

Review Paper:

Drought as a Catalyst for Human Security Challenges: A Review

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Abstract

This study discusses drought and its impacts on the social milieu within which individuals live. It is focused on the impacts of drought which are situated within the broad frameworks of human security discourse. Going by the pieces of theoretical and empirical literature reviewed, the study establishes that the impacts of drought transcend water stress that inhibits water-dependent activities such as agriculture, pastoralism and agro-allied industries. It delves into its impacts on health, social conflicts, migration and other conditions that threaten the wellbeing of mankind.

Drought is thus considered to be a feeder problem capable of triggering other problems. Therefore, there is need for Governments across the world to recognise the hydra-headed nature of the phenomenon and address it with intensity, urgency and consistent action.

Keywords: Water stress, social conflict, health, human security, Governments.

Introduction

Drought is a major natural disaster which cuts across all regions of the world.³² It is worrying that at present, dry lands cover one-fifth of the world's land area and the expectation is that drought will worsen in occurrence and intensity in the future.²⁹ During the 1999 drought, according to Sohl et al²⁹, Syria lost almost half of its wheat and barley harvest while Jordan lost it all. Two years earlier, 1997, Jordan slaughtered one-third of its national herd due to severe drought.²⁹

For the world's population that stands at 7.6 billion with 1.09 percent average growth rate which implies the addition of an estimated 83 million people per year³⁸, these dry spells pose very serious livelihood challenges. Drought is a "threat multiplier" that produces knock-on risks and socio-environmental problems such as loss of land, persistent poverty, displacement and migration and may trigger competition over increasingly scarce natural resources which can result into societal tensions.⁵

Drought duration may be short-term, that is, lasting for few weeks, or long-term and becoming extended for years before climate conditions return to normal.⁴ When drought persists for several years, its impacts can be devastating on water supplies and agricultural sector. As should be expected, the

impacts of drought tell on agricultural activities and rural/agrarian communities because of dependence on water.^{18,36} Drought, for instance, affects crop production because of inadequacy of moisture available at the right time for the growth and maturation of crops.¹⁴

Drought remains a major threat to food security and human survival generally. For instance, Uganda is categorised among the world's malnutrition-burdened countries, with one out of five people of her population suffering its effects,³¹ because drought is the most severe disaster affecting the lives and livelihoods of citizens.

According to International Research Institute for Climate and Society, between 1999–2000, up to 60 million people in Central and Southwest Asia were affected by a persistent multi-year drought, one of the largest in a global perspective, with Afghanistan, Iran, Western Pakistan, Turkmenistan, Tajikistan and Uzbekistan experiencing the most severe impacts. These issues throw up the challenge for the need for governments to secure the living conditions of their citizens and prevent their exposure to threats and hazards and provide them with freedom from fear and want. These necessities are encapsulated in the human security discourse that will be considered as follows.

The concept of human security

The United Nation's Commission on Human Security (2003) defined human security as "safeguarding the vital core of all human lives from critical pervasive threats in a way that is consistent with long-term human fulfilment. This definition presupposes the need to protect people from threats to their survival in the most essential domains where life subsists such as environment, economy and health. This is supposed to be done sustainably and on an institutionalised basis."²¹

Although there were earlier related attempts that had bearing on the themes that define human security as a concept put forward by such commissions as Brundtland Commission and Commission on Global Government between 1970s and early 1990s, human security as a distinct concept is a brainchild of United Nations' Development Programme (UNDP) and it was adopted by United Nations' General Assembly resolution 60/1 in which the Heads of States and Governments committed themselves to discussing and defining the notion of shifting attention away from territorial security to the security of social conditions within which people live.^{5,7,15}

The thrust of human security is the underlining consensus about the responsibility of Governments to retain the primary role of ensuring the survival, livelihood and dignity of their citizens. This doctrine advances programmes and policies that counter and address emerging threats in a manner that is contextually relevant and prioritised and that helps governments and the international community to better utilise their resources in protecting and empowering citizens.⁵ As contained in paragraph 143 of the 2005 World Summit Outcome, the Heads of States and Governments recognised that “all individuals, in particular vulnerable people, are entitled to freedom from fear and freedom from want, with an equal opportunity to enjoy all their rights and fully develop their human potential”.

Among the most prominent and vocal countries that have demonstrated a very high commitment to the tenets of human security are the Governments of Canada and Norway, which have taken the lead in establishing a “Human Security Network” of States and nongovernmental organisations (NGOs) that endorse the concept.²⁵ United Nations Development Programme’s (UNDP) 1994 Human Development Report devoted a chapter to “New Dimensions of Human Security”, characterising human security as “a child who did not die, a disease that did not spread, a job that was not cut, an ethnic tension that did not explode in violence, a dissident that was not silenced.

The emphasis of human security is based on preventive rather than reactionary measures and it is people-focused. The emphasis is a shift away from national security, which is largely a militaristic approach, to the security of the social milieu within which individuals live.^{7,23} At the 64th session of the United Nations’ General Assembly held in 2010, the Secretary-General mentioned that since 1999, the United Nations has been supporting human security projects through its affiliated arms and departments namely Department of Economic and Social Affairs, the Office of the Special Adviser on Africa, the United Nations Development Programme (UNDP), the United Nations Population Fund (UNFPA), the United Nations Human Settlements Programme (UN-Habitat), the Office of the United Nations High Commissioner for Refugees (UNHCR), the United Nations Children’s Fund (UNICEF), the United Nations Development Fund for Women (UNIFEM), the World Food Programme (WFP), the United Nations Mine Action System, the United Nations Office on Drugs and Crime (UNODC), the Food and Agriculture Organization of the United Nations (FAO), the International Labour Organisation (ILO), the United Nations Educational, Scientific and Cultural Organisation (UNESCO), the World Health Organisation (WHO), the United Nations Industrial Development Organization (UNIDO), the International Atomic Energy Agency (IAEA), the International Organization for Migration (IOM), the United Nations Trust Fund for Human Security and the Policy Development and Studies Branch in the Office for the Coordination of Humanitarian Affairs.⁵

According to the Secretary-General’s report, human security projects undertaken by the United Nations have shown to be very advantageous in addressing the multidimensional impacts of threats to peoples and their communities. The projects, according to him, have covered many regions of the world and have been focused on rebuilding war-torn societies; preventing, mitigating and responding to natural disasters; increasing harvests and strengthening food security; improving access to health care and education in times of crises and mobilising communities through participatory processes, local leadership and integrated capacity-building measures.⁵

The purview of human security, according to United Nations’ Development Programme’s (UNDP) 1994 Human Development Report, covers seven areas of key impacts to individuals namely: economic security, food security, health security, environmental security, personal security, community security and political security.³⁰ Human security recognises interrelationships between these aspects of human security and how they are capable of feeding each other^{7,15,21} while dissecting the UNDP report on Human Security posited that the Report appears to have distinguished between two sets of threats namely localised and globalised threats.

Localised threats are threats that are particular to different societies or regions of the world and seemingly contrast by level of economic development and geographical location. Conversely, globalised threats are, by nature, threats within countries which have the propensity of rapidly spilling beyond national boundaries. The report submits that the more localised threats, which largely are responsible for globalised threats when they spiral out of control, can be understood in relation to the seven values of human security. These are summarised below:

- (a) **Threats to economic security:** Lack of productive, remunerative employment, precarious employment and absence of publicly financed safety nets;
- (b) **Threats to food security:** Lack of food entitlements together with inadequate access to assets, work and guaranteed incomes;
- (c) **Threats to health security:** Infectious and parasitic diseases, diseases of the circulatory system and cancers, lack of safe water, air pollution, lack of access to health care facilities;
- (d) **Threats to environmental security:** Diminishing water availability, water contamination, decreasing arable land, deforestation, desertification, air pollution, natural disasters;
- (e) **Threats to personal security:** Violent crime, drug trafficking, violence and abuse of children and women;
- (f) **Threats to community security:** Breakdown of the family, collapse of traditional languages and cultures, ethnic discrimination and strife, genocide and ethnic cleansing; and

(g) **Threats to political security:** Government repression, systematic human rights violations, militarisation.

All the threats mentioned above can be engendered by drought.⁷

Drought: A Human Security Challenge

As earlier mentioned, human security issues or threats have a way of feeding each other,^{15,21} that is, one kind of human security threat has the proclivity to engender another kind of human security challenge. The Human Security Report of the Secretary-General to the United Nations' General Assembly - Sixty-fourth session, Agenda items 48 and 114 – cites climate change and its attendant insecurities as one of the pressing issues of our time. Drought happens to be a focal manifestation of climate change and it is second only to hurricane when mention is made of the natural hazards that man faces today.

The intangible impacts of drought that characterise human security issue, among other things, include effects related to lifestyle change, health of individuals, social tension and disruptions, social capital accumulation and environmental impacts.³

Climate change – as evidenced by drought - aggravates poverty, disrupts harvests, depletes fisheries, erodes livelihoods and increases the spread of infectious diseases. In 2008, over 230,000 deaths were recorded as a result of natural disasters, over 211 million individuals were affected and extreme weather conditions made worse the existing vulnerabilities by disrupting harvests.⁵

Drought and health issues: Drought as an environmental security challenge has been argued to lead to exposure to health and/or personal hazards such as diarrhea, cholera and dysentery as a result of water scarcity which forces people to drink water from unhygienic sources.^{10,27} According to a research finding by Achakulwisut et al¹, drought is linked to soil-derived particles in the Southwest of the United States that endangers air quality and may lead to significant public health problems.

The exposure to health hazards occasioned by drought may just have wide-ranging impacts than one may be able to account for. For instance, there is scholarly evidence in literature found that *in utero* exposure, there is exposure of yet-to-be-born children - to environmental hazards may negatively affect their health when they are born and educationally, later in life.^{2,8,28}

These studies put forward the fact that the conditions in pre-birth period and early childhood have an enduring impact on life expectancy, earnings, adult health and cognitive development. Scholars have used famine and extreme weather shocks to estimate instrumental relationship between the *in utero* exposure and later-life conditions and life-chances.

Some scholars have also argued that parts of the multiple health impacts of drought, which are often not recognised, are such health outcomes vector-borne diseases, nutritional problems, mental health conditions and respiratory diseases.^{19,24,27} Initially, the linkage between mental health condition and the phenomenon of drought was merely speculative rather than based on empirical evidence. World Health Organisation³⁷ had posited that mental health resilience, the capability to cope with harsh conditions and to avoid mental health challenges when threatened by stressors, can come under uncontrollable stress in the presence of sustained drought. The WHO's position, however, was not backed by an empirical data.

The quantification of the linkage between mental health conditions and drought phenomenon by O'Brien et al²⁴ is perhaps one of the most significant contributions made so far on the discourse around the impacts of drought. In a study carried out by O'Brien et al²⁴ in Australia which used household, income and labour dynamics in Australia to determine the relationship between drought and mental health condition, the results revealed that during a seven-year period of major and pervasive drought, one pattern of relative dryness (extreme cumulative number of months in drought culminating in a recent period of dryness lasting a year or more) was connected with greater distress for rural but not urban dwellers. The increase in distress was said to be at 6.22%, based on 95% confidence intervals, therefore the study showed the possibility of quantification and identification of the relationship between patterns of drought and mental distress.

Drought, global food insecurity and displacement: The effects of rising food prices alongside climate change problems have generated a sharp increase in the number of people living without sufficient and dignifying food.⁵ The United Nations' Secretary-General submitted that for the first time in history, more than 1 billion people are facing hunger, with more than 17,000 deaths of children every day as a result of hunger one every five seconds, totalling 6 million a year.⁵

The report also discusses the vagaries that women, children, refugees and the displaced are exposed to as they are the most severely impacted as far as the rising food prices are concerned. These communities and groups, according to the Report, suffer serious losses to their human security as they consume fewer and less nutritious foods and the frustrations over food insufficiency and/or insecurity have also led to socio-political instabilities in some communities and even as many as 30 countries.

Drought as conflict catalyst: The undercurrents of social conflict that may arise from drought conditions are also parts of the human security challenges posed by drought.^{6,9,20} The issue of competition among water users - among states, rural and urban users etc. has led to rivalry and arguments over water rights and water withdrawal²⁰. There tends to be a

growing recognition and acceptance among policy-makers and national security spheres about the propensity of climate change and extreme weather conditions to constitute a significant threat to social cohesion and stability.^{22,34} Climate variability is also believed to have the capacity to precipitate armed conflict; however, the research community has not been able to adequately operationalise the nature and significance of the interrelationship that may exist between drought and armed conflict.

A case in point is the general belief advanced by the Nigerian President, Muhammadu Buhari, at the 2018 United Nations' General Assembly, that violent conflicts and terrorist insurgencies that have ravaged the countries in the Sahel and the Lake Chad Basin axis, especially Nigeria, have partly been fueled by local factors and dynamics such as water scarcity for domestic and agricultural purposes. The Nigerian President has on a number of occasions advocated for the recharging of the Lake Chad basin, arguing that the drying of the basin contributes significantly to insecurity challenges in that region.

President at the last United Nations' General Assembly held in 2018 surmised that the Lake was a major source of livelihood to more than 45 million inhabitants of the region and that the consequence of its shrinking includes loss of jobs, increased vulnerability to poverty and exposure to extremism and terrorist activities. The issue however is that like most environment-conflict discourse, the narrative lacks universally acceptable, statistically consistent climate-conflict pattern whereas the statistical measurement of the drought-conflict may be difficult to arrive or may not have received much attention from conflict research community, it does not diminish the fact that drought is an existential issue capable of limiting water resources and resulting in social tension among competing water users.

Uexkull et al, braving the odds of attempting to draw a correlation between extreme weather conditions and social conflict and/tension, conducted a research using action-oriented approach of the drought-conflict relationship with specific focus on politically relevant ethnic compositions and their peculiar exposure and sensitivity to expanded drought season under diverse political and socioeconomic circumstances.

The starting point for them was the recognition of the fact that climate-induced crop failure and loss of pasture may lead to a dramatic loss of income and that dwindling material and human capital will inadvertently result in a situation whereby the range of external options is narrowed.

Although they did not postulate that this situation automatically explains how organised armed or violent conflict might break out or be sustained, their hypothesis however was linked to the following points already advanced by other conflict researchers:

- i. Instituting unrest requires a medium; a sensitivity of conjoint identity and in the case of civil conflict, an agreed belief that the government is responsible and should be blamed for the misery.¹⁶
- ii. Previously established social structures, often times in the form of ethno-national identities, constitute an important element required to solve the collective action problem for mobilisation.¹¹
- iii. In the main, most of the developing countries of the world, predominantly the ones in Africa and Asia, embrace ethnicity as the predominant societal cleavage around which social identity and political inclinations are formed and play out.^{13,17}
- iv. Most of the contemporary civil conflicts that have happened across the world were fought along ethnic lines and these ethnically-based conflicts have increased significantly since the end of the Cold War.¹²
- v. The potential for conflict is considered especially rife where there is a coincidence of ethnic sentiments/rivalry and economic hardships.²⁶

Uexkull et al, therefore, on the basis of the above points, drew on new conflict event data which cover Africa and Asia from 1989 to 2014, updated spatial ethnic settlement data and remote sensing data on use of land for agricultural purposes. Among other findings, they found that for agriculturally dependent groups and also politically excluded groups in under-developed countries with an enduring local drought, are prone to the probability of sustained violence. Their study showed a significant reciprocal relationship between drought and social conflict and of the problems – drought and social conflict - feeding each other and escalating group's vulnerability.

Conclusion and Recommendations

Drought, a natural phenomenon and/or problem which traditionally was believed to affect agriculture alone, has profound impacts on health, social cohesion and socio-political stability. Thus, the potential of a human security problem to feed another, informed the United Nations' Development Programme's Human Security report with its emphasis on the need for governments to decisively prevent threats that may impinge on the social conditions within which people live.

Governments across the world are therefore enjoined to find sustainable solutions or mitigation plans to drought problem so as to prevent it from impacting dangerously on individuals or from spiraling into other problems that may threaten individuals and the fibre of society.

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