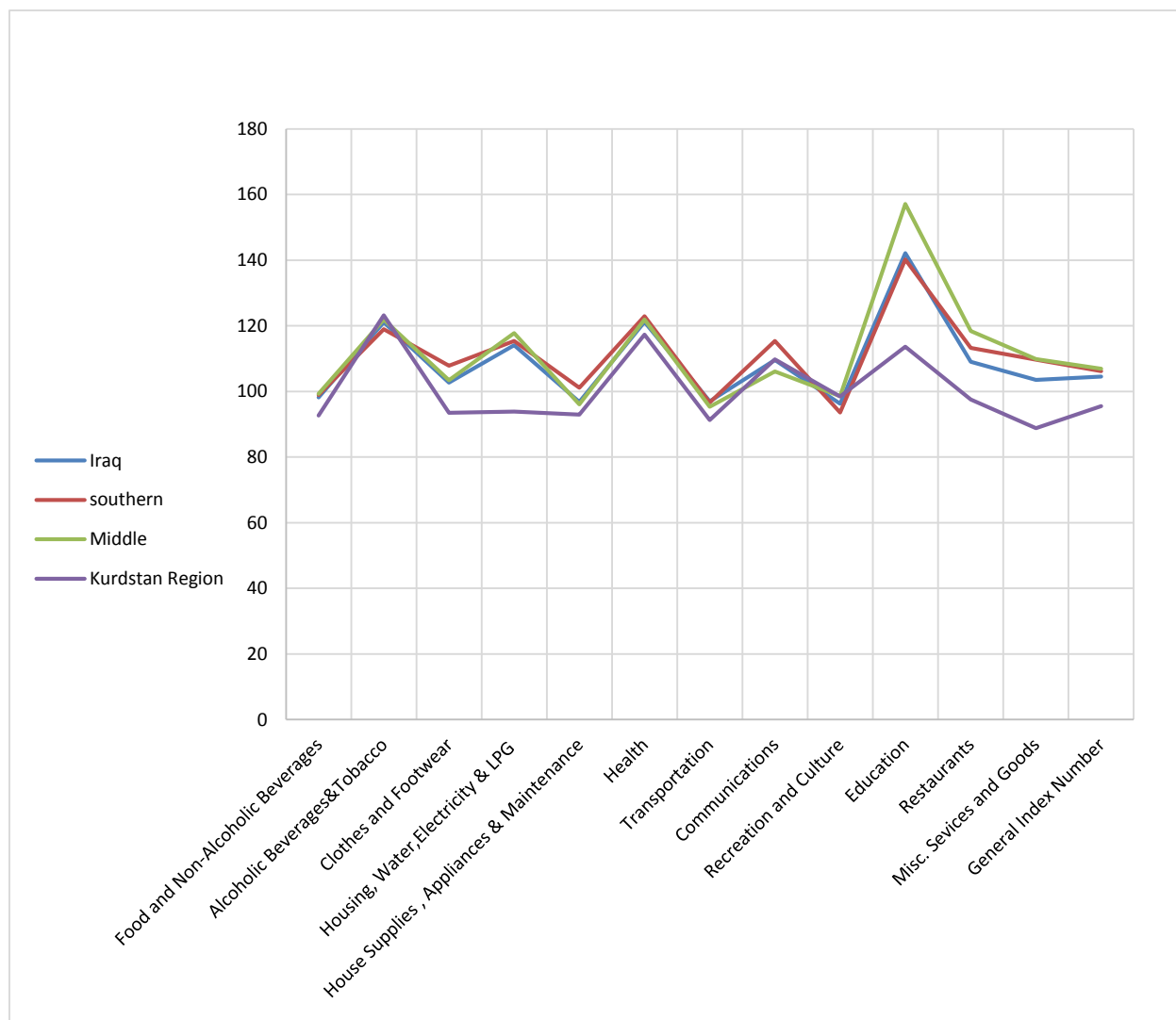
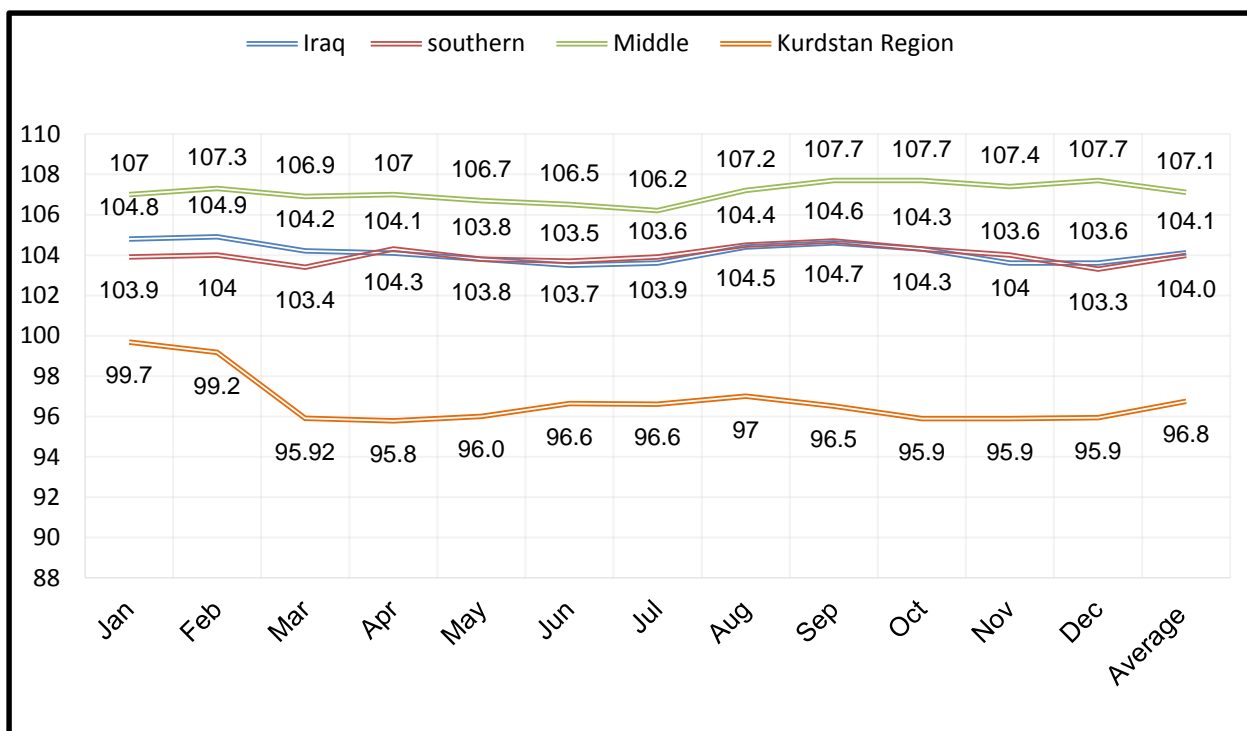


Figure 55 shows comparison between CPI for 12 main sections in KRI, Iraq as a whole and south/center of Iraq. It can be observed that deflation is higher in KRI compared to the rest of Iraq.



Figure 56: CPI in KRI, south/center of Iraq and Iraq as a whole in 2016



There is an obvious difference in CPI in 2016 between KRI and Iraq as a whole as well as south and center of Iraq (Figure 56). The highest level has been recorded in the center of Iraq followed by Iraq as a whole and the south of Iraq and the lowest rate has been recorded in KRI.

# Transportation

- Air transportation
- Registered cars
- Traffic accidents
- Paved roads

## Transportation

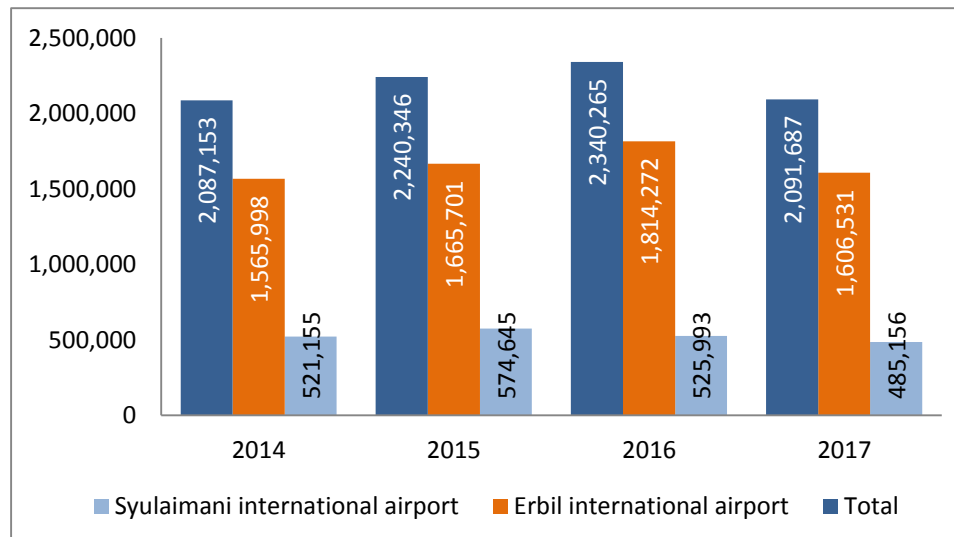
### Air transportation

Table 26: Airport transportation in KRI 2017

Indicator	Sulaimani	Erbil	Total	Source
Transfer passengers	485,156	1,606,531	2,091,687	Erbil and Sulaimani International airports
domestic passengers	156,224	583,503	739,727	
International passengers	328,932	1,023,028	1,351,960	
Number of flight (arrival, departure)	7,550	15,294	22,844	
Number of domestic flights	2,694	5,755	8,449	
Number of international flights	4,856	9,539	14,395	

Transportation sector is one of important sectors in providing services to citizens and tourists. Today, air transportation is the most important and safest mean of transportation comparing to other means as the fastest way to reach the destination. Development in this sector has direct effects on the economic structure of the country. Air transportation has a significant role in regional gross product in creating job opportunities and income from the services that provided in airports.

Figure 57: Number of passengers carried via KRI's international airports in 2014-2017



Number of carried passengers through KRI's airports reached 2,091,687 in 2017, of which 1,606,531 recorded in Erbil and 485,156 in Sulaimani international airport. In 2016, the number was 2,340,265 passengers, 1,814,272 in Erbil and 525,993 in Sulaimani international airports. The record shows a decrease by 10.6% in 2017 comparing to 2016 due to a blockade on international flights to and from the Kurdistan Region imposed by the federal government of Iraq on September 29, 2017.

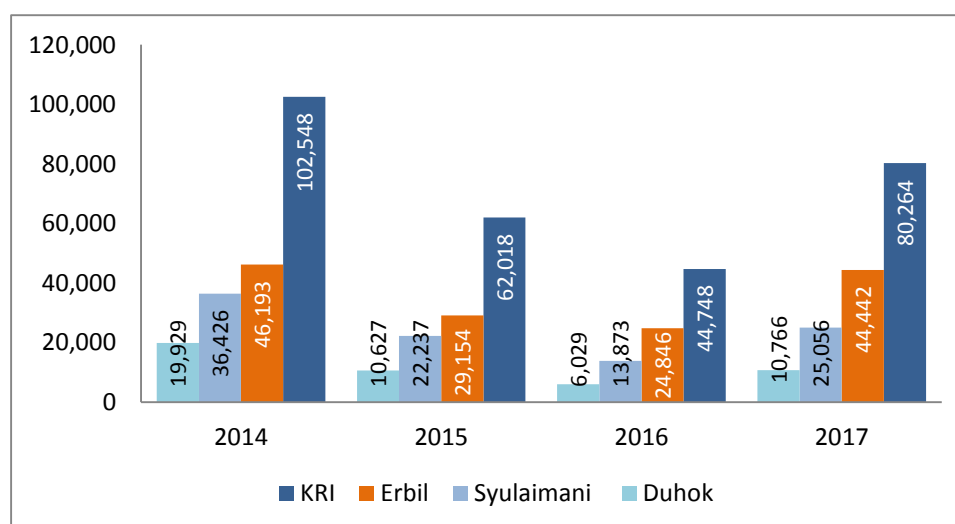
## Registered cars

Table 27: Number of registered cars excluding public sectors in KRI by governorates

Indicator	Erbil	Duhok	Sulaimani	KRI	Source
Number of registered cars in traffic directorates in governorates	44,442	10,766	25,056	80,264	Traffic directorates in Erbil, Duhok and Sulaimani Governorates
Number of passengers cars/ private	35,133	8,919	20,467	64,519	
Number of passenger cars/ rental	816	62	953	1,831	
Number of pickups/ trucks	8,493	1,785	3,636	13,914	

In Kurdistan region, car is the most popular vehicle used for transportation. Using cars in a large scale like that of KRI could have positive effects on economic development, external and internal trade, but we should not be unaware of traffic accidents, air pollution and its effects on health as results from excessive amount of cars especially in large cities. KRI has exceeded the density of vehicles in roads in some areas. For example, density of vehicles in Erbil to Bekhal road that is 160 km by 18 meter reaches 37 thousands vehicles in average, while the acceptable density is 10 thousands vehicles for a 150 km by 25 meter road.

Figure 58: Number of registered cars excluding government sector in KRI by governorates in 2014-2017



The number of registered cars in KRI for 2017 is 80,264 cars (Figure 58). It shows an increase of 44.2% comparing to 44,748 cars in 2016. The highest number has been recorded in Erbil governorate (44,442 cars) and the lowest number in Duhok governorate (10,766).

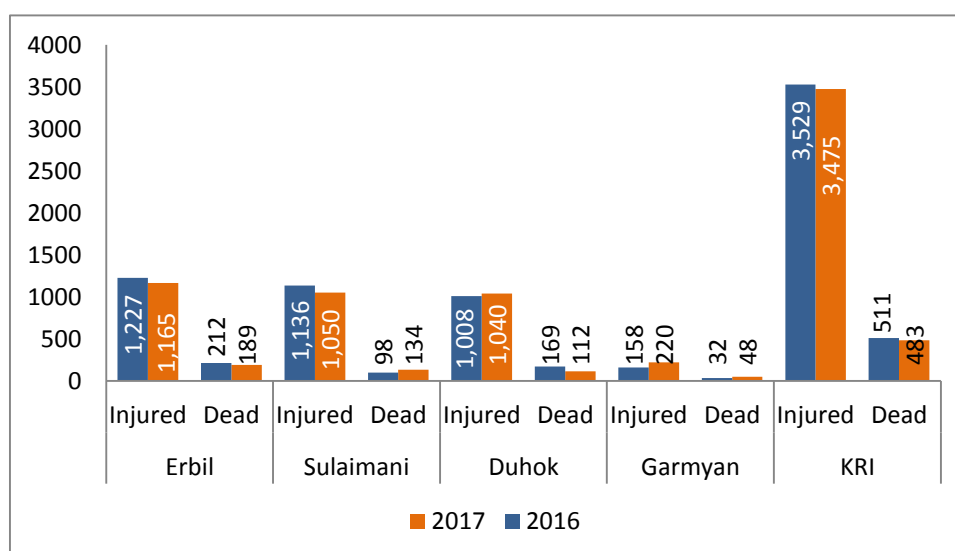
## Traffic Accidents

Table 28: Traffic accidents in KRI by governorates in 2017

Indicator	Erbil	Sulaimani	Duhok	Garmiyān	KRI	Source
Total traffic accidents	1,354	1,184	1,152	268	3,958	KRI Traffic General directorate, Traffic directorate of Sulaimani, Duhok and Garmiyān
Number of deaths in traffic accident	219	218	145	48	630	
Number of injured	1,437	3,193	1,658	372	6,660	
Number of car accidents with death	189	134	112	48	483	
Number of car accidents with injured	1,165	1,050	1,040	220	3,475	

A traffic accident refers to an unplanned accident in which a moving vehicle collides with another vehicle, pedestrian, animal or any other object in roads that leads to physical and material damages caused by neglecting traffic signs, driving rules, unsafe roads or other reasons.

Figure 59: Number of traffic accidents with death and injured in KRI in 2016 and 2017



In KRI in 2017, of the total traffic accidents (3,958), 483 accidents caused death and 3,475 accidents caused other losses. In 2017, number of traffic accidents decrease by 2% compared to the total number of 4,040 accidents in 2016, of which 511 accidents caused death and 3,529 caused other losses. At the level of governorates, no significant difference can be observed in the number of traffic accident between governorates in 2017. Erbil governorate recorded 1,354 accidents followed by Sulaimani and Duhok governorates with 1,184 and 1,152 accidents respectively.

## Paved roads

Table 29 : length of paved roads (km) in KRI by governorates in 2017

Indicator	KRI	Erbil	Sulaimani	Duhok	Source
The total paved roads (km)	123.2	3.5	119.7	/	Ministry of construction and housing/ technical directorate general
total paved main roads (km)	1	/	1	/	
total paved sub and village roads (km)	22.2	3.5	18.7	/	
The length of constructed bridges (m)	100	/	100	/	

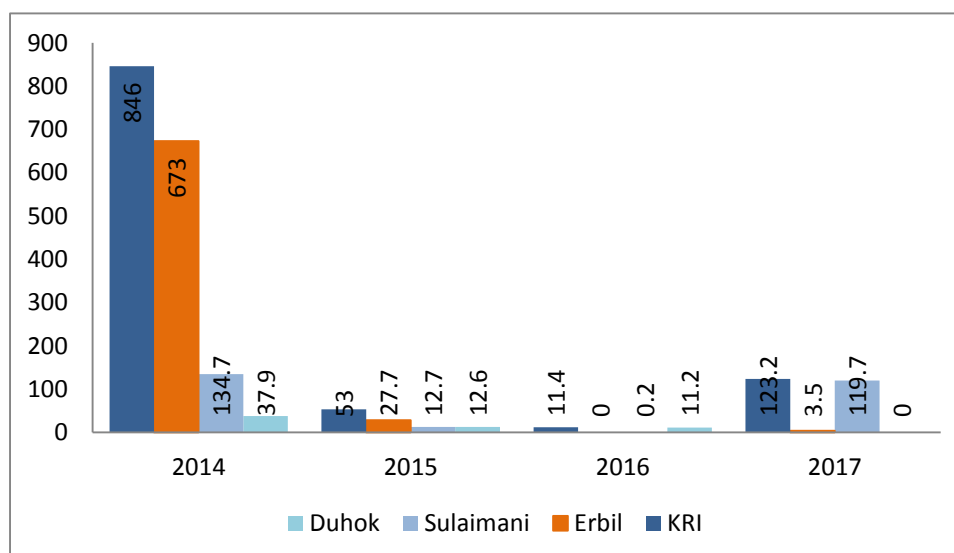
\* Above table refers to the paved roads out of the governorates' municipalities borders

**Main road:** it refers to a two-way road with a width more than 7m or the speed limit of 80 km/hour or above.

**Sub road:** it is a one-way road with a width less than 7m or the speed limit of 80 km/hour or less.

**Village road:** it is a one- way road which is used for transportation within and between villages

Figure 60: length of paved roads (km) in KRI by governorates in 2014-2017



In 2017, a total length of 123.2 kilometers of road was paved and in 2016 it reached to its lowest level (11.4 kilometers), a decline by 90.7% compared to 2014-2015 due to financial crisis hit Kurdistan region and significant decline in oil prices at the world level.

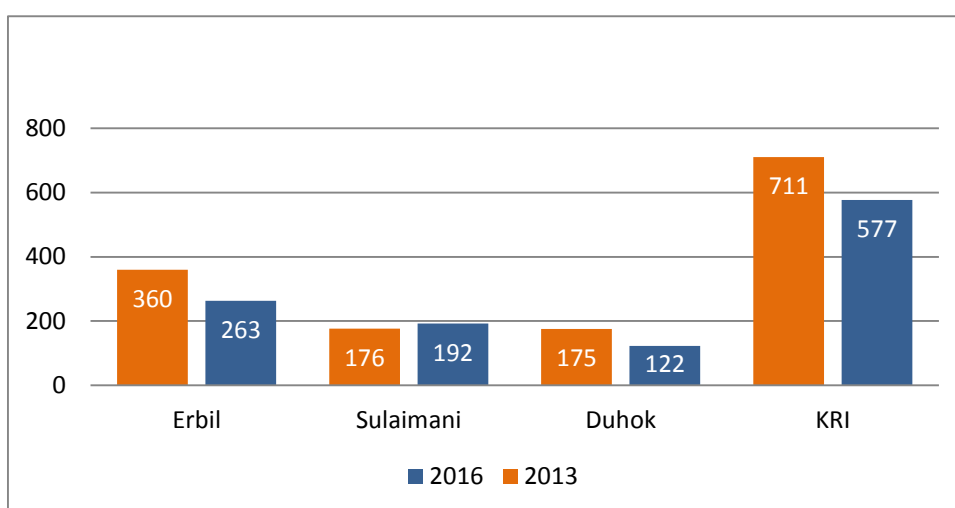
# Tourism

-Trade and Import

## Tourism sector

Tourism sector is considered as an important economic sector in term of creating job opportunities and marketing. Kurdistan region is one of those places that host a large number of tourists who annually visit the region due to its beautiful sceneries, historical places and security. KRSO in cooperation with tourism office works on a yearly basis to collect comprehensive data on tourism establishments in KRI by number of tourists from inside and outside, night stays and other related indicators. The income from tourism sector has a significant role in rising regional domestic production.

Figure 61: Number of tourism establishments in KRI by governorates over the years 2013-2016



Referring to the survey conducted by KRSO in 2013 and 2016, the number of tourism establishments in KRI shows a decrease by 19% from 711 establishments in 2013 to 577 establishments in 2016 (Figure 61). The decrease in the number of tourism establishments linked to ISIS attack against Iraq and KRI and instability in ISIS-control area that reduced the tourism following the year 2014. These factors had a negative effect on tourism sector and as a result, some of tourism places had to temporary close or change their activity.



Table 30: Number of guests and night stays by nationality and governorates in KRI in 2013 and 2016

Indicators	Erbil		Duhok		Sulaimani		KRI	
	2013	2016	2013	2016	2013	2016	2013	2016
Number of local guests	1,907,114	559,278	220,384	102,616	374,806	352,878	2,502,304	1,014,772
Stay nights for local guests	3,768,503	1,763,098	694,348	583,114	901,446	811,809	5,364,297	3,158,021
Number of guests from Arabian countries	70,736	51,493	20,108	3,336	10,080	13,518	100,924	68,347
Stay nights for guests from Arabian countries	229,473	219,864	105,251	16,395	22,180	21,374	356,904	257,633
Number of foreigner guests	173,137	106,412	34,311	18,074	56,464	30,833	263,912	155,319
Stay nights for foreigner guests	568,994	205,206	110,977	56,773	187,839	61,389	867,810	323,368
Total guests from KRI	2,144,390	717,183	274,801	124,026	441,611	397,229	2,860,802	1,238,438
Total stay nights for guests from KRI	4,566,970	2,188,168	910,576	656,282	1,111,465	894,572	6,589,011	3,739,022

As it is observed in figure 30, the number of guests who visited tourism establishment in KRI has been decreased by 56.8%, from 2,872,681 in 2013 to 1,238,438 in 2016. As well, Night stays decreased by 43% from 6,589,011 nights in 2013 to 3,739,022 nights in 2016.

Table 31: Number of workers, expenditures, and incomes in tourism establishments at the level of KRI and governorates

Indicator	Erbil		Duhok		Sulaimani		Erbil	
	2013	2016	2013	2016	2013	2016	2013	2016
Number of worker	3,742	2,750	902	725	1,187	1,348	5,831	4,823
Expenditures (1000 IQD)	123,135,337	94,249,232	16,692,412	10,895,927	28,272,249	28,178,038	168,099,998	133,323,197
Incomes (1000 IQD)	265,048,142	141,551,814	21,329,527	15,621,328	41,754,910	47,430,590	328,132,579	204,569,898

Table 31 reveals difference between the data of 2013 and 2016 surveys on the number of workers in tourism establishments, total expenditures and total income from tourism establishments at the level of KRI and governorates. The first indicator that is the number of workers, shows a decline by 17.2% in 2016 (4,823 workers) compared with 2013 (5,831 workers). The second one that represents the expenditure in tourism establishments shows decline by 20.7% in 2016 that recorded 133,323,197,000 IQD compared with

168,099,998,000 IQD in 2013. And the last indicator that represents income in tourism establishments, reports a decline by 37.6% in 2016 with 204,569,898,000 IQD compared with 328,132,579,000 IQD in 2013.

### Trade - imports

Having a general economic plan for an under developing region like Kurdistan region of Iraq (KRI), is a necessity for developing communication with neighbor countries and the rest world. Imports and exports have a great role in designing long term plan and strong economic structure of KRI. Import indirectly participates in national income growing through importing goods which is used in production and investment. The main source of import in KRI and Iraq is provided by income from oil by which they could pay for projects, goods, machines and other needs to run governmental organizations and investment in private sector.

**Table 32 : Value of import to Iraq and KRI in 2016 and 2017 by exporting countries, value in 1000 USA \$**

Exporting Country	Value in 2016		Value in 2017	
	Iraq as a whole*	KRI	Iraq as a whole*	KRI
Africa exc. Arabian countries	18,058	1,080	15,898	11,097
Arabian countries	8,256,075	3,128,403	15,008,889	8,869,929
Eastern Asia	9,489,327	1,717,189	10,162,585	6,089,308
Middle East **	13,768,149	9,002,342	15,204,132	9,175,516
North America	1,382,350	352,148	1,269,627	330,085
Oceania	31,547	4,603	75,789	8,311
South America	653,641	79,037	1,127,175	163,954
South Asia	1,105,177	121,766	856,950	414,871
South East Asia	348,349	88,323	427,955	109,173
EU Countries	4,286,893	1,274,204	4,246,320	2,795,499
Europe (except of EU Countries)	1,565,579	140,229	939,346	554,895
Middle Asia	23,621	18,620	23,912	22,107
Total	40,928,766	15,927,944	49,358,578	28,544,746

**Note:** Source of data on imports is form planning department of ministry of trade and industry of KRI

\* Iraq including KRI

\*\* Iran and Turkey

Table 32 shows the total trade exchanges (import) in Iraq as a whole and KRI by exporting countries in the years 2016 and 2017. The total imports value to KRI shows an increase by 44.20% in 2017 compared to 2016. The highest value of export to KRI has been recorded by Middle East (Iran and Turkey) with more than \$ 9 trillion in 2016 and 2017 followed by

Arabian countries with more than \$12 trillion (more than \$ 8 trillion in 2017 and 3 trillion in 2016) and Eastern Asia ( more than \$ 6 trillion in 2017 and \$1 trillion in 2016 ).

**Table 33: Imports to Iraq and KRI in 2016 and 2017 by the Harmonized System (HS), value in 1000 USD**

Item	Value in 2014, KRI	Value in 2015, KRI	Value in 2016		Value in 2017	
			Iraq as a whole	KRI	Iraq as a whole	KRI
Live Animals, Animal Products	719,589	620,672	2,411,554	1,187,811	2,800,261	1,604,704
Vegetable Products, Prepared Foodstuffs, Beverages, Alcoholic drinks , Vinegar, Tobacco and Animal or Vegetable Fats	2,631,045	2,426,088	6,212,359	3,355,002	8,546,784	4,846,240
Mineral, Chemical and industry Products, main Metal, Building material, Plastics and articles thereof	4,015,913	3,250,682	14,577,843	6,214,747	16,298,841	9,039,149
Textiles, Clothes, Footwear, Headgear, and Umbrellas	246,295	211,782	708,894	262,109	831,678	519,265
Wood and Articles thereof, Charcoal, Cork, Pulp of Wood or of other Fibrous Cellulosic	832,893	735,506	3,336,403	1,049,437	5,506,053	4,072,288
Machinery, Mechanical & Electrical Appliances, Transportation means, photography tools, Medical Tools, Controlling and Measuring Tools, Gun & Ammunition, Work of Arts, Antiques and Perfumes	7,309,505	5,663,760	12,777,414	3,858,840	15,374,960	8,463,099
Total	15,755,241	12,908,487	40,580,417	15,927,946	49,358,578	28,544,746

The total value of imports to KIR was \$28 trillion in 2017. the imports value in 2014 and 2016 are close to each other (\$16 trillion) and the lowest value has been recorded in 2015 (\$13 trillion). Mineral items (more than \$9 trillion), engine, mechanical and electrical equipment (more the \$ 8 trillion) are the most items that imported to KRI comparing to other imports in 2017 and the previous years.

# Industry

- Big and Medium Industrial Establishments
- Small industrial establishments
- Mines

## Industry

Industry Sector has an important role in developing the economy of countries and contributing to the gross domestic production through income from production and creating job opportunities. For this reason, KRSO in cooperation with other related organizations in KRI works to annually collect detailed statistical information on Industry sector.

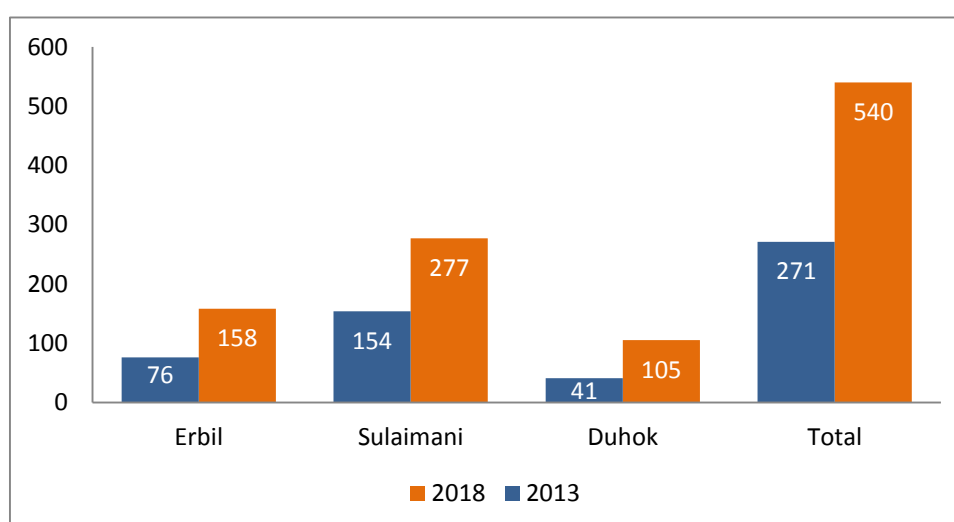
### Big and Medium Industrial Establishments

Table 34: Indicators of big and medium industrial establishments in KRI for 2013, value in million IQD

Indicators	Big establishments	Medium establishments
Total wages and benefits	123,136	24,736
Value of necessities	649,970	170,626
Income value	1,500,367	287,193

Table 34 represents the last information about indicators (total wages and benefits, value of necessities, income value) of big and medium industrial establishments in KRI taken from comprehensive survey for big and medium industrial establishments carried out in 2013. At the time of preparing this report, the data for 2018 was not available and preparatory work for this survey was under going.

Figure 62: Number of tourism establishments in KRI by governorates in 2013-2016



With an increase by 99%, the number of establishments has been increased to 540 establishments in 2018 comparing to 271 establishments in 2013. At the level of

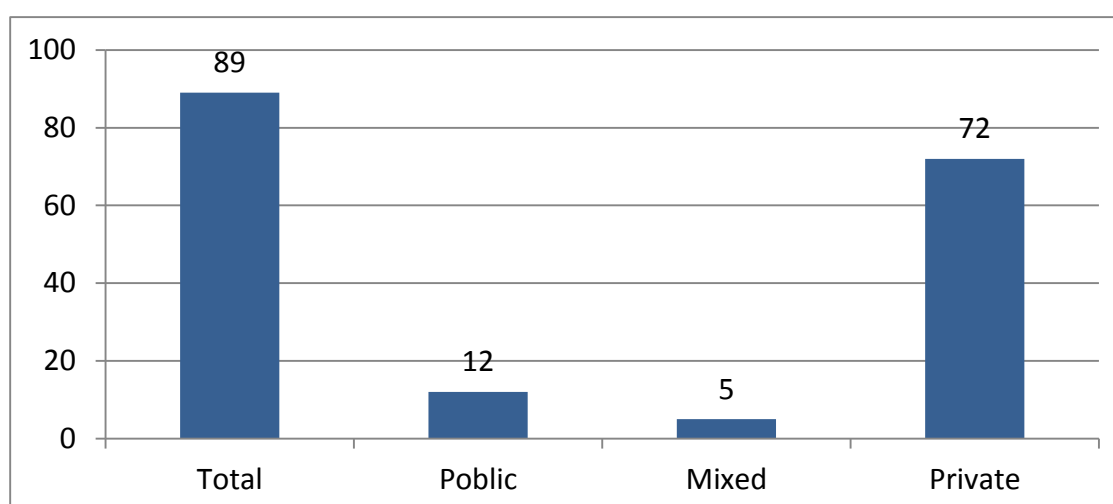
governorates, Erbil , Sulaimani and Duhok governorates recorded 158, 277 and 105 establishments in 2018 comparing to 76, 154 and 41 establishments in 2013 respectively, (Figure 62).

**Table 35: Number of big and medium industrial establishments by governorates in KRI for the years 2013 and 2018**

Indicators	Erbil		Sulaimani		Duhok		Total	
	2013	2018	2013	2018	2013	2018	2013	2018
Number of big establishments	36	55	41	50	12	14	89	119
Number of medium establishments	40	103	113	227	29	91	182	421

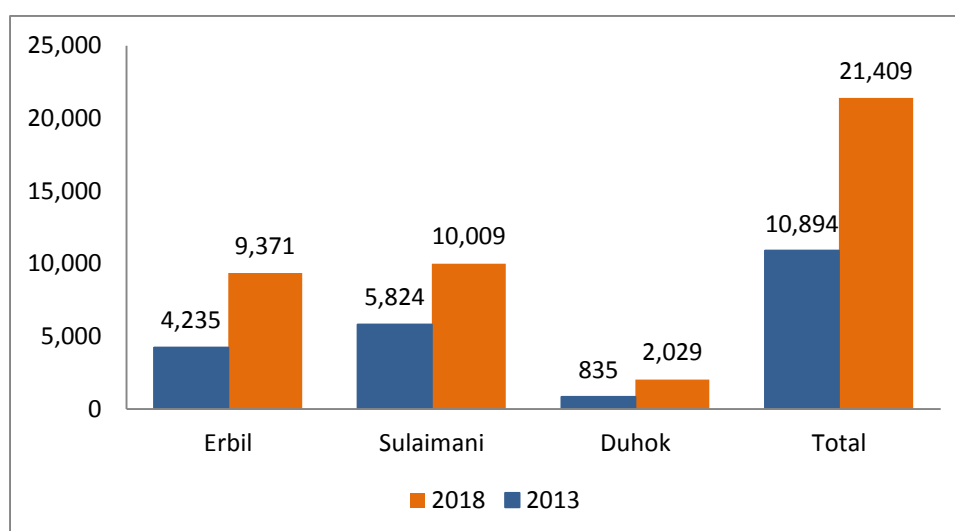
The results from surveys 2013 and renewing the frame of the same survey in 2018, an increase can be observed in the number of big and medium industrial establishments in Kurdistan region for the year 2018. Big establishments recorded 119 in 2018 against 89 establishments in 2013 and medium establishments recorded a number of 421 in 2018 against 182 establishments in 2013. The number of big and medium establishments shows an increase by 34% and 131% respectively in 2018 compared to 2013. This increase can be observed at the level of governorates as well (Table 35).

**Figure 63: Number of big industrial establishments by sector in KRI in 2013**



of the total of 89 big establishments in Kurdistan region, 72 establishments recorded in private sector, 5 in mixed sector and 12 establishments recorded in public sector for the year 2013 (Figure 63).

Figure 64: Number of big industrial establishments by sector in KRI in 2013 and 2018



The results from surveys in 2013 and renewing the frame of the same survey in 2018 indicate an increase in the number of employees in both big and medium establishments at the level of Kurdistan region and governorates in 2018 comparing to 2013 (Table 36). At the level of Kurdistan region, number of employees recorded 21,409 in 2018 with an increase by 97% comparing to 10,894 in 2013. At the level of governorates, Erbil governorate recorded 9,371 employees in 2018 against 4,235 in 2013, Sulaimani governorate recorded 10,009 employees against 5,824 in 2013 and Duhok governorate recorded 2,029 employees against 835 employees in 2013.

Table 36: Number of employees in big and medium industrial establishments by governorates in KRI in 2013 and 2018

Indicators	Erbil		Sulaimani		Duhok		Total	
	2013	2018	2013	2018	2013	2018	2013	2018
Number of employees in big establishments	3,627	7,621	4,336	6,959	443	796	8,406	15,376
Number of employees in medium establishments	608	1,750	1,488	3,050	392	1,233	2,488	6,033

Table 36 represents the number of employees in big and medium establishments at the level of governorates relying on the results from surveys in 2013 and renewing the frame of the same survey in 2018. 15,376 employees have been recorded in big industrial establishments and 6,033 employees in medium establishments versus 8,406 and 2,488 employees in big and medium establishments respectively in 2013. In other words, the number of employees in big

establishments increased by 83% and in medium establishments increased by 142% in 2018 compared to 2013.

### Small industrial establishments

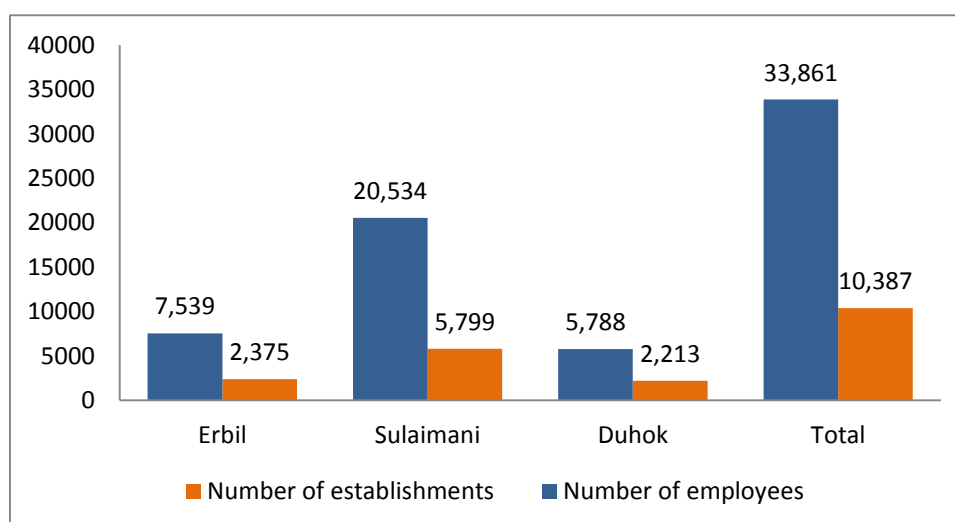
Small establishment refers to those industrial establishments, where the number of employees is between 1-9 employees. The most important activities in small establishment we can refer to baking, confectionery, dairy, cold refreshment, spinning, sewing, printing...etc.

**Table 37: Indicators of small industrial establishments at the level of Kurdistan region and governorates in 2013**

Indicators	Erbil	Sulaimani	Duhok	KRI
Number of establishments	2375	5799	2213	10387
Number of employees	7539	20534	5788	33861
Wages (million IQD)	40,968	124,759	21,403	187,130
Value of needs (million IQD)	96,661	407,711	146,328	650,700
Total income (million IQD)	221,714	704,210	209,837	1,135,761

The total income from small industrial establishments in Kurdistan region is about one trillion and 136 billion IQD in 2013. Wages recorded 187 billion and 130 million IQD and the value of needs is about 651 billion IQD (Table 37). A significant difference can be observed in income value at the level of governorates. Sulaimani recorded the first rank with 704 billion and 210 million IQD followed by Erbil governorate with 221 billion and 714 million IQD, and Duhok governorate with 209 billion and 837 million IQD in 2013.

**Figure 65: Number of Small industrial establishments and employees in KRI by governorate in 2013**





Total number of small industrial establishments is 10,387 and the number of employees who work in these establishments is 33,861 employees in 2013 (Table 65). Most of small industrial establishments are recorded in sulaimani governorate (5,799), Erbil and Duhok governorates recorded close numbers, 2,375 and 2,213 respectively.

## Mines

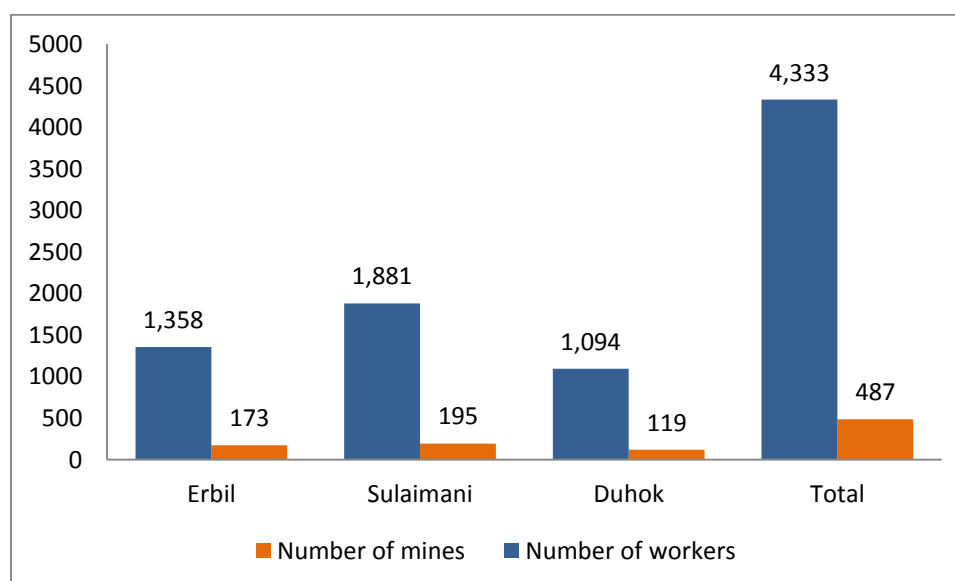
This report only covers the sand mines, and it refers to places like streams, confluences and rivers where sand is mined from. In 2014 a comprehensive survey was conducted on sand mines, where the number of mines was 487 and the number of workers was 4,333 workers.

Table 38: Indicators of mines in KRI by governorates in 2014

Indicators	Erbil	Sulaimani	Duhok	KRI
Number of mines	173	195	119	487
Number of workers	1358	1881	1094	4333
Wages (1000 IQD)	5,649,161	14,181,665	4,926,707	24,757,533
Value of needs (1000 IQD)	17,918,520	36,148,348	20,558,115	74,624,983
Total income (1000 IQD)	42,619,325	74,818,744	38,489,347	155,927,416

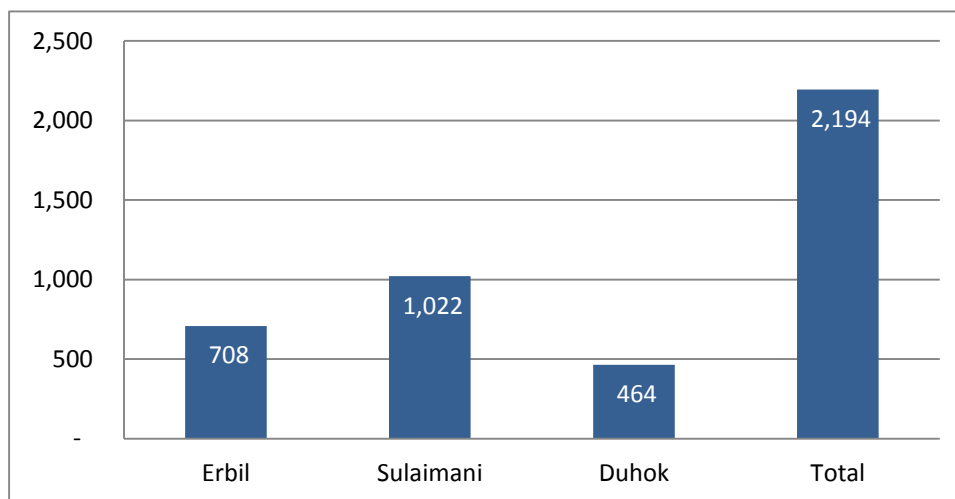
Wages recorded more than 24 billion IQDs, the value of needs is up to 74 billion IQDs and the total income from sand mines is about 156 billion IQDs in Kurdistan region in 2014 (Table 38).

Figure 66: Number of mines and workers in KRI by governorate in 2014



The total number of mines was 487 and the number of workers who involved was 4,333 workers in Kurdistan region for the year 2014 (Figure 66). At the level of governorates, the highest number of mines has been recorded in Sulaimani governorate (195) followed by Erbil (173) and Duhok governorate (119) with the lowest record.

Figure 67: Area (donum) in use for mines in Kurdistan region by governorate in 2014



The total area in use for mines in Kurdistan region was 2,194 donums in 2014. At the level of governorates, 1,022 donums have been recorded in Sulaimani, 708 donums in Erbil governorate and 464 donums reported in Duhok governorate (Figure 67).

# Building and construction

## Building and construction

Following operation Iraqi freedom in 2003, Kurdistan region witnessed significant changes and stability in all fields. Construction and building sector is being constantly renewed particularly up to 2014 and even afterward that creates a strong economic infrastructure in building and construction field. Growth in trade exchanges and giving opportunities to companies to bring building materials accelerated the matter.

**Table 39: Number of building licenses by governorates and Garmiyan administration in KRI**

Year	Erbil	Sulaimani	Duhok	Garmyan	KRI
2013	11,756	9,153	5,346	1,014	27,269
2014	9,657	6,457	3,396	829	20,339
2015	5,375	5,637	2,998	1,037	15,047
2016	4,513	3,205	2,886	689	11,293
2017	4,131	2,830	1,569	580	9,110
2018	4,419	3,185	1,567	575	9,746

Building sector has not been safe from those crises that hit Kurdistan region like ISIS war, and economic crisis following Baghdad refusal to pay Kurdistan region budget share and decrease in global oil prices. In 2013, the number of building licenses (building licenses which are provided to 100% completed building) reached 27,269 licenses in Kurdistan region, but as a result of crises, it decreased during the four successive years until it dropped to 9,746 in 2018 with a decrease of 64.2%. This trend can be also observed at the level of governorates. As an example, Erbil governorate with the highest number of license in 2013 (11,756 building licenses) comparing to other governorates shows a significant decrease (4,419 building licenses) in 2018 and Garmiyan administration with 1,014 licenses in 2013 against 575 licenses in 2018 recorded the lowest rate in KRI.

Figure 68: Number of building licenses in KRI by governorates and Garmiyani administration

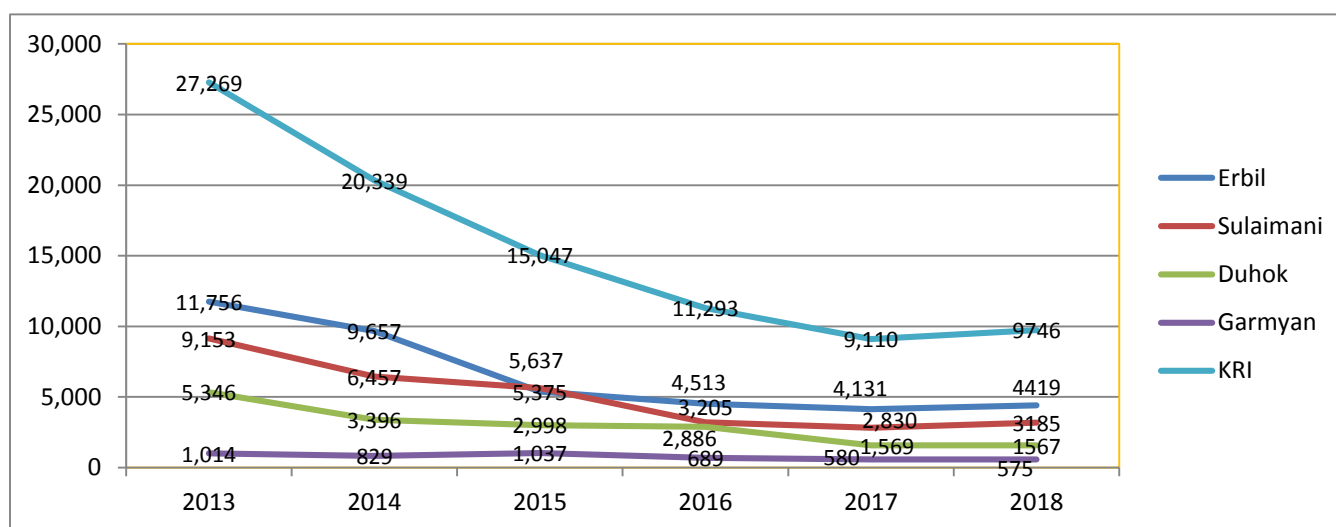


Table 40: Estimated expenditure (billion IQD) on building projects in KRI by governorates and Garmiyani administration

Year	Erbil	Sulaimani	Duhok	Garmiyani	KRI
2013	812.4	584.7	604.2	45.1	2046.3
2014	536.3	484.3	336.3	36.8	1,393.7
2015	338.7	386.5	304.7	52.9	1,082.8
2016	256.2	260	173.6	42.5	732.4
2017	228.1	287.7	166.6	26.3	708.7
2018	293.7	164.3	172.8	27.4	658.2

As presented in table 40, the total expenditure on building projects has been estimated at 658.2 billion IQD in 2018, where it shows a significant decrease by 67.8% compared to 2013 (above 2 trillion ID).

Figure 69: Estimated expenditure (billion ID) on building projects in KRI by governorates and Garmiyani administration

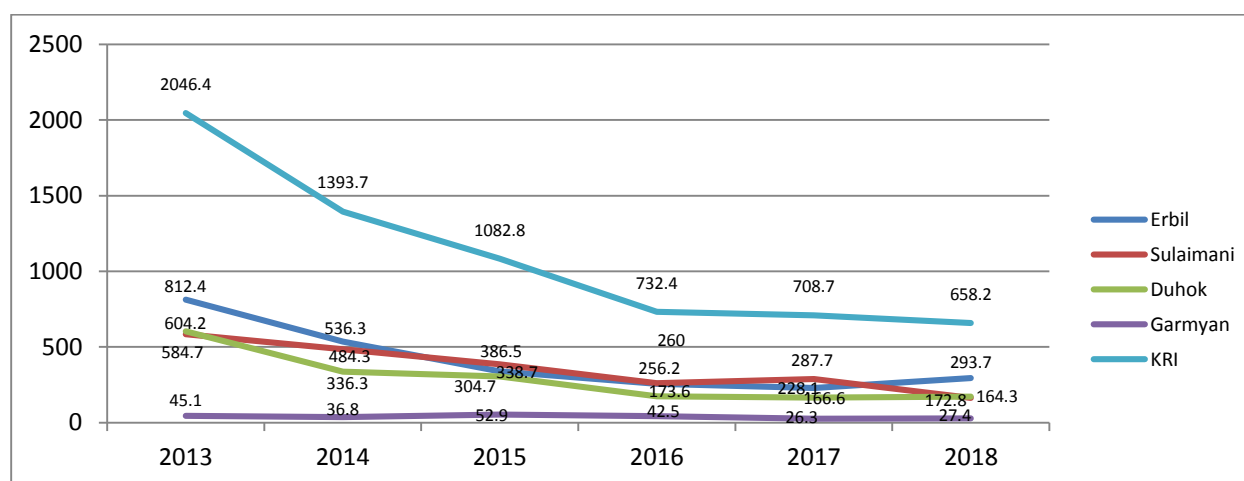


Table 41: Total area (m<sup>2</sup>) for building projects in KRI by governorates and Garmiyani administration

Year	Erbil	Sulaimani	Duhok	Garmyan	KRI
2013	2,729,016	1,759,049	1,838,716	176,937	6,503,718
2014	1,784,507	1,454,587	833,002	194,850	4,266,946
2015	1,658,604	1,322,709	865,430	237,615	4,084,358
2016	1,386,956	877,093	683,387	133,977	3,081,413
2017	962,523	748,201	446,825	132,822	2,290,371
2018	1,294,835	858,623	559,655	126,756	2,839,869

in 2013, a total land area of 6,503,718 square meters was allocated for building projects in KRI with a significant decrease by 56.3% it reached 2,839,869 square meters in 2018. KRI shows a steady decrease during the years 2013-2017, but a slight increase can be observed in 2018 compared to 2017. At the level of governorates, a steady decrease can be observed as well for Erbil and Sulaimani governorates over 2013-2017. Increase can be seen for all governorates in 2018 compared to 2017 except for Garmyan, where it shows a decrease compared to 2017.

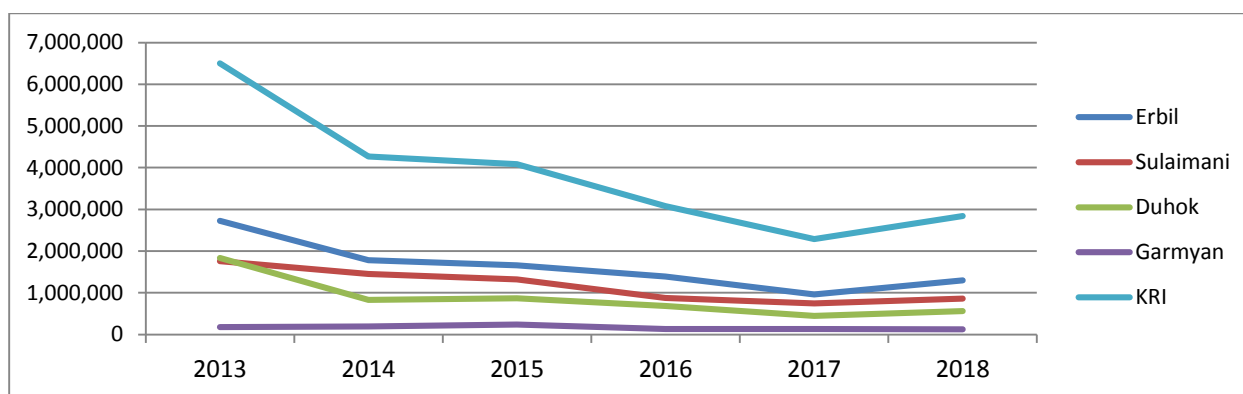
Figure 70: Comparison between allocated land area (m<sup>2</sup>) for building projects in KRI by governorates and Garmiyani administration

Table 42: Constructed land area (m<sup>2</sup>) in KRI by governorates and Garmiyani administration

Year	Erbil	Sulaimani	Duhok	Garmyan	KRI
2013	3,199,536	2,246,907	1,977,052	193,900	7,617,395
2014	2,112,011	1,817,857	1,167,954	187,395	5,285,217
2015	1,460,359	1,622,874	1,176,649	231,588	4,491,470
2016	1,232,446	1,050,427	937,686	193,609	3,414,168
2017	1,053,405	1,277,487	584,285	158,580	3,073,757
2018	1,169,684	784,084	1,342,068	117,305	3,413,141

The total constructed land area in KRI reported at 7,617,395 square meters in 2013 with a decrease by 55.19% it reached 3,413,141 square meters in 2018 (Table 42). At the level governorates, a significant difference can be seen between 2013 and 2018 mostly in Erbil governorate, from 3,199,536 square meters in 2013 to 1,169,684 square meters in 2018.

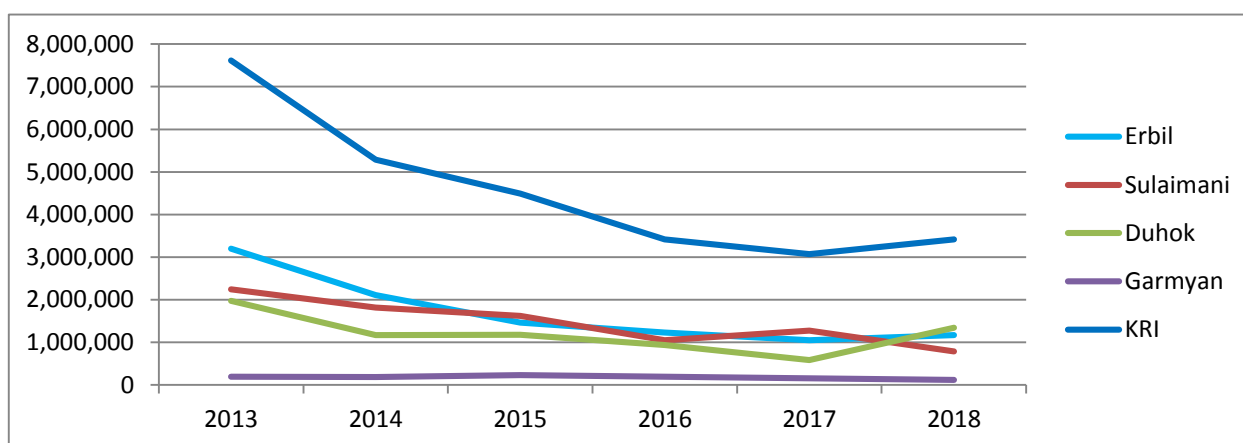
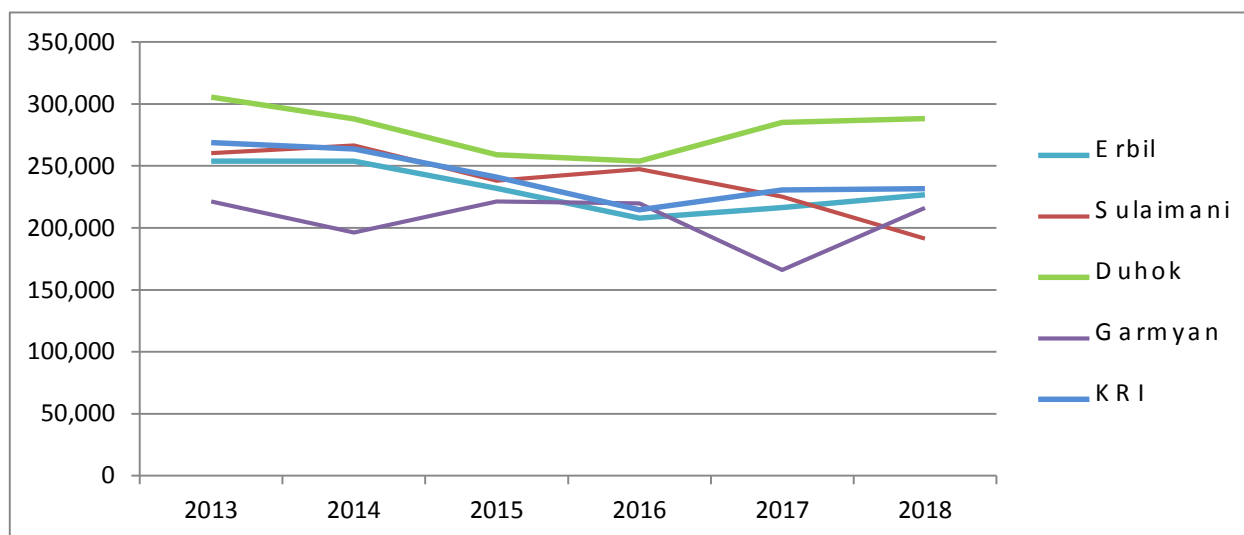
Figure 71: Comparison between constructed land area (m<sup>2</sup>) in KRI by governorates and Garmiyani administration

Table 43: Estimated expenditure (IQD) for construction per square meter in KRI by governorates and Garmiyani administration

Year	Erbil	Sulaimani	Duhok	Garmyan	KRI
2013	253,909	260,241	305,584	221,452	268,843
2014	253,909	266,412	287,959	196,385	263,694
2015	231,941	238,187	258,934	221,452	241,079
2016	207,907	247,519	254,000	219,702	214,504
2017	216,532	225,222	285,113	165,929	230,569
2018	226,804	191,395	288,158	216,161	231,776

At the level of KRI, a steady decrease can be seen in expenditure for constructing per square meter in the successive years 2013-2016 and increase in 2017 (230,569) and 2018 (231,779). The expenditure for constructing one square meter in 2013 was 268,843 IQD and it reached 231,776 IQD in 2018. At the level of governorates, a slight rise and fall can be seen over the years 2013-2018 in governorates excluding Duhok governorate where it shows a steady decrease over 2013 (305,584 IQD) till 2016 (254,000 IQD) and a sudden rise in 2017 (285,113 IQD) reached 288,158 IQD in 2018 (Table 43).

Figure 72: Estimated expenditure (IQD) for construction per square meter in KRI by governorates and Garmiyān administration





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