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تحديات التنمية المستدامة في العراق: قضايا الأمن الانساني

Challenges to Sustainable Development in Iraq: Human Security Issues

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Abstract: This study reviews the search for the links between sustainable development and human security issues. It explains the integration of human security and sustainable development. It focuses on human security issues in Iraq including: political security, social security, environmental security, economic security, food security, water security as well as terrorist threats. One of the most important requirements for achieving sustainable development is providing a safe and stable environment based on social justice, respect for human rights and guaranteeing a decent life for all people. The UN agenda 2030 comprises 17 sustainable development goals to achieve better and more sustainable future for humanity such as, no poverty, zero hunger, quality education, good health and well-being, clean water and sanitation, gender equality, economic growth, clean energy industry, peace and justice. The study assumes that human security issues are considered major obstacles to achieving sustainable development in this country. Iraq cannot achieve sustainable development goals without ensuring human security and promoting human-centered development in order to guarantee stability, equality and the right of the next generations in life.

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الخلاصة : تستعرض هذه الدراسة البحث عن الروابط بين التنمية المستدامة وقضايا الأمن الانساني وتوضيح مدى التكامل والتداخل بين المفهومين. تركز هذه الدراسة على اهم القضايا المتعلقة بالأمن الانساني في العراق واهمها: القضايا السياسية، الاجتماعية، البيئية، الاقتصادية، الأمن الغذائي، الأمن المائي، فضلا عن ذلك التهديدات الإرهابية. من اهم متطلبات تحقيق التنمية المستدامة هو توفير بيئة آمنة ومستقرة قائمة على اساس العدالة الاجتماعية، احترام حقوق الانسان وضمان الحياة الكريمة لجميع الناس. جدول أعمال الأمم المتحدة لعام 2030 يتألف من 17 هدفاً من أهداف التنمية المستدامة لتحقيق مستقبل أفضل وأكثر استدامة للبشرية، اهم هذه الاهداف هي: القضاء على الفقر، القضاء على الجوع، التعليم الجيد، الصحة الجيدة، الرفاهية، المياه النظيفة والصرف الصحي، المساواة بين الجنسين، النمو الاقتصادي، البيئة النظيفة، الطاقة النظيفة، السلام والعدالة. تفترض هذه الدراسة أن قضايا انعدام الأمن الإنساني تعد أحد اهم العقبات التي تواجه تحقيق التنمية المستدامة في هذا البلد، ونتيجة لذلك لا يستطيع العراق ان يحقق أهداف التنمية المستدامة من دون ضمان حقيقي لمعايير الأمن الانساني وتعزيز التنمية البشرية التي تركز على الإنسان بالدرجة الاولى، من أجل ضمان الاستقرار، المساواة وحق الأجيال القادمة في الحياة.

Introduction

In our contemporary world, the concept of sustainable development has become one of the most important indicators of modernity, development and preserving natural resources for future generations. There is a close relationship between sustainable development and the concept of human security. Sustainable development cannot be achieved without meeting the challenges to human security. The human being is the main target of sustainable development which aims to achieve human development based on improving levels of health care, education and social welfare. This was confirmed by the report of the World Commission on Development and Environment (Brundtland Commission) in 1987, entitled Our Common Future. The report defined the concept of sustainable development as the process that meets the needs of the present generation, without harming or limiting the ability of future generations to survive [1]. Sustainable development aims to renew resources and wealth in a way that ensures a clean and a suitable environment for the life of the next generations.

Human Development Report issued by the United Nations Development Program 2003, explored the most important constraints that are crucial for

[1]Borowy, Iris. "Defining Sustainable Development for our Common Future: A history of the World Commission on Environment and Development (Brundtland Commission)". Rutledge, 2013, p.2.

sustainable human development: the need for economic reforms to achieve economic stability, the need for social justice and involving people in the decision-making process and the need for strong institutions to enforce the rule of law and control corruption[1]. This study explains the concept of sustainable development, dimensions of sustainable development and the concept of human security. It attempts to discover the links between sustainable development criteria and human security issues. Finally, the study focuses on the issues of human security that are considered most complicated challenges to promoting sustainable development in Iraq[2].

Concept of Sustainable Development

The idea of sustainable development dates back to 1972 through the Stockholm Conference on Human Development. It became clearer during the Brutland Commission report (Our Common Future) in 1987, that defined it as the ability of humanity to ensure the needs of the present without compromising the ability of future generations to provide their own needs[3].

It is a concept that aims to combine social, economic and environmental development and security. It provides the right opportunity for development that is socially, economically and environmentally sustainable [4]. The exact meaning of sustainable development is durability. It is an alternative to the term of globalization. It is considered the most popular meaning of economic development[5]. William Doyle Ruckelshaus administrator of the US Environmental Protection Agency from 1970 to 1973, defined it as "*the process that recognizes the need to achieve economic growth in line with the capabilities of the global environment based on the premise that economic development and environmental preservation are complementary and not contradictory processes*" [6].

The UN agenda 2030, comprises 17 sustainable development goals to achieve better and more sustainable future for humanity. They are: "no poverty, zero

[1]Human Development Report 2003, Millennium Development Goals: A Compact Among Nations to End Human Poverty, The United Nations Development Program (UNDP), pp.28-29. https://hdr.undp.org/system/files/documents/human-development-report-2003-english.human-development-report-2003-english

[2]Musawi, Abdul Wahab, et al. "Sustainable Development in Iraq: Challenges and Proposals for Reform". 2020, p.3.

[3]Khagram, Sanjeev, et al. "From the Environment and Human Security to Sustainable Security and Development." Journal of Human Development 4, no. 2, 2003, p.296.

[4] Polyakova, Ekaterina, and Larisa Gorina. "Environmental security and sustainable development of large urban centers." In E3S Web of Conferences, vol. 250,. EDP Sciences, 2021, p.2.

[5] Lankauskienė, Toma, and Manuela Tvaronavičienė. "Security and Sustainable Development: Approaches and Dimensions in the Globalization Context." Journal of Security and Sustainability Issues 1, 2012, pp. 287-288.

[6] Bin Issa,H. "Right to Sustainable Development in International Human Rights Law Rules". Master's Thesis, 2017, p.28.

hunger, quality education, good health and well-being, clean water and sanitation, gender equality, decent work and economic growth, affordable and clean energy industry, innovation and infrastructure, reduced inequalities, sustainable cities and communities, responsible consumption and production, life below water, life on land, climate action, peace, justice, strong institutions and partnerships for the goals" [1].

Dimensions of Sustainable Development

1-Economic Dimension

The economic development is considered one of the most important dimensions of sustainable development. It aims to achieve individual well-being, eliminating poverty and optimizing the use of natural resources[2]. Sustainable development attempts to maintain qualitative development and the basic requirements for survival, not only for the present, but for future generations. It is a process of achieving economic development for all people with a focus on new economic and technological development strategies in accordance with environmental standards [3].

2- Environmental Dimension

There is an interactive relationship between sustainable development and the environmental factor. Preserving the environment and natural resources is an important indicator of the development of human society. According to human rights specialists, this factor is one of the aspects of human rights. The conference of the United Nations on the human environment in 1972, pointed out that the environment provides human beings with material existence, social, intellectual and spiritual growth. Maintaining the environment is essential for well-being and the enjoyment of human rights, including the right to life [4].

In addition, some constitutions referred to the right of individuals to live in a clean environment. For example, the Iraqi constitution in 2005, article 33 stipulates that "everyone has the right to live in safe environmental conditions. The state guarantees the protection and preservation of the environment and biodiversity" [5].

3- Human Dimension

[1] Sousa, Manuel, et al. "Multiple Criteria Decision Making for the Achievement of the UN Sustainable Development Goals: A systematic Literature Review and a Research Agenda." Sustainability 13, no. 8, 2021, p.1.
[2] Bin Issa, op. cit., p. 20.
[3] Krstić, Ivana ilić, et al. "The Three Dimensions of Sustainable Development: Environment, Economy and Society." 2018, p.201.
[4] Bin Issa, op. cit., p. 22.
[5] Al-Khateeb, Mukdad Abdulwahhab. "The Accountability of the Iraqi Constitution on Investment for Sustainable Development." Association of Arab Universities Journal of Engineering Sciences 23, no. 2, 2016, p.79.

This indicator has utmost importance to achieve the requirements of the comprehensive and sustainable development. The human being is at the center of concern for sustainable development and its primary goal. Consequently, limiting population growth is an urgent imperative of the development process, because it can cause pressure on natural resources and impedes the government's ability to provide services and social care[1]. The comprehensive concept of sustainable development is based on achieving social justice for all generations. In other words, it includes a balance between the consumption of available resources and the ability of social systems to meet the needs of present and future generations to ensure a better life for all people[2].

Concept of Human Security

The concept of human security has evolved by shifting the focus from nation-state towards the people to be (people centered development) that means how these people live, how they exercise their multiple choices, how they access to the market and social opportunities[3]. Several theoretical approaches have been used to explain how and why the concept of human security has become part of social expectations. The first approach is the narrow school[4] which argues that the concept of human security is freedom from political violence practiced by the state or any organized political actor. The second approach is the public school[5] which believes that the concept of security is not limited to the threat of violence, it is not only freedom from fear, but also freedom from want[6].

Human security means, first: safety from chronic threats such as hunger, disease and oppression. Second: protection from sudden disturbances in the patterns of daily life, whether in homes, jobs or societies[7]. The concept of human security represents the most significant aspect of urbanization and modernization. It includes the stability of institutions, ensuring democracy, the rule of law, promoting and protecting minority rights and effective political participation[8].

[1] Bin Issa, op. cit., p23.
[2] Krstic, et al, op. cit., p.201.
[3] Buzan, Barry and Lene Hansen. "The Evolution of International Security Studies". Cambridge University Press, 2009, p.203.
[4] It is one of the schools of thought on the concept of human security that emerged after World War II. It focuses on internal violence that threatens the lives of individuals and society.
[5] It is one of the schools of thought on the concept of human security that emerged after World War II. It emphasizes that threats are not limited to internal violence, but also include hunger, disease and natural disasters because they kill more people than wars.
[6] Collins, Alan. "Contemporary Security Studies". Oxford University Press, 2007, p.95.
[7] Collins, Alan, op. cit., p.92.
[8] LaGro, Esra. "Turkey and the European Union: Prospects for a Difficult Encounter". Springer, 2007, p.72.

Human security is defined as protecting the vital core of all people in ways that enhance human rights, freedoms and human fulfillment. The protection of the political freedoms, the protection of human beings from threats, creating social, political, economic , environmental, military, cultural systems that provide people with the basic building blocks for survival, livelihood and dignity[1].

Integrating Human Security and Sustainable Development

Organic interconnection between human security and sustainable development became global and transcended regional boundaries. We cannot achieve sustainable development without meeting the challenges of human security issues. These issues complement each other and require international efforts. It is possible to examine the powerful integration between human security and sustainable development through the issues of climate change that are considered a big challenge of our time which add additional stress to our societies and the environment[2].

Recently, there is great recognition of their interlinkages. The main factors behind this development are increasing understanding human- ecosystem dynamics, such as poverty, variability, the impact of climate change and the consumption of the earth's natural resources[3]. The following examples show how climate change increased the interplay between sustainable development and human security issues:

1-Water Scarcity in the Nile, Tigris and Euphrates regions Due to Climate Change

Global warming is one of the biggest challenges facing sustainable development in many countries, particularly the developing countries. Climate change adaptation depends on economic capabilities and the nature of the political system. For example, a study was prepared by Africa Center for Strategic Studies in 2014, showed that the decrease in the rate of rainfall and rising temperatures in some parts of the continent increased inter-group inequality, demographic change, violence and competition for scarce resources that fomented insecurity [4].

[1] Human Security Unit. Office for the Coordination of Humanitarian Affairs .United Nations. Human Security in Theory and Practice, 2009, p.6. Visiting date 6/2/2023 , 1:43. http://ochaonline.un.org/humansecurity

[2] Adedeji, Olufemi. "Global climate change." Journal of Geoscience and Environment Protection 2, no. 02, 2014, p.114.

[3] Granit, Jakob, Henrik, et al." Integrating Sustainable Development and Security: An analytical Approach with Examples from the Middle East and North Africa, the Arctic and Central Asia". Stockholm Environment Institute., 2015, p.6.

[4] Granit J, et al, op. cit., p. 9.

The first example is water scarcity in Nile basin. The Nile is the longest river in the world, it measures 6,695 kilometers from its source in Burundi to its delta on the Mediterranean Sea. The total population in the Nile Basin countries which consists of 11 countries, was estimated at around 232 million people in 2010. According to statistics, the population in 2052, will reach 600 million people in this area. As a result of the devastating drought, the Nile basin countries suffered from water scarcity that caused tension, conflict and slowed down the development process in the region[1].

Another example is the scarcity of water in the Tigris-Euphrates basin. Turkish Southeastern Anatolia Project (GAP) represents a direct threat to water security in Syria and Iraq. This project has a negative effect on agriculture sector and hydroelectricity production in both countries, it will reduce the flow of water into Syria by 4% and Iraq by 80%[2].

2- The Arctic Region

Three decades after the end of the Cold War, the importance of the Arctic has dramatically increased due to the rapid changes in the physical environment. Climate change and global warming have led to melting snow and ice, shrinking glaciers, thawing permafrost, ocean acidification and increasing concentrations of carbon dioxide level in the frigid water. The Arctic has become a socio-ecological system because of the interaction between global environmental change and globalization[3].

3- Central Asia

This region represents the republics of the former Soviet Union, including Kazakhstan, Tajikistan, Turkmenistan, Uzbekistan and Kyrgyzstan. These countries extend over a large area in the heart of Eurasia, which is a major source of oil and natural gas. The strategic importance of this region has increased due to the great powers' regional interests in this area. For instance, Kazakhstan's effort to develop hydroelectric power could lead to tensions with Russia because this project has the effect of reducing water flow. According to the FAO report released in 2012, this area is at risk of drought as a result of global climate change [4].

[1] Oestigaard, Terje. "Water Scarcity and Food Security Along the Nile: Politics, Population Increase and Climate Change". Nordiska Afrikainstitutet, 2012, p.25.
[2] El-Fadel, Mutasem, et al. "The Euphrates–Tigris Basin: A Case Study in Surface Water Conflict Resolution." Journal of Natural Resources and Life Sciences Education 31, no. 1, 2002, p.5.
[3] Granit J, et al, op. cit., p.11.
[4] Granit J, et al, op. cit., pp.14-15.

In addition, the Aral Sea has shrunk by 30% over the past two decades and the flow of water of the Amu Darya and Syr Darya rivers has markedly decreased due to the over- irrigation and industrial water use. All of these factors caused increasing soil salinity, rapid glacier melt and the lack of fresh water which led to the economic deterioration and social unrest [1].

Human Security Challenges in Iraq

1-Political Security Challenges

The term of political security means protecting human rights from government repression, systematic violation and militarization[2]. In the weak states, the political elites use internal and external survival strategies. It employs carrot and stick approaches with political challengers and intimidation against opponents of the regime [3].

Iraq faces significant challenges in the field of political security, especially human rights issues. As reported by Human Rights Watch, Iraq's criminal justice system is riddled with inhumane procedures when dealing with protesters and critics, such as torture and forced confessions. In addition, authorities carried out several judicial executions which reached 675 between 2005 and 2014 . In January 2020, the United Nations Mission (UNAMI) released a report assessing the justice system in Iraq. The mission confirmed that by monitoring of 794 criminal trials, 619 people face the death penalty under Iraq's dangerously overbroad counterterrorism law. Moreover, the mission has supported Human Rights Watch's findings that basic standards of justice are not respected with regard to terrorism-related trials[4].

On top of all that, the issue of minorities is one of the major challenges facing Iraq. All Iraqis suffer, but minority issues are require special attention because they are under threat. Reports indicated that approximately 25-30% of Iraqis have left their homes both internally and externally. More than 80% of the Sabean Mandeans community have been displaced from Iraq, while the percentage of Christians and other minorities reached 60%. Minorities in Iraq are at risk of extinction, the UNHCR chief has pointed out that in 2007 less than 1% of displaced persons were able to return. But even with this paltry number, not a single minority

[1]Qi, Jiaguo and Rashid Kulmatov. "An Overview of Environmental Issues in Central Asia. Environmental Problems of Central Asia and their Economic, Social and Security Impacts." 2008, p.3.
[2] Hassan, Oz. "Political Security: From the 1990s to the Arab Spring". Contemporary Politics 21, no. 1.2015, p.85.
[3] Collins, Alan, op. cit., p.192.
[4] Human Rights Watch. Human Report 2021, pp.346-347. Visiting date 6/2/2023 , 1:36pm. https://www.hrw.org/world-report/2021/country-chapters/iraq

person was reported [1]. Unfortunately, the political experience in the last 13 years does not give us hope for achieving political stability in Iraq because of conflict between the different political parties in power[2].

2- Economic Security

It means " a state of mind or sense of well-being whereby an individual is relatively certain that he or she can satisfy basic needs for both present and future"[3]. Economic security is essential to strengthen the welfare of people, development and growth. The most common causes of insecurity are loss of income that might result from layoffs, accidents and sickness, the inability to find a job to provide basic needs for life and extra expenses incurred when a member of the family becomes ill [4]. The Iraqi economy since 2016 can be described as follows: it suffers from economic imbalance, for example, the contribution of the oil sector reached about 97% compared to the Gulf countries that reached about 38%, the lack of job opportunities for young people, corruption in public financial management and the external debt which was estimated at 125 billion dollars. According to UN report in 2015, Iraq ranked 133th out of 188 countries on the human development index.[5].

The economic sector in Iraq has been completely destroyed due to the successive wars since 1980. For example, the amount of losses reached to 450 billion dollars as a result of ISIS control over the northern and western parts of the country. The World Bank estimates the cost of reconstruction in Iraq at $88 billion dollars. Furthermore, the Iraqi economy is one-sided because of the country's dependence on oil exports which poses a threat to Iraq's economy due to the fluctuation of oil prices. For instance, the most dangerous crises Iraq faced in 2014 was the plummeting of oil prices that reached $36 per barrel after it was $106 in 2011. The data included in the National Development Plan indicated that oil constituted 97% of the federal budget [6].

3- Food Security

[1] Lamani, Mokhtar." Minorities in Iraq: The Other Victims." 2009, p.5. Visiting date 6/2/2023 , 1:40pm. https://www.jstor.org/stable/resrep05235
[2] Al-Basri, Kamal Field. "Political Stability in Iraq After Daesh." 2016, p.5.
[3] Rejda, G. "Social Insurance & Economic Security". (2ed). USA: Prentice-Hall, Inc, 1984, p.2.
[4] Williams, Chester Arthur, et al. "Economic and Social Security: Social Insurance and Other Approaches". John Wiley & Sons Inc, 1982, p.1.
[5]Jameel. A. Abdul Hussein." An Analysis of Indicators of Economic Security for Individual in Iraq." Economic Sciences 11, no. 44, 2016, pp.26- 33.
[6] Fadhil, Ghasaq A., and Abbas M. Burhan. "Investigating the Effects of Economic Crisis on Construction Projects in Iraq." In E3S Web of Conferences, vol. 318, p. 02005. EDP Sciences, 2021, p.2.

Improving food security is necessary for survival and preventing risk of famine. The Food and Agriculture Organization of the United Nations (FAO) classified the causes of food crises as follows: land degradation, water scarcity, natural disasters, heavy dependence on food imports and ineffective food markets. All these factors could lead to increasing levels of poverty and malnutrition[1]. Iraq has suffered from war and instability that affected the entire food production in many ways including: the destruction of crops and fields, population displacement, transport risks, exchange rate fluctuations and the spread of diseases. By 2003, the agricultural sector continued to suffer from the impact of wars, sanctions, high level of soil salinity and political instability [2].

Iraq is facing food insecurity due to conflicts that harmed agricultural production and food markets as well as impeding the access people to income. For instance, the war against ISIS in 2014 led to disastrous results such as destroying fields and infrastructure, food prices have risen dramatically and suffering from extreme poverty and hunger. In addition, the illegal measures taken by local security forces represented a serious obstacle to food security through imposing additional fees on food trucks crossing checkpoints. Besides, Iraq remains highly dependent on food imports from outside in particular Iran and Turkey, weak infrastructure and the lack of government's support for farmers [3].

FAO stressed that Iraq is facing severe threats to food security for many reasons: the dry season in Nineveh province led to decrease in cereal production, soaring food prices and the need to import a large amount of cereals from abroad. As a result, there are more than 1.4 million people in need of immediate humanitarian assistance [4]. Table (1) explains food security crisis related to climate change in the world in 2016.

Table (1): Food Security Crisis Related to Climate Change in the World in 2016.

	Country	The main negative impacts of climate/weather on food security	The number of food insecure people (Number in the millions)
1	Afghanistan	Floods, landslides and drought	8.5

[1] The Food and Agriculture Organization of the United Nations, The State of Food Security in the World,1999, p.17. Visiting date, 30/1/2020, 1:06pm. https://www.fao.org/3/x3114e/x3114e.pdf
[2] Gibson, Glen R., et al. "Three Decades of War and Food Insecurity in Iraq." Photogrammetric Engineering & Remote Sensing 78, no. 8, 2012, p. 285-290.
[3] Mathieu, Comtois, Sarah. "Toward Economic Recovery and Food Security in Post-Daesh Iraq". The American University of Iraq, Sulaimani,2017, pp.1-2.Visting date 15/7/2022 10:30pm. https://auis.edu.krd/iris/sites/default/files/FSED%20Report%20final.pdf
[4] Food Agriculture Organization of the United Nations, GIEWS Country Brief-The Republic of Iraq,2021, p.1.Visting date 15/7/2022, 10:50pm. https://www.fao.org/giews/countrybrief/country/IRQ/pdf/IRQ.pdf

2	Burundi	El Nino phenomenon	2.3
3	Central African Republic	Floods	2.0
4	Republic of the Congo	El Nino phenomenon	5.9
5	Iraq	Drought	1.5
6	Somalia	Drought	2.9
7	South Sudan	Drought and floods	4.9
8	Sudan	El Nino phenomenon	4.4
9	Syria	Drought	7.0
10	Yemen	Floods, heavy rain and tropical cyclones	14.1
Total			53.5

Source: World Food Program. 2017 - The State of Food Security and Nutrition in the World (SOFI) Report. https://www.wfp.org/publications/2017-state-food-security-and-nutrition-world-sofi-report

4- Environmental Security

Environmental issues are a part of our everyday life because they are often highly complex and in a high degree of uncertainty. Environmental damage could cause major social and economic problems involving a high level of risk to human and environmental health [1]. Environmental challenges are recognized as global issues that are related to our life. One of these issues is climate change that led to increasing the global problems such as rising sea levels, distributions of animals and plants across the world [2].

Respect for the environment is a fundamental element to achieve sustainable development. It means respect the rights of future generations, diversity, the cultural landscape, environmental awareness and environmental ethics. In other words, sustainable development strategies should reflect these essential considerations which may be consistent with globalization and localization processes [3].

The current environmental challenges facing Iraq represent a major threat to national prosperity, health and food security. For example, the main causes of ecological imbalance are air, soil and water pollution with chemicals and biological agents. Several wars and a 13-year financial and trade embargo as well as civil war and war on terror led to increasing environmental degradation in Iraq. A study

[1] Connelly, et al. "Politics and the Environment: from Theory to Practice". Routledge, 2003, p.2.
[2] Graves, Jonathan and Duncan Reavey. "Global Environmental Change: Plants, Animals and Communities". Longman Publishing Group, 1996, p.84.
[3] Ianos, Ioan , et al. "Respect for Environment and Sustainable Development." Carpathian journal of Earth and Environmental Sciences 4, no. 1, 2009, p.81.

conducted in 2016 found that Iraq is suffering from radioactive pollution in many regions particularly Baghdad, Basra, Mosul, Dhi Qar and Fallujah [1].

Many reports indicate that the air in Iraq is highly polluted with pollutants emitted from cars, trucks and power stations. Gasoline and diesel in Iraq are among the worst types of fuel in the world. Gasoline contains high levels of sulfur up to500 ppm as well as high levels of lead while diesel contains large amounts of sulfur up to 1-2.5%[2].

5- Social Security

The term social security was first used by Perry Buzan in his book (People, States and Fear). Buzan sees that social security as one of five sectors: military, political, economic, environmental and social security. Social security refers to the sustainable development of traditional patterns of language, culture, religion, national identity and customs of the nation. Cultural identity and social security have become the central theme of political attitudes and conflicts [3].

The main challenges facing societal security in transition countries are: reducing poverty, providing basic services to the population, meeting emergency needs and helping victims of crises and natural disasters. Iraq like other post-conflict societies is at a crossroads[4]. The future of development in this country has become questionable after the failure of the political elites to achieve social integration and facing the dangers of sectarian and ethnic division. Iraq faced many crises particularly after 2003, such as social tensions, disaffected groups that feel marginalized and excluded, subsidiary political loyalties, unsanitary urban slums, poverty, unemployment and forced displacement. Global Human Development Index 2013, showed that Iraq ranked on the bottom of a list of countries with medium human development. Human development index value was 0.590, indicators of poverty 0.059, while gender inequality reached 0.557 [5]. Table (2) shows the key indicators of human development in Iraq after 2003.

Table (2): Human Development Index in Iraq Since 2005-2014.

Years	Human Development Index

[1] Al-Shammari, Ahmed Majeed. "Environmental Pollutions Associated to Conflicts in Iraq and Related Health Problems." Reviews on Environmental Health 31, no. 2, 2016, p.245.
[2] Kadhem, Jafaar , et al. "Alternative Fuel Use in Iraq: A way to Reduce Air Pollution." European Journal of Engineering and Technology Research 2, no. 5, 2017, p.20.
[3] Collins, Alan, op. cit. pp.203-204.
[4]Mustafa, Adnan Yassin. "The Problem of Social Security in Iraq After 2003 (Sociological Reading)." Hammurabi journal for Studies 10, 2014, p. 149.
[5] Mustafa, Adnan Yassin, op. cit., p.153.

2005	0.621
2006	0.564
2007	0.567
2008	0.632
2009	0.576
2010	0.683
2011	0.639
2012	0.641
2013	0.642
2014	0.654

Source: Mahmud, S. F. (2020). The Impact of Terrorism on Human Development in Iraq, p: 39.

One of the major challenges to societal security is the large increase in the total population in Iraq. In the early eighties, the population has substantially grown to about 13 million, in 2010 reached 31 million and it is expected to reach 71.3 million people in 2050. Population growth in Iraq can be seen in table (3).

Table (3): Population Growth and Population Size in Iraq until 2100.

Year	Population Growth (%)	Population size
2015	2.89	35767000
2025	2.4	44351080
2035	1.92	52866487
2045	1.6	61325125
2065	1.45	70217269
2075	1.95	83909636
2085	2.45	104467497
2095	2.95	135285408
2100	3.2	178576738.8

Source: Abd-El-Mooty. Challenges of Water Resources in Iraq. Hydrology Current Research. 2016: pp 4-5.

Moreover, Iraq faces enormous problems in the health service sector such as: rebuilding the infrastructure, reorganizing the pharmaceutical sector and addressing the shortage of medicine, reducing major risks to the health of populations, retraining the workforce and finally identifying the main causes of the high rate of communicable and non-communicable diseases [1].

6- Water Security

Water is the basis of life and civilization and it correlates with major issues like: pollution, floods, droughts, uncontrolled agricultural practices, climate change, sea level rise, health and diseases that could affect human, animal and plant life [2].

[1] Mahmud, Sabah Faihan. "Sustainable Development the Way to Overcome Development Challenges In Iraq." Journal of Advanced Social Research Vol 3, no. 10, 2013, p.286.
[2] Thomas, Duncan A, and Roger R. Ford. "The Crisis of Innovation in Water and Wastewater". Edward Elgar Publishing, 2005, p.1.

There is a close relationship between water scarcity and the escalation of interstate conflicts, especially in the Middle East. Although oil is the first factor in the global security equation, water will be the second factor during the 21st century[1].

For the first time in history, Iraq is facing a serious water crisis. The reasons for water scarcity were not completely natural, but most of them are man-made due to the construction of upstream dams in Turkey and Iran, consequently depriving Iraq of its full water share. These policies by neighboring countries have caused damage to the environment of Iraq, especially in southern Iraq. In the summer of 2010, the Ministry of Water Resources stated that it could not meet the water needs of the country. It is difficult for Iraq to control its water resources that originate from neighboring countries and moreover, there are no cooperation agreements regarding water quotas. Water crisis caused great damage to Iraq and its environment and could lead to increased insecurity and tensions in the region [2].

In recent years, environmental problems in Iraq have increased significantly as a result of many reasons, such as bad management of water resources systems, pollution, drought, desertification and soil salinity, the use of fresh water for irrigation and food production. In 2005, agricultural production reached only 20% due to scarcity and inefficient use of water. The percentage of families that have access to drinking water in cities has reached 80%, while in rural areas it was only 57%. Also, Iraq has serious infrastructure problem, such as water supplies and poor sanitation. Access to sewage disposal system is available to 26% of the population in the cities, while in the countryside only 2%. Therefore, the lack of proper sewage system has led to an increase in water pollution[3]. Table (4) provides data on the problems of water in Iraq during 2010.

Table (4): Water Problems in Iraq During 2010

	Problems	Number Provinces	The ratio

[1] Chatterji, Manas, et al. "Conflict Management of Water resources". Routledge, 2002, p.5.
[2] Janabi, Hassan. "Water Security in Iraq." In Iraqi's Ambassador to the UN Agencies in Rome l, FAO Meeting, Alexandria, vol. 1. 2010, p.1.
[3] Al-Obaidy, A. H. M. J., and Mukdad Al-Khateeb. "The Challenges of Water sustainability in Iraq." Engineering and Technology Journal 31, no. 5 , 2013, pp. 830-831.

1	water scarcity	15	2.68
2	water pollution	8	36.4
3	The water distribution network is old and weak	19	86.4
4	The production of the project does not meet the need	16	72.7
5	poor maintenance	5	22.6
6	Scarcity of spare parts and raw materials	16	72.7
7	Lack of technical and administrative staff	20	90.9
8	lack of electricity	22	100
9	Misuse water	20	90.9
10	poor level of awareness in ways to rationalize consumption	22	100

Source: Iraqi Ministry of Finance Report. The Agricultural Sector in Iraq: Causes of Stumbling and Reform Initiatives. http://www.mof.gov.iq/Lists/ResearchesAndStudies/17.pdf

7- **Terrorist Threats**

Bruce Hoffman argued that terrorism is fundamentally and inherently political. It is also ineluctably about power: the pursuit of power, the acquisition of power and the use of power to achieve political change [1]. There are two types of terrorist groups, local and international groups. Local or domestic terrorist groups are those who operate within state borders against individuals and institutions such as right-wing death squads in Latin America and freedom fighters in Northern Ireland. As for international terrorist groups, they are considered more dangerous and powerful than local groups as well as have cross-border actions like Al-Qaeda[2].

Terrorism has a negative impact on human development in Iraq through its direct impact on human security and its indirect impact on health and education. After 2003, war, instability and the widespread of terrorism led to increase school dropout rate, especially in poor families. The number of dropouts from the primary school reached 99,205 while the number of secondary school dropouts reached 58,594 since 2012-2013. In addition, the health care system has deteriorated due to terrorist attacks. Doctors have become vulnerable to killing and kidnapping by terrorists. It is estimated that approximately1243 doctors have emigrated between 2004 and 2007. Iraq had achieved acceptable levels of human development before the American invasion in 2003. But since 2003, the percentage decreased to reach 0.633 percent in 2005 because of war and terrorist attacks[3].

Iraq suffered from massive destruction of infrastructure and other facilities after ISIS's control over large swathes of territory in western Iraq in 2014. Most farmers have moved to towns in central and southern Iraq, consequently this posed a serious threat to food security in the country as a result of deterioration of

[1] Mahan, Sue and Pamala L. Griset. "Terrorism in Perspective. Sage publications". 2008, p.4.
[2] Kronenwetter, Michael. "Terrorism A Guide to Events and Documents". 2004, pp.60.
[3] Mahmud, Sabah Faihan. "The Impact of Terrorism on Human Development in Iraq." Global Journal of Management and Economics 1, 2020, pp.34-38.

agricultural crops and animal production. The terrorist ideology that opposes democratic practices and liberation has a bad effect on people's ideas, in particular youth. Terrorist thought has become a major threat to the well-being of mankind. For instance, it assumes that people must live at low levels of human welfare in order to win heaven. Their goal was to have absolute control over people's minds to achieve their radical ideological agenda[1]. Table (5) provides data on10 cities with highest fatality rate from terrorism in 2014.

Table (5): 10 Cities With Highest Fatality Rate From Terrorism in 2014

City	Country	Deaths From Terrorism	Population	Rate Per 100,000
Baghdad	Iraq	2,454	5,673,000	43
Maiduguri	Nigeria	431	1,112,000	39
Mosul	Iraq	510	1,740,000	29
Peshawar	Pakistan	304	1,219,000	25
Donetsk	Ukraine	102	1,025,000	10
Kabul	Afghanistan	206	3,044,000	7
Kano	Nigeria	184	3,626,000	5
Odessa	Ukraine	46	1,002,000	5
Karachi	Pakistan	374	11,624,000	3
Kaduna	Nigeria	46	1,582,000	3

Source: Global Terrorism Index 2015, Institute of Economic & Peace , Center for Excellence of the U.S Department of Homeland Security, Led by The University of Maryland, p:32. https://www.economicsandpeace.org/wp-content/uploads/2015/11/2015-Global-Terrorism-Index-Report.pdf

Conclusion

This study concluded that there are strong links between sustainable development and human security issues. Sustainable development cannot be achieved without solving the critical problems facing human security. The study found that Iraq faces great security challenges such as political challenges including the lack of professionalism of the Iraqi judicial system when dealing with human rights and the government's inability to provide protection for ethnic minorities. Economic challenges because of the economic sector in Iraq has been completely destroyed due to the successive wars since 1980.

[1] Abdellawy, Halima. "The Impact of Asymmetric Wars on Security Stability in the Middle East, The Case of ISIS". Master Thesis, Zayan Ashour University of Djelfa, College of Political Science, 2017, p.64.

Food challenges as a result of conflicts that harmed agricultural production and food markets as well as dry seasons and soaring food price in the world. Environmental challenges such as air, soil and water pollution. Social challenges that include social tensions, disaffected groups that feel marginalized and excluded, subsidiary political loyalties, unsanitary urban slums, poverty, unemployment and forced displacement. Water security challenges due to the water policies of Iran and Turkey, bad management of water resources and drought.

Finally, terrorism threats that have a negative impact on human development in Iraq through its direct impact on human security and its indirect impact on health and education. All of these factors caused economic insecurity, losing the sense of dignity and the lack of adequate infrastructure and services. As a result, Iraq should work hard with strengthened responsibility to meet the challenges ahead.

Recommendations

1- Iraq should achieve economic reforms at the national level, cooperation with international organizations to achieve sustainable economic development and establishing industrial projects to counter unemployment.

2- Paying attention to basic human rights and monitoring the work of the security forces and judicial courts in order to ensure equality and social justice.

3- Promoting public awareness through the media, schools and universities, especially the youth to protect them from destructive and extremist ideas, the danger of drugs and promote the Islamic and national values.

4- Focusing on the food security by improving livelihoods, moreover the government of Iraq should give priority to improving agriculture sector to achieve self-sufficiency.

5- Resolving water disputes requires effective diplomacy with Turkey and Iran to guarantee water security.

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