Investigating the Effects of Climate Change and Sustainable Development of Iraqi Engineers Ethics

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Abstract. The impact of heat island is urban in Baghdad, which is a major city colder than the surrounding areas. This study is intended to explain what sectors of the Iraqi society are seen as a concrete challenge to their urban and lifestyle features. Issues about the impacts that climate change and UHI have had on staff were addressed including students and architects, and graduates. The study found that the acceptances of complex issues such as urban heat island as part of climate change and much less recognition of it as the product of human action is moderated in the segments of population of academics, scientists and low among urban residents of Iraqi society. However, low acceptance reflected rather than universal open cynicism a significant degree of confusion among urban citizens. Uncertainty amongst local citizens may be due to theoretical disputes on the causes and potential effects of Urban Heat Island. The findings suggest that scientists are manipulating climate change to follow their own agendas, weakening their faith in research and evidence. This is because of these differences. With just 52 percent of respondents who thought it was easy to comprehend the knowledge presented by climate change and Urban Heat Island, there was a strong need to amend marketing policies in universities and institutes. Results suggest that the Iraqi population's limited responses to local climate change, current and past extremes of weather warming, water insufficient, and storm seasons support results suggest that Urban Heat Island was not an immediate problem for society. The short to medium term vulnerability Urban Heat Island, defined by their urban climate or lifestyles, was typically not understood or overlooked by a well-educated population.

Keywords. Climate change, Ethics, Culture, Insecurity, Reputation, Urban hot island.

1. Introduction
The systemic essence of the issue is the secret to the legal repercussions for extreme weather. The main effect of climate change on Iraqi cities is also correlated with dusts storms, and harsh weather is among these disadvantages. The use of air conditioning will be reduced down by reducing the global temperature and reducing the production of ozone and the release of greenhouse gases. Strategically planted vegetation lowers energy demand in three directions. The first is to block excessive solar rays from entering a building by shading windows. Secondly, the tree can lower the radiation from the roof and walls and reduce the radiation to the framework. Finally, shading impacts the energy use by restoring the earth outside the building, which can serve as a heat trap for the property. The Al-farahidi University team
states how the actions of a skilled Iraqi individual could impact people in other Iraqi communities and they are at the greatest risk but have no influence of how people in developing countries react to their well-being. Society must take these experiences into account and claim fundamental obligation on the basis of the data interpretation of the team questioner. Climate change has recently become a global concern with differing climate parameters including wind, plumage, temperature levels, sea level, and steam pressure [1]. Climate patterns influence various economic sectors such as agriculture, hygiene, water supply, electricity, etc. Anthropogenic (human) activities are the primary source of climate change. The relatively dry environment in Iraq and the area has contributed to the establishment and growth of local contexts and unique expertise and management strategies by trained and rural farmers from those areas, which effectively resolve the instability of current conditions [2]–[3]. Despite the fact that major changes in local conditions have arisen due to climatic change [4]. There is also a description of understanding of the present condition in memory and a pause in proof acceptance [5]. Local information principles established in the social, economic and environmental systems of Iraqi society can also contribute to conflicts with science [6]. This may lead to any or all of the scientific knowledge available required for adaptation being ignored. These innovations include colleges and universities, which need strategic preparation to be adopted immediately.

In order to help the campuses that are beginning to prepare, we provide a condensed criticism of the potentially hazardous aspects of climate change as well as the underlying policy and regulatory concepts that are in effect and would affect higher education institutions. To offer high quality learning programs in line with scientific and technical growth at state, regional and international universities and, in conjunction with the organizations are working to satisfy labor market needs, to contribute actively towards developments in technology and the continuous enhancement of the educational research system. Climate change has been the key stage of global diplomacy. If staff, students and graduates do not think climate change takes place or accept that climate change is part of a natural climate cycle, they will be unsuitable for adaptation. The revision of agricultural and rural communities are the big decision-takers in the process of adapting Iraqi societies to rapid climate change. The study seeks to hear about what writers, educators and urban people are thinking, the Climate Change Science and the Urban Heat Island and their related effects. The instability in the Iraqi population could be caused by empirical variations in causes and possible consequences of climate change.

2. Methods
This research claims that the extent of identification among the people with an occurrence determines their vulnerability or risk aversion. The more familiar the behavior is, the greater the degree of risk aversion. The study team raised questions about the climate change and the future effects of students and engineers

- Issue 1. Is there any thinking by researchers, teachers, or commuters?
- Issue 2. Is the change on the climate coming?
- Issue 3. Is UHI normal or affected by human behavior on Urban Heat Island?

The analysis of the study answers the following questions:

Was UHI a real danger to your way of life?
- What if science and policy beliefs have changed the attitudes of people?
- Has the creation of behaviors and values led to other factors?
- What did the numerous climate change response organizations identify?

The research aimed to determine whether there was cynicism about the climate change that could undermine pro-active adaptation in educating populations at stages. It uses objective and quality data collection approaches to assess the understanding of climate change that informed people have. Before the quantity test, the qualifying thesis was performed by semi-structured in-depth interviews with a limited number of students and academics. This analysis has been undertaken to ensure that the study
covers all the necessary variables. The study was performed primarily using a formal survey method. During the duration from June 2013 to March, the survey was carried out primarily via personal intercepts. The engineers, staff, students and graduates of Al-Farahidi University were chosen for accessing many future problems and for reflection of the diversity and environment of the economic, industrial and education sectors. Additional surveys have been carried out on graduates of the university. In particular, the survey contained 547 replies. Of these; 245 professionals, 24 professionals, 110 employers, 169 reflecting the greater society with a rural population and 49 reflecting small companies. Sample size ranges of the subgroups are irregular and the percent of the system is used. Three point-Likert scale of weighted mean, which is used to display the meaning of response the efficiency and validity for the measurers, are the outcomes of the analysis. the analysis has been performed principally using SPSS-based numerical analysis. This does not include a standard distribution of the data, does not remove the data or depends on the importance of individual variables to define the clusters, ordination or networks. At the same time, analysis of relations between characters and values by means of clustering, ordering, networking and statistical assessment was conducted [7].

3. Results and discussion
Results include urban resident’s attitudes to climate change, urban Heat Island, UHI and governments’ role of Iraqis needs to real domestic action on climate change. In this investigation, four social segments are considered namely: engineers, students, staff and graduates with 547 of observations size.

3.1. Social attitudes to climate change
The first analysis showed a lack of consensus and causes of change in the local environment and their views regarding global climate change amongst the Iraqi population (students, engineers, staff and graduates). The Iraqi group commonly agreed that rainfall has fallen, seasonality has improved, and extreme weather conditions (such as excessive high temperatures and storms) have been found to be less common. Many people from universities reported that rainfall had decreased because less rain had loosened problems with water logging and improved grain yields. Seasonal instability, on the other hand, was a problem for the farmers' populations. While the condition has recently prolonged climatic transition, more urban populations (70%) agreed that low seasons and seasonal fluctuations are a natural seasonal mechanism relative to the academic and the student population, respectively 0% and 2% as seen in Table 1.

| Group     | Agree | Uncertain | Disagree | Size |
|-----------|-------|-----------|----------|------|
| Staff     | 24    | 100       | 0        | 24   |
| Students  | 230   | 92.63     | 9        | 6    |
| Engineers | 94    | 85.29     | 9        | 6    |
| Graduates | 13    | 8         | 37       | 70   |

University and metropolitan societies is very likely to agree that changes in the urban climate of the local population have been identified in conjunction with climate change (Table 2). There were less instability, however, about 33% of the students and 50%, of the city, suggesting volatility, in bad seasons and climate change (Table 2). The underlying topic of the UHI responses to climate change by study had low levels of incertitude.
Table 2. The theories supporting fear of human-made global climate change & UHI.

| Group         | Frequency and ratio | Size |
|---------------|---------------------|------|
|               | Agree | UNCERTAIN | DISAGREE |
|               | N | %   | N | %   | N | %   |
| Staff         | 24 | 91.66 | 0 | 0 | 2 | 8.33 |
| Students      | 230 | 50.52 | 28 | 31.57 | 44 | 17.89 | 245 |
| Engineers     | 94 | 49.1  | 15 | 33.23 | 19 | 17.6 | 110 |
| Graduates     | 13 | 12    | 17 | 50.4 | 64 | 38 | 168 |

In sum, over 53% of all surveyed cultures embraced UHI, and 61% felt it was caused by human beings. The three popular associations saw a minor difference (Tables 3 and 4).

Table 3. I Believe that climate change represents a palpable threat to urban heat island and lifestyle.

| Group         | Frequency and ratio | Size |
|---------------|---------------------|------|
|               | Agree | UNCERTAIN | DISAGREE |
|               | N | %   | N | %   | N | %   |
| Staff         | 19 | 81.3 | 4 | 16.7 | 1 | 2.0 | 24 |
| Students      | 206 | 84 | 17 | 7 | 22 | 9 | 245 |
| Engineers     | 102 | 92.64 | 3 | 2.4 | 5 | 5 | 110 |
| Graduates     | 25 | 15 | 32 | 19 | 111 | 66 | 168 |

In addition to the economic value of climate change in relation to other stresses in their industries, the low recognition of environmental change in the society and its human activity reflected (see Table 4). The Iraqi population as a whole recognised some UHI and economic value for climate change, but short-term economic imperatives such as resources and fuel costs prevailed. Talk regarding climate change is expected to be an expansion of poor seasonal fluctuations not integrated by policymakers into management policies.

Table 4. Economic importance to Urbana’s business sustainability.

| Status      | Agree % | DISAGREE % | UNCERTAIN % |
|-------------|---------|------------|-------------|
| Staff       | 91.7    | 4.2        | 4.2         |
| Students    | 90.0    | 5.0        | 5.0         |
| Engineers   | 92.2    | 7.8        | 0.0         |
| Overall     | 91      | 6          | 3           |

3.2. Adaptive measure in the effects of climate change on UHI

Table 5 presents the most effective adaptive steps in the field of research taken by people to deal with the consequences of climate change. This includes expanded municipal facilities (61.4 percent), long-term human-water scarcity and drainage (88 percent), insecticide resistance varieties (73.6 percent), electricity and fuel shortages (85 percent). Additional beneficial innovative steps embracement include 55% healthcare. With regard to air conditioning, 25% to 55% were not considered appropriate innovations in the region.
Table 5. Distribution of respondents based on the adaptive measures adopted. (N = 168).

| Adaptive measures                                      | Percentage | Level   | %  |
|--------------------------------------------------------|------------|---------|----|
| Increase in mechanical equipment’s                     | Some       | 37.9    |    |
| Air conditioning schemes & maintains                   | Some       | 35.0    |    |
| Healthcare                                             | Quite a bit| 65.0    |    |
| Insects resisted varieties                             | Important  | 73.6    |    |
| Community services requirements                        | Important  | 71.4    |    |
| Shortage in drinking & irrigation water                | Very important| 78.0 |    |
| Shortage in power and fuel prices                      | Very important| 85.0 |    |

The rise in urban soil salinity and water shortage and emissions offer important changes and resistance to climate change impact. The removal of such trees is known to thrive and typically complete the cycles of their lives, even though others cannot grow in the climate. The increased proliferation of resistant plants could not be due to residents’ extreme infestations of pesticides and diseases and the growth of weeds is considered as the most important consequences of climate change. Resistant varieties including early maturing varieties or dry-resistant ones have already been identified as one of the many adaptations to climate change. The residents nevertheless noticed that the availability at the right time of the resistant varieties is a concern. This has caused them to switch back to native organisms that may be victims of environmental changes once in a while. The absence of the seeds may also be a huge impediment to adjustment [8]. Learners indicated that steps are needed for the conservation of humidity for urban green landscape use, hence preferring to use organic manure, with the rise in temperature and evapotranspiration resulting from climate change. Residents follow mixed agricultural methods for many purposes, including maintaining the protection of green environments, increased trees, decreased occurrence of plague and diseases. Both urban residents in the developing countries stated their participation in mixed activities in UHI. In comparison, the weak government policy on imported agricultural crops has had a negative effect on Iraqi farm production as a reaction to higher temperatures, urban residents use heat resistant and high water quality.

3.3. Reliability of the size
The reliability coefficient of Cronbach's Alpha is considered to be “acceptable” when it is about 70% or higher in most social sciences. Researchers [9-10] in (Table 6), show the result of such a test for the current study which is 89%. The validity of the measurement (which is the square root of Alpha) is found at 94% which is higher, too.

| N of Cases | N of Items | Alpha | Validity |
|------------|------------|-------|----------|
| 597        | 3          | .89   | .94      |

For each question group, as well as for the complete survey, Disagreement with this measurement, and cooperation is allocated weights with average values with 1,2 and 3. Finally, the contrasted attitude between the assessed means and the appropriate scale interval can be evaluated. The scale intervals for the triple Likert are as: Table (7) assesses and compiles the behaviors of the groups.
Table 7. The attitudes of the groups.

| Issue | Engineers | Students | staff | Graduates | All   |
|-------|-----------|----------|-------|-----------|-------|
| Issue1| Agree     | Agree    | Agree | Disagree  | Agree |
| Issue2| Agree     | Agree    | Agree | Don’t know| Agree |
| Issue3| Agree     | Agree    | Agree | Disagree  | Agree |

Research demonstrates a lack of a per seasonal UHI link for most of the Iraqi population. They know this, they may even classify it as a business, but they do not see it as a near-term focus on the economic downturn, or the need to reform infrastructure services such as electricity or the availability of jobs. Indeed, despite the demands made by scientists for urgently needed measures, climate change has fallen into the top of Iraq’s priorities. The theoretical variations on the causes and possible implications of climate change may be the source of the confusion in Iraq. The results indicate that researchers exploit progress to pursue their own goals, undermining their interest in analysis and evidence. That is why it is so distinctive. It is the researchers’ opinion that knowledge on climate change was easy to grasp, that engagement methods in institutions, universities and the society for sharing research evidence have also been re-examined [11-12]. Residents’ reactions to the priority danger of climate change have been seen in their adaptability. In reaction to changes in local climate, 92 percent of farmers have introduced a significant change in their management and economic downturn. No corporation was carried out (Table 7. Section 7). There appeared to be little effects on modifying responses for all parts of Iraqi society over the past seasons. Heat and dusty seasons did not seem to impact adaptation reactions. However, the comment from a wider community may be a summary of adaptation effects facing people in the community. "The response of residents to climate change cannot be reacted healthily if it is not healthy for long-term or short-term sustainability." This response represents a scientific observation that the community needs innovation to meet viable physical and economic criteria in order to adopt environmental sustainability innovation. These replies, however, should not be interpreted by some educated people and most of Iraqi society as broad skepticism about climate change.

4. Conclusions
Conclusions of the seminars analyzing national universities emphasize the need to better understand the impacts of climate change on urban heat island at the provincial level:

- Urban heat island economic changes need to be reached in cities.
- In the Middle East and throughout the cities markets and culture, the economic results would be unevenly dispersed.
- Negative temperature consequences will overshadow advantages for most primary sectors.
- Urban Heat Island, and the consequences of UHI are going to put tremendous pressures on government budgets.
- Secondary effects of UHI can include raising health issues, declining wages and lack of work.

The key effect UHI may have on Iraqi cities is related to the high air temperature, among these disadvantages. To engage in a dialogue which is primarily empirical, comparative ethical perspective is important. Considering the significant consequences of the dilemma as to values and ethics is important. "The legal aspects should be transparent when the ramifications are too great."

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