

MENDEL UNIVERSITY IN BRNO

Faculty of Regional Development and International Studies

**Analysis of the efficiency of utilization of foreign aid:
a case study of the Kurdish Region of Iraq**

DIPLOMA THESIS

THESIS SUPERVISOR:

Ing. Zbyšek Korecki, Ph.D.

AUTHOR OF THESIS:

Bc. Veronika Juráková

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ABSTRACT

The diploma thesis will examine key aspects of foreign aid of selected donors - the European Union, Japan and Sweden for the Kurdish Region of Iraq (KRI). The recent impetus for the provision of foreign aid was the invasion to Iraq in 2003, after which the country was significantly damaged. In the theoretical part will be presented key definitions and characteristics of foreign aid, together with definitions of important statistical procedures, which will be used in this thesis. In the analytical part will be evaluated, if the priority areas for reconstruction of Iraq defined at a conference in Madrid in 2003 were compatible with the development needs of the KRI, and if selected donors focused on the development needs of the KRI. In the analytical part, development of the KRI on the basis of development indicators and other statistical analyses will be computed. Finally, the data will be evaluated and recommendations presented.

KEYWORDS:

Development, foreign aid, the Kurdish Region of Iraq (KRI), Iraq, Sweden, Japan, EU, development indicators, statistical analyses

ABSTRAKT

Diplomová práce bude zkoumat hlavní vývoj a aspekty zahraniční pomoci vybraných dárců - Evropské Unie, Japonska, Švédska vzhledem k Regionu iráckého Kurdistánu. Nedávným impulzem pro poskytnutí zahraniční pomoci byla invaze do Iráku v roce 2003, po které byla země značně poškozena. V teoretické části práce budou představeny klíčové definice a charakteristiky rozvojové pomoci společně s definicemi důležitých statistických postupů, které budou v práci obsaženy. V analytické části bude vyhodnoceno, jestli prioritní oblasti pro obnovu Iráku definované na konferenci v Madridu v roce 2003 byly slučitelné s rozvojovými potřebami Regionu iráckého Kurdistánu, a jestli se vybraní dárci zaměřili na rozvojové potřeby Regionu iráckého Kurdistánu. V analytické části bude rovněž zhodnocen vývoj Regionu iráckého Kurdistánu na základě rozvojových indikátorů a dalších statistických metod. Na závěr budou vyhodnocena data a budou prezentována doporučení.

KLÍČOVÁ SLOVA:

Rozvoj, zahraniční pomoc, Region iráckého Kurdistánu, Irák, Švédsko, Japonsko, EU, rozvojové indikátory, statistické analýzy

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LIST OF ABBREVIATION

AIDS/HIV	Acquired Immune Deficiency Syndrome/Human Immunodeficiency Virus
CI	Composite Indicator
DAC	Development Assistant Committee of OECD
EC	European Commission
EEAS	European External Action Service
EU	European Union
FGM	Female Genital Mutilation
GDP	Gross Domestic Product
GII	Gender Inequality Index
GNI	Gross National Income
GOI	Government of Iraq
HDI	Human Development Index
IDA	International Development Association of WB
IDP	Internally Displaced People
IHDI	Inequality-adjusted Human Development Index
ISIL	Islamic State of Iraq and Levant
JICA	Japan International Cooperation Agency
KRG	Kurdish Regional Government
KRI	Kurdish Region of Iraq
LC	Lorenz Curve
LDC	Least Developed Country
MDGs	Millennium Development Goals
MIC	Middle Income Country
ODA	Official Development Assistance

OECD	Organization for Economic Co-operation and Development
PCA	Principal Component Analysis
SIDA	Swedish International Development cooperation Agency
U.S.	United States
UK	United Kingdom
UN	United Nations
UNDP	United Nations Development Program
WB	World Bank
YDI	Youth Development Index

INTRODUCTION

Foreign aid since the late 40's until today has significantly changed and evolved. Changes in foreign aid related to approaches, focus, goals, scope, real functionality, efficiency and sustainability. Since 1961, the Development Assistance Committee (DAC) of the Organization for Economic Co-operation and Development (OECD) has begun to monitor financial flows to developing countries. Special attention was paid to the Official Development Assistance (ODA). The goal of ODA, as it was presented at its inception, has been the reduction of poverty in the poorest regions of the world and improvement of the lives of local residents. The world today faces poverty alongside with many other problems associated with the expansion of the Acquired Immune Deficiency Syndrome/Human Immunodeficiency Virus (AIDS/HIV), pandemic and other diseases that are worse than before. Poverty and the spread of diseases are the results of many influences, from wars, riots, terrorist activities to the poor functioning of the government, corruption and failure of development activities. This vicious cycle of conflicts, poverty and diseases accretes on themselves like a snowball additional problems such as the increasing number of refugees, Internationally Displaced People (IDP) and etc.

Iraq and the KRI was drawn into the cycle of wars and conflicts since 1979, when Saddam Hussein became president of Iraq and commander of the army. Kurds inhabiting an area in the north of Iraq were from the beginning opposed the regime of Saddam Hussein, for this attitude they were targets for genocide and violence from Iraq. The Kurds have been under substantial pressure during the reign of Saddam Hussein. They were part of a country that was economically exhausted from previous conflicts and had to deal with the economic embargo and the efforts of Iraq and Saddam Hussein to eliminate the Kurdish population. Kurds themselves had to take care of their survival within a hostile Iraqi state.

The aim of the thesis is on basis of the analysis of the fundamental aspects of foreign aid of Japan, Sweden and the European Union (EU) to evaluate the efficiency of the use of ODA for the KRI from 2003 to 2015 and at the same time to evaluate a given hypothesis which says: *Clearly defined areas at conference in Madrid in 2003 for development reconstruction of Iraq were not compatible with the development needs of the KRI.* The thesis will try to focus on answering the question: On what areas of reconstruction of the KRI, the selected donors have focused since 2003? What is the current position in development of the KRI compared to Iraq and neighboring countries and the position of the KRI compared to other governorates in Iraq on the basis of selected development indicators?

Japan, Sweden and the EU were introduced by the Kurdish Regional Government (KRG) and the OECD/DAC as key donors of foreign aid for the KRI and Iraq. In the case of Japan and Sweden has been for each country chosen case study, which should into detail pay attention to precisely defined area of ODA. For Japan, case study was selected which focused on land and water management. For Sweden, case study was selected based upon focus on the women's movement in the KRI.

For evaluating of the current development of the KRI compared to neighboring countries and governorates in Iraq will be used development or composite indicators (CIs), which are important tools for comparing the performance of countries or regions and are increasingly being recognized as a useful tool in policy analysis and public communication. CIs provide easy comparison between countries and can explain complex issues in large areas (OECD 2008: 13).

The Diploma thesis is divided into three parts. The first part is a *Theoretical part*, which is divided into four sub-chapters. The first sub-chapter pays attention to the development and foreign aid. The second sub-chapter focuses on composite indicators together with multivariate statistic, which will be used for comparison of governorates in Iraq: Principal Component Analysis (PCA), Cluster Analysis and Factor Analysis. The third sub-chapter devotes to measuring concentration and GINI index for the KRI and Iraq. Finally, the last sub-chapter will focus of definition of ODA, conditions that are connected with the provision of ODA and for priority areas for reconstruction of Iraq defined at a conference in Madrid in 2003.

The second part is called *Analytical part*. The Analytical part will pay attention to a brief history of the KRI. In the following sub-chapters will be evaluated implementation and effectiveness of ODA of selected donors – the EU, Japan and Sweden. Other sub-chapters will devote to the evaluation of development of the KRI based on PCA, Cluster analysis, Factor analysis and method for measuring concentration. For the case study titled land and water management will be created CI. The last sub-chapter in Analytical part will include interviews with people who are familiar with situation in the KRI because they worked in the KRI or are its inhabitants.

The third part of the thesis is called *Results and Recommendations* and consists of the proposals that could improve the provision of foreign aid to the KRI, to promote sustainable development of ODA projects and improve the lives of residents of the KRI particularly in the case of two selected case studies.

AIM AND METHODOLOGY

The aim of the thesis is on basis of analysis of selected donors (the EU, Japan and Sweden), to provide evaluation of foreign aid to Iraq and the KRI since 2003. The hypothesis says: *The priorities defined at a conference in Madrid in 2003 for the reconstruction of Iraq were not compatible with development priorities of the KRI.* The KRI has developed since 1991 almost independently from Iraq. Then, in the 2005 were created the Federation of Iraq, where the Kurdish Regional Government (KRG) and Government of Iraq (GOI) began to coexist together. The thesis will try to focus on answering the question: On what areas of reconstruction of the KRI, the selected donors have focused since 2003 - 2015? What is the current position in development of the KRI compared to Iraq and neighboring countries and the position of the KRI compared to other governorates in Iraq on the basis of selected development indicators?

The Diploma thesis is divided into three parts: Theoretical part, Analytical part and Results and recommendations. The Theoretical part will focus on the main characteristics and definitions of development and foreign aid, and especially ODA. The Theoretical part will also deal with definition and processes for creating cluster analysis, principal component analysis (PCA), factor analysis and composite indicators. Defined will be also method called measuring concentration and GINI index.

The Analytical part of the thesis will focus on the KRI compared with Iraq and neighboring countries (Kuwait, Saudi Arabia, Jordan, Syria, Turkey and Iran). On the basis of development indicators will be compared three governorates of the KRI with other governorates of Iraq. For comparison of governorates in Iraq and the KRI based on development indicators will be used PCA, factor analysis and cluster analysis. To determine access to drinking water, sewer system and shelter, and environmental protection in the case of a case study titled *ODA contribution to land and water management* will be used method of creating of composite indicators. The intention is to create a composite indicator entitled *Environmental Sustainability Index*. The last method which, will be used, is measuring concentration and GINI index. On the basis of this composite indicator will be compared the governorates in the KRI with the rest of Iraq. For this analytical part will be used secondary sources and data available from the World Bank (WB), the United Nations Development Program (UNDP), the United Nations (UN) and the OECD. Data for the creation of the *Environmental Sustainability Index* was not chosen randomly, but were based on evaluation of the UNDP. The UNDP had assigned these indicators to the area entitled as *Environmental sustainability*. Data for statistical analysis and construction of the composite

indicator for the KRI are only available for the years 2009 - 2011. For the evaluation of ODA to Iraq and the KRI from selected donors (the EU, Japan and Sweden) will be used secondary sources and studies, which are available since 2003 until 2015. For working with secondary data will be used software STATISTICA 12 and Microsoft Excel 2013™. Software STATISTICA 12 will be used for creation of: Correlation, Log-transformation, Normalization/Standardization, Cluster analysis, Principal Component Analysis and Factor Analysis and Microsoft Excel 2013™ for Composite indicator. The results of used statistical methods will be presented in tables, graphs, charts, diagrams and figures. Other used methods in this thesis are description, induction, deduction, comparison, analysis, generalization, dimensional scaling, data interpretation and synthesis.

The second part of the Analytical part is called Investigated area and will focus on evaluation of primary data that was obtained from online interviews with people who have a close relationship to the KRI, have worked in the KRI or are inhabitants of the KRI. The interviews have structured form based on strict questions, to which respondents could freely answer. The interviews were done online due to unavailability of the interviewees. The questions and answers were not recorded, but were written in notes. All notes from interviews are arranged according to questions into clearly structured tables in Appendix 15.

The last chapter titled Results and recommendation will be devoted to the overall evaluation of quantitative and qualitative research and recommendations for improvement of foreign aid for the KRI and for the overall development of the KRI.

1 THEORETICAL PART

1.1 Definition of development and ODA

What is *development*? Development definitions are highly controversial and unstable, as indicated in the study by Andy Sumner and Michael A. Tribe (2008: 10). According to the authors, there are three areas that define development (Figure 1). The first joint and long-term character of development is a process of "change" - structural social change. Development is characterized as a process of historical change and structural social change from a rural and agricultural society to an urban or industrial-based society. The second feature of development is its so-called evaluating character set by international organizations, which is based on short- to medium-term horizon, such as the Millennium Development Goals (MDGs) with its main objective of poverty reduction. An important role here is played by international organizations such as the OECD/DAC, UNDP, WB, UN and development agencies of individual countries. The last is a post-modern/post-development/post-colonial/post-structural approach based on the assumption that development and poverty are social constructions that do not exist in an objective sense. Development is the only mechanism for managing the so called 'Third World'¹. Development strategies since 1950 according to third approach have produced rather the opposite: massive underdevelopment, poverty, oppression and exploitation (Sumner, Tribe 2008: 11-14).

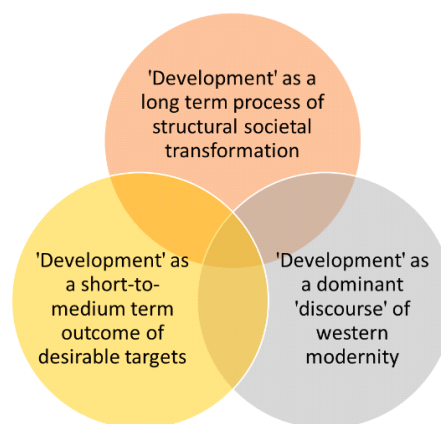


Figure 1: What is Development?
(Source: Sumner, Tribe 2008: 11; Own work)

Foreign aid or ODA can be subdivided on development/foreign aid and humanitarian aid. Development/foreign aid focuses on the social and economic sphere, through the

¹ Still, not everyone agrees with the term Third World. What was formerly called the Third World, it is now classified as developing world with developing countries, which are further divided according to the level of their development.

environment to the functioning of the state administration. While humanitarian aid seeks to respond to emergency crises. It is also possible to distinguish from which sources the foreign aid comes from - governmental/official, non-governmental/unofficial or a combination of both. Foreign aid can be bilateral - donor country provides direct foreign aid to the developing countries or multilateral - resources are provided to developing countries by international organizations (Halaxa 2000: 3).

1.1.1 Aid Effectiveness

The measure of effectiveness of foreign aid, according to George Mavros, is how ODA affects the standard of living of people in the developing countries. In order to determine whether there is a transformation of the lives of poor people, it is necessary to use socio-economic or development indicators and other important indicators. Still, it is uncertain whether foreign aid really helped to improve the lives of people in the developing countries. At present, there are a large number of indicators, which try to identify as closely as possible the development in the developing world, yet they lack assessment of the impact of development assistance. In order to reveal that development aid works to improve the lives of people in the developing world, it would be necessary to examine the outcomes of projects and used financial resources during a certain period of time. Therefore, it is currently emphasized evaluation of implemented development projects (2009: 374).

1.1.2 Reasons of states to provide ODA

There are many reasons for providing development or foreign aid, as reported by many authors: the humanitarian and strategic (Bandyopadhyay, Vermann 2013: 327), historical - bondage with former colonies (Halaxa 2000: 4), cultural and ideological (Schraeder, Hook, Taylor 1998: 305-306) and last but not least, altruistic and self-interested or economic (Kharas 2007: 7). The predecessor of these studies about the motives of foreign aid is the study by Leonard M. Dudley and Claude Montmarquette *A model of the supply of bilateral foreign aid* from American Economic Review from 1976. The authors of this study indicated the three motives for foreign aid: 1) *expectation of gratitude and support the interests of donors*, 2) *promoting the economic interests of the donor* and the last 3) *altruistic motives* (Dudley, Montmarquette 1976: 132-142).

Humanitarian aid is motivated by solidarity, moral reasons, humanity, willingness to help and the efforts to alleviate the sufferings of people in need or poverty. The measure of humanitarian needs is the average life expectancy of the population of the country and the daily caloric intake (Schraeder, Hook, Taylor 1998: 303). From this it is clear that the biggest

beneficiaries are the people of Africa - particularly Sub-Saharan Africa. Humanitarian aid is given to countries affected by natural disasters or armed conflict. The large volume of humanitarian aid - especially from the U.S. – was aimed after 2003 to the Middle East due to the war in Iraq (Baker 2014: 1).

Strategic interests for the provision of foreign aid are a tool mainly used for strengthening security of donors. Strategic interests may coincide geographical or geopolitical. Geopolitical aspects in the previous period played an important role, particularly for the use of military action. States have different locations and different geopolitical importance depending on the current international situation. Geographic location plays an important role in international relations. Foreign aid is provided by many states to countries in their region² (GLRC 2012: iv).

Economic interests. Foreign aid donors have an interest in supporting their economic security and can focus on countries that are economically strong in the region, or that they can offer something such as raw materials. *Cultural or historical reasons* are mostly connected with historical links between developed and developing countries. Those are particularly the colonial ties and their heritage. Colonized state thus gained a new structure of education, the legal system, the internal arrangement of the territory and the national language. It could be said that the greater the impact of the colonizing country on the colonized country, the stronger ties between the two countries are possible to see (Schraeder, Hook, Taylor 1998: 304-305). Or, as Peter J. Schraeder, Steven W. Hook and Bruce Taylor write “*In this regard, colonial heritage serves as a useful indicator of the impact of culture on foreign aid policies* (1998: 305).”

Last reason for foreign aid is an *ideological interest*. It can be seen on the example of United States (U. S.) foreign aid to European countries and other countries in the world during Cold War. The aim of United States’ foreign policy and foreign aid in the case of the war in Vietnam or Korea was containing communism. Donors of foreign aid are more willing to provide support to countries that have similar or identical ideological conviction (Schraeder, Hook, Taylor 1998: 305).

² For example, the Russian Federation uses foreign aid to support states that were part of the former Soviet Union. Other countries following the same trend are Australia, India, Israel, Japan, Kuwait, South Korea, New Zealand and South Africa (GLRC 2012: iv).

1.1.3 Types of ODA

Each state has its own way of providing foreign aid, when utilizes various tools of ODA - whether it is grants or loans. Types of foreign aid vary widely³, but here will be discussed only the most frequently used, such as *Grants, Credits, and Guarantees, Project/Program aid, Technical cooperation, Debt relief* (Kharas 2009: 4). States also differ according to what institution is responsible for implementing foreign assistance and ODA redistributing. Japan and Sweden have a development agency, which is responsible for implementing ODA. In the case of EU is situation different. In the field of development policy, the EU shares competences with its member states. A key role in implementing ODA has the European Commission (EC) together with other agencies, administrative bodies and institutions (Kitt 2010: 1).

Grant, Credits, and Guarantees are three ways in which the donor country can lead foreign aid to beneficiary countries. Grants are transferred in the form of cash, goods or services, which do not require repayment. With credits (or loans) is required after sending repayment. Credits vary depending on the interest rate and the repayment period agreed before the transfer of money. Guarantees provide funding for projects - mostly projects focusing on infrastructure and use private sources of capital (Ostrom et al. 2001: 94-95).

Project aid and Program aid. Project aid involves the direct participation of donors in the planning and implementation of the project. Project aid is focused to a special purpose and to a specific activity of the recipient country for short to medium term. Project aid covers a broad range of activities and supply inputs such as physical or human capital. Bilateral aid projects are set so that the donor countries will provide a framework project, then the receiving country accepts or doesn't accept the project. Program aid is focused on a specific sector, region or political and macroeconomic goals. Program aid uses instruments such as debt relief and budget support. The aim of these activities is to promote economic and government reform. To programs of this type are usually involved not only donors and recipients, but other bilateral and multilateral actors (Ostrom et al. 2001: 102-104). The current trend in the provision of foreign aid is to start from small projects rather than investing in large, long-term projects and risk investment in the mismanagement of the project or great corruption (Tanaka, Yoshikawa 2013: 1).

³ Tied aid, budget support, Sector Programme Support and Sector Wide Approach, Multi-Donor Trust Funds and Capacity building.

The goal of *technical cooperation* is to build capacity of the country to be governed by its own development, implemented policy change and strengthen institutional arrangements. Delivered is not money, but people and education/training or study in various fields for the politicians, bureaucrats, government employees in the beneficiary countries. The measure of technical cooperation is not what it achieves through this form of aid, but how it is delivered and how much money was spent on it (Kharas 2009: 7; Kharas, 2007: 4). Technical cooperation funds are to ensure and pay for services of advisory experts to train staff and help to build the capacity of the beneficiary country. The results of this assistance is difficult to measure.

Debt reduction of developing countries is usually done by depreciations, which are classified in international affairs as assistance. In commercial circles it is depreciation of debt. Debt relief will enable expend resources that were intended to pay off the debt for programs focusing on poverty reduction and other sectors. According to Homi Kharas and further studies debt reduction is not often used (Kharas 2009: 7). This type of aid is not expected to be repaid.

1.1.4 Implementation of ODA

Implementation of ODA has many phases that can be generalized to the case of Iraq and the KRI (Appendix 1). Typical characters of ODA are transaction costs. ODA has low transaction costs due to its volume. ODA also endures for a while before reaches its target destination. What happens in the meantime with the volume of foreign aid is divided into phases. In the first phase, donor country needs to provide financial resources to collect taxes from individuals that are transferred to the donor country's treasury. In the second phase, the financial resources are transferred to the governments of beneficiary countries for specific projects and programs through the official development agency. Administrative costs amount to 4-5% according to the OECD/DAC. The third phase includes costs associated with the transfer from the recipient governments to end users through the implementation of the project. Administrative costs, corruption and other leakages mean that only half of these funds will be spent on the project (Kharas 2009: 20).

1.2 Development indicators

Foreign aid brings us to the question, which countries are rich and which are poor? The countries are divided into groups based on various indicators used by international organizations. The World Bank focuses on the division of countries according to the Gross National Income (GNI⁴) per capita. The problem with that is the wealth indicators such as GNI per capita, which indicate the quantity of resources available to the society, do not give any information about the allocation of these resources - or the distribution of resources across the society and the various population groups. For instance, Middle-income countries (MICs) may differ in the quality of life of its population because of unequal distribution of wealth in the country (Sumner, Tribe 2004: 17).

Demographic characteristics of developing countries have a particularly high rate of population growth, low life expectancy and high proportion of children in the population, on the contrary, industrialized countries are characterized by low population growth rates, high life expectancy and high proportion of older people in the population (Sumner, Tribe 2004: 19). Quality of life is therefore determined on the basis of access to education, health care, employment opportunities, clean air and access to drinking water, low crime, etc. UNDP works with the Human Development Index - HDI (development or composite indicator of income, health and education) (Sumner, Tribe 2004: 17-18; WB 2004: 7).

Two other important indicators for assessing progress in human development are the Inequality-Adjusted HDI - IHDI and Gender Inequality Index - GII. IHDI measures the distribution of development across social groups and geographic areas. The total difference between the HDI and the IHDI is about 23% worldwide. GII takes a look at gender inequality and the empowerment of women in the countries and incorporates three dimensions: reproductive health, empowerment and labor market participation (UNDP 2014a: 29, 31). Another indicator is the Youth Development Index - YDI, Education Index, Employment index and many others use the procedures for creating composite indicators.

1.2.1 Definition of composite indicator (CI)

Composite indicators are still used as a useful tool for creating and transmitting information about the performance of individual countries or regions, such as the situation in the field of

⁴ Gross National Income (GNI) is a measure of outputs of goods and services produced by residents of the country. While Gross Domestic Product (GDP) is frequently used as measure because it includes dividends and interest payments received from other countries. GDP measures outputs within the boundaries of the country, whereas GNI measures the outputs produced by inhabitants of the country regardless of whether they are produced in the country or in other countries (Booth 2014: 3).

environment, economy, society and technological development, into one comprehensive composite. In other words, the aim of creating composite indicators is a combination of several variables into a single composite indicator that provides a more comprehensive look at the subject of interest (Jadczaková 2014a). The composite indicator is very easy to interpret. Regions or selected territories can be organized according to their results of performance. The disadvantages of composite indicators are their poor construction or interpretation (Nardo et al. 2005: 6).

1.2.2 Advantages and disadvantages of using composite indicators

The use of composite indicators have a variety of advantages and disadvantages which are for easy interpretation given in the table below:

Table 1: Advantages and disadvantages of Composite Indicators
(Source: EC 2014a; OECD 2008: 13-14; Nardo et al. 2005: 6; Own work)

Advantages	Disadvantages
<ul style="list-style-type: none"> – Summary of complicated or complex matters – Simple interpretation of results – The possibility to evaluate progress of countries over time – Attracting larges public interest – Reducing the size of the list of indicators – The possibility to compare complex dimension efficiently – Build ranking of countries or regions according to their individual performance 	<ul style="list-style-type: none"> – Misleading or wrong interpretation of results – Over-simplification – impact on the political decision-making process – Abusing for supporting political decision – The selection of indicators may be case of disputes – The construction of composite indicators must follow the exact stage of implementation: the selection of indicators and assessment of missing values – CIs can cover serious weaknesses in some areas

1.2.3 The design of composite indicators

The composite indicator is a mathematical combination of indicators that represent different dimensions of the concept. The construction of composite indicators has several stages that use subjective decisions: choosing the indicators, addressing missing values, aggregation model, and the weighting of individual indicators or normalization methods. These options can affect the overall result. It is therefore necessary to eliminate subjective resources, inaccurate assessments and others. The composite indicators should never be seen as the result itself, but should serve as an impetus for further discussion of the issue (Nardo et al. 2005: 7).

1.2.3.1 Theoretical framework

The most important step in working with CI is to have created a particular theoretical framework. CI should be considered in the overall context, in particular because the CI is still a mathematical model. The models are inspired by systems that a person wants to understand, explained and work with them. Formalization of the system creates an image called theoretical framework, which is valid only in clearly defined information space. When building a model to describe the real world or certain subjects, it is necessary to form coherence. The model should also correspond to the objectives and intentions of the user. Selecting sub-variables or sub-indicators, the division into classes, methods, standards, choice of weighting, normalization or standardization, forms of aggregation resulted from the point of view of researcher on the issue. Most of the problems described in the indicator reflect the complicated issues such as quality of education, economic activity and sustainability. This complexity is reflected in the multi-dimensionality of the problem (Nardo et al. 2005: 7-8).

The construction of CI should be defined first by two areas (Nardo et al. 2005: 8):

1. *Definition of the concept:* This definition should give the reader a clear idea of what is measured in the summary indicator. It should refer to the theoretical framework of the issue, defined subgroups and selected variables.
2. *Identification of criteria:* Selection criteria for the inclusion of individual variables should serve to whether the indicator should be included in CI or not.

1.2.3.2 Multivariate statistic

Multivariate statistics is a powerful tool that is used before the creation of CI. Multivariate statistic is exploratory in nature and is intended to assess the suitability of the dataset for the creation of CI (Nardo et al. 2005: 9-10; OECD 2008: 26).

The main multivariate statistical methods:

1. *Principal Component Analysis (PCA)*
2. *Factor Analysis*
3. *Cluster Analysis*

Principal Component Analysis. In the case when dealing with many variables, it is therefore necessary to reduce the number of variables, with a minimal loss of information. The aim of the PCA is to reduce the large number of variables into a smaller set of components (Jadczková 2014b). The aim of the PCA analysis is to reveal how different

variables will change their relationship to each other and how they are connected. This is achieved by correlated variables transformed into a new set of uncorrelated variables using covariance or correlation matrix. New variables are linear combinations of the original variables and are ranked in descending order by means of variance (Nardo et al. 2005: 17).

The initial set of variables is called p variables (manifested variables) and a new set is called the latent variables. (Jadczaková 2014b). Pairwise correlation coefficient range between $(-1; +1)^3$ (Minařík, Borůvková, Vystrčil 2013: 99-104). In the Figure 2 are cells marked in grey with positive correlations and cells in black with negative correlations. First latent variable Z1 includes manifested variables X1 and X3, second latent variable Z2 includes X2, X4 and X6 and third latent variable includes X5 and X8. Manifested variable X7 is specific because it does not correlate with any variables (Jadczaková 2014b).

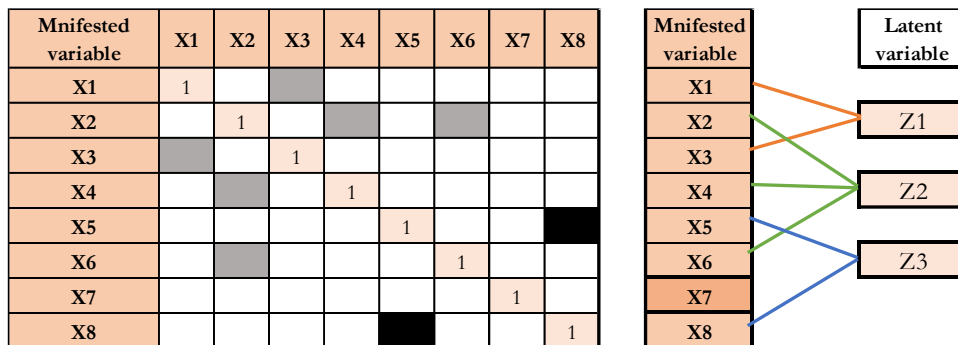


Figure 2: Correlation matrix and correlation structure of eight manifested variables
(Source: Minařík, Borůvková, Vystrčil 2013: 99; Own work)

The value of the original indicators are in different units and have different correlation dependences. That's why it is necessary normalization of indicators. New dimensionless normalized values are the same variability. The next step is creating of the vectors of correlation matrix. This is done by a computer algorithm in software STATISTICA 12. The result is a group of latent variables, which include manifested variables (Minařík, Borůvková, Vystrčil 2013: 99-104).

Factor analysis is another multivariate technique. As PCA, Factor analysis uses same techniques such as correlation matrix, latent variables, variance and correlation structure. Yet, the factor analysis is more sophisticated than PCA because it provides information about the different variables and examines the degree of correlation between variables (Jadczaková 2014b). Latent variables in the factor analysis are called common factors. And their goal is logical interpretations of results. For this purposes is performed rotation of factors into a simple structure. Rotation in the case of independent factors is orthogonal using *varimax*

method in software STATISTICA 12. The values in the so-called simple structure assume values between 0 and 1 (Minařík, Borůvková, Vystrčil 2013: 105-106).

Cluster analysis or multi-dimensional clustering is a method that aims to classify a sample of subjects on the basis of the presented variables into different groups by the same subjects in one group. Cluster analysis has no mechanism for distinguishing relevant and irrelevant variables. Therefore, the results of cluster analysis depends on which variables are included in the study. (Cornish 2007: 1). This analysis can give a lot of results: (a) it is a purely statistical method of aggregation of indicators, (b) diagnostic tool before the construction of CI, (c) the method of disseminating information about CI and other (Nardo et al. 2005: 9-10; OECD 2008: 26).

For measuring similarity between objects is used measures such as distance measures (cardinal data) and association measures (nominal and ordinal data). In the thesis will be used distance measures. The results of this method are off-diagonal elements of a symmetrical dissimilarity matrix. Types of distance measures are: *Euclidean distance*, *Squared Euclidean distance* and *City block*. Squared Euclidean Distance, which will be used in this thesis, uses same formula like Euclidean distance without square root (Jadczaková 2014d).

$$d(x, y) = \sqrt{(x_1 - x_2) + (y_1 - y_2)}$$

For measuring of similarity between clusters are used many methods. For this thesis will be used *Ward's method*. Ward's method works only with Squared Euclidean distance. “*Here those clusters are minimize the within-cluster variability and simultaneously maximize the between-cluster variability. This method is considered to be very effective producing equally sized clusters* (Jadczaková 2014d)”. All these calculations can be performed in software STATISTICA 12. STATISTICA 12 offers many options for creating clusters such as Dendrograms (Tree Diagram), Amalgamation schedule, Plot of linkage distance across steps and Profile diagram for cluster interpretation.

Risks of cluster analysis (Minařík, Borůvková, Vystrčil 2013: 113-114):

- Results of clustering is uncertain
- The number of clusters is the result of subjective consideration of the researcher
- The result of clustering requires interpretation.
- Before clustering is necessary to standardize all variables
- Great importance should be put on the selection of variables. Cross-correlations between pairs of variables affect clustering.

1.2.3.3 The selection of variables

Strengths and weaknesses of CI are mainly based on the quality of selected variables. Variables should be selected on their importance, relevance, analytical soundness, availability etc. Although the selection of variables should be in accordance with the theoretical framework, the selection of these variables can be quite subjective, because there is no defined set of indicators for selection. Due to the lack of so-called quantitative data, CI often includes qualitative data. For example, data on the number of people who use a PC may not be available, that's why there is used data on employees who have access to a PC. In the case of the qualitative data, it is important to choose carefully the data (OECD 2008: 23).

Many variables or sub-indicators should respect the criteria of *min*, *max*, and *opt*. If these criteria are met, it is necessary to find in which of sub-indicators is desirable to have a high value, and in which sub-indicators should have a low value. An example of a sub-indicator of *max* type is employment, transport services, educational level, GDP, etc. In the case of sub-indicator of *min* type is crime, infant mortality, the level of corruption and so on. Sub-indicator of *opt* type is the limiting case, which refers to variables such as fertility or median age. Criteria such *opt* type do not form any category, and must be transformed into either a type min or max creating so called absolute difference between the real value in a given region or country (Jadczaková 2014a).

1.2.3.4 Missing data

Missing data is a part of almost all CIs and may be missed accidentally or intentionally be excluded. Missing data may also significantly affect the entire CI (Nardo et al. 2005: 10). OECD divides missing data into groups (2008: 24):

1. *Missing completely at random (MCAR)* - Missing values do not depend on the variable of interest or on any other observed variable in the data set.
2. *Missing at random (MAR)* - Missing values do not depend on the variable of interest, but are conditional on other variables in the data set.
3. *Not missing at random (NMAR)* - Missing values depend on the values themselves.

There are three methods for dealing with missing data situations: (a) *case deletion*, (b) *single imputation* or (iii) *multiple imputation*. The first case simply omits the missing records from the analysis. This approach, however, ignores the differences that may occur. Another two cases consider missing data in the analysis and try to implement it by using single imputation (mean/median/mode substitution, etc.) (OECD 2008: 24 -25).

1.2.3.5 Data normalization

Individual sub-indicators in a dataset among themselves are often incompatible, as have other units. The aim of normalization is to avoid the so-called "Adding up apples and pears". There are many methods for normalization of dataset such as ranking, standardization, re-scaling and others. Select the appropriate type of data normalization is not always easy and deserve care and attention. Normalization method should take into account the characteristics of the data. It should be assessed whether there are any qualitative or quantitative data (Nardo et al. 2005: 11).

In this thesis there will be three methods of normalization, which specifies the OECD (2008: 27-28):

1. *Ranking* - it is the simplest normalization technique. This method is not affected by outliers and allows assessment of the performance of individual countries over time.

$$I_{qc}^t = \text{Rank}(x_{qc}^t)$$

2. *Standardization (or z-scores)* - converts indicators to a common scale with a mean of 0 and a standard deviation of 1. Indicators with extreme values thus have a greater effect on CI.

$$I_{qc}^t = \frac{x_{qc}^t - x_{qc=}^t}{\sigma_{qc=c}^t}$$

3. *Re-scaling or MIN-MAX method* - This method normalizes indicators that have identical intervals $\langle 0; 100 \rangle$ by subtracting the minimum value and dividing by range of indicator values. The disadvantage of this model is that extreme values or outliers could disrupt transformed indicator. On the other hand MIN-MAX method can extend the range of the indicators lying in a small interval, thereby increasing the effect of the composite indicator more than Z-score transformation.

The following formula is used for indicators of the *MAX* type (Jadczková 2014a):

$$B_j = \frac{X_j - \min\{X_j\}}{\max\{X_j\} - \min\{X_j\}} * 100$$

The following formula is used for indicators of the *MIN* type (Jadczková 2014a):

$$B_j = \frac{\max\{X_j\} - X_j}{\max\{X_j\} - \min\{X_j\}} * 100$$

1.2.3.6 Weighting and Aggregation

"When used in a benchmarking framework, weights can have a significant effect on the overall composite indicator and the country rankings" (OECD 2008: 31). Most CIs rely on equal weighting. To variables are given the same weights. This method, however, can conceal the existence of empirical or statistical basis. In the case where equal weighting is applied it does not imply that there is no weight of the individual variables, but it means that the weights are equal (OECD 2008: 31).

Other methods of weighting are:

1. *Rating scales* – works mostly with odd number of subjects that can be converted into subjective criteria (for example, the importance of the indicator can be assessed 1 to 5, where 1 means below average and 5 means above average) (Jadczyková 2014a).
2. *Matrix of pairwise comparison* - is a symmetric matrix of $p \times p$ matrix, in which weights are row standardized. The process of pairwise comparison refers to comparing indicators in pairs. The most important indicator is assigned a "1" in the row of indicator and a "0" in the column of indicator. If the row of the indicator is less important than column of the indicator, then assigning a "0" in the row of indicator and a "1" in the column. If we consider that both indicators are same value, we assign to the row and column "0,5". Weights are computed by dividing row sums either by $\frac{p(p-1)}{2}$ producing weights which sum up to 1 or by $\frac{(p-1)}{2}$ producing weights which sum up to p (Jadczyková 2014a).
3. *Preference matrix* - is an alternative to the matrix of pairwise comparison. Here, weights are assigned to show how many times the indicator in the row is important than the indicator in the column. If the indicator is at least three times more important than indicator in the column it is assigned value of "3" on the row of indicator and into the column it is assigned "1/3" (Jadczyková 2014a).

The aim of aggregation is to form sub-indicators into CI (Jadczyková 2014a). There are many of aggregation methods for instance *linear aggregation* summarizing data, *geometric aggregation*, which multiplies the data or *multi-criteria analysis* called cumulated using nonlinear techniques (Nardo et al. 2005: 12). For this work will be used two aggregation procedures (Jadczyková 2014a):

- *Weighting sum approach* - used for data with no missing values
- *Weighting average approach* - used when certain values are missing.

1.2.3.7 Uncertainty analysis and sensitivity analysis

The most common are doubts about the robustness of the results of CI. Uncertainty analysis and sensitivity analysis are techniques to that are given attention directly in the process of formation of CI, including a contribution to the quality of definition of indicators assessing the ranking of individual countries. The design of CI includes moments when decisions are different. These methods include selections of data, data quality, data editing, data normalization, weighting or aggregation. All of these sources of subjective judgment will affect the overall state of the CI. A combination of uncertainty and sensitivity analysis can measure the thoroughness when creating CI and creating more transparent uncertainty analysis, while focusing on how to spread uncertainty in input factors on the structure of CI (Nardo et al. 2005: 12-13)

1.2.3.8 Presentation of results

CI's provide a starting point for further analysis and discussion. CI must be able to easily and quickly provide the necessary information for decision making. CI results can be presented in various forms, such as tables, bar or line charts, and more sophisticated models such as the four-quadrant model (for sustainability). Visualization of results CI it is also very important and provides a quick understanding of the situation and ease data orientation (Nardo et al. 2005: 13-14).

1.2.3.9 Quality of the composite indicators

The concept of quality of individual indicators is not the only important prerequisite for the design of CI. An important aspect is the quality of the methodological process used in the development of the indicator (Nardo et al. 2005: 14).

1.3 Measuring concentration

Lorenz curve is a tool for measuring concentration or in other words for presenting inequality/equality in the distribution of wealth, income or property (in %) between individuals, groups in society or households (in %). For example Lorenz curve refers to the cumulative share of revenues to the cumulative proportion of individuals in society. Lorenz curve is obtained as follows. The X-axis records the cumulative proportion of the population ranked according to their level of income. Its range is (0,1). Y-axis records the cumulative proportion of income for the population. The income ratio is calculated by the cumulated incomes of the share of the population and is divided by the total income (Bellù, Liberati 2005: 2). For this thesis will be used the population in different district of the KRI and the population in each governorate in Iraq.

The goal of the calculation of LC is to determine area between the ideal LC that forms with the X-axis and Y-axis, the angle of 45%. Distribution of LC is given by coordinates of cumulative relative frequency (Y-axis) against cumulative relative totals (X-axis). The smaller area is between the ideal LC and newly created empirical LC, the more equal is spreading of the data. In the case of perfect equivalence, all data in the dataset are same. The values on both sides are within the range from 0 to 100 (or 0,1). For absolute equality is regarded when empirical LC overlaps ideal LC, but such an event does not occur. An important aspect for the preparation of LC is median and medial. Median is the value that divides series of descending sorted results into two equal halves. Medial divides the total amount of dataset into two equal parts (for example, households that own half the wealth of society). The greater the difference between the median and medial, the greater the unequal distribution of population, property, wealth, income, etc. (Jadczaková 2014c).

1.3.1.1 GINI index

The GINI index (coefficient) - is a dimensionless measure of the concentration, whose values fall within the interval (0,1). The value $G = 0$, that is the absolute equality, and the value $G = 1$ means that there is an unequal distribution (Jadczaková 2014c).

1.4 The areas of ODA

ODA is defined by five criteria, which are based on the OECD definition of ODA (Schirl, Sieler 2012: 1):

1. *Origin*: funds or financial resources must be provided by official agencies (ministries or development agencies).
2. *Beneficiaries*: Developing countries are recorded on a list of DAC aid recipients.
3. *Purpose*: The payments should be directed to promote economic development and prosperity.
4. *Concessional*: Loans should have concessional character. The interest rate must be lower than the interest rate on the open market with loans.
5. *The grant element*: Each loan must contain a grant element of at least 25%.

ODA has its own rules and restrictions, and covers expenses in specially designated areas. ODA does not include military aid and anti-terrorist activities. Except as the use of nuclear energy, which should be used for civilian purposes, or the use of military forces in peacekeeping operations (peacekeeping operations, monitoring elections or mine clearance) (GLRC 2012: 7; OECD 2015a).

ODA aims on many areas. Key areas are identified as targets of foreign aid and are presented on the basis of many declarations or international meetings. Very frequently mentioned and preferred areas are: *elimination of poverty, health, education, food security, good governance, economic growth, professional training, development of energy sources, agriculture, rights of children* etc. The Nordic countries focus primarily on *gender equality*. The EU aims, apart from the mentioned targets, to *support civil society, human rights and democracy, the rule of law, access to justice, indigenous rights, environmental protection, the fight against AIDS/HIV* (GLRC 2012: iv, 10, 19). One of the most famous documents is the Millennium Declaration, which identifies key areas for development assistance presented in Millennium Development Goals (MDGs) and the related Sustainable Development Goals.

Millennium Declaration from 2000 and related MDGs are not the only plan that has been created in order to reduce or eliminate poverty, yet the MDGs differ considerably from the previous plans. They differ notably by their comprehensive nature and systematic effort on the financing, implementation and monitoring. (Hulme 2009: 7). MDGs have precisely defined quantitative and time-given goals that guideline the bilateral and multilateral donors

and key debates among states in groups such as the G-8 or the OECD/DAC (Fukuda-Parr 2007: 9).

Sakiko Fukuda-Parr points out that the main tool for poverty reduction is economic growth, while an obstacle for poverty reduction and achieving the MDGs is violent conflict. Therefore, it is necessary to avoid conflicts in order to achieve development goals. The poorest countries and weak or failed states are in the most difficult position and they are more likely not to reach the development goals because of limited ability to protect themselves against rebellion and bring peace or to meet minimum safety requirements (Fukuda-Parr 2007: i, 1-5).

Foreign aid to Iraq and the KRI has tried since 2003 to fulfill the MDGs. In addition, a list was created for Iraq with priority areas to which the ODA should come for gradual reconstruction of Iraq. There were 14 areas that focused on the most important aspects of the reconstruction of Iraq and were presented at a conference in Madrid in 2003 (Table 2) (MFA 2005: 6).

Table 2: Priority areas for reconstruction of Iraq defined in Madrid 10/2003
(Source: MFA 2005: 6; Own work)

Priority areas for reconstruction of Iraq	
1.	Education and training
2.	Health
3.	Employment
4.	Water and sanitation, transport and telecommunications
5.	Electricity
6.	Housing and land issues
7.	City planning
8.	Agriculture
9.	Water resources and food security
10.	Financial infrastructure
11.	State-owned enterprises
12.	The investment climate
13.	Mine Clearance
14.	Government functions

2 ANALYTICAL PART

The Kurds are an ethnic group inhabiting areas of the Middle East. Currently, this ethnic group is divided between the states Iran, Iraq, Syria, Turkey, and to a lesser extent Armenia. The number of Kurds in the Middle East is about 40 million⁵ (Stansfield 2003: xi). The only minority being the Kurds, which won autonomy, are the Kurds in northern Iraq. Besides the numerous Kurdish majorities in the KRI are other ethnic, linguistic and religious groups⁶ (Soderberg, Phillips 2015: 11). To obtaining greater autonomy of the KRI also contributed the fact that Saddam Hussein could not reach any agreement in the 90's with representatives of the Kurds for cooperation and therefore he decided to withdraw all military forces from the area. The Kurds from then on had to start to control and manage their own region (Chorev 2007: 4).

The situation after September 11, 2001 and the launching of the war against terrorism turned the attention of the U. S. and other countries to Iraq and the KRI. The KRI became a U. S. ally against Saddam's regime during the Anglo-American intervention in Iraq in 2003. After the intervention, a new economic and political links between the KRI and Baghdad was created (Natali 2003: 1,113).

Before the wars and invasion in 2003, Iraq was the most advanced Arab country in the Middle East with modern infrastructure and showed positive values in social indicators. Each stage of the war, however, brought significant destruction of infrastructure, facilities for drinking water, sewer systems and waste facility or destruction of electrical networks. Quality of life in the country and the availability of medical services had been deteriorated and infant mortality increased. Bombings and raids have caused significant civilian losses of lives and injury to many people. Sanctions have also caused so called *brain drain* of educated people abroad. Basic services were at a low level or dropped entirely. Access to drinking water was totally inadequate (Lutz 2013: 3; Crocker 2004: 74). The agriculture was also damaged and

⁵ It is a very large nation, which has been denied the creation of an independent state. The Kurds throughout history fought for greater autonomy without success. The Kurdish population in Iran, Iraq, Syria and Turkey are in an area of geopolitical interests, which is surrounded by potential hostile states (Stansfield 2003: xi). Iraqi Kurds have large communities in the UK, The Netherlands, USA and Sweden. Germany is home to the largest Kurdish community, which has around 1.5 million people (Soderberg, Phillips 2015: 1).

⁶ Arabs - the main inhabitants of Iraq, Turkmen and Armenians are nationally and linguistically distinct from the Kurds. Yazidis, Shabak and Faylis from Kurds differ religiously. Religiously and linguistically distinct from Kurds Assyrians, Chaldeans and Syrians, who are mostly Christians and speak Aramaic. These minorities in KRI have more rights than minorities in the rest of Iraq, but also in Kurdistan is an effort so-called *kurdification* of minorities through language or teaching only about Kurdish culture and heritage (Soderberg, Phillips 2015: 11).

trade on the international market. All this because of war, international sanctions and state regulation (MFA 2005: 3-4).

After the invasion in 2003, the KRI had been formally recognized as autonomous within a federated Iraq after the fall of Saddam's regime on the basis of the constitution adopted in 2005 (Chorev 2007: 8). The KRI is currently composed of three provinces - officially known as the governorates - Erbil/Irbil, Sulaymaniyah and Duhok. Problematic aspects are still demarcation of borders of Kurdistan, along with disputes over claimed territory⁷ (Bhalla 2014; Yoshioka 2015: 23). The main institutions of the KRI are the KRG, Kurdish regional president and the Kurdish parliament. According to the Iraqi constitution federal institutions of the KRI exercise legislative and executive initiatives in many areas, including the administration of the regional budget, security assured by its own army called *Peshmerga or Pesmerga forces* and oversee the police, education, health policy, management of natural resources and infrastructure development (KRG 2015a).

The Directorate-General for coordination and cooperation within the KRG wrote in its report from 2009 that the renewal of the KRI is far-reaching effort since the end of World War II. Recovery required the most areas of physical infrastructure (transport/infrastructure), reconstruction of water supply, renovation and reconstruction of health facilities, democratic upbringing, education of youth, civil society development, human rights and refugee aid (Ministry of Planning/KRG 2009: 3).

The KRI has developed its economy and democratic institutions since 1991 on revenues from the oil sector. Revenues from the oil sector have been used to expand Kurdish infrastructure, construction projects and construction of universities. The relations between the KRG and Government of Iraq (GOI) are complicated since February 2014, when allocations to the KRG budget has been suspended because of disputes over Kurdish oil that the Kurds exploited and sold themselves. Other complications that worsen the status and development of the KRI at present are the budget crisis, the decline in energy prices and a decline in investor confidence due to terrorist activities of ISIL. Economic situation has worsened due to military and humanitarian costs associated with the influx of refugees and IDP. The KRI has no money, and Iraq is on the verge of bankruptcy (Soderberg, Phillips 2015: ix - 2, 8-9). According to the latest study for the year 2014 is Iraq assessed as a *fragile state* (FFP 2014).

⁷ Claimed areas are Diyala, Ninawa, Kirkuk and Salahaddin - due to their strategic importance. (Bhalla 2014; Yoshioka 2015: 23).

2.1 ODA settings for the KRI (Iraq)

Countries, institutions and other entities that have provided foreign aid to Iraq and the KRI since 2003, have been many. The KRG in the study entitled *Report on Donor Contribution to the Kurdistan Region* from 2009 states as the largest donors the U. S., the United Nations Development Group, Japan, the United Kingdom (UK), Italy, South Korea, Canada, Spain, Sweden, Norway, the EU, Denmark, the Netherlands, Belgium, Germany, Turkey, Jordan, France and Democratic Governance Thematic Trust Fund (Ministry of Planning/KRG 2009: 10). Outside the OECD/DAC is only Jordan. Some sources also mentioned Iran as the largest donor of foreign aid in the form of loans - also not a member of the DAC. From this outline it is clear that major donors of development assistance to Iraq and the KRI are DAC members. According to sources that are stated by OECD/DAC on their webpages, ten largest donors of Gross ODA for Iraq for the year 2012 - 2013 was Japan, U. S., the EU institutions, (International Development Association of the World Bank) IDA WB, Sweden, Germany, Turkey, Australia France and the UK (OECD 2014a). Of these, all except Turkey and the IDA are part of DAC.

At a conference in Madrid, October 23-24, 2003 countries and international organizations pledged to Iraq's rehabilitation and reconstruction financial assistance amounting about US\$ 16,4 billion, which should have been provided since 2003. Madrid also had defined priority areas for reconstruction of Iraq (see in Theoretical part, Table 2). Yet the largest volume of funds were provided in the form of loans - mainly from Japan (US\$ 3,4 billion), WB (US\$ 3 billion), the International Monetary Fund (US\$ 2,55 billion) and Iran (US\$ 1 billion), which together account for about 66% of the aid (Christoff 2007: 2-3). Appendix 6 provides more detailed information on donors and amount of assistance provided.

The aim of this analysis is to determine whether the priority areas of foreign aid defined in Madrid in 2003, for reconstruction of Iraq, were in accordance with development needs of the KRI. At the same time will be evaluated development of the KRI compared to Iraq according to developing indicators and in defined areas using different statistical methods. Not all countries and organizations could be fully evaluated in this work. The countries selected consist of the countries rated by the KRG and the OECD/DAC as the largest foreign aid donors to the KRI and Iraq: Japan, Sweden and the EU. Foreign aid to the KRI will be evaluated from 2003 to 2015. Due to the fact that not all organizations have provided sufficient amount of materials to the KRI, some parts of foreign aid will be analyzed in relation to Iraq.

2.2 Foreign aid of the European Union

2.2.1 The EU Aid Architecture

The EU shares competences in ODA between 28 Member States, the EC and the European Investment Bank. In this respect, the most important role has the EC. The EC, as a major player in providing ODA has also created a set of principles for the EU member states to ensure complementarity in their development policies with the priorities of the EU (Kharas 2009: 4, 11). These principles stand in international negotiations and declarations, from which is the most important the Millennium Declaration. The EU then, based on these discussions on the international scene, will prepare a framework for its member states that they use for their implementation of foreign aid. Foreign aid in the EU today is distributed on the basis of programs and strategies prepared by the European External Action Service (EEAS) and the Directorate-General of the European Commission - EuropeAid. (GLRC 2012: 19).

The EU foreign aid from the beginning was formed due to donor interests in the context of special relations with former colonies. The EU foreign aid is much more morally motivated than, for example, the U. S. and Japanese support. European aid for former colonies is still decreasing and focusing more on the poorest regions of the world (Kamminga 2007; Schraeder, Hook, Taylor 1998: 299-301). The EU implemented foreign aid on the basis of geographical and thematic programs (GLRC 2012: 19-20).

The EU, together with member states is a major player in the DAC/OECD and also contributes to meeting the MDGs. Effort for the fulfillment of the MDGs can be seen in many policy statements issued by the EU. The EU aims to achieve within the foreign aid target of 0.7% of GNI by 2015 (EU 2013: 46 -47). At the moment, the EU's foreign aid is about 0.45% of GNI. Foreign aid would be directed on the Council Conclusions of June 2010 and October 2013 mainly to Africa and the Least Developed Countries (LDCs) (EC 2014b: 64).

2.2.2 Relations between EU and the KRI (Iraq)

The EU has sought during various periods for gradual deepening of relations with Iraq. Cooperation between the EU and Iraq was impossible under Saddam Hussein's regime. Development of relationships occurred mainly after the fall of the regime. However, it should be noted that some of the EU member states have cooperated with Iraq and the KRI

many years earlier or were historically linked together⁸. In certain cases, the EU has built on the experience and ties of its member states and developed further with them. The first forms of cooperation between the EU and Iraq have were humanitarian aid that seamlessly passed to establish a political dialogue and initiatives in the form of development cooperation. Economic and social status of Iraq after the war and international sanctions, which have lasted since the 1980s severely damaged the country (Crocker 2004: 73).

The EU was in the question of the invasion of Iraq in 2003, torn between the countries which were on the side of the U. S. and the countries that opposed the invasion. Chris Patten, the EU External Relations Commissioner warned that the EU could refuse to apply humanitarian assistance and postwar reconstruction of Iraq after the war that has not been authorized by the UN. Nevertheless, The European Council of Ministers met on March 20, 2003 and declared that the EU will actively cooperate on Humanitarian Assistance in Iraq (ICG 2003: 10). Since 2003 the EU has passed both humanitarian and development aid under coordination of the EC for reconstruction process which continues to the present days (EC 2010: 7).

The EU was together with the U. S. and Japan one of the largest donors of humanitarian aid in Iraq. Humanitarian aid from the EC since 2003 has aimed at providing health care, water trucking and rehabilitation of water and sanitation systems across the country. Humanitarian aid was also provided to Iraqi refugees and IDP who fled because of the war in Syria, Jordan, Lebanon or Turkey⁹ (EEAS 2015a) (Chart 1).

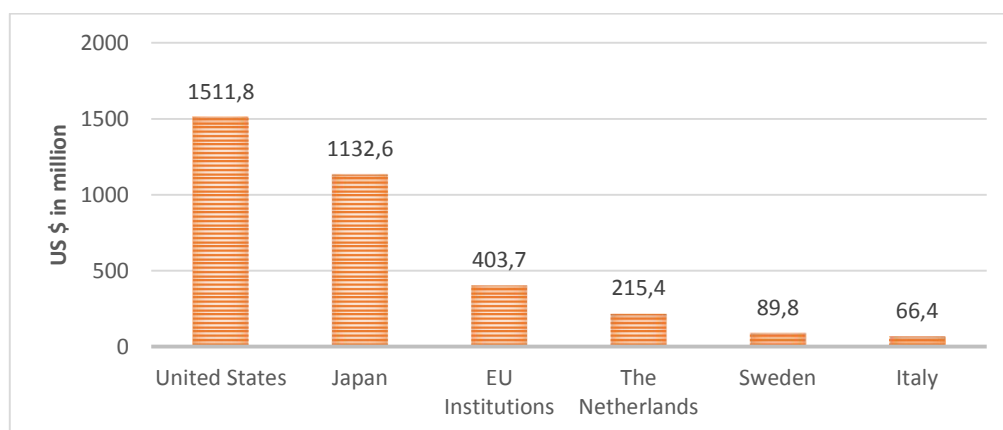


Chart 1: Comparison humanitarian assistance 2003-2012
(Source: GHA 2015, Own work)

⁸ For example, in 1920 the GB founded two separate provinces of Mosul and Basra, which were part of the British Empire (Hopwood 2003). In 1970, Iraq became one of the largest French trade partners (BBC News 1998) and cooperation in economic and technical fields between Iraq and Czechoslovakia since 1972.

⁹ An often criticized problem is the case of negotiations of the EU and its slow reaction to the changing situation in the affected areas. This can be seen in the situation of refugees from Iraq who have sought asylum in EU countries (ICMC, 2010: 3, 36).

After January 2014 the new need for humanitarian aid from the EU for 5,2 million refugees and 2,1 million IDP has continued to grow (EC 2015: 1). The population of the KRI since that time has increased by 28%, which creating social tensions in the KRI. Out of the 28% of refugees and IDP is about 60% in Duhok. Financial resources to stabilize social conditions and infrastructure are huge for the economy of the KRI (WB 2015: 1-2). This increase in population has caused an overload of the KRI, because these people need protection, shelter, access to drinking water, sanitation as well as health care. Health centers, however, were severely damaged by air raids and bombing. The total number of IDP in Iraq, according to the Office for the Coordination of Humanitarian Affairs, reached around 8,2 million. (Soderberg, Phillips 2015: ix, 5). The EC has begun to provide financial and humanitarian aid to people in affected areas - particularly in northern and central Iraq (Ninawa, Salah al-Din, Diyala, Kirkuk, Al Anbar and Baghdad). The EU has also opened an office in Erbil, which has monitored the local situation and assisted with the coordination of humanitarian aid. Most people, however, are trapped in the affected areas without the possibility to get to safer areas with humanitarian aid (e.g. in the KRI, central governorates - Kirkuk, Sulaymaniyah, Erbil or Diyala) (EC 2015: 1-3).

2.2.3 Description of ODA to the KRI (Iraq)

The EU since 2003 has focused on a number of key areas, which are financed wholly or partly from EU funds. The most important projects in the KRI include - projects in the availability of water resources, health, agriculture and food sectors, economic reform, diversification of industry programs for private sector development, strategy development and improvement of tourism infrastructure and housing (Ministry of Planning/KRG 2012d). Areas of cooperation in which the EU has a comparative advantage are education, political and electoral process; support to refugees and IDP; rule of law; human rights (the rights of women and children); and capacity building of Iraqi and the KRG. The EU focuses on fulfilling the MDGs: for instance, the area of education (Goal 2), gender equality and empowerment of women (Goal 3) or Environmental sustainability (Goal 7) - ensuring access of the population to drinking water and sanitation.

The EU foreign aid to Iraq has been prepared for the period 2011 - 2013 in cooperation with Italy and Sweden. In the document, the *EU Joint Strategy Paper for Iraq 2011 - 2013* is written that cooperation will be based on the best practices, using the comparative advantages of the EU to support Iraq in pursuit of "*achieving political and socio-economic progress inline with the Millennium Development Goals*" (EC 2010: 1).

The EEAS stated on its websites that the EC for the period 2003 - 2013 has supported development projects in Iraq by financial resources around US\$ 1 billion (EEAS 2015a). These sources according to the report aimed at restoring basic services and supporting political processes - elections, new jobs, Iraqi capacity building and support for the rule of law. The EC is also the largest donor of aid under the Thematic Trust Fund of UNDP, where the EC provided financial assistance amounting to US\$ 3,4 million. Finance headed to areas of governance, which should *"support the establishment of national and local Institutions ... Contribute to basic civilian administration functions, ... support media and communication, the return to the Rule of Law and Promotion of Human Rights ..."* (ConstitutionNet 2014).

Despite the fact that the EU is among the largest donors of foreign aid for Iraq, the majority of its funds have directed since 2009 to LDCs, Lower MICs and on third place to Upper MICs. Foreign aid is directed primarily in Sub-Saharan Africa, Europe and South and Central Asia (OECD/DAC 2012: 4). For the period 2014 -2020 the EU earmarked for foreign aid to Iraq about US\$ 85.9 million (€ 75 million), which is much less than in previous periods. The main areas, where foreign aid will be directed in the coming years, are strengthening of human rights, improvement of primary and secondary education and access to sustainable energy for all (EEAS 2015a).

Currently the running cooperation between the EU, Iraq and the KRI is focused on the solution of terrorist activities of ISIL. On November 1, 2015 the Delegation of the European Union and the embassies of EU member states accredited in Iraq issued a statement on the situation in the KRI. The statement stressed that the EU supports the integrity of Iraq. Furthermore, it advocates dialogue and moderation of mutual relations between the KRG and The GOI. The KRG is requested to engage with Baghdad sharing of oil reserves. In addition to these statements the activities of the KRG and Peshmerga forces are commended for the key role in the fight against ISIL. The EU finally agrees to build effective collaboration with institutions and people from the KRI, including military support, humanitarian aid and support for social, economic and institutional development (EEAS 2015b). For this reason, in August 2015 the Delegation of the EU opened office in Erbil. Currently, 16 countries have in Erbil their General Consulates¹⁰, Embassy Offices¹¹, Honorary Consulates¹² and other offices and development agencies of donor countries.

¹⁰ Iran, Russia, Germany, France, Turkey, UK, USA, Jordan, Egypt, Palestine, United Arab Emirates, Czech Republic, Hungary, China, Netherlands, Kuwait

¹¹ South Korea, Italy, Sweden, Romania, Poland, Austria, Bulgaria

¹² Greece, Spain, Japan, Denmark, Belarus, Slovakia, Brazil

2.3 Foreign aid of Japan

2.3.1 The Japan Aid Architecture

Japanese ODA is assessed according to the OECD/DAC among the five traditional major donors of foreign aid, which is traditionally dominated by the U. S. It must be emphasized that Japan provided more foreign aid during the period 1991 - 2000 compared to the U. S. (Menocal, Wild 2012: 1). Japan, however, was not always the donor, but also the recipient. After World War II, Japan had to deal with a defeated and a paralyzed country. The country had to pay war reparations to surrounding Asian countries, and for a long time become dependent on foreign aid. Thanks to well-adjusted transition process from country receiving foreign aid has become a country providing foreign aid (Menocal, Wild 2012: 1).

In the case of Japan, it would be a strong motivating factor for foreign aid economic self-interest in the post-World War period. This positive relationship between the Japanese foreign aid and trade and economic relations can be called a "business foreign policy." Japan later began to use foreign aid to the establishment of a global economic domination and Japanese politicians used neo-mercantilist foreign strategy, which ensured Japan's geo-economic interests (Schraeder, Hook, Taylor 1998: 300, 311-312; Kamminga 2007; Menocal, Wild 2012: 1; Ohno 2013: 65, 71). Japan is a country that does not have a sufficient supply of raw materials, so it is for key partnership with countries that may mitigate this disadvantage (Menocal, Wild 2012: 1; Bandyopadhyay, Vermann 2013: 327). Japan also provides foreign aid to promote regional stability and thereby to ensure its own security and prosperity (GLRC 2012: 11). Japan is in foreign aid, governed not only by economic, strategic and national interests, but also a general need to help and responsibility for world peace (especially after the Gulf War). Another motive is inherent transformative experiences; in this regard Japan has much to offer - such as achieving self-reliance, sustainable growth and overcoming dependence on foreign aid (Ohno 2013, 65, 71).

Japan has focused on areas of development such as, hardware of development, which is tied with Japanese business interests - infrastructure, industrial production and agriculture, which are seen as engines of growth. Much less interested is Japan in politics and reducing poverty. Priority countries are MICs, while Asia is still a key region. (Menocal, Wild 2012: 2).

Japan's foreign aid system is a typical for highly centralized organizational structure. In the spotlight are three ministries (the Ministry of Foreign Affairs, the Ministry of Finance, the Ministry of International Trade and Industry) and one ministerial agency (the Economic Planning Agency). Then there is the Overseas Economic Co-operation Fund, which is in

charge of ODA loan and the Japan International Co-operation Agency (JICA), which is responsible for the technical aspects of foreign cooperation (Eyinla 1999: 411).

2.3.2 Description of ODA to the KRI (Iraq)

Some states together with the U. S. are often criticized for providing foreign aid to fragile states as well as countries with high levels of corruption as was Iraq after the invasion in 2003. Japan after the U. S. was the largest donor of foreign aid to Iraq. The study by Masanori Tanaka and Seiki Yoshikawa *Establishing Good Governance in Fragile states through the Reconstruction Projects - Lesson from Iraq* shows that implementation of projects can successfully run and operate even in fragile states with high corruption index. Being a fragile state as Iraq can lead to a decrease in the volume of foreign aid when it is most needed. Especially after 2003, when the country needed help in all areas. On the other hand, foreign aid can cause damage to a developing country, though there is not a suitable environment in which foreign aid can help to operate effectively. Foreign aid can be diverted to corrupt politicians and bureaucrats, and thus foreign aid has no influence on stability and economic growth (Tanaka, Yoshikawa 2013: 1).

Bilateral relations between Iraq and Japan in the 1970s and 1980s greatly flourished - especially their investment and business activities (Iraqi Ministry of Foreign Affairs 2015). Japan has provided soft loans for Iraq since 1971, mainly to power plants, telecommunications, agriculture, mining and manufacturing. Technical cooperation was provided between 1954 and 2013 and was focused on training civil servants in the field of agriculture, transportation/traffic, government, social infrastructure, energy and human resources (JICA 2015c).

At a conference in Madrid, Japan pledged foreign aid for rehabilitation and reconstruction of Iraq, US\$ 4,9 billion, the largest amount of assistance US\$ 3.5 billion was in the form of loans (medium term), and about US\$ 1,4 billion was gradually increased to US\$ 1,7 billion was in the form of grants (Christoff 2007: 4; The Government of Japan 2009: 1). According to the statement of the Japanese government the majority of grants should be aimed at restoring the life of the Iraqi population, including power plants, education, water and sanitation, health, security and employment. Most of the foreign aid (80%) was transferred until 2005. Japanese ODA loans were provided for projects in energy, transport, industrial plants, irrigation, etc. Based on the agreement by the Paris Club, Japan and Iraq signed an agreement on debt relief amounting to US\$ 6,7 billion (80% of the total amount owed Japan).

The large volume of grand aid was intended for technical cooperation and training for Iraqi staff (The Government of Japan 2009: 1).

Most bilateral aid came in the form of grants that was managed through JICA (Tanaka, Yoshikawa 2013: 3-7). JICA through the foreign aid also focused on the needs and priorities of Iraq, which was mentioned in The Iraq National Development Strategy for the period 2005 - 2007. Three main areas of cooperation with Iraq were (JICA 2015a):

- *Governance*: In this area, JICA aims to assist in transformation of Iraq's centralized and authoritarian government to a decentralized and market-oriented governing system.
- *Constructing infrastructure and institutional systems for upgrading citizens' lives*: Health, water and sanitation and electricity.
- *Economic development*: Banks, SMEs, agriculture, and water resources. Finally the preservation of the cultural heritage of Iraq and its sights.

The Ministry of Planning of the KRG issued in 2011 a study that focuses on JICA contributing to the development of the KRI for the period 2007 - 2011. JICA is evaluated in this study as one of the major donors operating in the KRI. Its main contribution includes two areas, the first development projects through ODA loans with very concessional conditions such as low interest rates and a long time to pay off the debt for areas such as electricity and water supply around US\$ 600 million. The second area is in the form of grants and technical cooperation. These training courses are conducted either in Japan or in third countries. (Ministry of Planning/KRG 2011a: 2).

Cooperation between the KRG and JICA, however, occurred only 4 years later in May 2007 than between the GOI. As a result of the lack of coordination of the GOI with the KRG, the KRG officials were deprived from participation in JICA educational activities. After 2007 the technical assistance and cooperation began with JICA and the KRG. Cooperation according to assessment by the Ministry of Planning/KRG increased significantly so that JICA opened an office in Erbil (Ministry of Planning/KRG 2012a). Rate of technical cooperation is precisely tailored to suit the needs of the KRI. The courses were attended not only by civil servants of the GOI, but also civil servants of the KRG. Sectors in which JICA has contributed the most in the form of grants were environment, health, housing, labor and social affairs in the amount of US\$ 45 million (Chart 2) (Ministry of Planning/KRG 2012b).

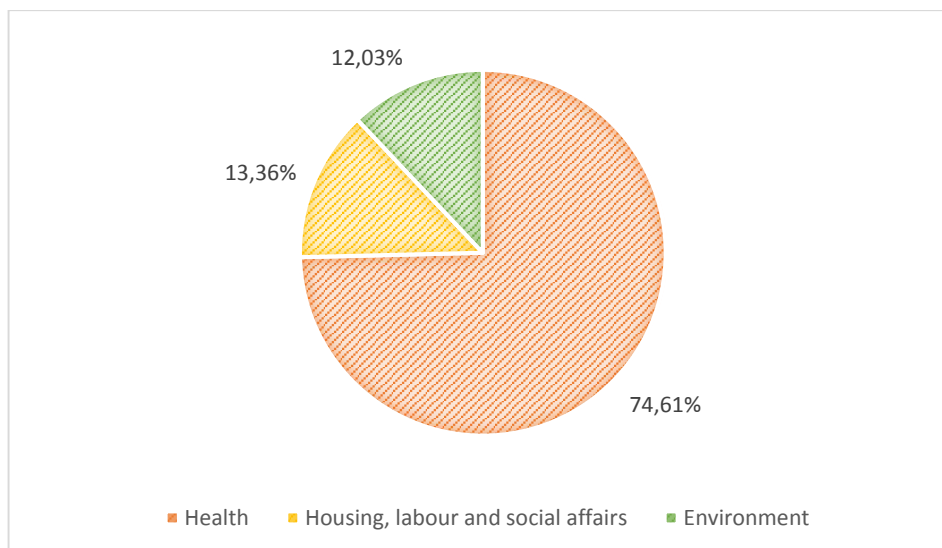


Chart 2: Commitments of JICA to KRI by Sector
 (Source: Ministry of Planning/KRG 2012b; Own work)

Cooperation between Japan and the KRI continues. On June 29, 2015 a loan was signed with the GOI and the KRG for two projects worth US\$ 710 million. The first project is aimed at the reconstruction of the electric sector in central and southern Iraq. The second project focuses on sewerage construction in the KRI. Currently Japan has provided to Iraq 23 loans worth a total of US\$ 4,06 billion (500 billion yen) (JICA 2015d).

2.3.3 Case study: ODA contributions to land and water management

2.3.3.1 Land management

Agriculture is one of the key sectors of the Kurdish economy. The KRI was known as the "bread basket of Iraq." The most important prerequisite for food security is water, soil, agriculture, crops with high added value and the overall health of the population (Soderberg, Phillips 2015: 34). After a period of conflict, the area of agriculture and water management was considerably damaged. The agricultural sector was mostly destroyed during the Anfal campaign¹³ during the Iran-Iraq war. Anfal caused demographic changes that have affected agricultural production and resulted in rural-urban migration (Soderberg, Phillips 2015: 34). The country also had to cope with almost 20 years of international isolation. On the negative performance of agriculture had a significant impact absence of banking sector, financial services, inadequate infrastructure, insurance, land use, lack of agricultural education, lack of government transparency and administrative inconsistencies and bloated bureaucracy (USAID 2008: 10).

¹³ Tragedy called Anfal genocide carried out against the Kurds in 1988, when Iraqi forces began bombing Kurdish towns and villages (KRG 2007).

The KRI has great potential for high productivity thanks to high rainfalls from 300 mm to 1200 mm annually. Conditions are suitable for growing fruit and vegetables and the cultivation of these crops can contribute to improving the livelihoods of rural people. The problem is particularly in inadequate regulatory structure and quality standards or outdated equipment. Agriculture contributes the most to the region's economy after the oil industry, but it is not sufficient (USAID 2008: 5-6). In 2007, 65% of food were imported and 35% were produced in the region (USAID, 2008: 5) Agriculture was a source of livelihood in 2000 for 35% of the population. In 2007 it was about 23% (Ministry of Planning/KRG 2012c: 50). The KRI largely lacking technical expertise in the field of agriculture, veterinary services, and more areas (Soderberg, Phillips 2015: 34).

JICA seeks to solve problems regarding technical education and respond to this problem by setting out some technical training and loans. Since 2003 training of civil servants of KRI has been conducted. In the same year, JICA implemented in all Iraq Irrigated Farmland Water Management Project, which introduced techniques that lead to improved efficiency in using water and farmland irrigation. The results of these trainings are not known. Japan and its development agency JICA have been requested by the Ministry of Agriculture and Water Resources of the KRG to implement additional technical cooperation projects to improve agricultural technologies. According to JICA, Ministry of Agriculture and Water Resources of the KRG has not been able to implement new technologies, to educate people involved in agriculture and expand agricultural services, so they were called experts from Japan, who had to provide their counterparts experience and providing evaluation and feedback. The project began in 2011 with the aims to identify appropriate technologies for the Kurdish agriculture and expand it to target farmers. Another goal of this development project is to ensure the revitalization of villages and the conditions for farmers to be able to go back to the village and at the same time try to convince young people not to leave their villages. The problem for the development of rural areas and the application of new technologies is difficult security situation (JICA 2015b).

The KRG tries to encourage residents to return back to their villages and started farming. The current trend, however, is different. Young people are leaving out from their families and villages and migrate to the cities which cause social problems and deepen unemployment¹⁴. Simultaneously, in the KRI is 20-year gap in knowledge of contemporary

¹⁴ Most people in the KRI are employed according to surveys from 2014 in the service sector, where works about 75% of population of the KRI. This number is slightly larger in Erbil. The industry comes on 2nd place and agriculture comes last. The agricultural sector faces not only a lack of technical knowledge, but especially with the lack of population engaged in agriculture. This is mainly due to employment in the public sector. In

agricultural technologies. Therefore it is important training of staff from governmental agencies, academics and farmers. At the same time there are missing inadequate infrastructure related to agriculture (USAID 2008: 5-6).

2.3.3.2 Water management

Water resources for the region of KRI consist of rainfalls, tributaries of the Tigris and Euphrates rivers and groundwater that are in a state of overdraft (USAID 2008: 13). Yet the region has decreased in water intake since the 1970's due to increased consumption of water from neighboring countries, due to the very dry climate and the inefficient use of water¹⁵. Therefore, protective measures should be put in place, including those that focus on wasteful use of water, improving the facilities for water supply and other areas related to water management such as sanitation or irrigation (Ministry of Planning/KRG 2012c: 1).

In 2004, it was identified that 50% of Iraq's population lack access to drinking water. The same was for KRI and especially Erbil governorate. Water pollution was caused mainly by the Gulf War and the economic sanctions imposed by the UN on Iraq, which caused damage to urban infrastructure (WE: SOLVE 2015: 4-5). Sources of drinking water are exacerbated in 2011 in all three governorates according to evaluation of Ministry of Planning of the KRG. Therefore the KRG used the possibility of Japanese ODA loans for projects focusing on improvement of water services; water supply and distribution network (Table 3) (Ministry of Planning/KRG 2011a: 14). Infrastructure for water management was rated as neglected, with outdated equipment, and reduced effectiveness. The problem is in particular water supply capacity that is less than daily demand. Also distribution network of pipes is completely outdated and needs replacement. According to the 2009 estimated rate of water leakage was around 50% in some regions up to 80%. The project designed by JICA includes the replacement pipe, the expansion of water treatment facilities, expansion of water supply systems and consulting services. (JICA 2009: 1-3).

Table 3: JICA projects for the KRI
(Source: Ministry of Planning/KRG 2011a: 14)

Project Name
Erbil and Halabja Water Supply Improvement
Dohuk and Suleimaniyah Distribution Network Reinforcement

the public sector 18% of inhabitants of the KRI works in the army, 17% in public administration and support services, 13% in education and 27,38% in other service areas (Abramzon et al. 2014: 38).

¹⁵ Water consumption in the KRI 375-400 liters/per capita/day. KRI almost twice exceeds the standards of WHO (200 liters/per capita/day) and almost three times WB standards (120 liters/per capita/day) (Ministry of Planning/KRG 2012c: 1)

Between 2009-2011 3,9% of the KRI population didn't have access to drinking water compared to Iraq, where about 33% of the population didn't have access to drinking water. In the case of the sewer system, the situation is better for KRI, where 2,3% of the population has no access to sewer system compared to Iraq, where it comes to 6% (UNDP 2014a: 146). However, the situation varies across governorates in Iraq. Although the situation in the KRI can appear much better than in the rest of Iraq, there is a problem that concerns with the quality of the available sewer system and sewage treatment plant and thus ground water is contaminated (WB 2015: 7).

According to an analysis of the environment in June 2015, cities in the KRI have the same problem as cities in developing countries, facing water, air and noise pollution. The most polluted city is Erbil (50%contaminated water) due to lack of sewer system and sewage treatment plant. Polluted water causes problems such as typhoid, cholera, diarrhea, hepatitis A and B, dysentery and infant mortality. Most households use municipal latrines and thus resulting in the contamination of groundwater. The situation in the slum areas of the city is much worse (WE: SOLVE 2015: 4-5). Erbil and other cities in the KRI face other problems such as political instability, insecurity, rapid urbanization, changes in socio-economic, ethnic tensions, IDP - which puts pressure on water supplies, sewer systems or shelter, which may in the future lead to increasingly strong social tensions. The KRG currently lacks shelter for more than 243,000 IDP, which is a humanitarian challenge for the KRG and the international community (WB 2015: 7). Other problem is terrorist activity caused by ISIL and lack of plans for infrastructure development (WE: SOLVE 2015: 4-5). Water supply and sewer systems have faced considerable challenges even before the Syrian civil war, terrorist activities of ISIL and the influx of refugees and IDP (WB 2015: 7).

Japan, through JICA, in the case of the KRI agreed, perhaps due to reasons mentioned above, to another subsidized loan for the KRI. The loan was negotiated, even though the situation in the KRI according to JICA has improved in terms of economic growth and improvement of infrastructure for the oil industry and other sectors. An important impetus for the loan was population growth in the cities and the inadequacy of the sewer system, which covers only 30% of the region. Situation in Erbil as well as two other governorates is still not at a satisfactory level (JICA 2015d).

2.4 Foreign aid of Sweden

2.4.1 The Sweden Aid Architecture

Sweden, together with other Nordic countries, is the largest donor of bilateral foreign aid. According to the OECD, countries which traditionally get beyond 0.7% of GNI are Sweden, along with Denmark, Norway and Luxembourg and sometimes UK (OECD 2015b: 2). The Swedish foreign aid has been consistent since 1950s and focused on reduction of poverty and improvement living standards in developing countries. In order to effectively combat poverty, it is also necessary to provide suitable environment that makes it possible, which is peace, security, economic growth, good governance, strong institutions and the development of human potential (Carlsson 1998: 5, 22-44).

According to strategic documents of Sweden poverty reduction can be achieved by economic development and the provision of basic human needs. The Swedish foreign aid is based on solidarity. Other motives like those strategic or commercial sometimes occurred, but have never been as significant as those normative. Sweden's approach is based primarily on awareness of unequal international conditions combined with social values (Carlsson 1998: 22). This role is attributed to Sweden because of the fact that Sweden is a middle power in the international arena, which enjoys a high level of socio-economic development. However, Sweden does not have such resources, as the U. S. The volume of funds is limited that's why Sweden must carefully choose areas that it wants to help (Schraeder, Hook, Taylor 1998: 300-301).

Swedish International Development Cooperation Agency (SIDA) founded in 1995 is a government agency of the Ministry of Foreign Affairs, which is responsible for the organization of Swedish development assistance to developing countries. SIDA focuses on various areas such as infrastructure, economic cooperation, natural resources, democracy, social development, humanitarian assistance and more (Ostrom et al. 2001: 124-126).

2.4.2 Description of ODA to the KRI (Iraq)

Cooperation between Sweden and the KRI (Iraq) first began by establishing business relationships. Since the 1980's the large Swedish companies have operated in Iraq and got familiar with the local market and environment (Embassy of Sweden 2015). Especially since 2003, the cooperation has extended to other areas. After 2003, Sweden adopted many asylum seekers from Iraq and then Sweden provided both humanitarian and foreign aid to Iraq and KRI after the fall of Saddam Hussein.

Sweden began to provide foreign aid to Iraq after the end of the invasion in 2004. Sweden focused on the most affected territory which was the KRI. Humanitarian aid has been provided since the Gulf War in 1991. Foreign aid of Sweden after the invasion was conducted on a bilateral level and through multilateral organizations such as the International Reconstruction Fund Facility for Iraq, to which Sweden has provided about US\$ 10 million. Sweden has prepared since 2004 to 2014 two strategies for development cooperation with Iraq and the Middle East (GOS 2005: 1-6). The first national strategy of Sweden for period 2004 - 2006 has set several objectives for assistance; the most important was the reconstruction of infrastructure (GOS 2005: 10). The second national strategy for period 2009 – 2014 emphasized the building of peace, improve of living conditions for people and democratic development (GOS 2009: 1-2).

Besides supporting democratic system or gender equality and human rights was a key area water governance and water management. Sweden, through SIDA, and in cooperation with the Swedish Humanitarian Aid Organization (QUANDIL) donated large grants between 2008 and 2011 for the protection of water resources in the KRI and particularly for Erbil. Sweden also supported research and training programs as a main tool for the development of regional capacities in water governance. (Florin et al. 2010: 46).

A KRG report, entitled *Report on Donor Contributions to the Kurdistan Region* from 2009 states that Sweden at the beginning of cooperation promised US \$ 58 million, but eventually provided more than US \$ 117 million to Iraq for period 2003 -2006. The biggest areas to where resources were directed were security, health, construction, environment, infrastructure, governance and democracy (Ministry of Planning/KRG 2009: 31-33).

Sweden's strategy for the period 2004 - 2006 indicates that the cooperating actors (voluntary organizations, the Iraqi diaspora, Swedish business sector and Swedish companies) in Iraq can bring knowledge and assessment of the ongoing reconstruction of Iraq back to Sweden. Especially Swedish companies and organizations operating in Iraq for many years have in Iraq good reputation. Swedish business sector has been part of Iraq for decades and has much experience in the infrastructure of Iraq and also has a leading position in many multilateral organizations as the UN and the WB (GOS 2005: 13). Sweden also focused on the promotion of democratic governance, together with the EC (GOS 2009: 5-6). Development cooperation was in country strategy for the years 2004 - 2006 planned for the short horizon of 3-5 years. This was due to the fact that Iraq was classified as a country with plenty of natural resources - particularly oil and therefore is "*considered as less probable that Iraq will need assistance undertakings of any greater extent in the medium term*" (GOS 2005: 4, 8). The

problem of Iraq is in the process of allocation of resources and using them for society (GOS 2009: 2).

Strategic sectors for foreign aid have been selected on the basis of Swedish historical experience, priorities of Iraq and the KRI and assessment of other donors. Instruments for foreign aid were technical cooperation, international courses, loans, guarantees and other forms (GOS 2005: 14). Swedish comparative advantages for development cooperation with the KRI (Iraq) are experience with promoting democracy, human rights and long-term political neutrality on the international stage (GOS 2009: 19). A decline in foreign aid from Sweden to Iraq is due to the fact that since the period of 2010-2011 Swedish foreign aid began to direct to LDCs, then to Lower MICs and on 3rd place in Upper MICs¹⁶ (OECD 2013: 11).

2.4.3 Case study: ODA contributions to women's movement

Large differences in human development exist between men and women in a variety of governorates of Iraq (UNDP 2014a: 16). Improvement is still complicated by the effects of war, the absence of rights in some areas and corruption. Middle Eastern countries also sometimes issued discriminatory laws and are unable to deal with cultural or religious practices such as freedom of expression, marrying off underage girls or Female Genital Mutilation (FGM)¹⁷.

Iraq was characteristic for human rights violations. After the invasion of Iraq in 2003, the situation deteriorated. The number of honor killings, child marriages and prostitution increased. In some ways, the situation for women was better before the invasion, when they can freely move around the streets and dress as they want. On the other hand, there was no room for independent women's initiatives prior to the invasion. The Iraqi constitution states that women and men are equal, but Article 41 states that some cases of family law such as marriage, divorce, inheritance, should be dealt in accordance with the confession. Another problematic aspect is that to the marriages are forced underage girls, then that man can punish his wife and rape in marriage is permitted. In 2011, the KRI issued Domestic Violence Act, which prohibits violence in marriage, FGM and forced marriage. In the rest of Iraq, however, Islamic fundamentalists in the period 2011-2012 commanded more influence, so

¹⁶ Iraq was the 3rd largest recipient in 2005-2009 and during 2010-2011 fell on 19th place. Regions that received the largest volume of aid foreign from Sweden during 2010-2011 were Sub-Saharan Africa, South and Central Asia and on 3rd the Middle East. (OECD/DAC 2013: 11).

¹⁷ Islam does not support FGM, the only areas where FGM is practiced as a tribal tradition is the KRI. In the 1980's underwent 10 to 50 women FGM. Under pressure from international organizations, the KRG banned FGM (UNDP 2014a: 75)

the situation for women is stricter than before - such as dressing, freedom of movement and freedom of education. This presents a difficult situation to women, especially those located in villages (Kvinna till Kvinna 2015a).

The KRI is historically patriarchal community, where an important role is played by a man. The situation and status of women is still controlled by traditions, heritage and radical fundamentalist ideology (UNDP 2014a: 15). Various women's movements are traditionally stronger in the KRI. Kurdish women have participated in the struggle for Kurdish rights for many decades. Since 1991, their goal was to gain more national rights for the Kurdish inhabitants than the struggle for gender equality. To improve the status of women in the KRI and throughout Iraq, education is essential. Kurdish women use a range of educational options, but this is not enough, although the KRI is currently directs to the more progressive attitude toward women (Soderberg, Phillips 2015: 11).

The Kvinna till Kvinna (means "Women to Women") is a Swedish foundation that has experience in conflict areas and cooperates with other women's organizations. In Iraq Kvinna till Kvinna has begun to collaborate with other partner organizations since 2005. These are in the KRI Amez Organisation and Warvin Foundation for Women's Issues (Kvinna till Kvinna 2015b). The model, created by Kvinna till Kvinna aims to promote peace and gender equality through the socio-economic development. It is also the aim of the organizations to help with the prevention of violence against women and improvement of their position. Kvinna till Kvinna aim was to create a strong women's movement in Iraq and strengthen their civil capacities with the support of SIDA (Hainsworth, Relph 2014: 1-15).

The Project created by Kvinna till Kvinna with financial support from SIDA supported a network of women's organizations operating throughout Iraq. According to the study by Oxfam, more than 55% of women in Iraq experiencing violence of a certain type with very little help from the police or law. Problematic aspects are traditional and conservative religious attitudes which interfere with many aspects of the population of the KRI (Iraq), and women in particular. Another problem is illiteracy of women, which in rural areas is around 40%. Nevertheless there were achieved some success. Iraq (also the KRI) is the first country in the Middle East, where women can vote in parliament. Mobilization of women had success in recent years (Hainsworth, Relph 2014: 16). 25% quota in the whole of Iraq and 30% in the KRI ensures minimum representation of women in parliaments in Baghdad and the KRG. In Baghdad, women won 81 out of 325 seats and in Kurdistan 36 out of 111 seats in the last elections (Hainsworth, Relph 2014: 16; KRG 2015b). Nevertheless, women in parliament have in Iraq many times a small role, and often must respect the views of their

men counterparts. Yet women and women's movements in the KRI are trying more and more actively promote and claim women's rights (Hainsworth, Relph, Haddad 2014: 16; PEN International 2015). Women's movement in Iraq also aims to help women who suffer violence and IDP- the largest amount of IDP are women, children and old people (Kvinna till Kvinna 2014).

Women have over men in KRI limited access to the labor market. Labor force participation in the KRI for women was in 2011 about 17% and for men 69%. Unemployment is higher among women. In the KRI unemployment among women is 27.8% and among men is 7% (Appendix 10) (Abramzon et al. 2014: 31; UNDP 2014a: 144). Access to secondary education for both men and women is very small. For women, the access to the secondary education is around 13% and for men around 20% in the KRI (Appendix 11) (UNDP 2014a: 129). Commuting to schools and universities is also problematic for both men and women. More than 34.1% of men and 37.6% of women have to commute an hour or longer to school (Appendix 12) (UNDP 2014a: 149).

The main challenges of activity of Kvinna till Kvinna in Iraq and the KRI in support of the Women's Movement is plenty of facilities, resources and patience. From this perspective, the Kvinna till Kvinna is small donor of financial funding, despite that it gained considerable respect among larger donors. The main challenge for operation in the KRI is the language that is presented as a key barrier for cooperation with local women's communities. Another problem is the pervasive corruption. NGOs are sometimes made for personal gain. Influence of Kvinna till Kvinna at regional and national level is small, so it tries to cooperate and improve relationships with local organizations. But this is a slow process. Cooperation with local organizations has to improve knowledge of these organizations and increase awareness between them on various operating activities. It is also about creating support, share experiences and build solidarity especially between Iraqi and the KRI (Hainsworth, Relph 2014: 26-27).

Kvinna till Kvinna, in cooperation with SIDA, reached success according to stakeholder. Yet, according to the evaluation study by Kvinna till Kvinna the goal of project was not fulfilled on all points, since many of them are not under the control of the organization. The cause of this lack of accomplishment is due to the limited time period, and the context of political instability. This is especially due to the failure of the organization to protect and liberate women's movement throughout Iraq. Improvements in this area is rather slow. According to the evaluation study, changes are rather limited (Hainsworth, Relph 2014: 34-36, 42).

2.5 Development indicators

In this sub-chapter will be introduced development indicators that are commonly used, and which are currently used for comparing the performance of different countries and regions. Regards: Human Development Index (HDI), Inequality-adjusted Human Development Index (IHDI) Multidimensional Poverty Index (MPI), Youth Development Index (YDI) and the Gender Inequality Index (GII). All those indicators are composite indicators that measure specific aspects of human development. The results of these indicators will be compared between the KRI, Iraq and its neighboring countries: Kuwait, Saudi Arabia, Jordan, Syria, Turkey and Iran.

2.5.1 Human Development Index and Inequality-adjusted Human Development Index

Human Development Report presented in 2014 HDI for 187 and UN-recognized territories. HDI is a summary measure for assessing long-term progress in three aspects of human development:

1. Long and healthy life (expressed by *Life expectancy*)
2. Access to knowledge (expressed by *Mean years of schooling, Expected years of schooling, Combined education index*)
3. Decent standard of living (expressed by *Per capita income (PPP)*) (UNDP 2014b: 1-2)

HDI represents a national average of human development achievements in three dimensions. Like all averages the results of HDI hides the differences in human development in the population of the entire country. Two countries with similar HDI values can produce different distribution of achievements. HDI can be seen only as an index of the average achievements of human development in a country or region. IHDI has been aimed at achieving the level of success of human development across the society in the country. IHDI values will be same as the HDI when there is no inequality, but IHDI falls below the HDI as inequality rises (UNDP 2015b).

IHDI is obtained as the geometric mean of three dimension indices adjusted for inequality (Suryanarayana, Agrawal, Prabhu 2011: 11):

$$IHDI = \sqrt[3]{I_{Life} + I_{Education} + I_{Income}}$$

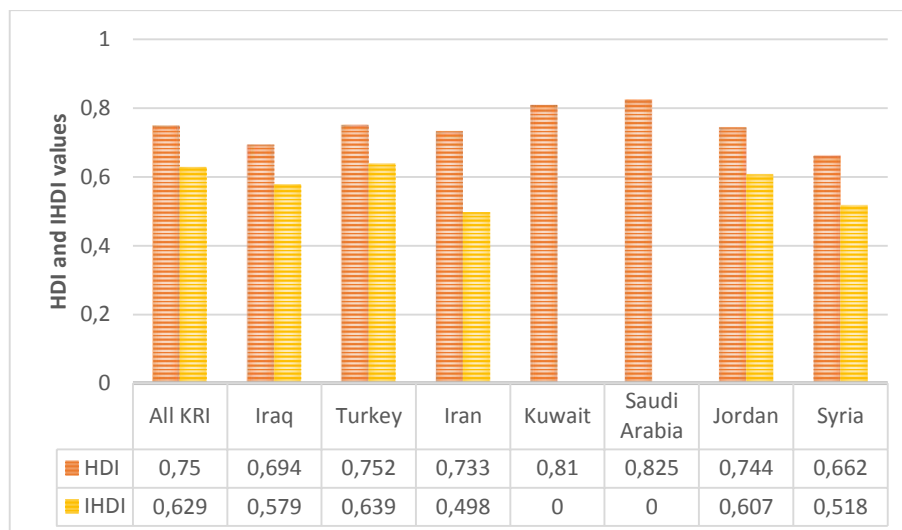


Chart 3: Comparison of HDI and IHDI values between selected countries
 (Source: UNDP 2014a: 127-128; UNDP 2013a, UNDP 2013b, Own work)

The Chart 3 shows the ratings of selected countries in 2011. From this chart it is clear that Saudi Arabia and Kuwait achieved the best values. The lowest values were reached by Iraq and Syria. The KRI is on a comparable level with Turkey and Jordan.

When comparing the values of HDI and IHDI is clear that the values of HDI and IHDI in any cases are unequal. In the case of Kuwait and Saudi Arabia are missing values, so that the relationship between HDI and IHDI cannot be determined. The largest differences in HDI and IHDI are in the case of Iran (0,235). When comparing HDI and IHDI for the KRI and Iraq is found that greater inequality in the distribution of achievements is in the KRI (0.121) while in Iraq less (0.115). In this case it is necessary to say that the values for the Iraq were calculated from all governorates – also from governorates of the KRI. So these results may be partly misleading as in other cases, when considering the differences between the KRI and Iraq. If the governorates of the KRI weren't included to average for Iraq, the results for Iraq would have been worse. In the case of HDI would be the results for the KRI 0,750 and for Iraq 0,629.

Data for the KRI are very limited. The only data that were available, are data from a study carried out by UNDP from 2014, which provides a comprehensive assessment of all areas of Iraq, and therefore the KRI.

2.5.2 Multidimensional Poverty Index

Development and poverty is also multidimensional. MPI was first published in 2010 and is intended to complement monetary measures of poverty by considering deprivations suffered by people at the same time. MPI defines deprivations on the same three dimensions as the

HDI and shows the number of people who are multi-dimensionally poor (people suffering deprivations in 33% of the weighted indicators) and how many households face deprivations. MPI value may be different because of region, ethnicity and other reasons (UNDP 2015c). The greater the value MPI, the greater is deprivation of people in 33% of the weighted indicators.

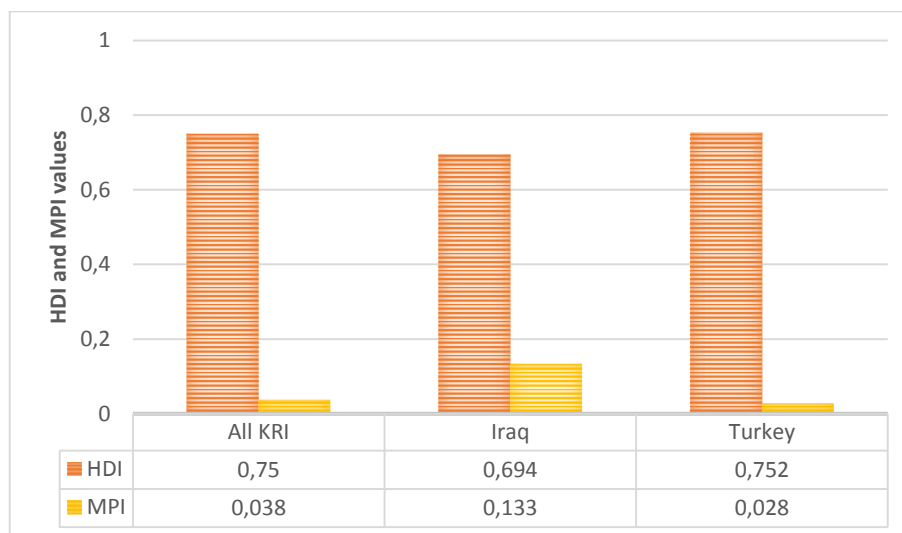


Chart 4: Comparison of HDI and MPI values between selected countries
(Source: UNDP 2014a: 127,130; UNDP 2013b; Own work)

The Chart 4 shows the distribution of HDI and MPI for selected countries. Because for Iran, Kuwait, Saudi Arabia, Jordan and Syria were missing data, I decided to analyze only KRI, Iraq and Turkey. The Chart 2 shows that the largest number of people and households that are multi-dimensionally poor (suffering from deprivation in 33% of the weighted indicators) compared to the HDI values is for Iraq, where MPI reaches 0,133. Almost equal values for HDI and MPI achieve KRI (0,038) and Turkey (0,028). Turkey, however, is doing a little better than KRI. When evaluating the data, we must take into account the values of HDI.

2.5.3 Youth Development Index

UNDP designs YDI based on HDI dimensions along with two other dimensions such as participation and security and freedom and communication. If YDI is the same as the HDI in the country or region, no disparities exist between those two indicators. The more YDI value falls below the HDI, the greater the inequality is between both of them (UNDP 2014a: 37). At the same time, the greater the value of YDI in country or a region, the better its overall performance will be.

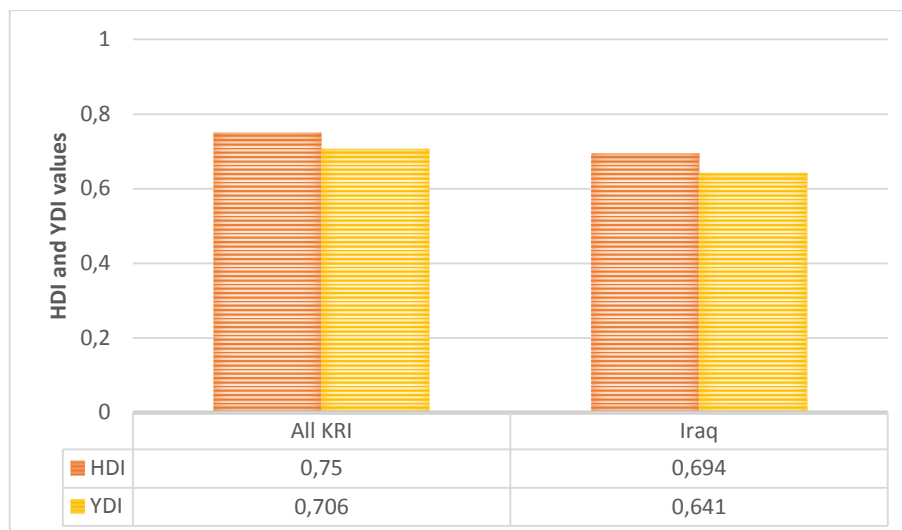


Chart 5: Comparison of HDI and YDI values between KRI and Iraq
(Source: UNDP 2014a: 131; Own work)

The Chart 5 shows the layout of HDI and YDI values. YDI data was available only for the KRI and Iraq. Comparing HDI and YDI among themselves for the KRI and Iraq was found that greater inequality between the values of HDI and YDI appear for Iraq (0,053) than for KRI (0,044).

2.5.4 Gender Inequality Index

GII shows poor performance of development due to gender inequality and uses three dimensions: reproductive health, empowerment and labor market participation. The GII is between 0 and 1, where 0 means that women are equal to men and 1 means that there is 100% disparity between men and women (UNDP 2015a: 31).

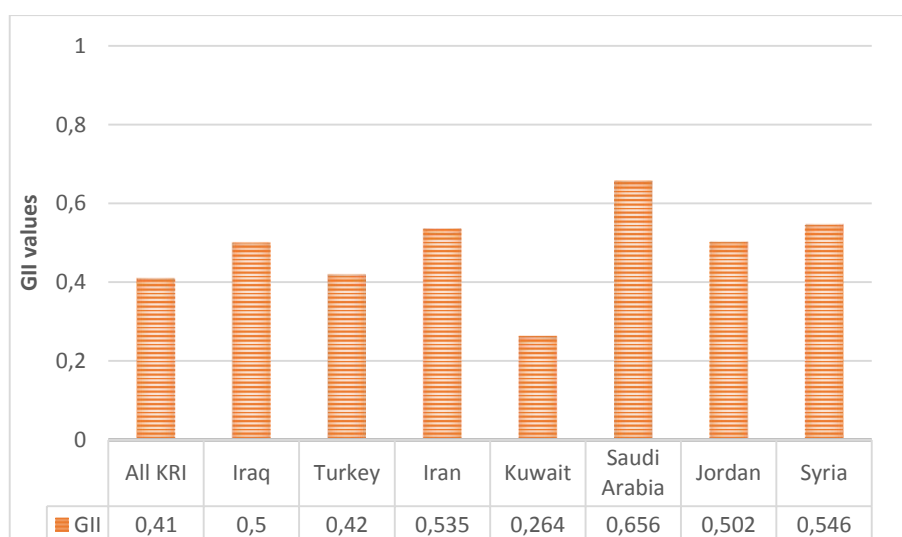


Chart 6: Overview of GII values for selected countries
(Source: UNDP 2014a: 129; UNDP 2015a; Own work)

The Chart 6 shows the distribution of GII between countries in the Middle East. GII shows that equality between men and women is the best in Kuwait (0.264). The KRI receives (0.410) and Iraq is in the evaluation of gender inequality in the middle (0.500). The same status have women in the KRI and Turkey (0,42). The status of women in the KRI is better than in the rest of Iraq. The greatest inequality between men and women from selected and evaluated countries has Saudi Arabia (0,656).

2.5.5 PCA, Factor Analysis and Cluster Analysis

The same assessment based on these indicators HDI, IHDI, MPI, YDI and GII was done for governorates in the KRI and Iraq. To above-mentioned indicators were assigned other indicators such as *Education index*, *GNI Index a Poverty (of total population %)*.

- *Education Index* – It is based on assessment of provided resources for education in the past, until 2011. Any ineffectiveness in the politics of education and poorly spent investments will have an impact on future generations in Iraq and the KRI. Currently, education indicators suggest some progress. Primary schooling in Iraq and the KRI has increased, suggesting the possibility of meeting the MDGs. On the other hand, it was observed higher illiteracy rate. An important finding is the slow increase of secondary schooling and the gap in education between men and women in Iraq and the KRI (UNDP 2014a: 27).
- *GNI Index* – GNI per capita has increased in Iraq and the KRI thanks to stable oil prices and exports. GNP and GNI are not suitable for measuring human development, despite this fact development of the population depends on income growth. In Iraq living standards improved in recent years. Results of GNI Index were calculated on the average monthly expenditure and income of individuals and households, and the results of GNI per capita (UNDP 2014a: 27).
- *Poverty (of total population %)* – From an economic point of view is poverty, when the family income does not reach the specified boundaries set by individual countries. The international standard for extreme poverty is defined by less than US\$ 1 a day. Poverty can be expressed in absolute and relative terms. Relative poverty is measured in % and defines the relationship to the economic status of the population in the society (state, region) (UNESCO 2015).

For evaluating performance of each governorate in Iraq based on defined variables statistical method PCA, Factor analysis and Cluster analysis in software STATISTICA 12 was used. The aim of PCA method was to transform the original variables (manifested variables) into

a smaller number of new so-called latent variables. The result of this procedure is that the latent variables have favorable properties, they are much less and almost all describe the variability of the original variables that are mutually uncorrelated (Meloun 2002: 1). The higher the correlation between the variables, the results are more useful for PCA and factor analysis. Factor analysis is a more sophisticated method than the PCA, which will also be used together with the PCA (Minařík, Borůvková, Vystrčil 2013: 105). The results of both analyses will help in creation of cluster analysis.

The goal of cluster analysis is to include selected objects into groups based on their similarities or differences. Objects in the same cluster are similar to each other than objects in other clusters. The cluster terminology says that objects exhibit *within-cluster homogeneity*. Objects from other clusters are more different, it is described as *between-cluster heterogeneity* (Jadczková 2014d). In our case, the classification of the individual governorates is based on their similarities and differences between clusters.

Before that, correlation of given variables or indicators was calculated. Correlation analysis is used to determine the tightness of continuous dependence of indicators (variables). Correlation is a measure of the degree of association of two variables. Two variables are correlated if the value of one variable is related to the value of the second variable. Thus it has to be found out if there is relationship between variables and how strength has this connection. To determine the relative tightness is necessary to know so-called correlation coefficients (in the case of cardinal values). The values of the coefficients are in the interval $\langle -1; +1 \rangle$ (Table 4). The higher the coefficient, the stronger the relationship between the variables. The negative coefficients indicate a negative correlation and positive indicate positive addiction. The coefficient with zero value means absence of relationship (Geoinovace 2013: 1-18).

Table 4: Interpretation of correlation
(Source: Geoinovace 2013: 1-18; Own work)

The value of correlation	Interpretation of correlation
0,01 – 0,09	Trivial, no connection
0,10 – 0,29	Low to medium
0,30 – 0,49	Moderate to significant
0,50 – 0,69	Significant to very strong
0,70 – 0,89	Very strong
0,90 – 0,99	Almost perfect

For evaluation were chosen values for individual governorates and the average values for Iraq and the KRI. For example, a negative correlation of coefficient value [- 0.832 (last row, second column)] with HDI reflects that declining achievements in gender equality (GII) can adversely affect the HDI and vice versa (Table 5).

Table 5: Correlation Matrix of selected variables (indicators) for governorates in Iraq
(Source: UNDP 2014a: 127-131,145; Own work using STATISTICA 12)

Variable	Correlations							
	IHDI	HDI	Education index	GNI index	YDI	MPI	Poverty (of total population %)	GII
IHDI	1							
HDI	0,973	1						
Education index	0,920	0,954	1					
GNI index	0,943	0,949	0,874	1				
YDI	0,746	0,771	0,808	0,733	1			
MPI	-0,797	-0,762	-0,757	-0,817	-0,680	1		
Poverty (of total population %)	-0,826	-0,780	-0,715	-0,877	-0,555	0,810	1	
GII	-0,758	-0,832	-0,800	-0,793	-0,611	0,517	0,651	1

The results of Eigenvalues of correlation matrix generated by using the factor analysis in the software STATISTICA 12 show that for explaining of 82,10% of the variability contained in a data matrix is sufficient the first component. The remaining seven other components could be neglected, because they explain the remaining 17,9% of the variability in the data matrix. According to PCA, we could consider second and third component. The second and third component together with the first component would explain 94,63% of the variability in the data matrix. For this analysis are important results of the factor analysis (Figure 3).

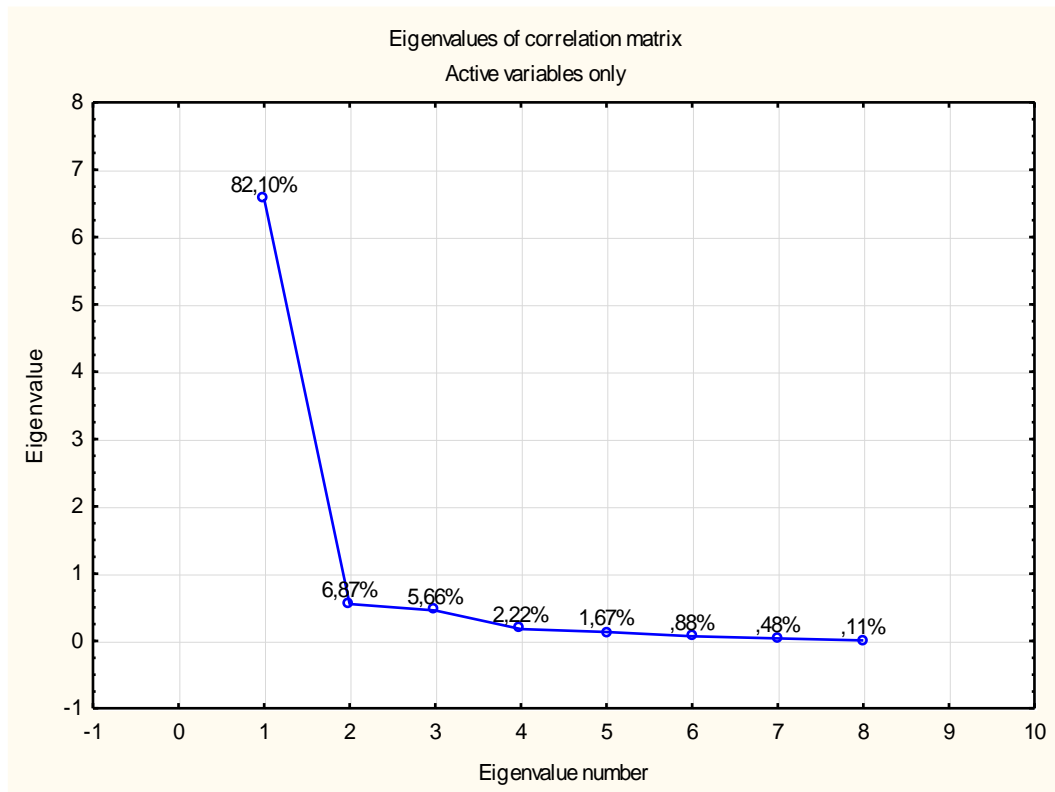


Figure 3: Eigenvalues based on PCA
Own work using STATISTICA 12

On the basis of PCA and factor analysis of individual indicators was found out that all manifested indicators can be replaced by a latent variable which explains all variables. This new latent variable (Factor 1) shows the overall development performance of the population in Iraq and the KRI that includes all presented indicators. These selected indicators are all contained in Factor 1 (Table 6).

Table 6: Factor loadings based on Factor Analysis
Own work using STATISTICA 12

Variable	Factor Loadings
	Extraction: Principal components
	Factor (1)
IHDI	-0,967
HDI	-0,977
MPI	0,857
YDI	-0,819
GII	0,828
GNI index	-0,971
Education index	-0,946
Poverty (of total population %)	0,868
Expl.Var	6,568
Prp.Totl	0,821

On the results of PCA and factor analysis was performed cluster analysis that creates clusters with the same or similar governorates (Table 7).

Table 7: Cluster Membership for all governorates in Iraq
Own work using STATISTICA 12

Governorate	Cluster Membership Ward's method Squared Euclidean distances	
	Cluster Membership	Factor 1
Erbil	2	4,133
Duhouk	2	2,594
Sulaymaniyah	2	4,827
Wasit	3	-1,410
Baghdad	2	1,901
Babel	1	0,003
Anbar	1	-1,060
Najaf	1	-0,400
Diyala	1	-0,275
Thi Qar	3	-2,239
Qadisiya	3	-2,422
Kerbala	1	-0,502
Missan	3	-4,100
Kirkuk	1	0,485
Basra	1	-0,886
Salah al-Din	1	-0,935
Muthana	3	-4,083
All KRI	2	4,122
Iraq	1	0,247

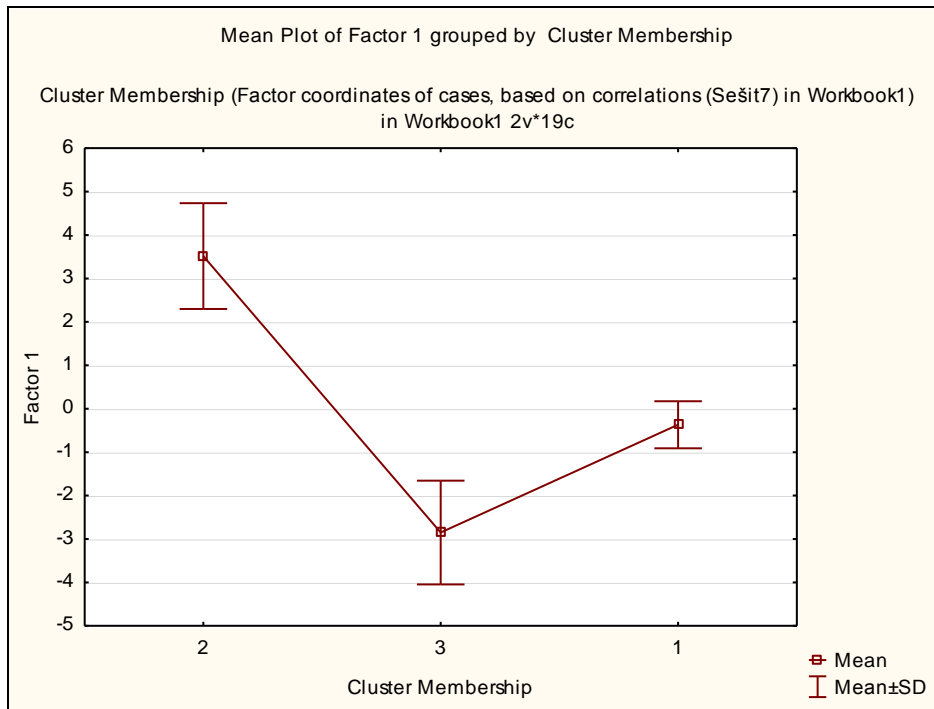


Figure 4: Profile diagram for cluster interpretation
Own work using STATISTICA 12

In the Figure 4 and Table 8 results of the cluster analysis and characteristics of each cluster together with a list of assigned governorates and average values of the KRI and Iraq are presented.

Table 8: Interpretation of cluster analysis results
Own work using STATISTICA 12

Cluster Identification	Involved Governorates	Cluster description
Cluster 1	Babel, Anbar, Najaf, Diyala, Kerbala, Kirkuk, Basra, Salah al-Din, Iraq	The most homogenous cluster. This cluster is characterized by average and slow development
Cluster 2	Erbil, Duhok, Sulaymaniyah, Baghdad, All KRI	This heterogeneous cluster includes regions with above-average developed governorates with relatively dynamic development.
Cluster 3	Wasit, Thi Qar, Qadisiya, Missan, Muthana	This heterogeneous cluster is typical for below average and slow development.

Even though the development of KRI and its governorates is better compared to the rest of the country, about 35.5% of young people in KRI versus 22.2% of young people in Iraq at the age of 15 -29 want to immigrate to a foreign country for many reasons, which are for clarity expressed in Table 9. The most important reason for young people to immigrate to a foreign country are no job opportunities (31.2% of young people), the second most mentioned reason is the study (18.1% of young people) and the last is security situation (17% of young people).

Table 9: Reasons for migration
(Source: UNDP 2014a: 179-181, Own work)

Governorate	Desire to migration (%)	Reasons for migration					
		No job opportunities (%)	Likelihood of obtaining a higher income or more job opportunities (%)	Study (%)	No security or stability (%)	Build a better future in another country (%)	Join family or send Aids to family (%)
All KRI	35,5	31,2	11,4	18,1	17	16,1	6,2
Iraq	22,2	22,6	22,7	11,4	18,5	20,6	3,2

2.6 Composite indicator

2.6.1 Theoretical part

The aim of this sub-chapter is to create the CI that should include some aspects of environmental sustainability and human development. Japanese development agency JICA was trying to restore Iraq with other countries after the invasion in 2003. Among one of the most important priorities of the recovery was restoring water supplies, access to safe drinking water, adequate sewer systems, etc. Case study, which was chosen for the evaluation of ODA was in the case of JICA land and water management. For this reason, each selected indicators should reveal the number of inhabitants in % in each governorates which do not have access to drinking water and other important needs for good quality of life.

2.6.2 Selecting indicators

The selection of indicators is based on whether they are related to the population with access to safe drinking water, sewer system, shelter, and how the Iraqi people perceive environmental protection. ODA provided by states or international organizations in areas related to the environment does not always have the desired result particularly because these projects are not sustainable because of the lack of interest of the government and the population. Data was selected for each governorate in Iraq and the KRI. To the overall assessment of analysis were not included average values for KRI and Iraq. The KRI has three governorates Erbil, Sulaymaniyah and Duhouk, which are assessed with other governorates of Iraq.

Environmental Sustainability indicators

The Table 10 shows selected data for environmental sustainability, their units and the importance according to MIN/MAX method.

Table 10: The list of chosen environmental sustainability indicators
(Source: UNDP 2014a: 146; Own work)

	Raw data matrix	Unit	Type of indicator	Source of data
X1	People deprived from sewer system	%	MIN	UNDP 2014a
X2	People deprived from improved drinking water	%	MIN	UNDP 2014a
X3	People deprived from shelter	%	MIN	UNDP 2014a
X4	Individuals who consider that preserving the environment is one of their duties as citizens	%	MAX	UNDP 2014a

People deprived from sewer system – People in developing countries often suffer from diseases due to contaminated water and poor sanitation system. Developing countries often lack the means to repair or construct new sewer systems. This approach is long-term unsustainable. Although the drains and sewer systems are constructed, they often lack proper cleaning techniques, so most waste ends up in rivers.

People deprived from improved drinking water – problems with unsafe water and inadequate sanitation systems are most acute in developing countries. Reservoirs of fresh water in the world are limited. Water resources are therefore very vulnerable if they are poorly managed or unevenly distributed. Poor people are often disadvantaged by the fact that too many of them live in countries affected by lack of water resources or distribution - especially in Asia, the Middle East and Sub-Saharan Africa. These people do not have very often financial resources to buy bottled water (WHO 2001).

People deprived from shelter – In this case, the people living without shelter or in dwellings with more than 4 persons in one room or in a building without floors and any other equipment.

Individuals who consider that preserving the environment is one of their duties as citizens – This indicator was selected on basis of research and survey conducted in governorates of Iraq in 2009.

The Table 11 displays the selected indicators and their data together with data about number of inhabitants in each governorate. In the first column are listed governorates. The KRI has three governorates Erbil, Sulaymaniyah and Duhouk. The second and third column indicates the population in each governorate and their percentage distribution. The fourth, fifth, sixth and seventh column presents key indicators. The columns of indicators can be organized into color scales, where green color highlights best result and red the worst result. Data are from 2009-2011.

Table 11: Raw data matrix for Environmental Sustainability indicator
(Source: UNDP 2014a: 146; Own work)

Governorate	Inhabitants		People deprived from sewer system (%)	People deprived from improved drinking water (%)	People deprived from shelter (%)	Individuals who consider that preserving the environment is one of their duties as citizens (%)
	Number	qi	MIN	MIN	MIN	MAX
Anbar	1598822	5,18%	1,5	18,1	0,6	11,3
Babel	1864124	6,04%	5,8	29,8	0,4	13,9
Ninewa	3353875	9,80%	2,6	16,5	0,8	4,9
Baghdad	7255278	23,52%	7,5	17,3	0,5	11,5
Basra	2601790	8,43%	10,7	99,3	1,9	14
Diyala	1477684	4,79%	10,8	27,8	0,8	20,1
Duhok	1158633	3,76%	1,9	2	2	28
Erbil	1657684	5,37%	2,6	0,7	0,7	19,9
Kerbala	1094281	3,55%	6,1	40,2	0,8	12,3
Kirkuk	1432747	4,64%	12,7	9,7	0,3	16,7
Missan	997410	3,23%	14,2	95,4	6,9	16,3
Muthana	735905	2,39%	0,3	74	0,4	16,1
Najaf	1319608	4,28%	5,4	76,3	0,8	30,7
Qadisiya	1162485	3,77%	7,5	39,8	0,7	24,9
Salah al-Din	1441266	4,67%	2,4	20,8	0,9	11
Sulaymaniyah	1931561	6,26%	2,3	2,5	0,3	29,6
Thi Qar	1883160	6,10%	7,2	67	0,9	16,1
Wasit	1240935	4,02%	4,4	21,8	2,6	10,7

Before working with indicators, it is necessary to mention the statistical criteria which are important for the calculation of composite indicators. For indicators that have positively asymmetric distribution (right-skewness) or have extreme values that are higher than the modal value, it is necessary to use log-transformation. Log-transformation makes symmetrical distribution of indicators and brings the extreme values closer to the rest of the data (Minařík, Borůvková, Vystrčil 2013: 124-136). In Table 12 it is seen that the positively asymmetric distribution reaches indicator X3 (People deprived from shelter (%)). For the indicator X3 was therefore used log-transformation.

Table 12: Level of skewness and kurtosis, Environmental Sustainable Indicators
Own work using STATISTICA 12

Variable	Descriptive Statistics	
	Skewness	Kurtosis
X1	0,798572	-0,32893
X2	0,932532	-0,27213
X3	2,983805	10,21662
X4	0,503337	-0,50653

In Table 13 are then shown minimum and maximum values for each indicator (for indicator X3 are used its log-transformed values), which are necessary for data normalization.

Table 13: MIN and MAX values for each used indicator
Own work using STATISTICA 12

	X1	X2	X3	X4
MIN	0,30	0,70	-0,52	4,90
MAX	14,20	99,30	0,84	30,70

2.6.3 Missing Data

Indicators were selected on basis of a study of UNDP published in 2014. Selected indicators were from the period 2009-2011. For calculating CI were obtained all the necessary data. No missing values have been discovered.

2.6.4 Correlation of indicators

In the case of correlation, relationships between indicators will be evaluated (information about correlation was mentioned in previous chapter). The correlation between indicators is low according to Table 14, which is suitable for the creation of CI.

Table 14: Correlation matrix of selected indicators
Own work using STATISTICA 12

Variable	Correlations			
	X1	X2	Log_X3	X4
X1	1			
X2	0,428	1		
Log_X3	0,322	0,440	1	
X4	-0,021	-0,002	-0,091	1

2.6.5 Normalization of indicators

Normalization of dataset is important, because we can compare the indicators with different units. For normalization of dataset was chosen method called linear transformation or *MIN/MAX method*. MIN and MAX functions return the value of the smallest and largest element of a transformed set. The result of this normalization is the dataset in the interval $\langle 0; 100 \rangle$ where 0 indicates a minimum value and 100 indicates a maximum value (Jadczaková 2014a). For normalization with *MIN/MAX method*, we must know the minimum and maximum values, which are listed in Table 12. The formulas for using data normalization with *MIN/MAX method* are given in the Theoretical part of the thesis.

2.6.6 Weighting

For weighting, the method called *matrix of pairwise comparison* was chosen. *Matrix of pairwise comparison* is symmetrical $p \times p$ matrix in which the row weights are standardized. If the indicator in the row is more important than indicator in column to row indicator is assigned a value of "1", in the column then the value of "0". If the indicator in the row has same importance as the indicator in column they are both assigned a value of "0.5" (Jadczaková 2014a). In Table 15 are indicated indicators, using this method, sorted according to their importance. The result is that the indicator X2 has the greatest importance, followed by indicators X3, X1 and X4.

X1 - *People deprived from sewer system*

X2 - *People deprived from improved drinking water*

X3 - *People deprived from shelter*

X4 - *Individuals who consider that preserving the environment is one of their duties as citizens*

Table 15: Matrix of pairwise comparison with weights for each indicator
Own work

Matrix of pairwise comparison						
	X1	X2	X3	X4	SUM	Weight
X1		0	0,5	0,5	1	0,17
X2	1		1	1	3	0,50
X3	0,5	0		1	1,5	0,25
X4	0,5	0	0		0,5	0,08
Total SUM					6	1,00

2.6.7 Presentation of results

The overall results of the methods used in conjunction with the use of weights are shown in Table 16. In the Table 16, the rank of each governorate with its index is calculated. The indexes are in percentages and the overall performance of each governorate is given in the column called Rank. The calculation of CI may be affected in relative terms and in relation to their average value. Total average of CI in the dataset is 67,191. Relatively best score reached three governorates of KRI - Sulaymaniyah, Erbil and Duhouk, which came above the average of 100%. Sulaymaniyah has an index of 143,32%, Erbil 137,40% and Duhouk 134,11%. Simultaneously, there are other governorates in Iraq which overcame 100%. The worst results achieved governorates: Thi Qar 76,11%, Basra 38,76% and Missan 8,20%. All values and achieved indexes are available in the Table 16 and the Chart 7.

Table 16: Final results for Environmental Sustainability index
Own work

Standardized data matrix*weights	X1	X2	X3	X4	SUM	RANK	INDEX
Governorate	MIN	MIN	MIN	MAX			
Anbar	15,532374	41,176471	19,473382	1,9844961	78,167	4	125,08%
Babel	10,273381	35,243408	22,706246	2,7906977	71,014	9	113,63%
Ninewa	14,18705	41,98783	17,179628	0	73,355	6	117,38%
Baghdad	8,1942446	41,58215	20,927073	2,0465116	72,750	7	116,41%
Basra	4,2805755	0	10,282809	2,8217054	17,385	17	27,82%
Diyala	4,1582734	36,257606	17,179628	4,7131783	62,309	11	99,70%
Duhouk	15,043165	49,340771	9,873836	7,1627907	81,421	3	130,29%
Erbil	14,18705	50	18,244304	4,6511628	87,083	2	139,35%
Kerbala	9,9064748	29,969574	17,179628	2,2945736	59,350	13	94,97%
Kirkuk	1,8345324	45,436105	25	3,6589147	75,930	5	121,50%
Missan	0	1,9776876	0	3,5348837	5,513	18	8,82%
Muthana	17	12,829615	22,706246	3,4728682	56,009	14	89,62%
Najaf	10,76259	11,663286	17,179628	8	47,606	15	76,18%
Qadisiya	8,1942446	30,172414	18,244304	6,2015504	62,813	10	100,51%
Salah al-Din	14,431655	39,807302	16,240517	1,8914729	72,371	8	115,80%
Sulaymaniyah	14,553957	49,087221	25	7,6589147	96,300	1	154,09%
Thi Qar	8,5611511	16,37931	16,240517	3,4728682	44,654	16	71,45%
Wasit	11,985612	39,300203	7,7819468	1,7984496	60,866	12	97,40%
Mean					62,494		

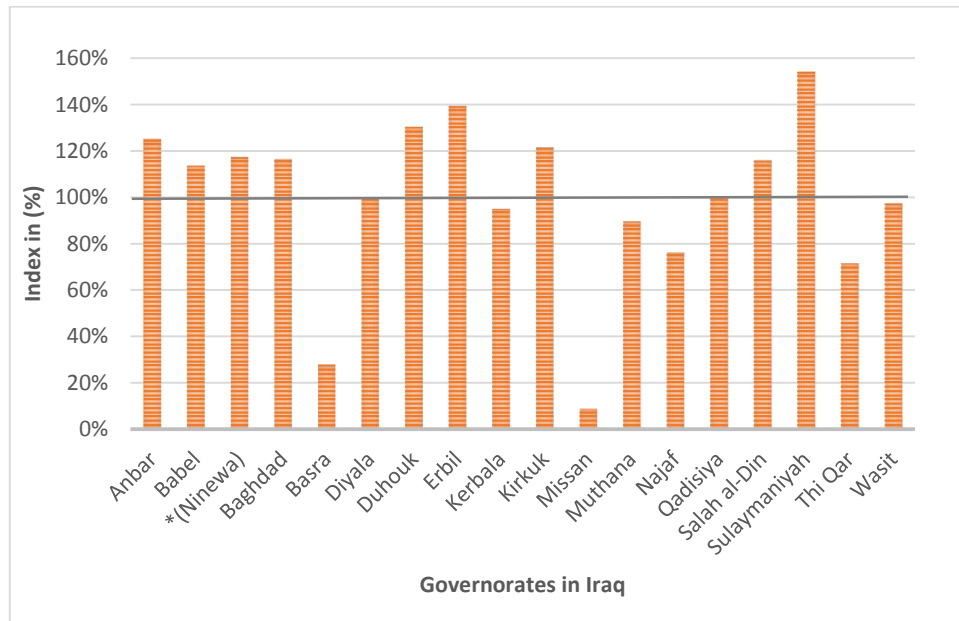


Chart 7: Governorates of Iraq with their indexes
Own work

2.7 Measuring concentration and GINI index

Concentration measurement is performed by using the Lorenz curve (LC). LC in the two following cases shows the distribution of population in the KRI and Iraq. In the case of Iraq were selected individual governorates and for the KRI were selected individual districts within three governorates (Erbil, Sulaymaniyah and Duhouk). The ideal distribution of the population in Iraq and in the KRI would look so that in each governorate in Iraq or in any district in the KRI would live the same portion of population. This situation is not possible in the real world. Population distribution is unequal. As an indicator of this inequality is used LC. The Ideal LC presents an equal distribution of inhabitants, the empirical LC represents the real distribution of the population in Iraq and districts in each of three governorates of the KRI. The greater the disparity between the ideal LC and the empirical LC, the greater is the inequality of distribution of the population in governorates and districts.

To the precise calculation of equal/unequal distribution is GINI index. The GINI index is a dimensionless measure of concentration, whose values are in the range $\langle 0; 1 \rangle^3$. The value of $G = 0$ represents absolute equality and $G = 1$ means unequal distribution (Jadczaková 2014c).

Mathematically, the GINI index is calculated as follows (Jadczaková 2014c):

$$G = \frac{1}{10\,000} \left[10\,000 - \sum_{i=2}^n (100cp_i - 100cp_{i-1})(100cq_i + 100cq_{i-1}) \right]$$

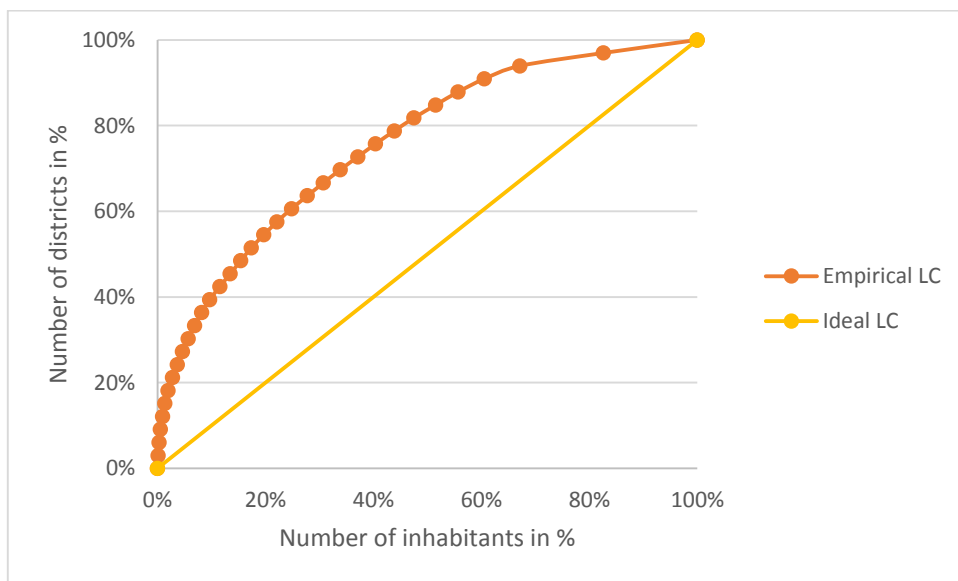


Chart 8: Lorenz curve for distribution of inhabitants in districts of KRI
(Source: Abramzon et al. 2014: 10; Own work)

The Chart 8 shows that approximately 20% of the population of the KRI lives approximately in 57% of districts. Approximately 60% of the population of the KRI lives in 90% of districts. Median is equal to 198 518 (middle inhabitant out of 4 908 884 lives in the districts with 198 518 inhabitants). The GINI index is equal to 0,5148. The more the GINI index approaches the value of one, the greater the inequality in the distribution of population in districts in the KRI. Median district has 97 797 inhabitants. This indicates that the medial is greater than the median ($198\ 518 > 97\ 797$).

The Chart 9 shows that about 20% of Iraq's population lives in approximately 39% of governorates. Approximately 60% of the population lives in 55% of governorates of Iraq. Medial is equal to 1 864 124 (middle inhabitant out of 34 207 248 lives in the governorate with 1 864 124 inhabitants. The GINI index is equal to 0,3055. The more the GINI index is closer to zero, the less the inequality is in the distribution of population in Iraq. Medial governorate has 1 864 124, it shows that the medial is slightly larger than the median ($1\ 864\ 124 > 1\ 441\ 266$).

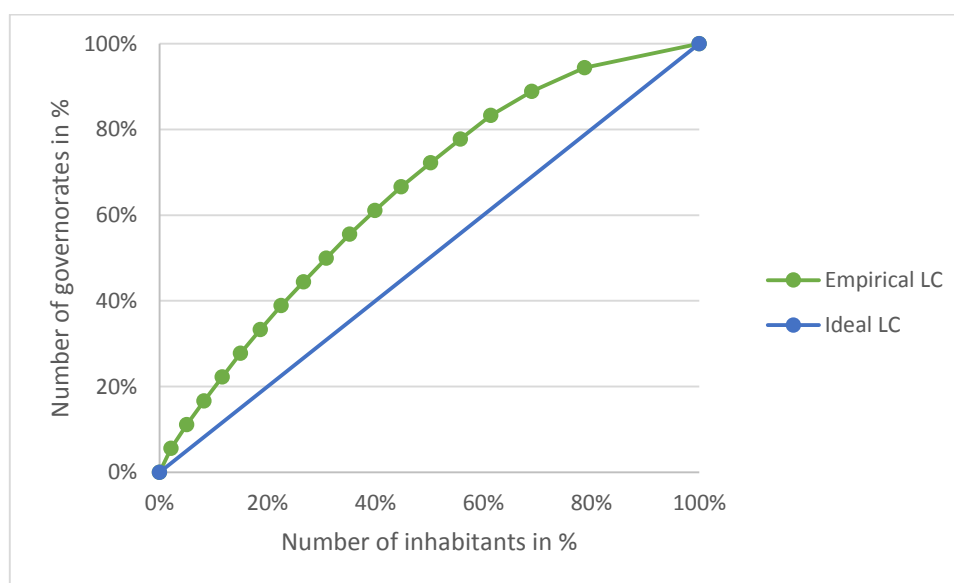


Chart 9: Lorenz curve for distribution of inhabitants in governorates of Iraq
(Source: UNDP 2014a: 140; Own work)

When comparing the Chart 13 and the Chart 14 it is evident that the greatest inequality in distribution of population is in the KRI than in Iraq. The Appendix 9 shows the percentage of people in urban areas of the KRI and Iraq in 2012. In the case of Baghdad, Erbil, Sulaymaniyah and Basra over 80% of population in 2012 lived in the urban areas.

2.8 Investigated area

In order to collect data on development aid to the KRI, primary and secondary sources were used. Secondary sources and data are data that are available and have been done and collected for a particular purpose. Secondary data were obtained from various databases such as Google Scholar, EBSCO, JSTOR and many more. Primary data was collected for a particular purpose of this thesis. Primary data for this thesis were gained on the basis of interviews. Interviews were conducted in order to gain information about foreign aid to the KRI and situation in the KRI from first hand. These data should provide a better view on the current situation in the KRI, which has not yet been evaluated (Pajuvirta, Safari 2009: 5). Because of this were done structured interviews, during which the relevant areas were discussed. Before interviews, it was necessary to choose the questions to be answered (Pajuvirta, Safari 2009: 6). Interviews were conducted online because of the unavailability of respondents. Interviews were not recorded, but interviews were written in the form of note.

Thanks to the contacts that I have made, I could be in touch with people from different spheres of work orientation who have a close relationship to the KRI, worked in the KRI or are its citizens.

Interviewed persons:

- *Interview No. 1* – Employees of General Consulate GK Erbil, Iraq (Interview 2015a)
- *Interview No. 2* – The expert on water works in the KRI (Interview 2015b)
- *Interview No. 3* – The expert on water works in the KRI (Interview 2015c)
- *Interview No. 4* – Ms. E. K. born in KRI, where she lives and works (Interview 2015d)

To these respondents were asked questions and complete notes from interviews are available in Appendix 15 of this thesis. For this sub-chapter will be used answers concerning mainly foreign aid in general, and foreign aid in the field of water resources and the status of women in the KRI.

From the interviews was revealed that Iraq was not able to recover after the invasion in 2003, the only territory that has been partly restored and began the process of development was the KRI. Last interviewed person answered that the KRI was able in a short time to achieve global status (Interview 2015d).

Another key question concerning development of the KRI focused on challenges, to which the KRI faces the most. The problem is for example transformation of society that has failed. Another challenge is that development agencies should, for example, to build a factory and

teach people how to take care of themselves, but many of these development agencies are not able to do it (Interview 2015a). The second interviewee said that the KRI benefits only from the export of commodities and oil and there is nothing more. According to the second interviewee also development assistance does not help, development of the region should be managed by the state or government of the KRI (Interview 2015b). The third interviewee mentioned the most important aspects for developing of countries is in particular education and job opportunities for its residents (Interview 2015c). According to the fourth interviewee the situation is stable (Interview 2015d).

Restoration of water distribution, access to drinking water, sanitation, irrigation and other areas linked with water were important for the development of the KRI and Iraq after 2003. The question was raised whether development projects of JICA or other development agencies have helped to the improvements in the KRI. The first two interviewees responded that projects partly helped, but they were stopped either because of lack of funds or because of the activities of ISIL. JICA's projects proposed in 2003 have not yet been implemented because of a long term of preparation phase (Interview 2015a; Interview 2015b). The other two interviewees responded that projects to build dams are in progress (Interview 2015c; Interview 2015d). From these responses, it is possible to find out that development projects were carried out and had a positive impact on the change in the distribution of water and sanitation, but because of the security situation, lack of finances and other things were slowed down or suspended the projects. The answers also pointed out that any development projects cannot proceed without a stable security situation.

What is the status of women, was another question. All respondents agree that the status of women in the KRI is good. Women in the KRI have better status than women in Saudi Arabia, and their position is comparable with Turkey, perhaps worse than in CZ (Interview 2015a). Women can wear makeup, attend schools and drive a car. Yet women are perceived differently than in the EU and women perceive themselves also differently (Interview 2015b). The last interviewee, who was born and lives in the KRI said that women have full freedom there (Interview 2015d).

3 RESULTS AND RECOMMENDATIONS

The results of the invasion of 2003

Foreign aid is an important component of international relations. Foreign aid and the reasons for its provision can be viewed from many different angles and perspectives - from the attempts to dominate the recipient country, through the use of mineral, and resources to solidarity and willingness to help.

After the invasion in 2003, the situation for all of Iraq was very difficult. The country's infrastructure, economy, agriculture and social life have been disrupted. State structures were not operational. The situation was similar in the KRI. Iraq and the KRI needed foreign aid after the invasion to help restore the state and economic structures and to gradually stabilize life across Iraq. Foreign aid for Iraq was approved at a conference in Madrid in 2003 in the form of grants and loans. At the same time there were 14 key priorities for rebuilding Iraq that were defined. These priorities were education, health, employment, infrastructure (water, sanitation, telecommunications and transport), electricity, land use, urban planning, agriculture, water resources and food security, financial infrastructure, state-owned enterprises, the investment climate of the country, mine clearance and government function.

According to the evaluation of foreign aid of selected donors (the EU, Japan, Sweden), 14 priorities defined at a conference in Madrid in 2003 for reconstruction of Iraq are compatible with the needs of the KRI. Selected donors in the provision of foreign aid for the KRI focused on areas where they have comparative advantages and years of experience. Areas of supported development were especially health care and access to drinking water. Japan directed foreign aid to the KRI with a focus in development of infrastructure, agriculture, water resources, electricity and medical facilities. Sweden supported access to water resources as well as restoration of the functions of government, poverty reduction and human rights together with the support of gender equality. The EU focused mainly on humanitarian aid, good governance, a rule of law and promotion of human rights, especially through training of government officials.

The effectiveness of foreign aid provided by Japan, Sweden, and the EU cannot be entirely and objectively determined. Evaluation of the effectiveness of foreign aid can have several outcomes, depending on from which perspective is the effectiveness assessed. In other words, the key is the paradigm - from which perspective and position is the effectiveness of the implementation of development projects considered. These views can be many - from

development organizations and its members who provide foreign aid, through the assessment of state and public entities, people for whom is a development project designed to international development organizations and foreign aid experts. Completely objective and comprehensive evaluation of foreign aid of selected states is therefore not always entirely possible. Another problematic aspect is that in order to determine the effectiveness of the implementation and sustainability of the project, the independent evaluation studies should be done. Yet, these evaluation studies are not always possible, either due to a number of projects, or due to the fact that some aspects of foreign aid cannot be objectively determined. For example, how should be measured effectiveness of training of government personnel? For this reason, it would be necessary to provide a long-term evaluation of the quality of work of individual candidates, which is not really feasible. For that reason, some kind of foreign aid will remain not evaluated. This is an example for Japan and the EU, which provide to Iraq and the KRI foreign aid in the form of technical training for civil servants or employees. In this case, the JICA's technical training was focused on agriculture and water management, while the EU prepared the technical training in the area of a rule of law or training of prison staff.

Effectiveness of development projects and whether the KRI was able to build on these projects and continue to work on its development, will examine time and challenges that the KRI will have to face in the future. Important challenges now are for the KRI terrorist attacks of ISIL in Iraq and Syria, and the Syrian civil war. Both of these security problems caused externalities such as an influx of refugees and IDP from conflict zones to safer places as is the KRI nowadays.

Based on the evaluation of the OECD, which is consistent with the World Bank, Iraq belonged from 1996 to the Lower MICs. For 2014 - 2016, Iraq is ranked among the Upper MICs. This is also applicable for the KRI. Because Iraq is evaluated as Upper MICs therefore it does not receive as many funding as it used to receive. Priority currently have in particular the LDCs. Despite increasing positive values of development indicators in Iraq, exist between parts of Iraq large development differences. According to development indicators, the governorates of the KRI, Baghdad and the middle governorates of Iraq are on the best position in development.

The following text is intended to bring the results and recommendations for improvement of foreign aid to the KRI especially for the management of land and water resources, and the women's movement.

Foreign aid

In the KRI currently operate many humanitarian and development organizations and try with more or less success to improve some aspects of development in the KRI. These humanitarian and development organizations began to operate in the KRI after 2003 or came to the KRI due to the current security crisis. The political and security situation is now substantially different and is dependent on the conflict in Syria and influence of ISIL. The international community should take into account that the development process in the KRI since 2003 has not yet been fully completed, as mentioned in the evaluations of Japan, Sweden and the EU, and on the basis of interviews with people who have worked in the KRI a long time. Development of the KRI and activities are slowed down or have been suspended. The KRI and Iraq are not completely stabilized in all areas and now have to face other challenges that affect their further development. Stability and development of the KRI and Iraq would not only be a priority for the KRG and the GOI, but also for the international community. Development activities are extremely sensitive to the changing environment. Development should be particularly sustainable. However, sustainable development and development activities can work if in the country or region is the appropriate security and political environment.

The KRG has cooperated since 2003 with various development organizations and donor countries, which provide foreign aid. The KRG should continue to cooperate with development organizations and seeks to harmonize the various projects and programs with the needs of the region. Moreover, the KRG should actively cooperate with international organizations about humanitarian assistance and post-conflicting reconstruction because of influx of refugees. The GOI should in this situation help the KRG in resolving the current security crisis and influx of refugees and IDP. The international community and individual countries should establish a proactive communication on development and humanitarian needs of the KRI (Soderberg, Phillips 2015: 7). Organizations and countries should provide direct support to the KRG in all necessary areas. Japan, Sweden and the EU should help in these areas, because they have experience of operating in Iraq and the KRI. The EU also has means for providing post-conflict reconstruction.

International development and humanitarian agencies should also cooperate more actively with local organizations and communities in the KRI. Misunderstanding of the needs of the country and the region were often mentioned when evaluating foreign aid to the KRI.

Therefore, it is essential that the projects should be firstly consulted with local communities before their implementation. Development projects, which can be problematic, are often associated with social, cultural or religious aspects of the country. Development organizations should not be aimed at altering the customs of the country but on improvement of development of the KRI. The KRG also tries to set guidelines for deepening of the development of the KRI by using the medium-term strategic plans. Currently in the final strategy till 2020, the Ministry of Planning/KRG dedicates to the development of almost all areas such as education, employment, infrastructure (electricity, water supply and sanitation, roads), agriculture and preservation of environment (Minister of Planning/KRG 2013).

The KGR should consider the problem of extensive corruption in the state administration. Corruption significantly weakens the impact of foreign aid. The KRG needs to minimize the number of people in government and establish a body that will be independent and will examine and investigate corruption in the state. At the same time the KRG needs to introduce penalties for corrupted state officials. The KRG should also present anticorruption guidelines and codes of conduct to which it must be fully supported transparency in various sectors, especially in the oil production (Soderberg, Phillips 2015: 7). High corruption in the KRI may in fact be one of the main reasons why donor states and international organizations would not provide financial aid for development projects.

In the case of evaluation of the current development of the KRI compared to neighboring countries were used development indicators such as HDI, IHDI, MPI, YDI and GII. For MPI and YDI could not be traced data to other countries, therefore, only Iraq and the KRI were compared. In the case of HDI the best performance is achieved by Kuwait and Saudi Arabia followed by Turkey, the KRI, Jordan, Iran, Iraq and Syria. For IHDI are missing data for Kuwait and Saudi Arabia. When comparing the HDI and IHDI, the smallest inequality is achieved by Turkey followed by Iraq, the KRI, Jordan and Syria. The greatest disparity between HDI and IHDI is for Iran. In the case of MPI data were available only for the KRI, Iraq and Turkey. Turkey with the KRI achieved the best results, Iraq had the worst performance. Other indicator was YDI. There were compared only the KRI and Iraq. The KRI achieved the best results. The last indicator was GII. Kuwait, Turkey and the KRI have the best results. The worst performance was achieved by Syria and Saudi Arabia.

Furthermore, the governorates of Iraq were compared on the basis of development indicators together with other indicators such as GNI Index, Education Index and Poverty of total population. The best results were achieved by Erbil, Duhouk, Sulaymaniyah and

Baghdad. Wasit, Thi Qar, Qadisiya, Muthana and Missan had the worst performance. This analysis clearly shows that the KRI along with its three governorates and with Baghdad has the best position throughout Iraq. The data for this analysis were available for year 2011 from the UNDP study, which was published in 2014. The situation in 2015 is different. Reconstruction of the KRI is slowed down and the security and political situation has worsen in the Middle East and particularly in immediate neighborhood of the KRI because of civil war in Syria or ISIL activity.

Land and water management

The KRI has high potential for growing crops. The agricultural sector was greatly affected after Saddam Hussein attacked the Kurds. Villages were destroyed along with irrigation system. All this had an impact on the population and on agriculture. People fled to the towns and villages remained empty. Demographic changes that have occurred in case of depopulation of villages still continue today. Within the KRI, not many people work in agriculture, mainly because they lack technical knowledge and the necessary equipment. Young people are going off into the cities. Up to 50% of the population works in the public sector. Most agricultural products are imported, this leads to the underestimation by the KRG in the case of importance of food security. Foreign aid was intended after 2003, and even now for support of agriculture. Japan through JICA was trying to rebuild the agricultural sector through technical training with experts from Japan, where they discussed methods of cultivation and irrigation.

Education in the agriculture sector for government officials and farmers is the key to the gradual building of self-sufficiency and food security for the KRI. The KRG needs to look into this matter further and promote the return of residents from cities to the villages. A large number of people in the cities affect the structures of cities and their capacities. The reasons why people leave the villages is for education opportunities and no job opportunities in villages. The KRG with development agencies, needs to support the building of school facilities and improvement of nearby villages. The KRG should also provide job opportunities for inhabitants of villages, support regional programs or allocate subsidies for farmers, together with the provision of training from development agencies in the field of agriculture. Another benefit in the area of agriculture could be cooperation with universities in other states and knowledge sharing between them.

The situation in water resources management and sanitation after 2003 was also difficult. Water management and sanitation were between the most important areas for development

aid, especially for Japan and Sweden. The situation in this area is evaluated in the composite indicator called *Environmental Sustainability Index* on the basis of indicators such as access to drinking water, sanitation, the opportunity to find shelter and protection of the environment. The governorates of the KRI are assessed for the best rank. The best is Sulaymaniyah (154,09%), followed by Erbil (139,35%) and Duhouk (130,29%). There are also other governorates of Iraq which reached above-average values of index such as: Anbar, Kirkuk, Ninewa, Baghdad, Salah al-Din, Babel, Qadisiya. Three worst governorates are Thi Qar, Basra and Missan. This evaluation was based on data from 2009 - 2011 collected by UNDP and published in 2014. Today, the situation is somewhat different. A problematic aspect is deterioration of the security situation in the Middle East, especially in Syria and terrorist activities of ISIL. Riots and wars can worsen the development of the KRI. Other problematic aspect is that the population is unequally distributed mainly in the cities of the KRI. About 80% of population of Erbil, Sulaymaniyah, Duhouk live in cities. Influx of refugees and IDP can increase significantly number of inhabitants in the KRI. This can in the future cause pressure on the capacity of cities and social tensions over access to resources. The governorates of the KRI face a large increase in refugees and IDP, which requires a great demand to access to drinking water, sanitation, etc. Development projects proposed by JICA in the field of water management have not been conducted since 2003, according to an interviewees, and are still in the planning phase. The KRG should establish charges on water consumption and design devices for distribution of water to avoid water wasting and analyze quality of water. In the case of agriculture, a modernized irrigation system should be implemented.

Women's movement

Development activities focused on women's movement in the KRI are supported by the organization Kvinna till Kvinna in cooperation with the Swedish development agency called SIDA. As mentioned in the evaluation study, the transformation of the women's movement in Iraq has achieved limited success because of cultural and religious barriers. The situation in the KRI is better in this respect. The women's movement is very active in the KRI. Despite the success of the women's movement in the KRI, the situation of women as compared to Europe is complicated. Based on the evaluation of GII is evident that the situation of women in the KRI is significantly better compared to Saudi Arabia, slightly better than average value in Iraq and is roughly the same position as Turkey. The aim of the women in the KRI is not to achieve equality between men and women, which is interest of some development organizations and agencies, but especially promotion of the rights of Kurds, the Kurdish

movement and the KRI. The KRG should be actively involved in women's rights by issuing laws that prohibit mistreatment and violence against women enforce these laws consistently. At the same time, stricter penalties should be set for violence against women. Development agencies such as the Swedish non-profit organization Kvinna till Kvinna in cooperation with SIDA, should offer women different activities for their personal development (working on PC, foreign languages, etc.) along with leisure activities where women can socialize with each other and help each other to gain experience. Development agencies should, through local communities offer women the possibility of development or help if they are mistreated. They should be provided with emergency lines or free availability of consultants along with the protection and accommodation. Furthermore, support should be offered to women and their families if social problems exist. Development agencies should share information with local communities about the needs of women, such as job opportunities or education. To enable women to study or work, the development agencies should provide nurseries for children.

Other problematic aspects are limited opportunities in education and the labor market for women. In all of the KRI governorates, men are the most economically active, while most of the unemployed are women. Development agencies should strive to understand the needs of local communities of women and cooperate with these communities closely. Education is the key to improving the status of women in society. KRG and development agencies should therefore endeavor to educate women in various areas that could be useful for the labor market in the KRI. At present in the KRI, 13% of women versus 20% of men possess at least a secondary education. Secondary education with a range of disciplines should be extended to the areas of those in which women would be interested – a survey could be conducted among women to determine majority interests. Women should be supported in obtaining secondary or higher education. Secondary education should be designed to allow women to regularly and actively participate. Development agencies in cooperation with the KRG could offer evening classes along with child care, which would take place once or twice a week. If the women do not have sufficient funds to purchase equipment, they could be supported by the KRG or development agencies from special social funds. Another problematic aspect is commuting to school. Up to 37,6% of women versus 34,1% of men have to commute to school for more than an hour, so the KRG with support of the development agencies should promote education for women in local communities, due to the fact that many women have children and must care for the household. Another alternative is training courses which could be held in the villages once or twice a week for women with no possibility to commute far to cities.

CONCLUSION

The main objective of this thesis was to determine whether the development priorities and areas proposed in Madrid for Iraq were compatible with development challenges and needs of the KRI and to provide recommendations for increasing the effectiveness of foreign aid. The position of the KRI was also compared with other countries and governorates in Iraq based on several development indicators. For the comparison of development of the KRI with other areas of Iraq and the governorates, other statistical methods were also used such as PCA, factor analysis or cluster analysis. For the area of land and water management, a special indicator was created that focused on environmental sustainability.

The theoretical part analyzed the basic definitions of foreign aid - mainly characteristics and main principles of providing ODA. The reasons for providing foreign aid were also mentioned. Different forms of foreign aid were presented. The theoretical part of the thesis was also devoted to the description of the basic definitions, characteristics, procedures and use of composite indicators, which are now important tools for assessing the performance of individual countries or regions. An essential part of the creation of composite indicators is to create a theoretical framework and then select relevant indicators. Statistical analyzes are based on procedures which should be fulfilled to ensure the composite indicator is relevant and useful within the theoretical framework - these key processes are standardization, weighing and correct explanation or presentation. Besides the composite indicator, other statistical methods were used for evaluation of the KRI such as cluster analysis, factor analysis or PCA.

The analytical part assessed foreign aid of Japan, Sweden and EU to Iraq and the KRI on the basis of relevant studies. A major limitation for a comprehensive evaluation of the KRI was that most studies focus singularly on Iraq. The KRI, despite the many efforts for independence, is still an integral part of Iraq. In the analytical part, statistical methods were performed to assess the development of the KRI within Iraq. Cluster analysis, which was based on the findings of the PCA and factor analysis, compared the governorates of Iraq that are the most similar. The inequality in the distribution of the population in Iraq and the KRI was found on the basis of GINI index and Lorenz curve. In a similar fashion, poverty in rural and urban areas of each governorate were compared together with the increase in population in urban areas.

In conclusion, foreign aid of the selected donors (Japan, Sweden and the EU) was evaluated and result and recommendations were presented. According to the obtained results, it was

found that the selected counties (Japan, Sweden) and the EU in the reconstruction of Iraq pursued the priorities on the KRI and tried to fulfill them. These priorities were particularly education, infrastructure, agriculture and land use, water management and restoration of government structures. Development of Iraq since 2003 has achieved considerable success. From the country that belonged to the Lower MICs has become a country that is now ranked as the Upper MICs. Unity of Iraq disrupts currently influence of the ISIL. The socio-economic development of the KRI is not fully completed yet. A problematic factor for the development of the KRI is the complicated security situation and the influx of refugees and IDP.

As a precondition for the disappearance of poverty, peace planning, or food security, the KRI should promote agriculture. Emphasis should also be placed on water and sanitation. These areas are still problematic in the KRI but not as much as in the rest of Iraq. In the KRI, 3,9% of the population has no access to drinking water compared to Iraq, where 33,0% of the population has no access to drinking water. The KRI should be more actively involved in discussions about foreign aid with other development organizations to agriculture and water resources.

The status of women in the KRI is quite good on the basis of comparison with neighboring states. It is difficult to initiate development activities across Iraq because of problematic security situation, but only in safe areas such as the KRI has cooperation been established with local communities and the needs of women discussed. Even though it is the intention of the development organization to improve the status of women in Iraq and the KRI, this effort can be in conflict with cultural or religious habits.

Development and recovery has taken place in the KRI since 1991 and most intensively since 2003. This development in the KRI can be in many ways influenced by the current situation in Syria, terrorist activities of ISIL, and the influx of refugees and IDP. Therefore, foreign or humanitarian aid should not slow down, but should be focused on restoration of peace in Iraq and the KRI. Peace is key for reconstruction and further development of KRI and Iraq.

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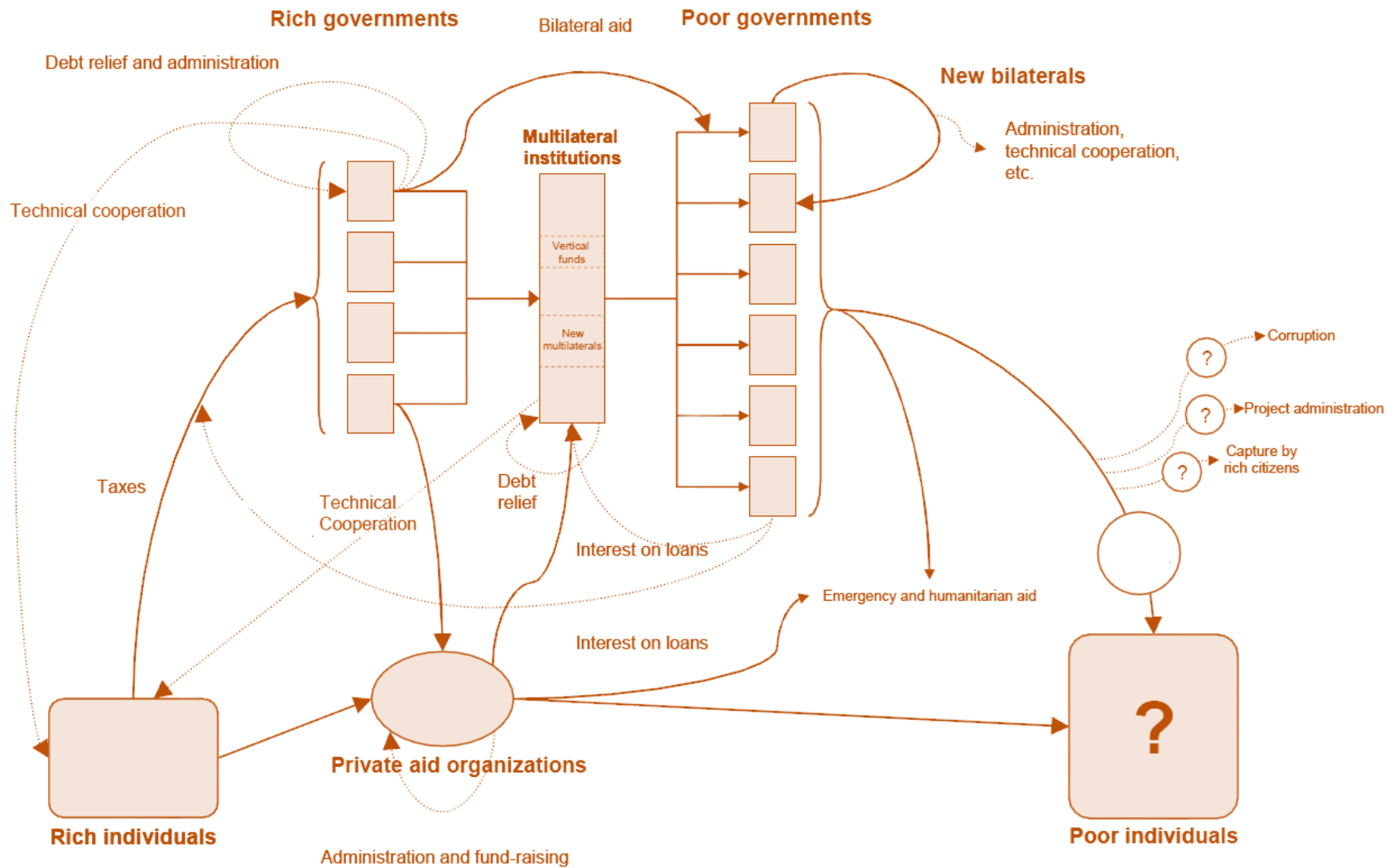
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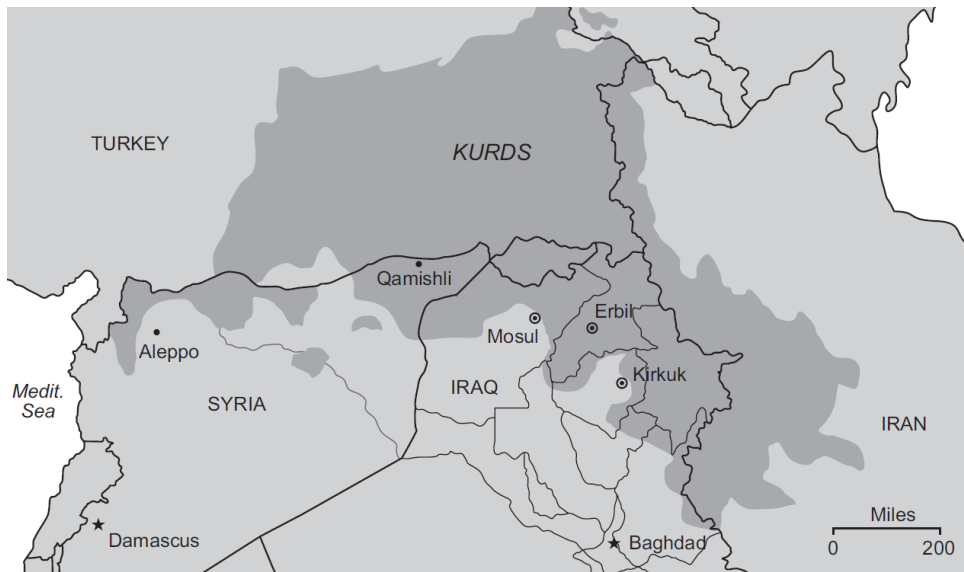
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Appendix 1: Foreign aid scheme



Appendix 2: Kurdish Regions of the Middle East



Source: Phillips 2015: 108

Appendix 3: Administrative divisions of Iraq, by Governorates and Regions



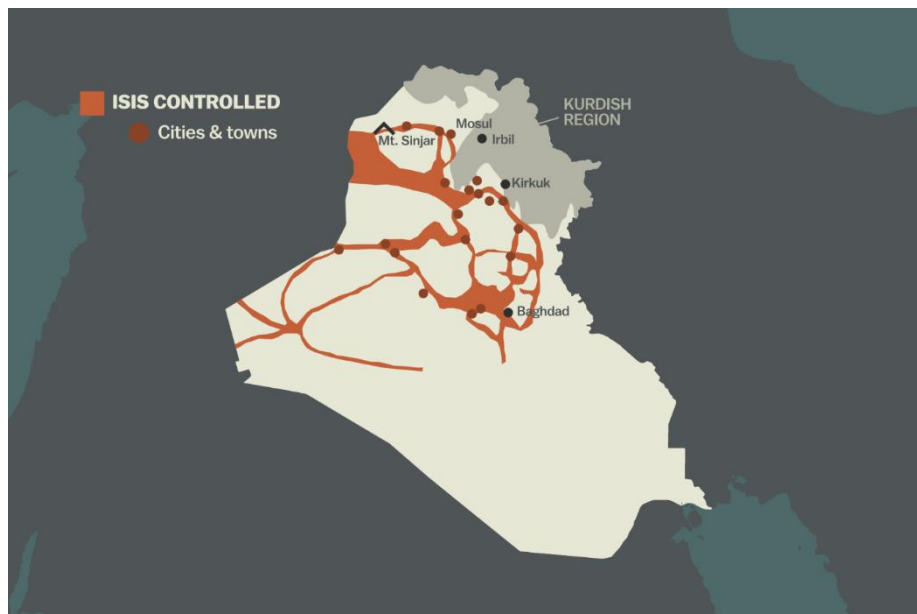
Source: UNODC 2013: 17

Appendix 4: Key milestone in history of Iraq

Year	Event
1534-1918	Region is part of the Ottoman Empire.
1914-1918	World War I.
1917	Britain seizes Baghdad.
1920	Treaty of Sèvres – the possibility of an independent Kurdistan. The treaty was never put into effect
1920	Britain creates state of Iraq with League of Nations approval.
1920	Great Iraqi Revolution - rebellion against British rule.
1932	Iraq becomes an independent state.
1939-1945	World War II. Britain re-occupies Iraq.
1958-1968	Revolutions and coups in Iraq, ending by a change in the leadership of the country
1974	Iraq grants limited autonomy to Kurdish region.
1979	Saddam Hussein - president.
1980-1988	Iran-Iraq war.
1988 March	Iraq attacks Kurdish town of Halabjah with poison gas. Between 1987 - 1988 were killed 182 000 Kurds.
1990	Iraq invades Kuwait - first Gulf War
2003 March	US-led invasion to Iraq
2011 December	US completes troop pull-out.
2014	Upswing of ISIL

Source: BBC 2014; Soderberg, Phillips 2015: 1-2; Own work

Appendix 5: Areas in Iraq under control of ISIL



Source: Plumer 2014

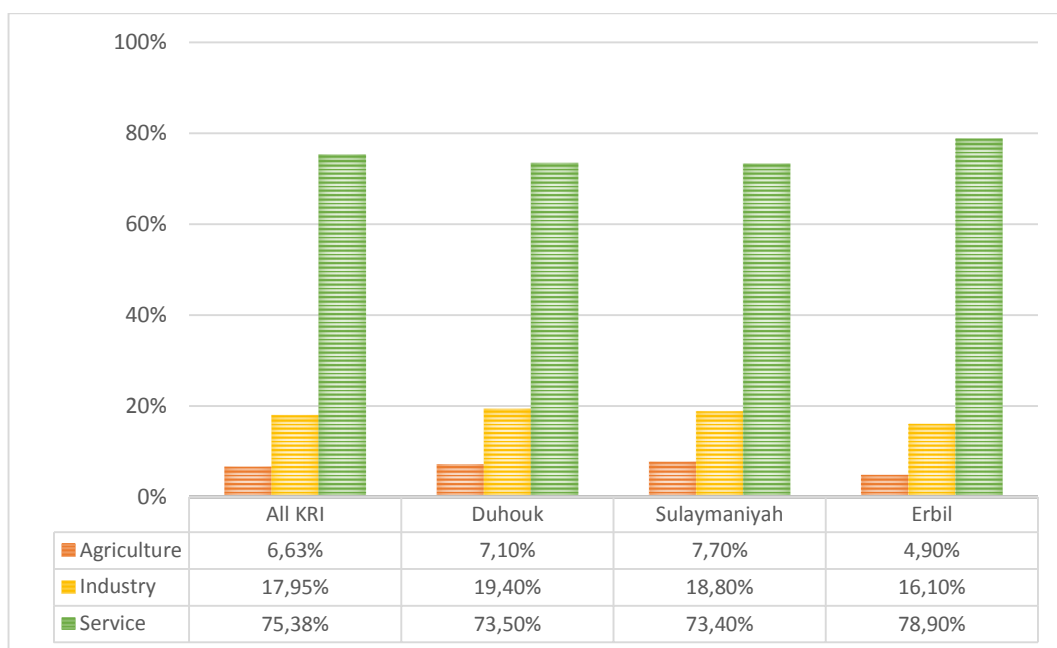
Appendix 6: International Donor Pledges for Iraq Reconstruction, by Grants and Loans (in thousands of U. S. dollars), as of October 2007

Donors	Total pledged and /or provided in excess of pledge 2003	Pledge offered in the form of grants 2003	Pledge offered in the form of loans 2003	Grants provided 2007	Loans provided 2007
Australia	77,270	77,270	0	51,270	0
Austria	5,480	5,480	0	1,800	0
Belgium	5,890	5,890	0	5,881	0
Bulgaria	640	640	0	530	0
Canada	187,470	187,470	0	200,490	0
China	31,500	31,500	0	Not available	0
Croatia	333	333	0	333	0
Cyprus	120	120	0	120	0
Czech Rep.	14,660	14,660	0	6,250	0
Denmark	61,950	61,950	0	18,825	0
European Commission	921,305	921,305	0	970,000	0
Estonia	80	80	0	80	0
Finland	8,834	8,834	0	8,83	0
Germany	4,150	4,150	0	10,000	0
Greece	7,148	7,148	0	7,148	0
Hungary	1,670	1,670	0	1,670	0
Iceland	3,000	3,000	0	3,000	0
India	10,000	10,000	0	10,000	0
Iran	1,005,000	5,000	1,000,000	Not available	Not available
Ireland	3,530	3,530	0	1,825	0
Italy	835,620	235,620	600,000	350,000	0
Japan	4,914,000	1,414,000	3,500,000	1,491,550	1,562,000
Republic of Korea	400,000	200,000	200,000	200,000	0
Kuwait	500,000	500,000	0	135,000	0
Lithuania	30	30	0	30	0
Luxembourg	2,559	2,559	0	2,559	0
Malta	27	27	0	Not available	0
Netherlands	12,885	12,885	0	12,900	0
New Zealand	6,110	6,110	0	6,110	0
Norway	23,710	23,710	0	23,710	0
Oman	3,000	3,000	0	Not available	0
Pakistan	2,500	2,500	0	600	0
Portugal	600	600	0	600	0

Qatar	100,000	100,000	0	27,500	0
Saudi Arabia	500,000	500,000	0	87,000	0
Slovenia	420	420	0	334	0
Spain	248,000	248,000	0	213,700	0
Sweden	33,000	33,000	0	18,600	0
Turkey	60,000	60,000	0	27,500	0
United Arab Emirates	215,000	215,000	0	77,000	0
United Kingdom	650,330	650,330	0	852,000	0
Vietnam	700	700	0	700	0
World Bank	3,000,000	0	3,000,000	0	241,000
International Monetary Fund	2,550,000	0	2,550,000	0	436,000

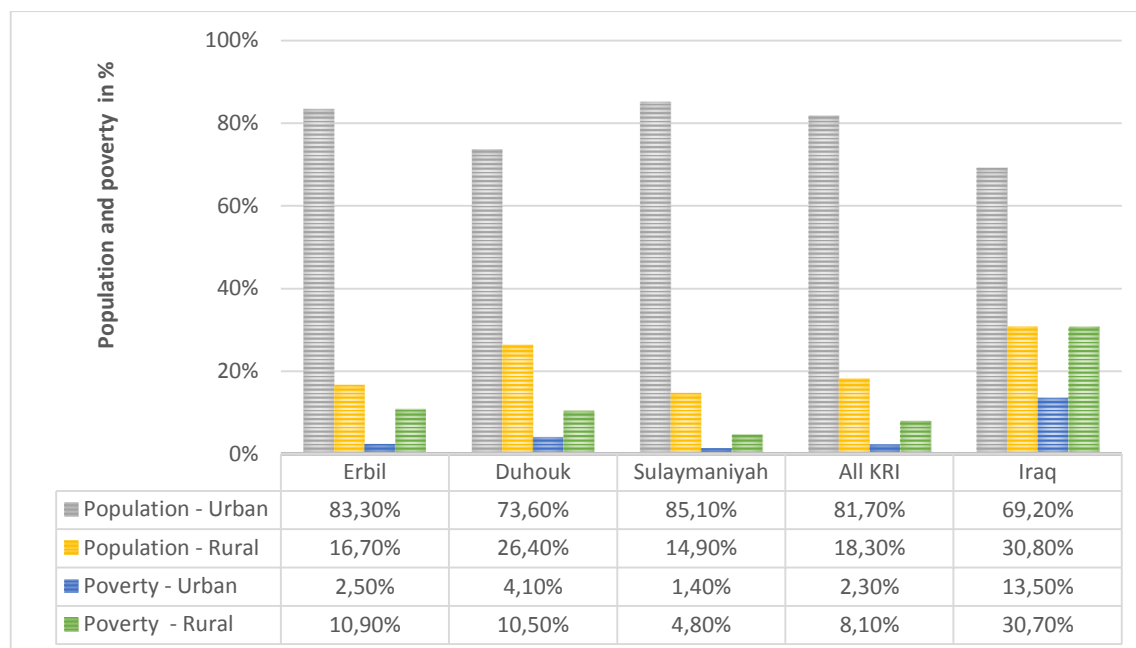
Source: Christoff 2007: 3-4; Own work

Appendix 7: Employment by Sector of Economic Activity, by Governorate (%)



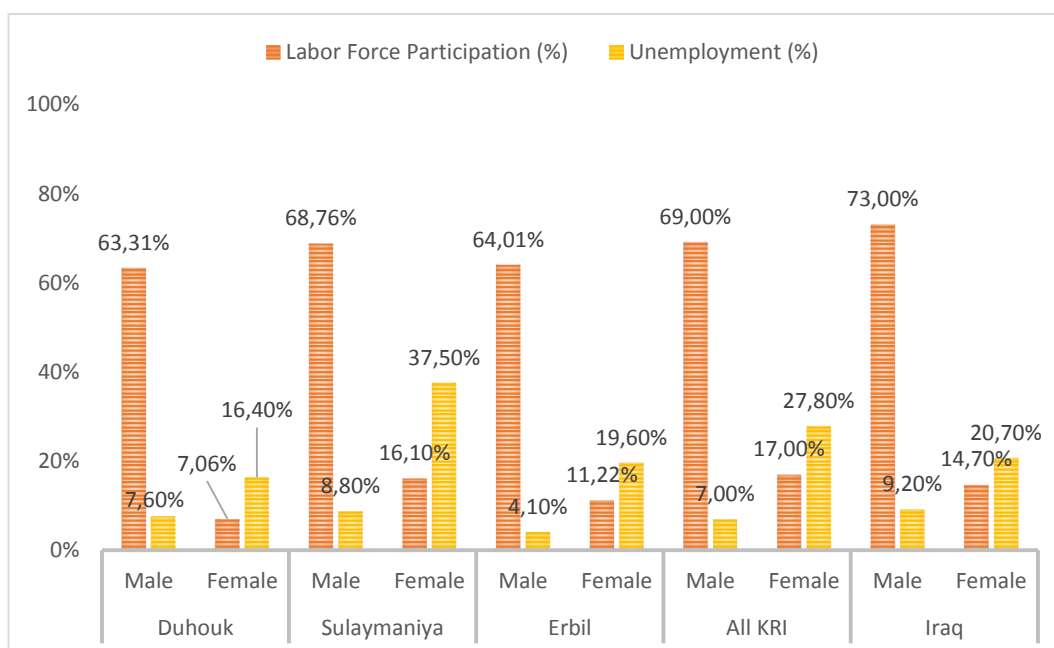
Source: Abramzon et al. 2014: 39; Own work

Appendix 8: Population and poverty



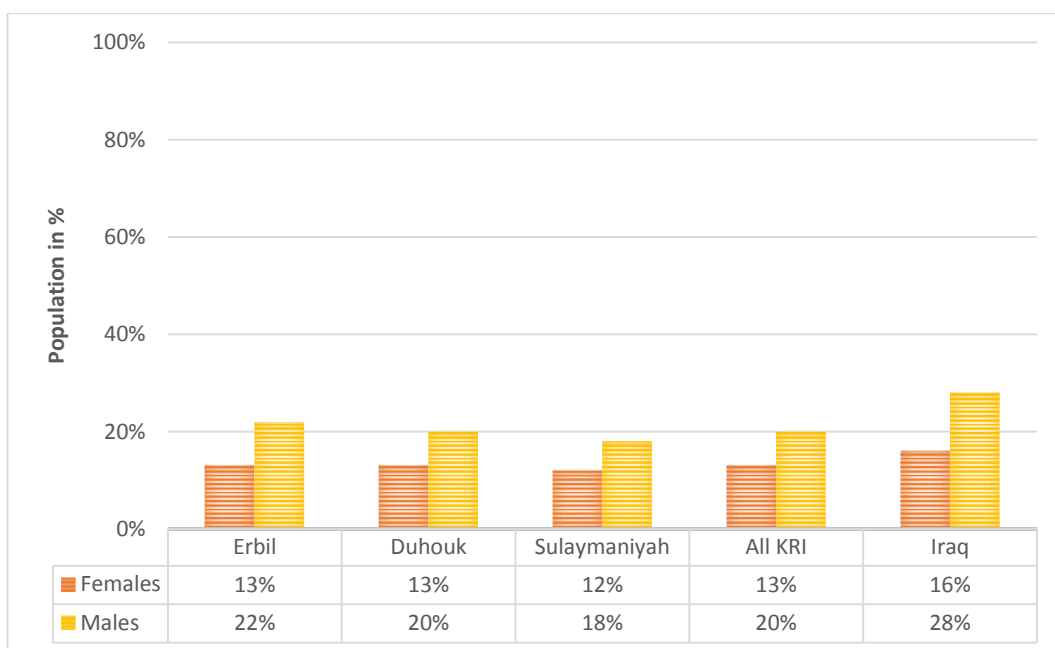
Source: UNDP 2014a: 140, 145; Own work

Appendix 9: Labour Force Participation and Unemployment, by Governorate and Gender, Age 15+



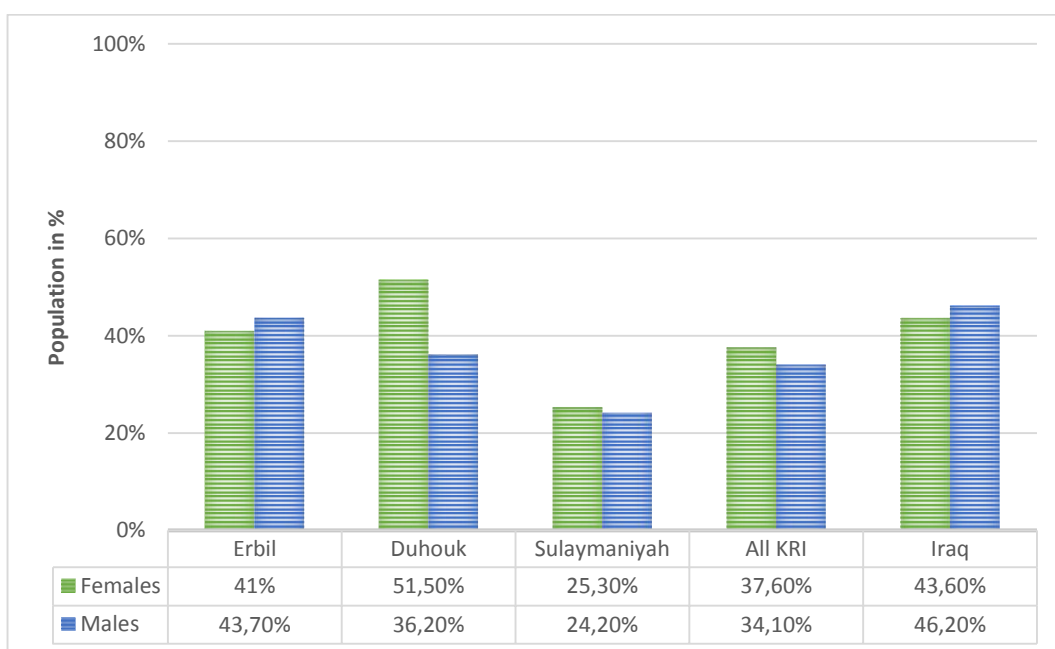
Source: Abramzon et al. 2014: 31, UNDP 2014a: 144; Own work

Appendix 10: Population ages 25+ with at least secondary education



Source: UNDP 2014: 129; Own work

Appendix 11: Youth who take 60 or more minutes to arrive at school or university



Source: UNDP 2014a: 149; Own work

Appendix 12: Education and Economic activity for women in Iraq

Governorate	GII value	Maternal mortality ratio	Adolescent fertility rate	Seats in governorate councils	Population ages 25+ with at least secondary education (%)	Labor force participation rate (%)	Total fertility rate (births per woman)	Mean years of schooling for (age 25+)	The literacy rate for (age 12+)	Students aged 15+ who are satisfied with education quality (%)	Workers with secured jobs (%)	Unemployment for age 15+ (%)	Average weekly working hours for age 15+	Underemployed individuals aged 15+ in (%)
Anbar	0,489	41	53	24	12	19	4,00	5,40	71,70	27,70	31,60	15,10	25,20	2,10
Babel	0,483	33	71	27	14	17	4,20	6,00	74,60	48,90	41,20	13,20	29,20	2,90
Baghdad	0,478	35	57	28	26	15	3,30	7,40	93,20	31,30	73,20	24,90	36,50	3,10
Basra	0,566	32	82	20	18	10	5,00	6,40	74,00	33,20	75,40	13,20	31,90	4,30
Diyala	0,503	35	53	28	15	12	4,00	6,70	74,50	50,00	69,50	33,00	29,90	3,20
Duhouk	0,421	31	24	38	13	11	4,10	6,50	56,30	32,40	77,10	16,40	32,60	3,60
Erbil	0,406	33	28	33	13	15	3,80	6,50	60,20	27,10	72,80	19,60	45,30	5,50
Kerbala	0,54	27	74	30	15	9	3,90	6,10	70,60	34,20	72,20	34,10	35,90	6,80
Kirkuk	0,561	40	60	15	11	13	5,40	6,40	72,60	26,40	45,40	3,40	27,50	3,00
Missan	0,554	38	73	26	12	11	7,00	4,40	57,80	42,60	54,90	16,10	26,20	9,50
Muthana	0,623	37	59	15	9	7	4,40	4,20	54,20	45,30	82,30	16,10	33,30	2,40
Najaf	0,497	26	89	25	14	18	4,30	5,80	69,70	38,10	39,80	23,40	32,40	2,00
Qadisiya	0,535	35	66	21	16	11	4,30	5,20	60,70	40,50	75,90	21,20	32,60	3,20
Salah al-Din	0,578	45	71	14	9	15	5,40	5,20	65,60	39,00	30,00	7,40	32,40	1,60
Sulaymaniyah	0,422	23	27	17	12	15	2,90	7,50	64,50	20,00	73,00	37,50	34,70	7,10
Thi Qar	0,529	33	54	26	13	10	4,30	5,20	57,70	43,30	63,00	24,40	37,40	2,60
Wasit	0,466	40	62	32	16	19	4,90	5,20	64,40	44,50	35,20	9,90	31,60	2,70
Iraq	0,5	35	59	27	16	13	4,20	6,20	70,10	35,60	58,60	20,70	33,10	3,80
Kurdistan	0,41	29	25	27	13	14	3,50	6,90	61,20	25,30	73,70	27,80	37,90	5,90

Source: UNDP 2014a: 129, 140-14

Appendix 13: Development indexes

Governatore	IHDI	HDI	MPI	YDI	GII	GNI index	Education index	Poverty (of total population %)
Anbar	0,574	0,677	0,142	0,5	0,489	0,674	0,586	15,4
Babel	0,568	0,669	0,099	0,673	0,483	0,685	0,587	14,5
Baghdad	0,612	0,716	0,043	0,662	0,478	0,694	0,652	12
Basra	0,582	0,681	0,179	0,583	0,566	0,674	0,6	14,9
Diyala	0,574	0,675	0,112	0,617	0,503	0,677	0,615	20,5
Duhouk	0,605	0,726	0,084	0,644	0,421	0,757	0,655	5,8
Erbil	0,628	0,751	0,033	0,703	0,406	0,782	0,677	4,5
Kerbala	0,571	0,68	0,129	0,628	0,54	0,676	0,588	12,4
Kirkuk	0,593	0,687	0,062	0,622	0,561	0,716	0,608	9,1
Missan	0,538	0,639	0,304	0,551	0,554	0,613	0,53	42,3
Muthana	0,543	0,643	0,192	0,554	0,623	0,619	0,534	52,5
Najaf	0,577	0,686	0,14	0,545	0,497	0,699	0,59	10,8
*(Ninewa)	0,545	0,655	0,232	0,582	0,538	0,645	0,583	35,8
Qadisiya	0,542	0,662	0,226	0,609	0,535	0,625	0,608	44,1
Salah al-Din	0,575	0,673	0,145	0,615	0,578	0,686	0,581	16,6
Sulaymaniyah	0,644	0,764	0,014	0,724	0,422	0,784	0,699	2
Thi Qar	0,569	0,669	0,298	0,596	0,529	0,637	0,596	40,9
Wasit	0,571	0,679	0,298	0,583	0,466	0,673	0,576	26,1
All KRI	0,629	0,75	0,038	0,706	0,41	0,777	0,68	3,5
Iraq	0,579	0,694	0,133	0,641	0,5	0,694	0,618	18,9

Source: UNDP 2014a: 127 - 131; Own work

Appendix 14: Progress in Iraq: The Millennium Development Goals

Millenium Development Goals		Worst 3 Governorates			Best 3 Governorates		
Goal 1	Eradicate extreme poverty and hunger	Thi Qar	Muthana	Nineva	Suleymaniyah	Erbil	Baghdad
	Proportion of population below \$2,5 (PPP) per day	37,80%	29,40%	26,00%	0,30%	2,00%	2,80%
Goal 2	Achieve universal primary education	Myasan	Wassit	Muthana	Suleymaniyah	Duhouk	Kirkuk
	Net enrolment ratiom in primary education	72,20%	84,50%	85,40%	97,80%	94%	93,10%
Goal 3	Promote gender equality and empower women	Salah al Din	Kirkuk	Diyala	Muthana	Duhouk	Basra
	Women in national parliament	9,10%	15,40%	16,70%	40%	37,50%	35,30%
Goal 4	Reduce child mortality	Kirkuk	Diyala	Babylon	Suleymaniyah	Baghdad	Muthanna
	Infant mortality rate (per 1 000 live births)	44,10	42,50	40,30	23,90	25,00	26,10
Goal 5	Improve maternal health	Nineva	Anbar	Babylon	Kerbala	Najaf	Suleymaniyah
	Proportion of births attended by skilled health personnel	82,60%	83,30%	83,40%	99,90%	96,20%	95,10%
Goal 6	Combat HIV/AIDS, malaria and other diseases	Babylon	Suleymaniyah	Baghdad	Najaf	Maysan	Muthanna
	Proportion of population aged 15-24 years with comprehensive correct knowledge of HIV/AIDS	85,10%	86,90%	87,10%	98%	97,10%	96,80%
Goal 7	Ensure environmental sustainability	Basra	Maysan	Najaf	Erbil	Suleymaniyah	Duhouk
	Proportion of population using an improved drinking water sources	1,20%	6,90%	22,50%	99,20%	97,50%	97,20%
Goal 8	Develop a global partnership for development	Muthanna	Basra	Thi Qar	Suleimaniyah	Baghdad	Erbil
	Personal computer ownership	5%	6,40%	6,70%	24,90%	23,70%	23,10%

Source: UN 2013: 1-4; Own work

Appendix 15: Interviews

Table 1

Question No. 1	What is the current political and security situation in Iraq and the KRI?
Interview No. 1	<i>The situation in the KRI is stable and safe. From time to time there are threats of terrorist attacks from outside, mainly from ISIL-DAESH</i>
Interview No. 2	<i>In the last election in the KRI, both major parties have weakened to the detriment of the newly established movement also greatly complicate relations between the regional and central government. The security situation remained more or less the same, a large part of the terrorist attacks were averted. To everyday but nothing significant has changed, even though it is a very sensitive topic - Peshmerga forces along with other Kurdish militia are the ones who constantly fights against ISIL.</i>
Interview No. 3	<i>I do not know, but I think that apart from ISIL and tension on the borders, the KRI remains safe. In the rest of Iraq, is an even "bigger mess".</i>
Interview No. 4	<i>Still excellent.</i>

Source: Interview 2015, Own work

Table 2

Question No. 2	What are the relationships between KRG and the government in Baghdad? What complicates these relationships?
Interview No. 1	<i>Very bad</i>
Interview No. 2	<i>Relations between the regional and central government are quite tense, which stems from mutual animosities between Kurds and Iraqis. The main points of contention are the budget and the de facto autonomy of the KRG.</i>
Interview No. 3	<i>If they did not have a "shared" common oil and yields from it (and this is not exist now), nothing is associated them. Besides mutual relations complicate ong-term historical experience.</i>
Interview No. 4	<i>Relations exist.</i>

Source: Interview 2015, Own work

Table 3

Question No. 3	Was Iraq and the KRI able to recover after a period of wars, conflicts and ultimately economic embargo after invasion after 2003?
Interview No. 1	<i>They failed to recover.</i>
Interview No. 2	<i>It depends on the area - if it was managed to provide sufficient security, the revival was unbelievably fast, as is the case of the KRI. On the other hand, perhaps in Baghdad or other cities conflicts are still ongoing.</i>
Interview No. 3	<i>In my opinion, just the KRI has recovered.</i>
Interview No. 4	<i>Kurdistan regional government and its people in a short time has been able to reach global status.</i>

Source: Interview 2015, Own work

Table 4

Question No. 4	What are the main development challenges the KRI and Iraq face nowadays?
Interview No. 1	<i>The problem is the difficulty of transformation of society, it is failing. The development aid is not humanitarian, development aid is to come and build a factory and teach people how to produce something to create jobs, it cannot do any humanitarian organization, it has to do state or business sector.</i>
Interview No. 2	<p><i>Iraq's economy is built on the sale of oil and commodities in addition to this there is de facto nothing else. Food production is not enough, industry or manufacturing are practically absent. There is also missing technically educated and skilled workforce.</i></p> <p>Additional question: Do you think that foreign aid can realistically resolve these problems, or the KRI has to solve it?</p> <p><i>Foreign aid, in my opinion, not much helps if people don't accept it as their own, but perhaps it's better than nothing. Personally, I agree with Mr. Lao-c who said: "Give a man a fish and you help him for a day, teach him to fish, and you'll help him for a lifetime"</i></p>
Interview No. 3	<i>Iraq – I don't know. The KRI, in my opinion, especially education and work for the people. If they have available oil, the money will be enough. If they have as a neighbor ISIL, they need enough weapons.</i>
Interview No. 4	<i>The situation is stable because the government and the people are very cooperative.</i>

Source: Interview 2015, Own work

Table 5

Question No. 5	<ol style="list-style-type: none"> Do you have information on any NGOs and other development agencies in the region? Are there any problems regarding operation of volunteers from NGOs in the KRI?
Interview No. 1	<ol style="list-style-type: none"> <i>Yes, there are hundreds of them.</i> <i>The second question was not asked</i>
Interview No. 2	<ol style="list-style-type: none"> <i>In the KRI and Iraq is numerous of NGOs and development agencies, from UN, through American, British, French to Italian and Czech branches.</i> <i>I think that the incompetence of volunteers and a total misunderstanding of the needs of the region.</i>
Interview No. 3	<ol style="list-style-type: none"> <i>Yes, People in need and Doctors without borders</i> <i>Development of civil society (in the area where thousands of years exists clan society). I do not know. I felt that about development of social society was no interest – so in the KRI. Arab part of the Iraq I don't know.</i>
Interview No. 4	<i>Questions were not asked</i>

Source: Interview 2015, Own work

Table 6

<p>Question No. 6</p>	<p>Water supply, sewerage systems and irrigation have been the main parts of foreign aid since 2003. Has the situation in the KRI improved in the area of water resources based on foreign assistance since 2003?</p>
<p>Interview No. 1</p>	<p><i>Partly yes, but these activities have stopped in connection with the war against DAESH (ed. ISIL)</i></p>
<p>Interview No. 2</p>	<p><i>It has been implemented several pilot projects and a program for building retention ponds for irrigation is running. The substantial improvement was not reached because the construction was dampened by lack of finance.</i></p> <p>Additional question: In the KRI has been carried out many development projects for the reconstruction of water resources, irrigation and drainage and sewerage for cities and villages. JICA-Japanese development agency is focused on the following projects:</p> <ul style="list-style-type: none"> - Erbil Water Supply Improvement - Dohuk Distribution Network Reinforcement - Halabja Water Supply Improvement - Suleimaniyah Distribution Network Reinforcement. <p>Do you think that these projects have success?</p> <p><i>First, it should be noted that the KRI has been a long time (= since World War II) underfunded and those 60 years, somewhere missing. Even with such a massive investment in Iraq it is not possible to build the basic infrastructure for a decade and if so (eg. the former East Germany) it will still take 2-3 generations before it will work as intended.</i></p> <p><i>The same goes for JICA's projects - just preparation lasted 8 years - design and planning began in 2003, implementation has diverged since 2012, at least as far as I know, the projects are not done yet. I do not know how to measure the success of the project, in my personal opinion, that locals do really not understand what is good, but enthusiastically talks about how important this is. Anyway, sooner or later they will require this type of projects.</i></p> <p>Additional question: What about people with access to clean water? According to one study, the KRI is facing (particularly Erbil) problems due to lack of sewerage systems and lack of sewage treatment plants, which may interfere groundwater and therefore quality of water and contribute to many diseases.</p> <p><i>Regarding water quality, it is a complex question - first population of the KRI increased severalfold, so what earlier used to work it will work no longer. Like in almost all developing countries, it solves all kinds of ways, usually at the expense of hygiene standards. Another factor is that the development of the whole region cause pollution of surface waters. Although the KRI has enough water, lots of it was taken directly from watercourses, but they are increasingly polluted mainly from the Turkish side, which also builds and develops intensive industries. In recent years begun monitoring of pollution by heavy metals, which 10 years ago was absent.</i></p> <p><i>Sewage treatment plants are still in their infancy, albeit in new buildings are mandatory, cities or municipalities do not have anything like that and it</i></p>

	<i>contributes to further pollution. To extension of the disease it probably contributed, although I think that not so much as the expected - most people just drink bottled water and water supply are used more like a utility source.</i>
Interview No. 3	<i>I was not in 2003 in the KRI, but within our own and other projects were prepared and implemented a large number of dams.</i>
Interview No. 4	<i>We are now going to create many dams and we were created number of other ones.</i>

Source: Interview 2015, Own work

Table 7

Question No. 7	1. What is the status of women in the KRI compared to Iraq? 2. Do any development organizations focus on this area? 3. Have there been any changes?
Interview No. 1	<ol style="list-style-type: none"> 1. <i>Worse than in CZ, better than in Saudi Arabia, perhaps comparable with Turkey, perhaps even better than in Turkey</i> 2. <i>Other questions were not asked</i>
Interview No. 2	<ol style="list-style-type: none"> 1. <i>On the basis of Constitution, women have equal rights in Iraq and the KRI. In real terms, however depends more on the habits of the region. The KRI in this regard does not differ significantly from European countries, women can study, work in mixed teams unless it is against their belief, they can drive a car, use make up, vote, do not go veiled if they want. Yet the role of woman is perceived differently than in Europe, even by women themselves. In the KRI is status of women the topics for politics, there is even a office for combating violence against women.</i> 2. <i>Development organization focus on this issue in the context of human rights</i> 3. <i>Personally, I think so, especially for the younger generation.</i>
Interview No. 3	<ol style="list-style-type: none"> 1. <i>I would say that the same.</i> 2. <i>I do not know, if so, I think they can do very little.</i> 3. <i>I would say probably not. Although many women work in men's positions, they drive cars etc., so I do not know how it was before. I would expect any changes after nowadays participation of Kurdish women against ISIL. But beware: Kurdish family is governed by women...</i>
Interview No. 4	<ol style="list-style-type: none"> 1. <i>Women in Kurdistan have full freedom, in Iraq I do not know.</i> 2. <i>Other questions were not asked.</i>

Source: Interview 2015, Own work

Table 8

Question No. 8	Do Kurds have a right to their own state?
Interview No. 1	<i>To establish a new state must be firstly met conditions such us own language, historical territory ... Try to answer for yourself</i>
Interview No. 2	<i>Yes they have, Kurdish ethnicity in this region is documented since Alexander the Great.</i>
Interview No. 3	<i>Sure! Except that they will probably fight among themselves.</i>
Interview No. 4	<i>Of course they have the full rights to independence and the establishment of their own state.</i>

Source: Interview 2015, Own work