MAINSTREAMING ANTHROPOCENE CONSIDERATIONS

IN LOCAL AND NATIONAL POLICY RECOMMENDATION IN FRAGILE COUNTRIES

The case of Iraq

United Nations Development Programme Iraq

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FOREWORD

We are pleased to launch this report on *Mainstreaming Anthropocene Considerations: Policy Recommendations in Fragile Countries-the Case of Iraq* which adopts an innovative approach to mainstreaming Anthropocene considerations in local and national policies and provides recommendations for consideration in Fragile Countries such as Iraq.

The starting point of the report is the UNDP Iraq 2020 report on policy recommendations for reducing fragility in Iraq. This current report further refines the above policy recommendations by incorporating the salient features of two global UNDP publications that have been produced over the past few years, following the COVID-19 crisis and in the midst of the climate change crisis, namely the 2020 Human Development Report, The Anthropocene which explores mechanisms to help effect paradigm shifts in the value system and mobilise action by individuals, communities, government, civil society and business; and the special report on Human Security in The Anthropocene, which introduces the concept of Solidarity to the original Human Security Approach that brought together the 'human elements' of security, rights and development.

Combining the above frameworks and contextualizing them to the case of Iraq, by using them to refine the original policy recommendations for reducing fragility in Iraq, is an innovation in itself. Perhaps a more important innovation, applicable to many other fragile states, is addressing The How question through the introduction of the use of a Political Economy lens to re-examine the social contract between the State and the people. Such an approach allows for an examination of the winners and losers arising from the distribution of exposure, vulnerabilities, risks and losses arising across different population groups due to the use of natural resources. This approach also allows for examining the degree of inclusiveness, participation and accountability in the decision-making process related to the use of such resources. It also allows the development of road maps to build Agency and promote Solidarity through the identification of leadership and stakeholders for building coalitions around specific values of importance to the country under consideration.

The United Nations Development Programme (UNDP) in Iraq would also like to thank Fadi Hamdan (Independent Resilience Expert) as the lead author for this report, and UNDP Human Development Report Office for their contributions and support in producing this report.

We hope that the findings in this report will shed light on new thinking related to fragility in Iraq and other fragile countries.

Zena Ali-Ahmad

UNDP Iraq Resident Representative

ACRONYMS

AFPs	Agencies, Funds and Programmes
CCA	Climate Change Adaptation
CHS	Commission on Human Security
CSO	Civil Society Organisation
DRR	Disaster Risk Reduction
HSA	Human Security Approach
INGO	International NGO
NbS	Nature based Solutions
NGO	Non Governmental Organisation
OECD	Organization for Economic Cooperation and Development
DAC	Development Assistance Committee
R2P	Responsibility to Protect
SDGs	Sustainable Development Goals
SDS	Sand and Dust Storms
SFDRR	Sendai Framework for Disaster Risk Reduction

EXECUTIVE SUMMARY

UNDP Iraq CO is preparing to launch its publication report on *Mainstreaming Anthropocene Consideration in Fragile Countries*. The starting point of the report is the UNDP 2020 report on Policy Recommendations for reducing fragility in Iraq[1]. In that report, the OECD methodology for assessing fragility[2] is adopted and contextualised for the case of Iraq, to produce policy recommendations for reducing fragility in each of the following dimensions:

➔ **Economic Fragility:** Vulnerability to risks stemming from weaknesses in economic foundations and human capital including macroeconomic shocks, unequal growth and high youth and women's unemployment.

➔ **Environmental Fragility:** Vulnerability to environmental, climatic and health risks that affect citizens' lives and livelihoods. These include exposure to natural disasters, pollution and disease epidemics and pandemics.

➔ **Political Fragility:** Vulnerability to risks inherent in political processes, events or decisions; lack of political inclusiveness; transparency, corruption and society's ability to accommodate change and avoid oppression.

➔ **Societal Fragility:** Vulnerability to risks affecting societal cohesion that stem from both vertical and horizontal inequality including inequality among culturally defined or constructed groups and social cleavages.

➔ **Security Fragility:** Vulnerability of overall security to violence and crime, including both political and social violence.

This report further refines the above policy recommendations by incorporating the salient features of two seminal UNDP publications that have been produced over the past few years, after the COVID-19 crisis and in the midst of the climate change crisis, namely:

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1 Impact of the Oil Crisis and COVID-19 on Iraq's Fragility, United Nations Development Program in Iraq, 2020.

2 The OECD fragility framework, Abel, A.; Hammond, D.; Hyslop, D. for the Institute for Economics and Peace and Lahidji, R; and Mandrella, D.F., International Law and Policy Institute, 2016, https://www.oecd-ilibrary.org/docserver/9789264267213-7-en.pdf?expires=1591004232&id=id&accname=guest&checksum=79294374C102E39C131F9C6114C9D516.

➔ The 2020 Human Development Report, **The Anthropocene**[3] which explores mechanisms to help **effect paradigm shifts in the value system** and mobilise **action by individuals, communities, government, civil society and business**. In particular, it examines **social norms** as powerful determinants of people's choices and how these interact with new forms of information sharing that can support social processes of ethical reasoning. It also describes how existing **incentives** (in terms of finance, prices and collective international action) help shape current trends in consumption and production patterns leading to excessive pressures on planetary boundaries; and how these incentives could evolve in ways that could ease planetary pressures and move societies towards the transformative changes required for human development in the Anthropocene. It emphasises the importance of Agency, including **Collective Agency**, to operationalize values and turn them into self-reinforcing social norms, while also recognising that inequalities shape who has Agency and who lacks it.

Individual agency
Individual choices

Consumer choices
and preferences

Voting in
democratic elections
Protest voting

Proxy agency
through social and
political leaders

Civil disobedience
Terrorism

Trend-setting,
fashion

Political lobbying

**Everyday
agency**
Daily
decisionmaking

Public opinion

**Strategic and
political agency**
Long-term planning

Consumer boycotts
Carrotmobs

Social movements,
grassroots and interest
organizations

Collective agency
People's capacity to trigger
sweeping change

➔ The special report on Human Security in The Anthropocene[4], which introduces the concept of Solidarity to the original Human Security Approach[5] that brought together the 'human elements' of security, rights and development. As such, it is an inter-disciplinary concept that displays several main characteristics:

» **People-centered:** human security places the individual at the 'centre of analysis' by considering a broad range of conditions which threaten survival, livelihood and dignity.

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3 Human Development Report 2020, The Next Frontier – Human Development and The Anthropocene, United Nations Development Program in Iraq, 2020

4 New Threats to Human Security in the Anthropocene: Demanding Greater Solidarity, 2022 Special Report, United Nations Development Program 2022

5 Human Security in Theory and Practice, An Overview of the Human Security Concept and the United Nations Trust Fund for Human Security, Human Security Unit, United Nations, 2009.

» **Multi-sectoral:** human security is based on a multi-sectoral, broadened understanding of insecurities: Economic: Persistent poverty, unemployment; Food: Hunger, famine; Health: Deadly infectious diseases, unsafe food, malnutrition, lack of access to basic health care; Environmental: Environmental degradation, resource depletion, natural hazards, pollution; Personal: Physical violence, crime, terrorism, domestic violence, child labor; Community: Inter-ethnic, religious and other identity-based tensions; and Political: Political repression, human rights abuses.

» **Comprehensive:** human security involves comprehensive approaches based on the recognition that threats to human security are mutually reinforcing and interconnected in two main ways: i) interlinked in a domino effect where each threat feeds on the other (e.g., climate change can cause violent conflicts which in turn can lead to deprivation and poverty which in turn could lead to resource depletion, infectious diseases, education deficits, etc.); and ii) threats are geographically linked as threats within a given country or area can spread into a wider region and have negative externalities for regional and international security.

» **Context-specific:** human security acknowledges that insecurities vary across different settings and as such advances contextualized solutions that are responsive to the particular situations they seek to address.

» **Prevention-oriented:** human security is prevention-oriented and introduces a dual focus on protection and empowerment. Protection and empowerment are mutually reinforcing and cannot be treated in isolation.

» **Solidarity:** is based on the recognition that human security in the Anthropocene must go beyond securing individuals and their communities for institutions and policies to systematically consider the interdependence across all people and between people and the planet.

» **Agency:** based on the recognition that emphasizing Agency also helps avoid the pitfalls of partial solutions, such as delivering protection with no attention to disempowerment or committing to solidarity while leaving some lacking protection.
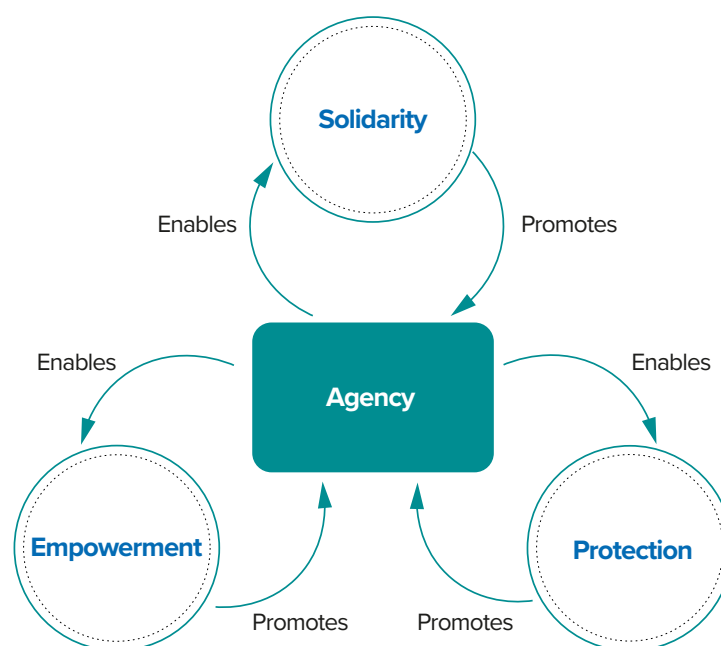
Combining the above frameworks and contextualizing them to the case of Iraq, by using them to refine the original policy recommendations for reducing fragility in Iraq is an innovation in itself.

Perhaps a more important innovation, applicable to many other fragile states, and states with weak governance, is addressing *The How* question through the introduction of the use of a Political Economy lens[6, 7] to re-examine the social contract between the State and the people. Such an approach allows for an examination of the winners and losers arising from the distribution of exposure. vulnerabilities, risks and losses across different population groups due to the use of natural resources (land, water, minerals, etc.). This approach also allows for examining the degree of inclusiveness, participation and accountability in the decision making process related to the use of such resources. Such an approach allows the development of road maps to build Agency and promote Solidarity through the identification of leadership and stakeholders for building coalitions around specific values of importance to the country under consideration. In particular, the following steps are recommended to form coalitions to effect change:

➔ Develop an understanding of development opportunities and challenges as political processes operating at national and subnational levels, across all society sectors including business organizations, trade unions, NGOs, professional bodies, religious authorities, and bureaucracies.

➔ Develop an understanding of the existing dynamics that create certain winners and losers arising from the existing use of resources (human and natural in land, sea and air), in particular through understanding the vertical and horizontal distribution of benefits, exposure, vulnerabilities, risks and losses arising from the development choices.

➔ In doing so, recognise and develop an understanding of governance and decision-making mechanisms encompassing a broad set of political institutions both formal and informal. While doing so, pay special attention to those represented in the decision-making forum, and the main gate-keepers of such forums that allow or prevent certain development choices from being discussed.

➔ Address the multifaceted role of advocacy, education and awareness raising campaigns targeting various stakeholders and national partners, including in i) promoting an understanding of roles and responsibilities between the citizen and the state; ii) the interconnectedness of problems; iii) the relationship between rentier states, cronyism, sectarian politics and disproportionate public sector employment; iv) development, employment opportunities and basic services as rights in productive states vs. the favouretism adopted in distributing them in rentier states; and v) need to supplement technical budget solutions with political lobbying and advocacy based on political economy analysis.

➔ Improve policy making and programming by identifying short- and medium-term opportunities to support structural change.

➔ Identify long-term structural and institutional factors which enable or constrain reform.

➔ Provide support for local actors to carry out political economy analysis to enhance their understanding and lobbying along the above lines.

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6 Drivers of change: Refining the Analytical Framework, Part 2: A Framework for Political Analysis, Adrian Leftwich, Department of Politics, University of York, Department For International Development, UK, June 2006.

7 Intensive and Extensive Disaster Risk Drivers and Interactions with Recent trends in the Global Political Economy, With Special Emphasis on Rentier States, International Journal for Disaster Risk Reduction (IJDRR), Volume 14, Part 3, December 2015, Pages 273–289. http://www.sciencedirect.com/science/article/pii/S2212420914000740

➜ Identify potential national and local partners from civil society and local development leaders, including the private sector.

➜ Employ a definition of leadership as a political process involving the skills of mobilizing people and resources in pursuit of a set of shared and negotiated goals.

➜ Support the formation of coalitions for change with leaders and stakeholders as defined above.
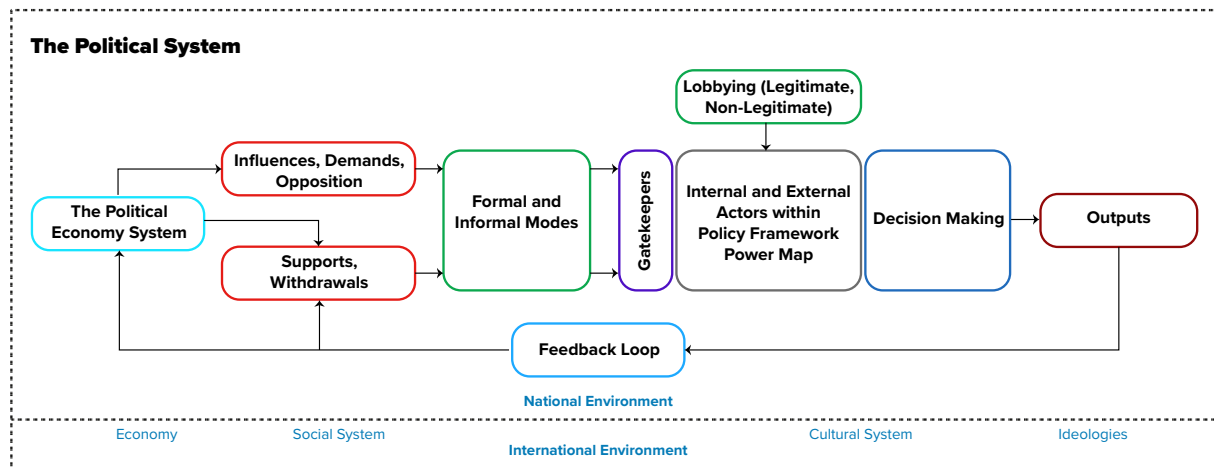
The final adopted methodology is summarised in the Figure below.
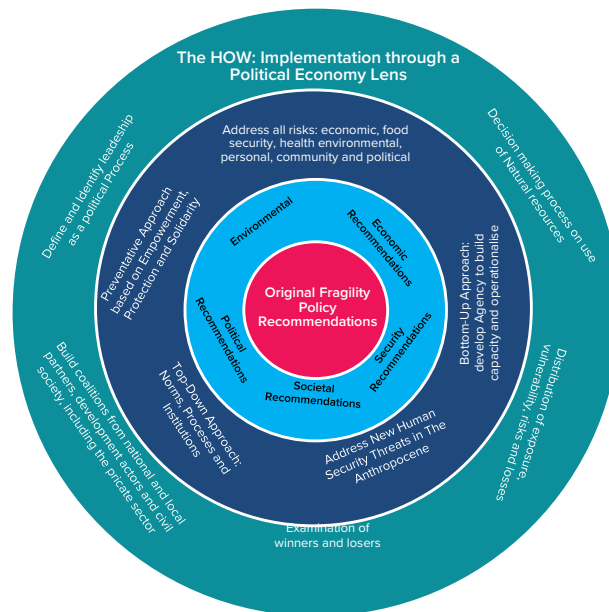
The above methodology was applied to refine the policy recommendations to reduce the economic, societal, political, environmental and security factors contributing to fragility at the national level - as shown in the box below for environmental factors contributing to fragility, while the full set of recommendations is provided in Section 5.

Enhanced Policy Recommendations for Reducing Environmental Factors Contributing to Fragility

➜ Invest in the preparedness and capacities of environmental agencies, including to be able to:

» Advocate, raise awareness and incorporate in education curricula, as applicable, on the connections between good governance, fighting corruption and conflict prevention on the one hand; and the fairer distribution of vulnerabilities, risks, losses and benefits arising from the use of natural resources (water, minerals, land, etc).

» Develop a preventative approach based on protection, empowerment and solidarity in National and Local Environmental Protection Strategies, Climate Change Mitigation and Adaptation Strategies, and biodiversity protection strategies while promoting nature based solutions.

» Carry out training at the community levels to empower communities to assess the threats and risks that they face and enable them to develop the agency for identifying, lobbying and implementing priorities for risk reduction, while accounting for economic, food security, health, environmental, personal, community and political threats.

» Raise awareness on the importance of solidarity at the global, regional and national levels for achieving human security at the local level.

➜ Anchor special provisions in public policies to address the specific needs of displaced people and vulnerable communities as groups disproportionately affected by environmental and health hazards, including through:

» Developing capacities for ensuring the above policies are based on assessing and reducing the vulnerability of displaced people in a **holistic manner** to economic, food security, health, environmental, personal, community and political threats and risks as well as emerging threats.

» Carryout training at the IDP- and host community levels to empower these communities to assess the threats and risks that they face and enable them to develop the agency for identifying, lobbying and implementing priorities for risk reduction, while accounting for economic, food security, health, environmental, personal, community and political threats as well as emerging threats.

➜ Ensure that environmental sustainability measures are integrated at the onset of the COVID-19, and future pandemics, responses instead of waiting for the pandemic to pass, including through:

» Assessing vulnerable segments of the population to COVID-19, and other pandemics, and develop vulnerability reduction measures, in an integrated manner that account for all cascading risks[8].

» Carry out training at the community level to empower communities to assess the threats and risks that they face during COVID-19 and other pandemics, and enable them to develop the agency for identifying, lobbying and implementing priorities for risk reduction, while accounting for economic, food security, health, environmental, personal, community and political threats as well as emerging threats.

➜ Ensure that environmental sustainability measures are integrated at the onset of the COVID-19, and future pandemics, responses instead of waiting for the pandemic to pass, including through:

The above recommendations can lead to transformative change if implemented successfully. A first step towards a successful implementation is to analyse the background of stakeholders to identify those that stand to lose their privileges as a result of effecting transformative change. The next step would be to build leadership, form alliances and raise awareness on the importance of these recommendations. Notwithstanding the above, it should be recognised that effecting change is a process that needs to be maintained and sustained in the mid to long term. Such a process, under an informed leadership and with suitable coalition partners, should aim in the short- to mid-term to operationalise values that promote human security and sustainable development in order to turn them into self enforcing social norms in the mid- to long-term. Developing and / or contributing to such a process is best carried out by adopting the steps in the political economy approach referred to earlier in this Executive Summary.

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8 For example some evidence shows that rising levels of PM2.5 (which may happen due to forest fires and sand and dust storms as well as industrial pollution) results in higher hospitalization and fatality rates due to COVID-19.

This innovative methodology was also applied to inform the main pillars of the UNDP CO work in Iraq, namely Energy, water and climate; ii. Sustainable livelihoods; iii. Stabilisation; iv. Social cohesion, and v. Gender. The main initiatives taking place under each of these pillars are reviewed to ensure that they provide a balanced approach that direct efforts at i) empowerment, ii) protection and iii) solidarity; and areas where future effort should be directed are identified – as shown in the box below for Gender, while the full set of recommendations are detailed in Section 6.

Again the recommendations provided under each of the three component of the Human Security Approach are best planned and implemented through the adoption of a political economy lens.

Mainstreaming Human Security in the Anthropocene Considerations into efforts for improving Gender Empowerment and Equality Efforts

Protection

➔ Support the Government of Iraq to work closely with diverse local civil society actors, including marginalised and excluded groups, women and girls, and ethnic, religious and tribal minorities, in addressing climate-related security risk.

➔ Support the Government of Iraq to work closely with diverse local civil society actors, in order to mainstream gender considerations into livelihood generation and livelihood protection programmes, projects and activities.

➔ Support the Government of Iraq to work closely with diverse local civil society actors, in order to ensure that water shortages and drought conditions do not lead to girls dropping out of school due to lack of finance and/or to help their families search for other water sources and help with livelihoods.

Empowerment

➔ At the community level, support CSOs and NGOs working with rural and urban communities in climate change hot-spots, to carry out community based rural risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across the sectors and hazards, with special emphasis on climate-change, conflict and displacement-induced risks affecting women and girls.

➔ At the community level, support CSOs and NGOs working with rural and urban host communities, to carry out community based rural risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across the sectors and hazards, with special emphasis on climate-change, conflict and displacement-induced risks affecting women and girls.

Solidarity

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of households and communities in order to mitigate the impact of climate change, conflict and displacement induced risks on women and girls.

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of households and communities in order to prevent girls dropping out of schools as families continue to face financial difficulties due to climate change, conflict and displacement.

➔ Identify, and strengthen sectoral and stakeholder leaders to embark on a process for mobilizing stakeholders and people and raising awareness on the importance of having an inclusive and transparent risk management process to mitigate the impact of climate change, conflict and displacement induced risks on women and girls. Support identified leaders to help build coalitions to lobby for the adoption of a transparent and inclusive risk management process to mitigate the impact of climate change, conflict and displacement induced risks on women and girls.

PAPER OBJECTIVES

Environmental Challenges in Iraq

Iraq's environment is in poor shape. Climate stresses and the legacy of conflict, among many other crises, have merged with population pressures, lack of efficient management and transboundary disputes to hobble much of the country's natural landscape. From Basra in the south to Dohuk in the far north, few Iraqis have been spared the consequences. Growing poverty and worsening socioeconomic indicators increase the vulnerability of communities to climate change, food insecurity and environmental degradation, with women and youth being disproportionately affected [1].

With a projected increase in mean annual temperature of up to 2°C by 2050, Iraq scored 120th place out of 181 countries in the Notre Dame Global Adaptation Index (ND-Gain)[9], which measures a country's resilience and vulnerability to climate change. The main environmental challenges in Iraq may be summarised as i) water scarcity; ii) water pollution; iii) degraded landscapes and declining biodiversity; and iv) air pollution and waste management. These challenges are main driven by the following environmental degradation key drivers: i) conflict; ii) A carbon-intensive economy and low renewable energy provision; iii) Weak governance and corruption; iv) Climate change; and v) rapid informal urbanisation.

These above environmental challenges, and associated environmental degradation key drivers, will detrimentally affect most development indicators across the 17 SDG goals from Iraq's agricultural and energy sectors, to its infrastructure and human health. If not addressed promptly and effectively, they may even weaken social cohesion in the country and diminish state society trust thereby increasing fragility and threatening the stability of Iraq.

Main Objectives

Against the above background, the main objective of this Report is to develop and present a set of policy recommendations for mainstreaming important Anthropocene considerations into national and local development and social cohesion policies, especially in fragile contexts.

To this end, the report attempts to:

1. Refine the national policy recommendations that were originally developed by UNDP Iraq to addresses fragility in the context of Iraq [2], based on the principles and mechanisms put forward in the HDR 2020 on Human Development in the Anthropocene, particularly those relating to social norms, incentives and nature backed solutions [3], and the Special Report on Human Security in The Anthropocene [4] that updated the original Human Security Concept [5], in order to account for new threats and challenges in The Anthropocene [3].

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9 A country's ND-GAIN index score is composed of a vulnerability score and a readiness score. Vulnerability measures a country's exposure, sensitivity and ability to adapt to the negative impacts of climate change. ND-GAIN measures overall vulnerability by considering vulnerability in six life-supporting sectors—food, water, health, ecosystem services, human habitat and infrastructure. Readiness measures a country's ability to leverage investments and convert them to adaptation actions by looking at the country's economic, governance and social readiness. See the ND-GAIN Country Index at: **gain-new.crc.nd.edu/ranking**.

2. Mainstream the salient Anthropocene considerations into five important portfolio programmes of UNDP Iraq, namely: i) gender, ii) Stabilization & social cohesion, iii) Security Sector Reform (SSR), iv) livelihoods, and v) energy, water and climate change.

3. Develop Recommendations and Guiding principles for mainstreaming HDR 2020 mechanisms in programming in fragile countries to inform programmes of UNDP and other UN agencies.

The report also provides a summary of the salient features of the main initiatives leading to the current Human Security in The Anthropocene Approach [4], to provide a succinct introduction to the topics. Finally, in developing the above recommendations the report adopts a political economy lens to address "the how"; i.e. the process of identifying leaders, partners and stakeholders capable of forming coalitions to lobby for the adoption and implementation of the proposed recommendations.

MAIN RECOMMENDATIONS ON FRAGILITY REDUCTION

Dimensions of Fragility

As a multidimensional phenomenon, fragility occurs over a spectrum of intensity, with all countries and societies exhibiting fragility at some point and to some extent. For the purpose of the original Fragility Analysis [2] adopted in this Report, fragility is framed using the five fragility dimensions of the OECD. Its methodology [6] is rooted in a multidimensional framework and conceptualised as a combination of risks and coping capacities in interconnected and interdependent *economic, environmental, political, security and societal dimensions.* It thus offers the advantage of a more comprehensive and universally relevant perspective because it takes into consideration that each context is experiencing its own unique combinations of risks and coping capacities.

Figure 1: Dimensions of Fragility [2]
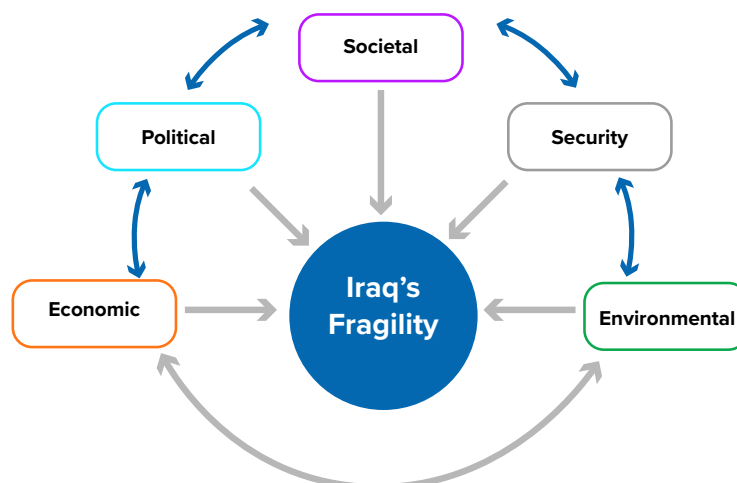
More specifically, these dimensions relate to the following risks:

➜ **Economic Fragility:** Vulnerability to risks stemming from weaknesses in economic foundations and human capital including macroeconomic shocks, unequal growth and high youth and women's unemployment.

➜ **Environmental Fragility:** Vulnerability to environmental, climatic and health risks that affect citizens' lives and livelihoods. These include exposure to natural disasters, pollution and disease epidemics and pandemics.

➜ **Political Fragility:** Vulnerability to risks inherent in political processes, events or decisions; lack of political inclusiveness; transparency, corruption and society's ability to accommodate change and avoid oppression.

➜ **Societal Fragility:** Vulnerability to risks affecting societal cohesion that stem from both vertical and horizontal inequality including inequality among culturally defined or constructed groups and social cleavages.

➜ **Security Fragility:** Vulnerability of overall security to violence and crime, including both political and social violence.

The Severity of Fragility dimensions in Iraq [7] are summarised below for 2020, with only one difference from those in 2018 [8], namely with societal fragility improving from a rating of severe to one of high.

➔ **Economic:** Severe

➔ **Security:** Severe

➔ **Political:** High

➔ **Societal:** High

➔ **Environmental:** High

Original Policy Recommendations for Mitigating Fragility

Iraq is a fragile country, with protracted displacement, and with an economy highly dependent on oil extraction. It may be considered as a rentier state, with a prevalent rentier culture where the state is the main employer. Rampant corruption, coupled with security fragmentation and limited rule-of-law [9], as well as weak governance of the state [10], is further weakening the State-Citizen Social Contract and diminishing State-Society Trust (SST) [11] against a background of increasing global momentum to move towards renewable energy resources. Severe stresses relating to climate change and water scarcity pose a unique set of challenges for any sustainable development path.

UNDP in conjunction with other Agencies, Funds and Programmes (AFPs); and in partnership with the international community, is helping Iraq navigate the above challenges while trying to improve the wellbeing of its people, decrease inequality, enhance the effectiveness of its government institutions and protect its natural environment.

Based on an analysis of fragility dimensions, as articulated by the OECD framework, UN agencies developed policy recommendations to address fragility challenges, as shown in Table 1 [2].

Table 1: Main Policy Recommendations per Fragility Dimension [2]

Economic	Develop macroeconomic solutions based on social inclusion and leaving no one behind, and reaching the furthest behind first, moving beyond a traditional macroeconomic efficiency angle.
	Support and invest in the informal sector (including medium, small and microenterprises) as the backbone of a diversified non-oil economy, and implement reform strategies to leverage the role of the private sector in spearheading economic growth and the provision of essential social services.
	Develop COVID-19 containment measures (such as lockdowns) in ways that cushion livelihood losses among those who are most vulnerable. A pro-poor shutdown that enables the continuation of essential businesses and livelihoods, but prevents mass gatherings, could help the Government in leveraging limited health care resources for those who need them most.
	Use the current moment to review options to diversify the economy and gradually move away from rentier State status.
Societal	Scale up the reach and efficiency of existing social protection programmes and investigate the options for social safety nets. Put a major focus on programmes that, at a minimum, provide a basic level of benefits to reduce vulnerabilities and minimize the impacts of shocks such as COVID-19.
	Ensure that programmes directly target vulnerable groups disproportionately affected by the pandemic, such as women and children, IDPs and casual day labourers. Provide specific support to programmes preventing gender-based violence and supporting survivors.
	Support government and private-sector institutions to ensure that all Iraqis have access to essential social services, including for education, justice, water and health, including through specific outreach to the most vulnerable groups. Utility companies should work together to accommodate the provision of services in this period.
	Ensure that the COVID-19 response does not detract from investment in a cross-section of essential health services as the lack of these could significantly boost morbidity and mortality rates.
Environmental	Invest in the preparedness and capacities of environmental agencies.
	Anchor special provisions in public policies to address the specific needs of displaced people and communities as groups disproportionately affected by environmental and health hazards.
	Ensure that environmental sustainability measures are integrated at the onset of the COVID-19 response instead of waiting for the pandemic to pass.

Table 1: Main Policy Recommendations per Fragility Dimension [²]

Political	Catalyse greater efforts to establish a foundation for state-society trust through an enhanced social contract for Iraq. This can be done by strengthening accountability measures for public and private institutions; spearheading social and economic policies with a concrete impact on individuals and communities, especially the most vulnerable; and improving service delivery for citizens.
	Ensure that the electoral process (including the Electoral Law) is perceived as fair and transparent, especially considering that early elections and their conditions were negotiated with civil society leaders key to the social movement unleashed at the end of 2019.
	Implement anti-corruption measures to ensure accountability and transparency.
	Address the grievances of demonstrators by bringing to justice those who perpetuated violence against them.
	Foster an enabling environment for civil society to play its role, such as by participating in the development and implementation of government policies, upholding accountability measures and reaching the furthest behind, since civil society seems to have better and more direct access to these groups.
	Invest in peacebuilding at the national and community levels to increase social cohesion by equitably addressing deep-rooted grievances
Security	Support global advocacy to temper regional dynamics and find neutral avenues to solutions for peace in Iraq and the region.
	Support the Government in its agenda for reform in light of the demonstrations that began in 2019, and to mitigate further social unrest.
	Increase investments in security sector reform to enable Iraqi security forces to more efficiently address risks posed by armed groups such as ISIL. Pair these with increased social spending at community level to diminish the prominence of ISIL.
	Work with the Government to enforce lockdown measures that respect the rule of law, human rights and human dignity. Put the community at the centre, and support solutions that avoid impediments to due process, guarantee access to justice in cases of abusive behaviour and diminish impunity.

MAIN ANTHROPOCENE FINDINGS AND RECOMMENDATIONS

General Anthropocene Considerations

There is no consensus that we have entered a new geological era shaped by human activity that is increasingly threatening to exceed safe planetary boundaries (Figure 2) [12]. However, there is consensus that there are important planetary considerations that human development efforts should account for in the twenty first century.

Along these lines, the Human Development Report for 2020 (HDR 2020) [2] recognised the need for a paradigm shift in human development in order to live in balance with the planet, in a fairer world, while safeguarding significant development achievements over the past decades. Continuing on the current path is clearly not sustainable for human civilization, as it continues to exert pressure on planetary boundaries set during the Holocene, the geological era where human civilization evolved and flourished [13].

Figure 2: Planetary Boundaries [2]

➔ **Planetary imbalances** and strains mirror the strains facing various human societies, including in the Middle East and in Iraq [2]. Indeed, across the planet, planetary imbalances and **societal imbalances** exacerbate each other (Figure 3). At the global level, many inequalities in human development have been increasing [3] over the past years. At the Arab regional level, the COVID-19 crisis has exacerbated these inequalities and reversed or threatened to reverse important development gains made, including in poverty reduction, abject and chronic poverty reduction, gender empowerment and migrant protection [14]. In Iraq, the COVID 19 pandemic has had a significant impact on environmental sustainability [15]and the Iraqi economy [16], as well as other fragility dimensions, thereby also **exacerbating the country's fragility** [2].

Figure 3: Societal and Planetary Imbalances [2]
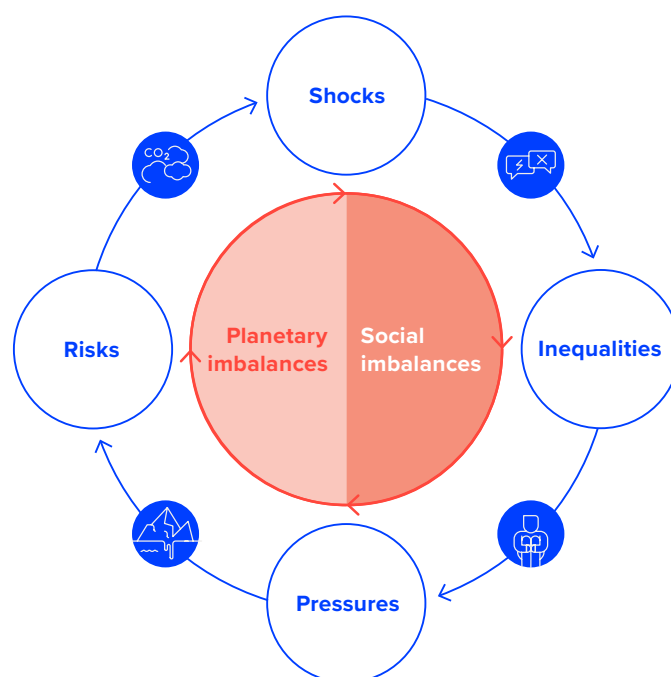
The Human Development Report 2020 explores mechanisms to help **effect paradigm shifts in the value system** and mobilise **action by individuals, communities, government, civil society and business**. In particular, it examines **social norms** as powerful determinants of peo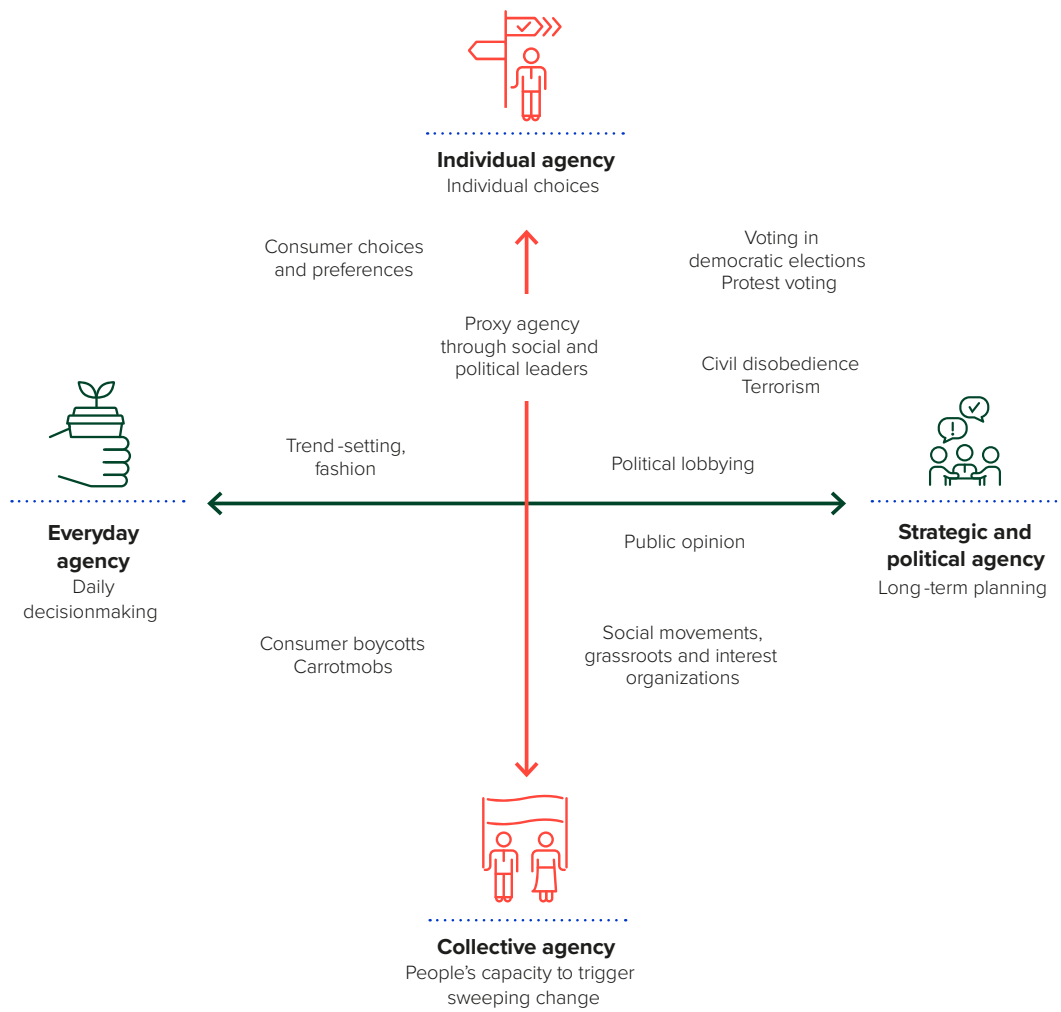ple's choices and how these interact with new forms of information sharing that can support social processes of ethical reasoning. It also describes how existing **incentives** (in terms of finance, prices and collective international action) help shape current trends in consumption and production patterns leading to excessive pressures on planetary boundaries; and how these incentives could evolve in ways that could ease planetary pressures and move societies towards the transformative changes required for human development in the Anthropocene. The HDR 2020 also identifies and discusses a new generation of **nature-based solutions** that can protect, sustainably manage, and restore ecosystems, simultaneously promoting well-being and mitigating biosphere integrity loss.

Relationship between Education, Values, Agency and Social Norms

Effecting change in the Anthropocene requires Agency[10], to operationalize values (formed by education and lifelong learning) and turn them into self-reinforcing social norms (Figure 4). Activating conscious human agency that is critically reflective of individual and shared assumptions, beliefs and paradigms is a powerful way to shift norms. Inequalities shape who has agency and who lacks it. Collective agency has the greatest potential to change social norms. But the collective is also the strongest force to defend conserving the status quo.

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10 The ability to hold values and make commitments, regardless of whether they advance one's wellbeing, and to act accordingly in making one's own choices or in participating in collective decision making.

Figure 4: Agency plays out in a social structure and can take two dimensions [2]

Individual agency
Individual choices

Consumer choices
and preferences

Voting in
democratic elections
Protest voting

Proxy agency
through social and
political leaders

Civil disobedience
Terrorism

Trend-setting,
fashion

Political lobbying

Everyday
agency
Daily
decisionmaking

Public opinion

Strategic and
political agency
Long-term planning

Consumer boycotts
Carrotmobs

Social movements,
grassroots and interest
organizations

Collective agency
People's capacity to trigger
sweeping change

MAIN HUMAN SECURITY METHODOLOGY

Interconnectedness and Interdependencies between Human Security, Climate Change and Disasters due to Natural Hazards

Climate change and disasters due to natural hazards are a threat to human security[11], as they cause many deaths and the destruction of livelihoods and assets. Over the past two decades 2000-2019, over 1.23 million people [17] globally lost their lives due to natural hazard events, exacerbated by climate change. Overall, more than 4.03 billion people [17] were affected by disasters in various ways. The total economic loss was more than $2.97 trillion [17]. Women, children, persons with disabilities and the elderly are particularly vulnerable to the negative effects of disasters, particularly those within lower income and wealth brackets. Worse, disaster impacts on human security goes far beyond its immediate effects, as disasters are often linked to health issues and pandemics, social and political unrest, displacement and migration and long term destabilization of economic growth and prosperity, thus affecting threats across the seven identified areas within the human security approach (i.e. economic, food, health, environmental, personal, community and political). Especially the most vulnerable lack the ability to recover quickly from disasters, and in many least developed countries development gains are lost for decades, directly impacting the human security of the affected communities.

Climate change, disasters due to natural hazards and Human Security are interconnected and interdependent as demonstrated in the following examples in ancient and recent history, including from Mesopotamia, which includes modern day Iraq:

➔ Collapse of Akkadian civilization in around 2200 B.C. was partly influenced by climate change leading to a **rapid shift to much drier climatic conditions**. Some writings report much more difficult agricultural conditions at that time, suggesting that significant climate change has had a drastic impact on agriculture, and consequently on the cohesion of the Akkadian empire [18].

➔ The old kingdom in Egypt in around 2200 B.C. underwent conflict and the break of the social contract and collapsed, at least partly due to climate change and drought, which led to lower Nile River levels and drier conditions over time, which then likely induced lower crop yields [19].

➔ The bronze age collapse (the collapse of once-flourishing Eastern Mediterranean civilizations towards the end of the 13th century B.C. in Greece, Syria and neighboring areas) where climate change-induced drought led to famines, coupled with sea-borne invasions and political struggles – all recently analysed as a complex single event triggered by climate change [20].

➔ The falling economic fortunes of the Saba'a empire in Yemen meant less resources for maintenance of the great dam of Ma'arib (one of the oldest in the world from 7th Century B.C.) which led to floods,

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11 Defined as freedom from fear, freedom from want, freedom from indignity.

crop failures and waves of immigration to the north and up to the Mediterranean. A good example of the importance of major engineering works (particularly those associated with agriculture and land reclamation) to the emergence of states and elites. But also the dangers of what happens when they fail [21].

➔ Beirut, or Berytus, which was the only city other than Rome to teach roman law, was destroyed by an earthquake, tsunami and fire in 551 AD, and never recovered its role in the Roman empire. This provides an example from centuries ago that when a city / country loses its economic role it takes significant time to regain it, if at all [22].

➔ Prior to the 1995 earthquake, the city of Kobe in Japan had the world's sixth-busiest port. Following two years of rebuilding, in March 1997, Kobe had fallen to 17th place worldwide; and by end-2010, it ranked 47th. The port provided 39 percent of Kobe's income and employed 17 percent of its population. An investment of US$163 billion in rebuilding Kobe quickly reconstructed its damaged infrastructure; however this did not lead to sustainable economic recovery. When business leaves, it may never return and some business never recovers from disaster. Market share may be lost. Business image and reputation may also be permanently damaged, insurance may become more expensive and its availability constrained. The wider impacts of disaster can linger for years, undermining longer-term competitiveness and sustainability. These wider impacts of a disaster may define and shape the human security in the countries and cities competing to attract business investment [23].

➔ Even more recently, analysts argue that part of the internal reasons for the war in Syria is the consecutive years of drought which led to rural urban migration and the growth of informal settlements in main cities, while the industrial sector (as an employer in cities) was also being affected due to trade policies [24].

➔ The 2020 demonstrations in Basra (Iraq) are partially due to drought where it is stated that dying crop fields in the marshes may force four million Iraqis in a new wave of immigration to other parts of the country and beyond, which in turn may cause further poverty, exclusion, unemployment, and thus exacerbate the drivers of disaster risk and violent extremism [25].

Hence understanding these linkages between climate change, drought, disaster risk, development, conflict and the broader regional roles of cities and city-states needs a wider lens to be analysed and understood. An approach that merely focuses on climate change mitigation and adaptation may not sufficiently address the root causes and drivers of climate change vulnerability. Similarly, an approach that is mainly focused on reducing disaster risk and responding to disasters through response plans and early warning systems, may not sufficiently address the root causes of vulnerability to disasters, including poverty, weak governance and weak risk governance, unchecked urban expansion and environmental degradation. Furthermore, a siloed approach to dealing with conflict, disaster risk and climate change misses important opportunities to address the drivers of the above phenomena in a coherent and integrated manner. The comparative advantage of the Human Security Approach is that it provides such a lens for coherent, integrated assessments and treatments of multi-sectoral threats and stresses.

Main Characteristics of the Traditional Human Security Approach

The Human Security approach evolved and was articulated through several reference documents including the [26], [27], [28], [5], [29], [30], [31], [32], [33], [34] and [35]. The characteristics of the Human Security Approach may be summarised as follows: Human security brings together the 'human elements' of security, rights and development. As such, it is an inter-

disciplinary concept that displays several main characteristics [32]:

➔ **People-centered:** human security places the individual at the 'centre of analysis.' Consequently, it considers a broad range of conditions which threaten survival, livelihood and dignity, and identifies the threshold below which human life is intolerably threatened.

➔ **Multi-sectoral**: Human security is based on a multi-sectoral understanding of insecurities. Therefore, human security entails a broadened understanding of threats and includes causes of insecurity relating to:

» **Economic:** Persistent poverty, unemployment.

» **Food:** Hunger, famine.

» **Health: Deadly infectious diseases, unsafe food, malnutrition, lack of access to basic health care:**

» **Environmental:** Environmental degradation, resource depletion, natural hazards, pollution.

» **Personal:** Physical violence, crime, terrorism, domestic violence, child labor.

» **Community:** Inter-ethnic, religious and other identity-based tensions.

» **Political:** Political repression, human rights abuses.

➔ **Comprehensive:** human security involves comprehensive approaches that stress the need for cooperative and multi-sectoral responses that bring together the agendas of those dealing with security, development and human rights. This is based on the recognition that threats to human security are mutually reinforcing and interconnected in two main ways. First, they are interlinked in a domino effect in the sense that **each threat feeds on the other** (e.g., climate change can cause violent conflicts which in turn can lead to deprivation and poverty which

in turn could lead to resource depletion, infectious diseases, education deficits, etc.). Second, **threats** are **geographically linked** as threats within a given country or area can spread into a wider region and have negative externalities for regional and international security. This interdependence should be recognised by decision makers, as it has important implications for policy-making as it implies that human insecurities cannot be tackled in isolation through fragmented stand-alone responses.

➔ **Context-specific:** the human security approach acknowledges that insecurities vary considerably across different settings and as such advances **contextualized solutions** that are responsive to the particular situations they seek to address.

➔ **Prevention-oriented**: in addressing risks and root causes of insecurities, human security is prevention-oriented and introduces a dual focus on protection and empowerment. **Protection and empowerment are mutually reinforcing** and cannot be treated in isolation as both are required in order to ensure human security, though their form and balance should be contextualised:

» **Protection:** is defined by the CHS as "strategies, set up by states, international agencies, NGOs and the private sector, to shield people from menaces" [5]. It refers to the norms, processes and institutions required to protect people from critical and pervasive threats. Protection implies a "**top-down" approach**. It recognises that people face threats that are beyond their control (e.g., natural disasters, financial crises and conflicts). Human security therefore requires protecting people in a systematic, comprehensive and preventative way. However, international and regional organizations; civil society and non-governmental actors; and the private sector also play

a pivotal role in shielding people from menaces.

» ***Empowerment*:** is defined as "strategies that enable people to develop their resilience to difficult situations" [**5**]. Empowerment implies a "**bottom up" approach**. It aims at developing the capabilities of individuals and communities to make informed choices and to act on their own behalf. Empowering people not only enables them to develop their full potential but it also allows them to find ways and to participate in solutions to ensure human security for themselves and others.

Human Security as an Operational Tool to Reduce Fragility

Adopting a human security approach to enhance analysis, understanding and programming, to reduce fragility, entails accounting for the following main components [**32**]:

➜ **Component 1 –** *The prevention-related, mutually reinforcing pillars, of protection and empowerment*: which combines top-down norms, processes and institutions (including the establishment of the rule of law, good governance, accountability and social protective instruments); with a bottom-up focus in which democratic processes support the important role of individuals and communities as actors in defining and implementing their essential freedoms. This in turn helps identify gaps in the existing security infrastructure and identifies ways to mitigate the impact of existing security deficits. Furthermore, it ensures the sustainability of programmes and policies as protection and empowerment are introduced in a systematic and preventative manner with a look to long-term stability. It also enhances and reinforces peoples' ability to act on their own behalf. In addition, it also strengthens the resilience of individuals and communities

to conditions of insecurity. Finally, it encourages participatory processes.

➜ **Component 2 –** *Comprehensiveness*: which addresses the full scope of human insecurities and attaches equal importance to civil, political, economic, social, and cultural rights. It recognises the multi-dimensional character of security threats as well as their interdependencies both sectorally and geographically; thereby addressing threats both within and across borders, and encouraging regional and multilateral cooperation. It also sets rudimentary thresholds below which no person's livelihood, survival and dignity should be threatened.

➜ **Component 3 –** *Multi-sectoral*: which allows coherence between different interventions to avoid negative impacts, while ensuring multiplying effects of positive interventions. In this manner, human security develops a true multi-sectoral agenda which 1) captures the ultimate impact of development or relief interventions on human welfare and dignity; 2) provides a practical framework for assessing positive and negative externalities of interventions; 3) enables comprehensive and integrated solutions from the fields of human rights, development, DRM and security in a joint manner; 4) helps to ensure policy coherence and coordination across traditionally separate fields; and 5) allows for knowledge-sharing and results-oriented learning.

➜ **Component 4 –** *Contextualisation*: **Human security provides a universally applicable, broad and flexible approach, that:** 1) addresses different kinds of insecurity as these manifest themselves in specific contexts; 2) builds on processes that are based on peoples' own perceptions of fear and vulnerability; 3) identifies the concrete needs of populations under stresses and shocks; 4) enables the development of more appropriate solutions that are embedded in local realities; 5) identifies mismatches between domestic and/or international policies and helps identify priority security

needs at the local level; 6) examines the impact of global developments on different communities; and 7) captures the rapidly changing international, regional and domestic security environments.

➔ **Component 5 –** *Prevention***: In this context, human security:** 1) addresses root causes of human insecurities; 2) focuses on early prevention rather than late intervention – thereby, providing more cost-effective solutions; 3) promotes and encourages strategies concerned with the development of mechanisms for prevention, the mitigation of harmful effects when downturns occur and, ultimately, with helping victims to cope.

➔ **Component 6 –** *Partnerships and Collaboration***:** By recognising the interconnectedness nature of threats, human security requires the development of an interconnected network of diverse stakeholders, drawing from the expertise and resources of a wide range of actors from across the UN as well as the private and public sectors at the local, national, regional and international levels. Human security

can therefore lead to the establishment of synergies and partnerships that build on the comparative advantages of each implementing organisation and help empower individuals and communities to act on their own behalf.

➔ **Component 7 –** *Benchmarking, Evaluation and Impact Assessment***:** By providing a holistic and contextual account of peoples' concrete needs and the factors endangering their security, the information obtained through such analyses can be used in assessing existing institutional arrangements and policies as well as a benchmark for impact evaluation of past and current interventions.

Box 1 The Added Value that the Traditional Human Security Approach brings to Other Strategies

While human security complements sustainable development, disaster risk reduction, climate change adaptation and state security, it is important to highlight how the human security approach adds value to the above, as elaborated by the Commission on Human Security [5]:

1. **State Security**: State security concentrates on threats directed against the state, while human security encompasses a wide scope of threats faced by **individuals** and **communities**. It focuses on root causes of insecurities and advances people-centered solutions that are locally driven, comprehensive and sustainable. Therefore, it engages a **broader range of actors** including local communities, international organizations, civil society in addition to the state itself [32].

2. **Sustainable Development**: To sustainable development's objective of 'sustainable growth with equity', human security adds the important dimension of _potential_ development **downturn with lack of security** [5]. The Human Security Approach acknowledges that downturns such as conflicts, economic and financial crises and ill health, impose sudden insecurities and deprivations on people. These not only undo years of development but also generate conditions within which grievances can lead to growing tensions. Therefore, in addition to its emphasis on human well-being, human security is driven by values relating to security, stability and sustainability of development gains and sustainable development efforts.

3. **Human Rights**: Violations of human rights result in conflicts, displacement, and human suffering on a massive scale. Human security makes no distinction between **different kinds of human rights** – **civil**, **political**, **economic**, **social, environmental** and **cultural rights** thereby addressing violations and threats in a multidimensional and comprehensive way. It introduces a practical framework for identifying the specific rights that are at stake in a particular situation of insecurity and for considering the institutional and governance arrangements that are needed to exercise and sustain them [5].

4. **Resilience and Disaster Risk Management**: Human Security, similar to resilience building approaches, adopts a **contextualised**, **people-centred**, **multi-dimensional**, **comprehensive** and **prevention oriented** approach to building security. Furthermore, similar to the comment above regarding sustainable development, it recognises the importance of safeguarding sustainable development efforts and risk reduction gains, against a variety of natural and technological hazards. In this manner, it is similar to the principles of disaster risk reduction as embedded within the SFDRR 2015 – 2030 [36].

5. **Resilience and Human Security**: Like resilience, the human security approaches adopts a **holistic approach** that encompasses the **economic**, **social**, **physical**, **environmental** and **institutional factors** that contribute to shocks and stresses. In this manner, it first identifies and analyses the underlying causes of vulnerability and insecurity in order to then develop effective solutions capable of mitigating the severity of these underlying drivers.

Key Modifications to the Original Human Security Approach – The New Generation of Human Security

➔ In the face of the new generation of interconnected threats playing out in the context of the Anthropocene (Figure 7), it is proposed to expand the human security framework to include *solidarity* [4] in addition to the human security strategies of protection and empowerment proposed by the Commission on Human Security [5].

➔ Solidarity is based on the recognition that human security in the Anthropocene must go beyond securing individuals and their communities for institutions and policies to systematically consider the interdependence across all people and between people and the planet [4].

➔ Agency lies at the core of this modified framework (Figure 5), where emphasizing agency is a reminder that wellbeing achievements are not the only criteria to be used in evaluating policies or assessing progress. Emphasizing Agency also helps avoid the pitfalls of partial solutions, such as delivering protection with no attention to disempowerment or committing to solidarity while leaving some lacking protection [4].

Figure 5: Enriching Human Security for the Anthropocene [4]
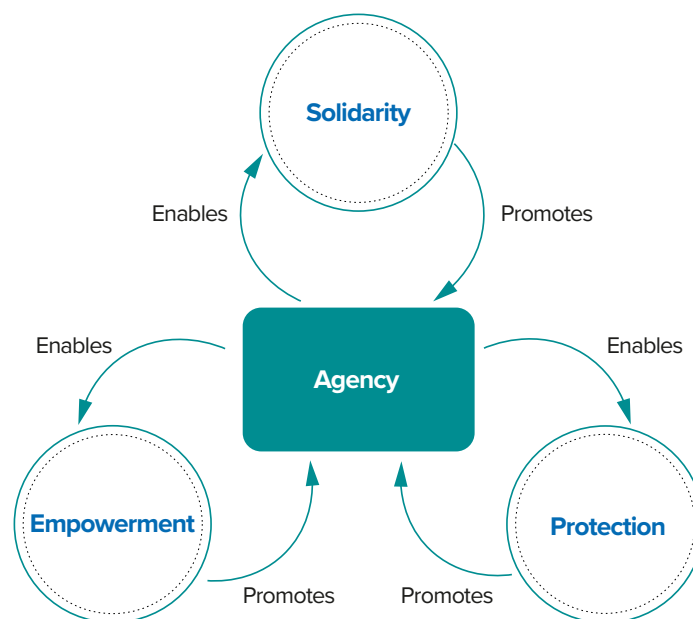
➔ Trust — horizontal and vertical — across people, between people and institutions, across countries — may enable or hamper the implementation of protection, empowerment and solidarity strategies to enhance human security.

➔ The 2030 Agenda for Sustainable Development and the Sustainable Development Goals [37] provide an ambitious set of multidimensional objectives that inform action at all levels (from the local to the national) and mobilize the international community.

➔ Figure 6 summarises the evolution of the Human Security Approach from the existing framework set out by the Human Security Commission [5] to the new framework developed for enhancing Human Security in the Anthropocene [4].

Figure 6: Evolution of the Human Security Approach [4]

Component	Existing	Next generation
Principles	→ People-centred → Comprehensive → Context-specific → Prevention-oriented	→ People-centred → Comprehensive → Context-specific → Prevention-oriented
Agents	→ Governments and UN entities → Nongovernmental actors	→ Governments and UN entities → Nongovernmental actors → Enhanced role for the agency of people everywhere. Integrated networks of agents: networked multilateralism, greater emphasis on collective action and greater space for social norms at the local and global levels.
Targets	→ Universality → People, mainly in developing countries	→ Universality → People everywhere through common security, for one's security depends on the security of others. → Reduce planetary pressures. → Enhance resilience of ecosystems
Threats	→ Widespread in communities, cross-cutting across sectors, mainly physical (excluding Responsibility to Protect situations)	→ Widespread in communities, cross-cutting across sectors, both physical and mental (excluding Responsibility to Protect situations) → Anthropocene context of compounded threats → Anthropocene risks → Advanced technologies → Inequalities as an assault to dignity → Violent conflict → New health challenges
Key strategies	→ Protection–empowerment	→ Protection–empowerment–solidarity → Foster agency to strengthen the links among protection, empowerment and solidarity

Source: Human Development Report Office, adapted from Hoshino (2021).

Box 2: Key Messages and Data of Human Security in The Anthropocene

The Human Security Report in the Anthropocene [4] provides an update on new threats and risks (Figure 7) identified in earlier Human Security reports [27]. It also provides an update of earlier Human Security Approaches [26] for enhancing human security. The main key messages and data arising from the report may be summarised as follows:

Key Messages

➔ 6 in 7 people worldwide feel insecure, in both rich and poor countries, where people's sense of safety and security is at a low.

➔ The acceleration of human development over recent years has not automatically translated into people feeling more secure. Even before the COVID-19 pandemic, those benefiting from some of the highest levels of good health, wealth, and education outcomes are reporting even greater anxiety than in the aftermath of the global financial crisis.

➔ The era of humans, or the age of the Anthropocene, has seen rapid planetary and social changes which have exacerbated existing threats and created new and emerging dangers. The pursuit of economic growth has neglected the embeddedness of human societies in nature, leading to new health threats, increased food insecurity and more frequent disasters, among many others.

➔ Inequalities continue to fuel anxieties and could rise unless urgent action is taken to address the ongoing dangerous planetary changes.

➔ Achieving human security is a collective endeavor. Hence there is a need to empower people and increase their sense of agency as a way of improving human security for everyone.

➔ A new approach to human security and to development is required to recognise, understand and address the interdependence not just between people, but between people and planet.

➔ Expanding human security understanding will improve people's sense of security, and aid in identifying blind spots in current measurements of wellbeing and development.

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Box 2: Key Messages and Data of Human Security in The Anthropocene

Key Report Data:

→ About 1.2 billion people live in conflict-affected areas, with almost half of them in countries not usually considered to be fragile.

→ 2021 recorded the highest global GDP in history and vaccines became more readily available in some countries; yet global life expectancy declined for the second year in a row.

→ Climate change is likely to become a leading cause of death in many places. Even with a moderate mitigation of emissions, some 40 million people may die due to changes in temperatures before the end of the century. With very high emissions, the number of additional deaths may reach 190 million over the same period, mostly in developing countries.

→ There are large and widening gaps in healthcare systems between countries. Between 1995 and 2017, the gap in healthcare performance between countries with low and very high human development grew by more than 10 percent.

Figure 7: The New Generation of Human Security Threats [4]
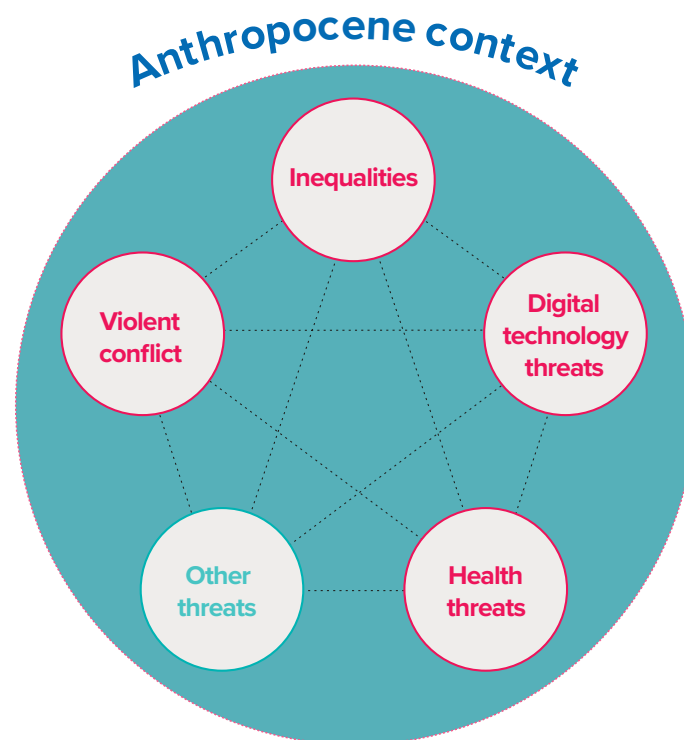
Source: Human Development Report Office.

POLICY RECOMMENDATIONS FOR REDUCING THE FRAGILITY OF IRAQ IN THE ANTHROPOCENE

Methodology

➜   The revision of the fragility policy recommendations [2] taking into consideration the recommendations of the 2020 HDR focuses on ensuring that the following main Human Security in the Anthropocene recommendations are accounted for as applicable (Figure 8):

➜   Ensure the policy recommendations address economic, food security, health environmental, personal, community and political threats and risks as defined in the original Human Security Approach [5] as well as the new human security threats in the Anthropocene [4]. As much as reasonably practicable, effort will be directed at building on existing work rather than creating new work streams.

➜   Ensure the policy recommendations adopt a preventative approach based on the traditional dual focus of Protection and Empowerment [5] coupled with the more recent focus on Solidarity [4].

➜   Adopt a top-down approach based on strategies that develops and implements norms, processes and institutions and a bottom-up approach that emphasizes Agency to i) develop the capabilities of individuals and communities to make informed choices and to act on their own behalf; and ii) operationalise Values and turn them into self-enforcing Social Norms.

➜   The above will be expedited through adopting a political economy lens (e.g. [38], [39]) to re-examine the social contract between the State and the people. Such an approach allows for an examination of the winners and losers arising from the distribution of exposure. vulnerabilities, risks and losses arising across different population groups due to the use of natural resources (land, water, minerals, etc.). This approach also allows for examining the degree of inclusiveness, participation and accountability in the decision making process related to the use of such resources.

➜   The below are recommendations based on the different axes of the fragility, as identified in the earlier fragility framework [2], revised using the Human Security in The Anthropocene Approach [4] together with a political economy lens for effecting change.

Figure 8: Methodology for Revising the Fragility Policy Recommendations
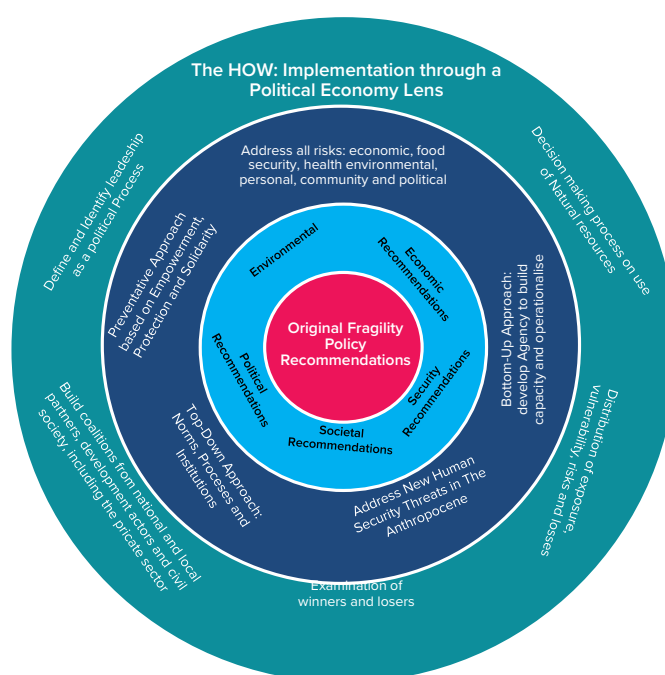
Revised Environmental Recommendations

➜ Invest in the preparedness and capacities of environmental agencies, including to be able to:

» Advocate, raise awareness and incorporate in education curricula, as applicable, on the connections between good governance, fighting corruption and conflict prevention on the one hand; and the fairer distribution of vulnerabilities, risks, losses and benefits arising from the use of natural resources (water, minerals, land, etc).

» Develop a preventative approach based on protection, empowerment and solidarity in National and Local Environmental Protection Strategies, Climate Change Mitigation and Adaptation Strategies, and biodiversity protection strategies while promoting nature based solutions.

» Carry out training at the community levels to empower communities to assess the threats and risks that they face and enable them to develop the agency for identifying, lobbying and implementing priorities for risk reduction, while accounting for economic, food security, health, environmental, personal, community and political threats.

» Raise awareness on the importance of solidarity at the global, regional and national levels for achieving human security at the local level.

➜ Anchor special provisions in public policies to address the specific needs of displaced people and vulnerable communities as groups disproportionately affected by environmental and health hazards, including through:

» Developing capacities for ensuring the above policies are based on assessing and reducing the vulnerability of displaced people in a holistic manner to economic, food security, health,

environmental, personal, community and political threats and risks as well as emerging threats.

» Carryout training at the IDP- and host community levels to empower these communities to assess the threats and risks that they face and enable them to develop the agency for identifying, lobbying and implementing priorities for risk reduction, while accounting for economic, food security, health, environmental, personal, community and political threats as well as emerging threats.

➜ Ensure that environmental sustainability measures are integrated at the onset of the COVID-19, and future pandemics, responses instead of waiting for the pandemic to pass, including through:

» Assessing vulnerable segments of the population to COVID-19, and other pandemics, and develop vulnerability reduction measures, in an integrated manner that account for all cascading risks[12].

» Carry out training at the community level to empower communities to assess the threats and risks that they face during COVID-19 and other pandemics, and enable them to develop the agency for identifying, lobbying and implementing priorities for risk reduction, while accounting for economic, food security, health, environmental, personal, community and political threats as well as emerging threats.

Revised Economic Recommendations

➜ Develop macroeconomic solutions based on social inclusion and leaving no one behind, and reaching the furthest behind first, moving beyond a traditional macroeconomic efficiency angle, including through:

» Embed the addressing of multi-sectorality within national and local macroeconomic strategies and policies, including reducing the energy intensity and material footprint of the Iraqi economy; and reducing the risk of stranded assets in the energy, tourism, cultural, agricultural and forestry sectors.

» Through a political economy lens, advocate, develop capacity and raise awareness of vulnerable groups on the connections between good governance, fighting corruption and conflict prevention on the one hand; and the fairer distribution of vulnerabilities, risks, losses and benefits arising from the various economic and employment policies (e.g. investing in job-rich pro poor economic sector and associated employment policies).

» Develop capacity at the community level to provide Agency to vulnerable groups so they are able to influence decision making at all levels.

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12 For example some evidence shows that rising levels of PM2.5 (which may happen due to forest fires and sand and dust storms as well as industrial pollution) results in higher hospitalization and fatality rates due to COVVID-19.

➜ Support and invest in the informal sector (including medium, small and microenterprises) as the backbone of a diversified non-oil economy, and implement reform strategies to leverage the role of the private sector in spearheading economic growth and the provision of essential social services. This may include:

» Build the Agency of the informal sector to be able to participate in decision making process related to assessment of its needs and the prioritisation of these needs

» Supporting the Informal sector, without directing sufficient effort at its formalisation, could imply "protection" without "empowerment". This gap is best addressed by building coalitions and advocating for the formalization of the informal sector, while raising awareness on the advantages of such formalization including better management, worker rights and tax collection.

» Provide incentives for private sector to invest in sustainable infrastructure sectors including for energy, water, waste management, agriculture and forestry, tourism and culture.

➜ Develop COVID-19, and future pandemic, containment measures (such as lockdowns) in ways that cushion livelihood losses among those who are most vulnerable. A pro-poor shutdown that enables the continuation of essential businesses and livelihoods, but prevents mass gatherings, could help the Government in leveraging limited health care resources for those who need them most. In doing so, ensure that:

» A pro-poor shutdown is based on an assessment of vulnerability that accounts for multi-sectorality of horizontal inequality [4] in exposure, susceptibility and coping capacity to the seven main categories of risks as identified by the Human Security Approach [5].

» Empower vulnerable communities and build their Agency to participate in the decision making process related to the pro-poor shutdown in terms of i) cushioning livelihood losses and ii) leveraging health care resources.

» Raise importance of all stakeholders on the importance of Solidarity for charting a development path that is sustainable and that promotes Human Security. Promoting solidarity, through a political economy lens, may be used to build coalitions to lobby and ensure that these prop-poor shut-down policies are developed *a priori* as part of preparedness measures to mitigate the effects of future pandemics on the most vulnerable groups.

➜ Use the current moment to review options to diversify the economy and gradually move away from rentier State status, while

» Provide incentives for the private sector to invest in sustainable production patterns including the use of renewable energies.

» Raise awareness to influence social norms towards sustainable consumption patterns.

» Strengthen capacity at the community level to build Agency of vulnerable groups so they are able to influence decision making.

Revised Societal Recommendations

➜ Scale up the reach and efficiency of existing social protection programmes and investigate the options for social safety nets. Put a major focus on programmes that, at a minimum, provide a basic level of benefits to reduce vulnerabilities and minimize the impacts of shocks such as COVID-19.

➔ Ensure that programmes directly target vulnerable groups disproportionately affected by the pandemic, such as women and children, IDPs and casual day labourers. Provide specific support to programmes preventing gender-based violence and supporting survivors.

➔ Support government and private-sector institutions to ensure that all Iraqis have access to essential social services, including for education, justice, water and health, including through specific outreach to the most vulnerable groups. Utility companies should work together to accommodate the provision of services in this period.

➔ Ensure that the COVID-19 response does not detract from investment in a cross-section of essential health services as the lack of these could significantly boost morbidity and mortality rates.

➔ When carrying out the above, ensure that

» Through a political economy lens, advocate, develop capacity and raise awareness of vulnerable groups, among other population groups, on the connections between good governance, fighting corruption and conflict prevention on the one hand; and the fairer distribution of vulnerabilities, risks, losses and benefits arising from the various decisions related to social protection programmes (e.g. social safety net programmes, access to basic services, etc.).

» Social safety nets and the provision of essential social services are based on a needs assessment that accounts for multi-sectorality and horizontal inequality in exposure, susceptibility and coping capacity to the seven main risk categories identified in the original HAS approach [5] and the new threats to Human Security as identified in the Anthropocene [4].

» Ensure that social protection programs, and the provision of essential social services programs, include or are complimented by other programmes that focus on the empowerment and Agency elements of Human security. To this end, build the capacity of vulnerable groups and enhance their Agency to participate in the policy decision making process.

» Raise awareness on the importance of Solidarity in achieving social protection for all, including through the expansion of social safety nets to the most vulnerable.

Revised Political Recommendations

➔ Catalyse greater efforts to establish a foundation for state-society trust through an enhanced social contract for Iraq, including through the implementation of the salient recommendations of the recent UNDP study on the Iraqi Social Contract [11]. This can be done by strengthening accountability and reducing corruption; addressing; measures for public and private institutions; spearheading social and economic policies with a concrete impact on individuals and communities, especially the most vulnerable; and improving service delivery for citizens. In doing so, ensure that

» Vulnerability assessment, and the access to- and quality of service delivery, account for multi-sectorality and horizontal inequality in exposure, susceptibility and coping capacity to the seven main risk categories identified in the original HAS approach [5] and the new threats to Human Security as identified in the Anthropocene [4].

» Social and economic policies include Empowerment and Agency dimensions in addition to the more traditional protection elements.

» Accountability measures include the enhanced Agency of all groups within society. In this context, it should be recognised that accountability can be enhanced and enforced by adopting a political economy approach that builds coalitions for change amongst various partners and stakeholders.

» Raise awareness on the importance of Human Security perceptions in enhancing vertical trust (State Society Trust) and horizontal trust between different groups. Furthermore, raise awareness on the importance of Solidarity in improving Human Security.

» Through a political economy lens, advocate, develop capacity and raise awareness of vulnerable groups, among other population groups, on the connections between good governance, fighting corruption, inclusivity, accountability and conflict prevention on the one hand; and the transparency of the decision making process related to various social and economic policies.

➜ Ensure that the electoral process (including the Electoral Law) is perceived as fair and transparent, especially considering that early elections and their conditions were negotiated with civil society leaders key to the social movement unleashed at the end of 2019, including through:

» Enhancing the Agency of multiple stakeholders in monitoring the elections.

» Ensuring that the electoral process is coupled with measures to strengthen the Rule of Law, and raise awareness on the importance of the latter for a functioning democracy where government has a legitimate monopoly on the use of force.

» Through a political economy lens, advocate, develop capacity and raise awareness of vulnerable groups, among other population groups, on the importance of fair elections, and the participation in these elections, on the one hand; and the higher probability that the population will be able to scrutinize the various decisions related to social protection programmes (e.g. social safety net programmes, access to basic services, etc.) and hold the policy makers accountable to their sound implementation.

» Raise awareness on the importance of solidarity for achieving human security, which in turns enhances horizontal and vertical trust both of which are necessary for state legitimacy.

➜ Implement anti-corruption measures to ensure accountability and transparency, while

» Anti-corruption measures (in terms of accountability and transparency) extend to the provision of basic services to the most vulnerable, where vulnerability assessment accounts for multi-sectorality and horizontal inequality in exposure, susceptibility and coping capacity to the seven main risk categories identified in the original HAS approach [5] and the new threats to Human Security as identified in the Anthropocene [4].

» Most vulnerable communities are empowered and their Agency strengthened to play an active role in anti-corruption measures.

» Address the grievances of demonstrators by bringing to justice those who perpetuated violence against them, while.

» Promoting the importance of the state and state institutions in enforcing the concept of human dignity to all citizens.

» Raising awareness on the importance of the state having a monopoly on the use of force, subject to the rule of law, partly through ensuring it is able to practice its Responsibility to Protect.

» Raise awareness on the importance of Solidarity and Human Security in enhancing vertical and horizontal trust.

➜ Foster an enabling environment for civil society to play its role, such as by participating in the development and implementation of government policies, upholding accountability measures and reaching the furthest behind, since civil society seems to have better and more direct access to these groups, while

» Ensuring that the assessment of "the furthest behind" accounts for multi-sectorality and horizontal inequality in exposure, susceptibility and coping capacity to the seven main risk categories identified in the original HSAT approach [5] and the new threats to Human Security as identified in the Anthropocene [4].

» Civil society will also aim to empower and strengthen the Agency of the furthest behind (as defined above) in addition to reaching out and strengthening / providing social protection networks.

» Through participating in the process of building coalitions and developing leadership skills, civil society will raise awareness on the importance of Solidary and Human Security in strengthening the inclusiveness of coalitions for effecting change.

➜ Invest in peacebuilding at the national and community levels to increase social cohesion by equitably addressing deep-rooted grievances, while raising awareness on:

» The right of all individuals and groups to human dignity.

» The importance of solidarity for achieving social cohesion between all groups.

Revised Security Recommendations

➜ Support global advocacy to temper regional dynamics and find neutral avenues to solutions for peace in Iraq and the region, including through

» Raising awareness on the importance of solidarity for achieving human security.

» Raising awareness on the common challenges facing the region, including climate change and water scarcity, and the importance of solidarity for addressing these challenges.

➜ Support the Government in its agenda for reform in light of the demonstrations that began in 2019, and to mitigate further social unrest, including through

» Raising awareness on importance of addressing all risks and threats to human security

» Raising awareness on the importance of empowerment and Agency of the most vulnerable groups in strengthening human security for all groups in society

➜ Increase investments in security sector reform to enable Iraqi security forces to more efficiently address risks posed by armed groups such as ISIL. Pair these with increased social spending at community level to diminish the prominence of ISIL. Concurrently, raise the awareness of the security sector on the wider definition of human security and the comprehensive of the threats as defined in the Human Security Approach in the Anthropocene.

➔ Work with the Government to enforce lockdown measures, for COVID and future pandemics, that respect the rule of law, human rights and human dignity. Put the community at the centre, and support solutions that avoid impediments to due process, guarantee access to justice in cases of abusive behavior and diminish impunity.

Addressing The How from a Political Economy Perspective

The above recommendations can lead to transformative change if implemented successfully. A first step towards a successful implementation is to analyse the background of stakeholders to identify those that stand to lose their privileges as a result of effecting transformative change. The next step would be to build leadership, form alliances and raise awareness on the importance of these recommendations. Notwithstanding the above, it should be recognised that effecting change is a process that needs to be maintained and sustained in the mid to long term. Such a process, under an informed leadership and with suitable coalition partners, should aim in the short- to mid-term to operationalise values that promote human security and sustainable development in order to turn them into self enforcing social norms in the mid- to long-term. Developing and / or contributing to such a process is best carried out by adopting a political economy lens that focuses on the following aspects of the problem under consideration:

➔ Develop an understanding of development opportunities and challenges as political processes operating at national and subnational levels, across all society sectors including business organizations, trade unions, NGOs, professional bodies, religious authorities, and bureaucracies.

➔ Develop an understanding of the existing dynamics that create certain winners and losers arising from the existing use of resources (human and natural in land, sea and air), in particular through understanding the vertical and horizontal distribution of benefits, exposure, vulnerabilities, risks and losses arising from the development choices.

➔ In doing so, recognise and develop an understanding of governance and decision making mechanisms encompassing a broad set of political institutions both formal and informal. While doing so, pay special attention to those represented in the decision making forum, and the main gate-keepers of such forums that allow or prevent certain development choices from being discussed.

➔ Address the multifaceted role of advocacy, education and awareness raising campaigns targeting various stakeholders and national partners, including in i) promoting an understanding of roles and responsibilities between the citizen and the state; ii) the interconnectedness of problems; iii) the relationship between rentier states, cronyism, sectarian politics and disproportionate public sector employment; iv) development, employment opportunities and basic services as rights in productive states vs. the favouretism adopted in distributing them in rentier states; and v) need to supplement technical budget solutions with political lobbying and advocacy based on political economy analysis.

➔ Improve policy making and programming by identifying short- and medium-term opportunities to support structural change.

➔ Identify long-term structural and institutional factors which enable or constrain reform.

➔ Provide support for local actors to carry out political economy analysis to enhance their understanding and lobbying along the above lines.

➔ Identify potential national and local partners from civil society and local development leaders, including the private sector.

➔ Employ a definition of leadership as a political process involving the skills of mobilizing people and resources in pursuit of a set of shared ad negotiated goals.

➔ Support the formation of coalitions for change with leaders and stakeholders as defined above.

The above political economy lens, culminating in the development of representative, inclusive coalitions and associated building and strengthening coalition leadership should be applied for each main intervention at the national and local level as part of the *process of change*. To this end, the recommendations in Section 6 will provide examples on coalition building for each of the main interventions (i.e. on *The How*).

MAINSTREAMING THE HUMAN SECURITY IN THE ANTHROPOCENE CONSIDERATIONS IN THE MAIN DEVELOPMENT CHALLENGES IN IRAQ

Introduction

The UNDP, together with other international partners and stakeholders, supports the Government of Iraq (GoI) in its efforts to improve its progress in the implementation of the various SDGs – a task complicated by the fragility of the state. Through its five main portfolios (i. Energy, water and climate; ii. Sustainable livelihoods; iii. Stabilisation; iv. Social cohesion, and v. Institutions), and in cooperation with multiple donors and partners, the UNDP also supports the GoI efforts in improving state society trust in the country. These five sectors are strategic transformative sectors, as effecting change in any of these sectors will have a positive impact on the economic, political, societal, security and environmental dimensions of fragility and stability. Furthermore, these five portfolios are fundamental in the Anthropocene characterised by intertwined planetary and societal imbalances (See Figure 3). UNDP effort in these fields aims to reduce risks arising from planetary and societal imbalances, make societies more resilient to associated shocks and pressures – all of which is crucial for UNDP work on reducing inequality, poverty and abject and chronic poverty.

In doing the above, every effort is made to mainstream important cross sectoral considerations into the above pillars including sustainability, conflict sensitivity, environmental protection, digitalisation, access to internet, and gender considerations. Notwithstanding the fact that many of the recommendations discussed in this section are ongoing, the new Human Security in the Anthropocene approach provides an opportunity to revisit these, and enhance them, in four main ways:

➔ Ensure that the portfolios contain all the components of the HSA approach (people centred, multi-sectoral, comprehensive, context-specific, and prevention oriented through protection and empowerment).

➔ Ensure that the portfolios promote as much as possible the issues of agency, incentives and solidarity; and

➔ Ensure that the portfolios compliment and build on the successful achievements of each other.

➔ Ensure that the portfolios adopt a political economy lens in identifying challenges and vested interests against effecting change; together with potential leaders, partners and stakeholders to be part of coalitions to effect change.

➔ In addition, it should be recognised that several of the recommendations discussed in this section cannot be implemented by UNDP acting alone. Indeed, this is to be expected in the age of the Anthropocene that poses systemic challenges to human societies which can only be addressed in holistic manner that brings together multiple stakeholders from the international, regional, national and local levels. In this sense, these systemic challenges and the recommendations to address them could be seen as topics for building potential coalitions for effecting change based on the principles of solidarity, protection and empowerment.

Energy, Water and Climate Change

The Climate of Iraq – A Synopsis

Iraq has three main climate zones (See Figure 9): an arid lowland desert in the west and south-west, a semi-arid steppe largely covering the central region, and a moist Mediterranean climate in the north and north-east [40]. These climate zones have variations in temperature and precipitation. Iraq has experienced low rainfall rates and unprecedented temperature increases. It has also increasingly been experiencing flash floods and Sand and Dust Storms (SDS) [41].

Figure 9: Climate Zones in Iraq [40]
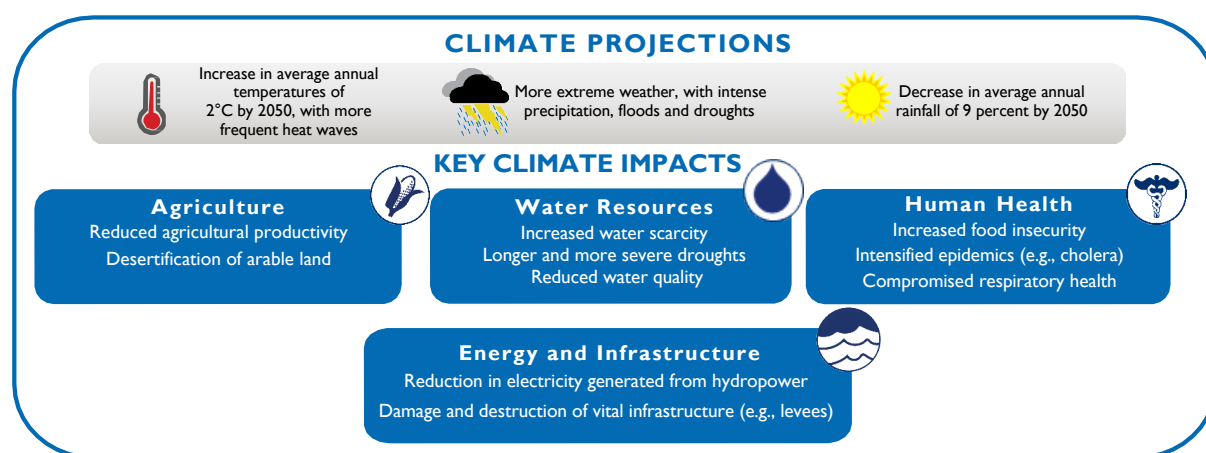
Climate Change Impact on Temperature and Precipitation in Iraq

Iraq is highly vulnerable to climate change and its impacts. The country's vulnerability is shaped by its physical exposure, a strong natural resource dependency and low adaptive capacity due to violent conflict, poverty, political instability and corruption. Iraq is particularly exposed to floods, droughts and dust storms, increasingly linked to temperature and precipitation variability, which may be summarised as follows:

Temperature: Temperatures in Iraq have been rising more acutely in the last decade. Iraq is increasingly witnessing summer temperatures above 50°C, with extreme heatwaves predicted to become more frequent in the future. Mean annual temperature is likely to increase by 2°C by 2050 [40]. Temperature increases will adversely affect soil moisture and water security, increasing the likelihood of longer and more severe droughts and dust storms [42].

Precipitation: Iraq's precipitation is characterised by high seasonal and regional variability. Most rainfall happens in the north and north-east with between 400 to 1,000 mm a year, mostly falling between November and March, while the steppe's annual average ranges between 200 to 400 mm. The south receives only between 40 to 60 mm, mainly between October and December [43]. Projections indicate that Iraq's mean annual

rainfall will decrease by 9 per cent by 2050, with the maximum number of rainy days expected to decrease as well. Declining rainfall is expected to prolong drought periods, with severe impacts on food and water security [42].

The effects of climate change are felt in several critical sectors, including agriculture, water, economy, public health and the environment, thereby also directly affecting the lives of Iraqi citizens [44]. However, responses to climate change have been inadequate and significantly affected by violent conflict, political competition, corruption and lack of financial resources [41].

If left unattended, climate change impacts will exacerbate poverty and insecurity, and may lead to social unrest, weakening of State Society Trust and causing further instability [2].

Iraq's Water Sector

The Euphrates and Tigris Rivers supply more than half of Iraq's freshwater resources. Both rivers originate in Turkey, and Iraq's water supply relies on Turkey and other upstream consumers (i.e., Syria and Iran). There is a lack of formal agreements among these countries regarding riparian rights. This is a potential source of conflict, as the rivers have been in decline, and water demand has been increasing due to population growth and economic development [40].

In 2020, average estimated water demand (72.07 km³/yr) was expected to surpass estimated water availability (63.46 km³/yr), with river discharges potentially running dry by 2040 [45]. Yearly fluctuation in annual discharge has caused severe flooding, and these fluctuations are projected to further intensify flood occurrences in the future. Yearly variability in river flow has partly contributed to prolonged droughts, which are also expected to worsen. Drought and low rainfall have also compromised the water quality of the rivers, making the shallower waters more prone to pollution from sources such as wastewater

and petroleum industry waste. Coastal areas in the south are more vulnerable to saltwater intrusion and salinization of groundwater sources, and future sea level rise could exacerbate this issue [46].

The recently completed Nationally Determined Contributions (NDCs) for Iraq under the UNFCCC agreement [44], set the overall goal for the water sector in Iraq to *increasing the resilience of the water resources sector in the country by adopting an integrated approach that faces the future increasing demand for water and reducing the potential deficit through the introduction of alternative and non-conventional sources, taking into consideration improving infrastructure and supply efficiency and preserving water sources from pollution as part of sustainability these sources.* Furthermore, and to achieve this goal, the NDC suggests the following actions:

➔ Benefiting from groundwater, harvesting water, reducing water losses, and using modern technologies to monitor and control groundwater aquifers and determine their quality, with the need to maintain the hydrogen balance of groundwater in general.

➔ Seawater desalination and the use of renewable energy to supply desalination plants with alternative energy and the development of new technologies for that.

➔ Establishing dams and earth reservoirs to collect water and ward off flood risks.

➔ Raising the efficiency of using irrigation water and working on finding modern, high-efficiency irrigation methods, reducing water wastage in quantity and quality in order to adapt to the sharp decrease in water resources, rehabilitating major drainage projects or saline water and examining the possibility of benefiting from them, and using alternative and non-alternative water sources Such as grey water and treated municipal and industrial wastewater to provide the necessary water quotas for agricultural, industrial and service uses.

➔ Activating the national policies, laws and legislations that urge the citizen to rationalize the use of water, with the necessity of having certain procedures against those who deliberately wastewater.

➔ Encourage the Euphrates and Tigris bordering countries (Iran and Turkey) to respect and account for Iraq's rights in the shared water resources, and enhance regional coopretation with these countries in order to acheieve water and climate security. In turn this requires cooperation in risk assessments and disaster and crisis management.

Iraq's Energy Sector

The Iraqi power supply is inconsistent, and improvement has been hampered by years of war. Iraq predominantly depends on fossil fuels for domestic electricity generation, but 7.6 percent of its electricity originates from hydropower [40]. With the continued decline of major rivers, Iraqi hydropower seems likely to decline. A study conducted on the effects of climate change on hydropower generation at Iraq's third largest dam concluded that by 2050, power generation would decrease by 5–10 percent [47].

Climate stressors related to the energy infrastructure include i) decreased average rainfall, ii) increased drought, iii) increased intensity of rainfall events and iv) sea level rise [48]. Furthermore climate related stresses to the energy infrastructure are identified as i) reduced hydropower generation and ii) damage to and destruction of infrastructure (e.g., levees, dams, and roads [49].

The recently completed Nationally Determined Contributions (NDCs) for Iraq under the UNFCCC agreement [44], set the overall goal for the energy sector in Iraq to increasing the resilience of the energy sector in the face of climate change through support for afforestation adaptation programs and working simultaneously with mitigation axes to enhance the national response in addressing climate changes and increasing the percentage of the population benefiting from electricity and transportation services. Furthermore, and to achieve this goal, the NDC suggests the following actions:

➔ Using a method of (nature base solution) by surrounding the power plants.

➔ Improving the efficiency of transportation and distribution and adopting modern technological methods that help to adapt to rising temperatures.

➔ Changing the specifications of electrical equipment used in the electricity sector in line with the increase in temperatures.

Mainstreaming the Human Security in the Anthropocene Considerations into efforts for improving Energy, Water and Climate Security

Notwithstanding the important analysis and recommended actions from the various policies and studies above, adopting the lens of the Human Security in the Anthropocene, coupled with a political economy analysis lens for building coalitions, allows for _additional_ holistic analysis and recommendations discussed in what follows.

The recommendations below are necessary for effecting change; however, they have to addressed in the context of Iraq fragility and current political-economy challenges. This is why adopting a political economy lens for building coalitions, coupled with the Human Security in The Anthropocene lens, is considered the best way forward to effect change, albeit in an incremental manner which if sustained can produce long term potential benefits.

The UNDP together with other partners, acting together or independently, have started working on several of the recommendations listed in this section. However, it is still useful to ensure that these initiatives cut across

the dimensions of solidarity, empowerment and protection; and that they aim to identify leaders, partners and stakeholders capable of forming coalitions to lobby and effect change to ensure the sustainability of these efforts and associated development gains.

Water Sector

Protection

➔ Refine and develop disaggregated data on the use and supply of water. The use of water should be disaggregated by area and by sector. This should include baseline for the 11 indicators related to SDG Goal 6 Goal 6. Ensure availability and sustainable management of water and sanitation for al and its sub-goals, together with a plan to measure progress against targets.

➔ Contextualise and adopt modern technologies to monitor and control aquifers to determine water quality.

➔ Mechanisms should be put in place to enhance participation, transparency and accountability and to reform the electricity and water sectors.

➔ In view of the increased frequency and severity of climate related hazards, and its increasing impact on water infrastructure, develop a recovery vision and policy before the next disaster occurs based on the main resilient infrastructure principles [50] including the Build Back Better Principle [36]. Such a policy would then be able to promptly and effectively guide post – disaster recovery efforts.

➔ Put in place legislation that promotes and provides incentives for i) rationalizing the use of water, ii) promoting innovations in water harvesting, iii) reduction in water losses, iv) adoption and monitoring of minimum standards for water quality, v) adopting modern, high-efficiency irrigation methods and v) innovations in water management.

➔ Put in place legislation for water desalination with targets for the use of renewable energy based on new technologies.

➔ Adopt flood protection and flood risk management techniques that makes use of water harvesting techniques including the building of reservoirs.

➔ Develop institutional capacity within the relevant line ministries, under the leadership of the Ministry of Water, to develop the necessary capacities to carryout the above.

Empowerment

➔ Invest in education sector, at school, vocational training, undergraduate and post graduate level, to build skills for innovative water harvesting and innovative water management.

➔ Support the private sector, including MSMEs, in investing in innovative technologies for water management.

➔ At the community level, support CSOs and NGOs working with communities to carry out community based risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across sectors and hazards.

Solidarity

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of upstream communities regarding the impact of hazardous practices on downstream communities.

➔ Identify, and strengthen sectoral and stakeholder leaders to embark on a process for mobilizing stakeholders and people and raising awareness on sustainable use and management of water resources. Support identified leaders to help build coalitions for the sustainable use and management of water resources at both the productive and domestic levels.

➔ Through regional organisations, promote the concept of solidarity to i) collaborate in the management of transboudary water resources, and ii) management transboundary water (and drought) related hazards including flash floods and Sand and Dust Storms (SDS).

Energy Sector

Protection

➔ Refine and develop disaggregated data on the demand and supply of energy. The use of energy should be disaggregated by area and by sector. This should include baseline for the 6 indicators related to SDG Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all, and its sub-goals, together with a plan to measure progress against targets.

➔ Mechanisms should be put in place to enhance participation, transparency and accountability and to reform the electricity and water sectors.

➔ In view of the increased frequency and severity of climate related hazards, and its increasing impact on the energy infrastructure, develop a recovery vision and policy before the next disaster occurs based on the main resilient infrastructure principles [50] including the Build Back Better Principle [36]. Such a policy would then be able to promptly and effectively guide post – disaster recovery efforts.

➔ Develop a strategy for mitigating risks to stranded assets across the energy sector.

➔ Provide a national strategy for the public sector to reduce the energy intensity of its main industrial assets, together with incentives for the private sector for the reduction in energy intensity.

➔ Put in place legislation to ensure that promotes and provides incentives for i) rationalizing the use of energy, ii) innovations in renewables based on Iraq's comparative advantage, and iii) innovations in building the resiliency of the electric grid, including through micro-grids and modular approaches.

➔ Develop institutional capacity within the relevant line ministries, under the leadership of the Ministry of Energy, to develop the necessary capacities to carryout the above.

Empowerment

➔ Invest in education sector, at school, vocational training, undergraduate and post graduate level, to build skills for i) rationalizing the use of energy, ii) innovations in renewables based on Iraq's comparative advantage, and iii) innovations in building the resiliency of the electric grid, including through micro-grids and modular approaches.

➔ Support the private sector, including MSMEs, in investing in innovative technologies for the supply and demand of energy.

➔ At the community level, support CSOs and NGOs working with communities to carry out community based risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across sectors and hazards.

Solidarity

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of households and communities in the rationalization of energy demand and in the adoption of renewable energies.

➔ Identify, and strengthen sectoral and stakeholder leaders to embark on a process for mobilizing stakeholders and people and raising awareness on sustainable use and management of energy resources. Support identified leaders to help build coalitions for the sustainable use and management of energy resources at both the productive and domestic levels.

Climate Security

Protection

➔ Refine and develop disaggregated data on exposure, vulnerability and risks arising from the main natural hazards affecting Iraq together with projections on these three components due to climate change. In addition, develop data on the main disaster risk drivers in Iraq, namely poverty, environmental degradation, unchecked urban expansion and weak governance (including weak risk governance and weak urban governance). Disaggregated data by area, sector and socio-economic considerations including gender. This should include baseline data for the 12 indicators related to SDG Goal 9 Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation; the 15 indicators related to SDG Goal 11 Make cities and human settlements inclusive, safe, resilient and sustainable; the13 indicators related to SDG Goal 12 Ensure sustainable consumption and production patterns; the 8 indicators related to SDG Goal 13 Take urgent action to combat climate change and its impacts; 10 indicators related to SDG Goal 14 Conserve and sustainably use the oceans, seas and marine resources for sustainable development; and the 14 indicators related to SDG Goal 15 Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss, and its sub-goals, together with a plan to measure progress against targets.

➔ In view of the increased frequency and severity of climate related hazards, and its increasing impact on all infrastructure sectors, develop a recovery vision and policy before the next disaster occurs based on the main resilient infrastructure principles [50] including the Build Back Better Principle [36]. Such a policy would then be able to promptly and effectively guide post – disaster recovery efforts.

➔ Develop a strategy for identifying and then mitigating risks to stranded assets across the main productive sectors sector.

➔ Provide a national strategy for the public sector to reduce the material footprint of Iraqi households, communities and the economy. Provide incentives to the private sector to also reduce its material footprint including through innovative solid (municipal, hazardous and medical) and liquid waste management.

➔ Put in place legislation to ensure that promotes and provides incentives for i) innovations in the collection and collation of data, ii) innovations in solid and liquid waste management, and iii) innovations in building the resiliency of the main industrial sectors.

➔ Develop institutional capacity within the relevant line ministries, to develop the necessary capacities to carryout the above.

Empowerment

➔ Invest in education sector, at school, vocational training, undergraduate and post graduate level, to build skills for i) raising awareness on CC in general, ii) innovations in the collection and collation of data, iii) innovations in solid and liquid waste management; and iii) innovations in building the resiliency of the main productive industrial sectors.

➔ Support the private sector, including MSMEs, in investing in innovative technologies for the above.

➔ At the community level, support CSOs and NGOs working with communities to carry out community based risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across sectors and hazards.

Solidarity

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence

behaviour of households and communities in the reducing the material foot print of Iraqi households, communities and the private and public sector.

➜ Identify, and strengthen sectoral and stakeholder leaders to embark on a process for mobilizing stakeholders and people and raising awareness on the importance of having an inclusive and transparent decision making process for the use of natural resources. In particular, focus on the distribution of exposure, vulnerability, risks and losses arising from such a decision making process. Support identified leaders to help build coalitions for the adoption of a transparent and inclusive decision making process on the use of natural resources that leaves no one behind and that endeavours to reach the furthest behind first.

Livelihoods

Climate change already impacts livelihoods in Iraq. The societal burdens of a rentier, oil-dominated, economy and weak governance systems are exacerbated by climate change impacts that negatively affect agriculture livelihoods, reduce household income and worsen food security for the most vulnerable.

Iraq's economy is dominated by oil, which contributes more than 90 per cent of government revenue. High reliance on oil revenue contributes to economic instability, as economic growth is hindered by the volatility of oil prices and the lack of economic diversification [2]. Further, emissions from the ageing oil wells have also affected the country's environment and people's health [51]. The Covid-19 pandemic has also taken a toll on the economy, exacerbated already high levels of unemployment and poverty, and created further instability in Iraq [2].

Despite the dependence on oil for revenue, the agriculture sector provides a livelihood for 25 per cent of the population [40]. Agriculture, however, is mostly characterised by small-scale rainfed or irrigated farms. Reduced

rainfall levels and water availability, prolonged droughts, Sand and Dust Storms (SDS) and decreasing soil fertility have significantly affected agriculture and the livelihoods dependent on it [42]. Furthermore, water availability and quality is worsened by outdated and poor water and sewage infrastructure and irrigation systems, as well as the lack of adequate water management policies and practices [52].

Despite the significant water supply vulnerability and existing scarcity, Iraq has a water withdrawal rate that is almost double the world average, due to a lack of adequate national water management policies. This inefficient water use is a critical threat to Iraqi agriculture, which accounts for as much as 90 percent of water consumption nationally [53].

In 2021, northern Iraq was affected by droughts due to diminishing rainfall, while southern Iraq experienced a decrease in fresh water supply. Both these events resulted in significant crop failure [54].

Droughts in northern parts of the country – generally considered a cereal surplus area – resulted in low harvest in Nineveh province and halved crop production in the Kurdistan Region of Iraq (KRI). In Nineveh, the wheat harvest was estimated to be 70 per cent lower than in 2020, and 50 per cent lower than in 2019. In the KRI, wheat production was forecast at 50 per cent lower than the 2020 harvest [55].

Crop failure has contributed to an increase in food prices, as local production is supplemented by food imports [54], even before the invasion of Ukraine and the ensuing destruction of some of the country's harvest and the blocking of the country's ports. Crop losses, reduced income and increases in food prices are exacerbating vulnerabilities and threatening food and livelihood security [54].

Tensions between communities have already emerged, and livelihood deterioration linked to climate change and water shortages may increase the risk of resource competition, migration, armed groups' recruitment and

violent conflict. [56] In recent years, protests and riots have emerged as one of the primary forms of contention linked to climate-related risks.

The main stresses to agricultural activities are i) increased temperatures, ii) greater frequency and intensity of drought, iii) increased intensity of rainfall events, iv) increased frequency of SDS events. The main risks to agricultural livelihoods are i) decreased agricultural productivity, ii) loss of arable land due to desertification and sand and dust storms, iii) increased soil salinization, iv) migration from rural to urban areas due to crop failures and loss of livelihoods [40].

The recently completed Nationally Determined Contributions (NDCs) for Iraq under the UNFCCC agreement [44], set the overall goal for the agriculture sector in Iraq to increase the resilience of the agricultural sector towards climate change to protect and enhance the country's food security, reduce soil degradation, and increase agricultural revenues to achieve economic diversification, reduce poverty, and support rural women through the use of modern technologies and technologies as part of achieving sustainable development goals. Furthermore, and to achieve this goal, the NDC suggests the following actions:

➔ Reducing and rehabilitating soil degradation, and improving land management practices, especially in the areas of agriculture and forestry.

➔ Modernizing, improving and developing agricultural practices and developing livestock in order to achieve the principles of adaptation to face climate changes.

➔ Establishment of greenhouses and plastic farms and laboratories for tissue reproduction of varieties resistant to climate changes.

The industrial sector is mainly under government ownership, with rentier and political affiliation considerations playing a significant role in employment in the sector,

similar to employment in the public sector at large. Together with the agriculture sector, it has the potential to act as a job-rich, decent-job creator, away from the prevalent rentier economy and associated rentier culture for job creation and employment practices. However, again, this would require the adoption of a human security approach, coupled with a political economy analysis lens, to identify leaders, partners and stakeholders that can build coalition for lobbying toward diversifying the Iraqi economy.

Mainstreaming the Human Security in the Anthropocene Considerations into efforts for improving Livelihoods

Protection

➔ Developing comprehensive analytic tools for climate-related security risks affecting the livelihoods sector, including the agriculture and industrial sectors. The analysis can be incorporated into the Iraq National Adaptation Plan.

➔ Support the Government of Iraq to strengthen its planning and implementation capacity to respond to challenges in public service provision due to the adverse effects of climate change. Mechanisms should be put in place to enhance participation, transparency and accountability and to reform the electricity and water sectors, with a view to improve the sustainability of livelihoods particularly in the agriculture and industrial sectors.

➔ Support the Government of Iraq to develop a strategy for mitigating risks to stranded assets across the agriculture and forestry sectors.

➔ Support the Government of Iraq to develop strategies for creating sustainable employment, in job-rich pro-poor sectors, based on low energy intensity that account for emerging technologies.

Empowerment

➔ Invest in the education sector, at school, vocational training, undergraduate and post graduate level, to build skills for i) rationalizing the use of energy in agricultural and industrial activities, ii) innovations in agriculture and industry, and iii) innovations in building the resiliency of the agricultural and industrial sectors.

➔ Support the private sector, including MSMEs, in investing in innovative technologies for the agriculture and industrial sectors.

➔ At the community level, support CSOs and NGOs working with rural communities to carry out community based rural risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across the livelihood sectors and hazards.

Solidarity

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of households and communities in the rationalization of water and energy demand in the agriculture sector and in livelihoods generating activities in general in order to i) increase the reliance on renewable energies in the work place, and ii) reduce the energy intensity of the economy.

➔ Identify leaders, partners and stakeholders to form part of coalitions capable of raising awareness on the importance of moving away from a rentier economy and rentier culture towards a more diversified economy capable of creating decent jobs for the Iraqi population including women and youth. In doing so, promote the importance of the private sector as a creator of decent jobs away from cronyism and rentier considerations.

Stabilisation and Social Cohesion

Climate change can undermine development gains and affect the dynamics of conflict and disrupt fragile peace processes. Although there is no direct causal relationship between climate and conflict, research has identified multiple pathways through which climate change interacts with political, social and environmental stresses to compound existing vulnerabilities and tensions [41]. For example, Tribal tensions have emerged over water competition and further intercommunal conflict may emerge [57].

This document uses four interrelated pathways to navigate the complex relationship between climate change, peace and security: i) livelihood deterioration discussed in the section above, ii) migration and mobility, iii) tactics of military and armed actors, and iv) elite exploitation and mismanagement [58].

Migration and Mobility

Iraq has been experiencing largescale climate induced migration to urban areas due to crop failures and loss of livelihoods [40]. For example, in Basra city, migration from rural areas was mainly driven by a lack of economic opportunities, water scarcity and severe environmental degradation to rural livelihoods. Many of these migrants live in poor and unsafe urban areas already prone to social problems related to economic security. Urban migration patterns in Iraq have shown that most migrants settle in slums and these slums, together with the migrants' precarious conditions, have created a breeding ground for recruitment into armed groups and the growth of criminal networks [59].

Sources of insecurity in host cities are centred around tribal conflicts, unemployment, lack of services, and drug and alcohol trafficking [59].

Increased urban migration adds to challenges in urban areas, straining local authorities' capacities to manage and meet population demand for services [42]. As of December 2021, over 1 million people were internally displaced in Iraq, while 4.9 million have been registered as returning to their region of origin [60]. Many internally displaced persons (IDPs) and returnees are in regions experiencing heightened food insecurity, including along the Euphrates River in Anbar and the Tigris River in Salah Al-Din. Ninewa governate hosts the largest number of IDPs and returnees in Iraq, where drought conditions in 2021 led to the displacement of returnee households [61]. Displacement has negative effects on individual and household resilience, and returnees may be more vulnerable to the adverse effects of climate change because displacement can have negative impacts on livelihood and financial security.

Tactics of Military and Armed Actors

Increased climate-related and environmental stress may motivate armed groups to capture or destroy agricultural land and water infrastructure such as dams, pipelines and wastewater plants. This phenomenon has been observed in other conflicts in the Middle East and North Africa. During the ISIS occupation of territory in Iraq between 2013–2017, the group targeted important water sources such as the Mosul and Falluja dams and destroyed irrigation infrastructure [62]. Arable lands have also been affected by conflict and intentional destruction by ISIS. Due to the exacerbating impact of climate change, strategic water infrastructure may play a significant role in future armed conflicts in Iraq.

In addition, livelihood insecurity may provide an avenue for armed groups to gain support and recruit new members [56]. For example, ISIS has previously used food and water shortages to gain support in certain communities in Iraq in exchange for livelihood security, resources and other services not provided by the state [63]. In southern Iraq, recruitment into militia groups is considered a livelihood option for many households owing to environmental degradation and lack of economic opportunities [59].

Elite Exploitation and Mismanagement

In Iraq, the combined effects of weak governance, elite exploitation, marginalisation and exclusion mean that climate change impacts some groups more than others, in turn feeding the grievances that drive instability. Corruption, patronage networks, and the politicization of state institutions through their apportionment between ethnic and sectarian groups limit the government's capacity to implement policies, which leads to the unequal distribution of resources and creates instability. Political competition has impeded government action despite pledges from successive governments to address the socio-economic impacts of climate change [64]. This has prevented Iraq from making long-term investment in infrastructure to tackle the impacts of climate change, for example, Iraq has not managed to invest in long-term water infrastructure to reduce water waste, take advantage of water flowing downriver, and maximise seasonal flows [64]. UN-led reconstruction efforts post the 2003 invasion have been unsuccessful in setting the country's water infrastructure on a good footing. Years of mismanagement have culminated in prolonged and persistent water shortage [52]

Iraq has already witnessed protests over the lack of, or poor quality, water, electricity and other services, as well as the lack of employment opportunities [65]. These protests have been met with violence from security actors and have created further instability in the country [66]. At the same time, protests over water issues in Basra have also led to promises of investment in the local area, rather than broader countrywide policy adoption. The impacts of climate change will exacerbate existing issues of service provision.

Left unaddressed, weak governance, elite exploitation and mismanagement, and marginalisation will accentuate vulnerability and instability in Iraq, especially when compounded by adverse impacts of climate change. Deteriorating livelihoods are likely to increase the risk of protests and create political instability, and in some instances lead to   violence.

Mainstreaming the Human Security in the Anthropocene Considerations into efforts for improving Stabilisation and Social Cohesion

Protection

➔ Developing comprehensive analytic tools for climate-related security risks including risks of climate-induced conflicts and interaction between conflict and migration. The analysis can be incorporated into the Iraq National Adaptation Plan.

➔ Support the Government of Iraq to strengthen its planning and implementation capacity to respond to challenges in public service provision due to the adverse effects of climate change on conflict and displacement. This should include displacement due to climate-induced conflict and subsequent conflict due to climate-induced displacement, and the impact of such conflicts and displacements on the public services in both origin and host communities.

➔ Against the above background of the potential for a feedback loop between conflict and displacement, mechanisms should be put in place to enhance participation, transparency and accountability of the electricity and water sectors, specifically to mitigate the potential negative impact of conflict and displacement on these two sectors.

➔ Support the Government of Iraq to capitalise on the potential to strengthen

the social contract between society and government through effective, climate-resilient service delivery in both climate change hot-spots and neighbouring potential host communities.

Empowerment

➔ At the community level, support CSOs and NGOs working with rural and urban communities, in climate change hot-spots, to carry out community based rural risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across sectors and hazards, with special emphasis on the interaction between climate change, conflict and displacement.

➔ At the community level, support CSOs and NGOs working with rural and urban host communities, to carry out risk assessments and risk reduction recommendations, using the human security approach definition of risks and threats across sectors and hazards, with special emphasis on the interaction between climate change, conflict and displacement.

Solidarity

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of households and communities in the rationalization of water and energy demand in the agriculture and industrial sectors and in livelihoods generating activities in general in order to i) increase the reliance on renewable energies in the work place, and ii) reduce the energy intensity of the economy.

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of households and communities in accepting climate-induced displacement and recognising the opportunities that this may bring to host communities.

➔ Identify, and strengthen sectoral and stakeholder leaders to embark on a process for mobilizing stakeholders and people and raising awareness on the importance of developing and implementing climate change adaptation strategies, policies and programmes; and the potential negative impact of climate change on stability, social cohesion and state society trust when Such CCA plans are lacking or not being implemented. Support identified leaders to help build coalitions for the legal adoption and implementation of CCA strategies and plans, particularly those dimensions focused on mitigating any negative effects of climate change on stability, social cohesion and state society trust.

Security Sector

Complex Security Situation due to Fragility

The ethno-sectarian character of political organization in Iraq profoundly affects the ability of the state to fulfil what is traditionally considered one of the core functions of a state: to provide security and ensure order within its territory through maintaining the monopoly over the legitimate use of physical violence. The dynamics of ethno-sectarian power-sharing not only contribute to the fragmentation of the security sector, but they also engender complex interactions with hybrid non-state security actors—part of the state, yet in many ways also independent of it. These actors penetrate and become intertwined with a state that is itself hybrid, with informal sources of authority and power existing alongside and penetrating the formal state apparatus [67].

The sectarianization of civil–military relations and the tensions between the ethno-sectarian political elites on the one hand and the national security institutions on the other are highly detrimental to the latter's preparedness and effectiveness in responding to security threats [64].

The challenge that sectarianized non-state actors constitute for the security sector of Iraq is embodied by the rise and power of the Popular Mobilization Forces (PMF). The PMF is a state-sponsored umbrella organization composed of a number of militias. It is not a homogenous actor; rather, it is composed of a variety of networks and groups with different affiliations and shifting patterns of cooperation and competition [68]. While predominantly Shiite, there are also Sunni, Christian, Shabak, Yazidi and Turkmen militias, among others. Although the PMF is part of the state, its direct connections to individual political parties and alliances creates problems for both security provision and political power dynamics. Sections of the PMF are also seen as a vehicle for regional interference and influence, which has further impacts on political dynamics in Iraq [69]. Thus, while the PMF is viewed by some as a provider of security, others consider it as a factor in insecurity and a driver of instability in Iraq given that some factions continue to act outside government jurisdiction [69]. For example, the PMF is widely believed to be responsible for the brutal repression of protesters in 2019 and the targeted killing of journalists and activists [64].

Failure to prosecute the perpetrators of these violations, together with the generally weak enforcement of the rule of law, considerably undermines trust in the police and the judiciary in Iraq [70]. The potentially devastating impact of sectarian competition on military institutions and, consequently, on security, are clearly manifest. At the same time, widespread corruption leads to a significant number of ghost employees within the IAF, where salaries are collected for non-existent soldiers [64]. These factors severely undermine the Iraqi Armed Forces (IAF) and were partly responsible for its staggering collapse in the face of the advances of the Islamic State group in 2014 [71]. As a result the PMF emerged as an important security actor, while subsequent prime ministers and the International coalition

to defeat ISIS invested heavily in rebuilding the IAF [64].

The multiplicity of security actors undermines citizens' personal security and results in high levels of violence, especially during protests. [64]. Despite repeated pledges, curbing the influence of the PMF has proven a difficult task for successive governments in Iraq. Any new government will need to address the challenges posed by militias acting outside government jurisdiction and pave the way for the emergence of a truly national police system. Accountability for campaigns of intimidation and targeted killing of activists and journalists is a logical first step [64]. Interestingly, a recent review of public perception of the provided security and judiciary services found that the least degree of satisfaction was in the southern governorates and Baghdad where the PMF has the strongest presence [72].

Anthropocene Considerations

Climate change and the dawn of the Anthropocene pose additional challenges on security and judiciary authorities in any country, and even more so in fragile states with strong non-state actors. In particular, against a background of increasing frequency and severity of climate related hazards, the state has a duty to carry out:

➔ Its stewardship role of protecting citizens, livelihoods and the economy against external threats, in this case represented by neighbouring countries practices of excessively building dams and preventing Iraq from enjoying its share of transboundary water resources.

➔ Its stewardship role of protecting citizens, livelihoods and the economy against climate related hazards, including drought, flash floods and Sand and Dust Storms.

➔ Its regulatory role of enforcing the rule of law so that the action of individuals, actors and sectors do not cause additional vulnerability, risks and losses to the wider community and the country at large. This is

particularly important in fragile countries, highly vulnerable to climate change, like Iraq. The government of Iraq has a duty to enforce the law to avoid excessive ground water use, liquid and solid waste pollution, actions that threaten protected ecosystems, amongst others. However, against a background of poverty and fragility, non-state actors may engage in such activities to gain extra power, income and influence amongst the impoverished population.

Mainstreaming the Human Security in the Anthropocene Considerations into efforts for improving Security Sector Reform Efforts

As stated at the beginning of this section, and particularly for the state security sector, it should be recognised that several of the recommendations discussed in this section cannot be implemented by UNDP acting alone. Indeed, this is to be expected in the age of the Anthropocene that poses systemic challenges to human societies and human security which can only be addressed in holistic manner that brings together multiple stakeholders from the international, regional, national and local levels. In this sense, these systemic challenges and the recommendations to address them could be seen as topics for building potential coalitions for effecting change based on the principles of solidarity, protection and empowerment. While the UNDP is already helping the GoI in some of the recommendations listed below, these initiatives should be strengthened and informed by a political economy analysis that helps identify challenges and vested interests against effecting change; together with potential leaders, partners and stakeholders to be part of coalitions to effect change.

Protection

➔ Support the GoI to direct additional effort to tackle abuse and brutality against peaceful protesters and political opposition. Specifically, Support the GoI to invest in

training and ensuring accountability in order to end impunity and improve the conduct of security personnel, riot police and other security actors

➜ Support the Government of Iraq to strengthen its stewardship roles for protecting the Iraqi people against threats from outside the country (water scarcity and natural hazards).

➜ Support the Government of Iraq to strengthen its regulatory role in managing risks arising from the actions of individuals, actors and sectors on the wider population at large.

➜ Support the judiciary authorities to be better empowered to fully enforce hazard and risk-related regulatory legislations.

➜ Support the Government of Iraq to initiate a comprehensive security and justice review in order to identify strategic risks and priorities.

Empowerment

➜ Support the Government of Iraq to engage civil society in processes of security sector reform and governance, which in turn can add more transparency as well as an understanding of citizens' perceptions and needs in terms of security.

Solidarity

➜ Identify, and strengthen sectoral and stakeholder leaders to embark on a process for mobilizing stakeholders and people and raising awareness on the importance of enhancing the governance and effecting reform of the security sector. In particular, focus on the importance of protecting citizens rights, including the right to peaceful political activities. Support identified leaders to help build coalitions for the adoption of reform within the security sector.

Gender

Women are disproportionately affected by climate change in Iraq, due to pre-existing gender roles and inequality which means women often lack the livelihood options and resources of men. Iraq was ranked 154 out of 156 countries in the Global Gender Gap Report 2021, with women having lower economic opportunities and participation, education and political empowerment [73].

In the Hawizeh marshes, for example, women are adversely affected by water shortages and drought conditions and they must search for other water sources in distant areas to provide for families and livestock [74]. When livelihoods deteriorate, men migrate to cities in search of jobs leaving women to support their families and livestock, adding an extra burden of responsibility in times of distress [31]. Thus, addressing livelihood deterioration should consider the gender dynamics in Iraq.

Mainstreaming the Human Security in the Anthropocene Considerations into efforts for improving Gender Empowerment and Equality Efforts

Protection

➜ Support the Government of Iraq to work closely with diverse local civil society actors, including marginalised and excluded groups, women and girls, and ethnic, religious and tribal minorities, in addressing climate-related security risk.

➜ Support the Government of Iraq to work closely with diverse local civil society actors, in order to mainstream gender considerations into livelihood generation and livelihood protection programmes, projects and activities.

➔ Support the Government of Iraq to work closely with diverse local civil society actors, in order to ensure that water shortages and drought conditions do not lead to girls dropping out of school due to lack of finance and/or to help their families search for other water sources and help with livelihoods.

Empowerment

➔ At the community level, support CSOs and NGOs working with rural and urban communities in climate change hot-spots, to carry out community based rural risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across the sectors and hazards, with special emphasis on climate-change, conflict and displacement-induced risks affecting women and girls.

➔ At the community level, support CSOs and NGOs working with rural and urban host communities, to carry out community based rural risk assessment, and risk reduction recommendations, using the human security approach definition of risks and threats across the sectors and hazards, with special emphasis on climate-change, conflict and displacement-induced risks affecting women and girls.

Solidarity

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of households and communities in order to mitigate the impact of climate change, conflict and displacement induced risks on women and girls.

➔ Inside Iraq promote the concept of solidarity and social cohesion across the country to raise awareness and influence behaviour of households and communities in order to prevent girls dropping out of schools as families continue to face financial difficulties due to climate change, conflict and displacement.

➔ Identify, and strengthen sectoral and stakeholder leaders to embark on a process for mobilizing stakeholders and people and raising awareness on the importance of having an inclusive and transparent risk management process to mitigate the impact of climate change, conflict and displacement induced risks on women and girls. Support identified leaders to help build coalitions to lobby for the adoption of a transparent and inclusive risk management process to mitigate the impact of climate change, conflict and displacement induced risks on women and girls.

Addressing the How from a Political Economy Perspective

The opportunities for a successful implementation of many of these recommendations can be significantly improved by adopting a political economy lens that focuses on the following aspects of the problem under consideration:

➔ Develop an understanding of development opportunities and challenges, in all the above sectors, as political processes operating at national and subnational levels, across all society stakeholders including business organizations, trade unions, NGOs, professional bodies, religious authorities, and bureaucracies.

➔ Develop an understanding of the existing dynamics that create certain winners and losers arising from the existing use of resources (human and natural in land, sea and air) to provide services associated with the above five sectors and portfolios, in particular through understanding the vertical and horizontal distribution of benefits, exposure, vulnerabilities, risks and losses arising from the development choices.

➔ In doing so, recognise and develop an understanding of governance and decision making mechanisms encompassing a broad set of political institutions both formal and informal. While doing so, pay special

attention to those represented in the decision making forum, and the main gate-keepers of such forums that allow or prevent certain development choices from being discussed.

➜ In addition, analyse and develop an understanding the decision-making mechanisms related to the development of incentives for climate- and disaster risk- informed development and Nature based Solutions (NbS). While doing so, pay special attention to those represented in the decision-making forum, and the main gate-keepers of such forums that allow or prevent certain development choices from being discussed.

➜ Address the multifaceted role of advocacy, education and awareness raising campaigns targeting various stakeholders and national partners, including in i) promoting an understanding of roles and responsibilities between the citizen and the state; ii) the interconnectedness of problems; iii) the relationship between rentier states, cronyism, sectarian politics and disproportionate public sector employment; iv) development, employment opportunities and basic services as rights in productive states vs. the favouretism adopted in

distributing them in rentier states; and v) need to supplement technical budget solutions with political lobbying and advocacy based on political economy analysis.

➜ Improve policy making and programming by identifying short- and medium-term opportunities to support structural change.

➜ Identify long-term structural and institutional factors which enable or constrain reform.

➜ Provide support for local actors to carry out political economy analysis to enhance their understanding and lobbying along the above lines.

➜ Identify potential national and local partners from civil society and local development leaders, including the private sector.

➜ Employ a definition of leadership as a political process involving the skills of mobilizing people and resources in pursuit of a set of shared ad negotiated goals.

➜ Support the formation of coalitions for change with leaders and stakeholders as defined above.

LESSONS APPLICABLE TO OTHER FRAGILE AND CONFLICT COUNTRIES

Introduction

The HSA [5] recognises the importance of adopting a comprehensive approach to threats and shocks including political and security threats. In particular, the HSA recognises the potential of conflict and fragility to undermine any existing development gains and render future gains unsustainable. Furthermore, the SDGs framework [37] recognises that the SDG are indivisible. The Human Development Report in the Anthropocene [3] recognises that planetary stresses and shocks mirrors societal shocks and stresses; and calls for integrated work in improving the Agency of people, while at the same time working towards influencing social norms and incentives to promote CC- and DR-informed development, partly through the adoption of NbS. Finally, the Human Security in the Anthropocene approach [4] integrates all the above, augmenting the above approaches with the importance of promoting solidarity, in addition to the protection and empowerment dimensions in the original HSA approach.

The above requires a thorough understanding of the political economy of development in fragile and conflict contexts.

Main Categories of Lack of State Responsiveness in Fragile State

Fragile states lack the ability to effectively govern and to develop strong relations with communities. Lack of state responsiveness can be a result of [75]:

➔ Limitations in **organisational capacity**. This means that government structures that provide basic services may not be in place or do not function effectively.

➔ Lack of **effective leadership**, with opportunities or access to services based on kinship or ethnicity rather than notions of citizenship. In such places, state legitimacy often is lacking because the structure and actions of the state are not consistent with the values and beliefs of the population.

Lack of a **political settlement**. This is an agreement between elites on the processes by which power and resources are shared and decisions made.[5] Where a political settlement exists it may be narrow and exclusionary, disregarding human rights, or may be unstable. Some states have strong and reasonably legitimate structures and settlements at the national level but may experience sub-national fragility in parts of the country where state reach is lacking or state legitimacy is contested.

Fragile states are unable or unwilling to provide for basic social and economic rights. Key issues facing people living in fragile states include chronic poverty; government and state structures lacking the capacity or will to provide public safety and security and basic services for their populations; low levels of state accountability to citizens; challenges relating to natural resource management; a private sector which may be largely informal and opportunistic; low levels of foreign direct investment; and a high risk of further state decline [75].

Fragility and conflict can also lead to exacerbating the vulnerability of the most vulnerable including the children, youth, elderly, women and minority ethnic groups.

Improving Human Security Development Effectiveness requires Addressing Fragility and Violent Conflict through a Political Economy Lens

Without addressing the sources and impacts of fragility and violent conflict, the effectiveness of development initiatives by the state and donors will be limited. Problems facing the successful completion and sustainability of development initiatives include weak contextual understanding based on a lack of data, widespread corruption, a difficult and high-risk environment, and low government capacity.

Addressing fragility and conflict requires support to state-building, building social resilience and peacebuilding. Without a reasonably well functioning state, and the absence of widespread violence, development assistance will not result in sustainable gains.

It should be recognised however that fragility is a process that has evolved over decades. Reducing fragility and the associated drivers of conflict requires a long term process that focuses on:

➔ Identify potential national and local partners from civil society and local development leaders, including the private sector.

➔ Employ a definition of leadership as a political process involving the skills of mobilizing people and resources in pursuit of a set of shared ad negotiated goals.

➔ Support the formation of coalitions for change with leaders and stakeholders as defined above.

Once such stakeholders, coalitions and leaderships have been identified, it becomes possible to develop short-, mid- and long term programs to:

➔ As a central objective support the legitimacy and accountability of fragile states by addressing issues of democratic governance, human rights, civil society engagement and peacebuilding.

➔ Strengthening the capability of states to fulfil their core functions including [76]: ensuring security and justice; mobilizing revenue; establishing an enabling environment for basic service delivery, strong economic performance and employment generation. It should be recognised that civil society has a key role both in demanding good governance and in service delivery.

➔ Recognise the links between political, security and development objectives. The challenges faced by fragile states are multi-dimensional. The political, security, economic and social spheres are inter-dependent. Importantly, there may be tensions and trade-offs between objectives, particularly in the short- term, which must be addressed.

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IN LOCAL AND NATIONAL POLICY RECOMMENDATION IN FRAGILE COUNTRIES

The case of Iraq