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Human Security versus Environmental Security: At Legal Loggerheads

JOHN PEARSON

I. INTRODUCTION

THE UNITED NATIONS Development Report of 1994 entitled ‘New Dimensions of Human Security’ (UNDR 1994), introduced the concept of ‘human security’—highlighting it as ‘the key challenge for the 21st century.’¹ In itself, such a claim might be said to be little more than rhetoric, but the recommendations of the second chapter of the report indicated a wide-reaching intention. The final point for consideration, put forward in the chapter, recommended ‘that today’s framework of global institutions be reviewed and redesigned to prepare those institutions fully for doing their part in tackling the urgent challenges of human security.’² Indeed, by way of ensuring the validity of the concept, a significant proportion of the chapter is dedicated to defining the term—a process repeated in a later Report of the Secretary General of the United Nations in 2010 concerning Human Security.³

Although numerous definitions of human security are considered in both texts, two recur and will form the focus of this chapter. The first is the most basic and widely espoused construction of the concept 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,’⁴ often referred to simply

¹ UN Development Programme (UNDP), *Human Development Report 1994* (UNDP Report, 1994) 39. http://hdr.undp.org/sites/default/files/reports/255/hdr_1994_en_complete_nostats.pdf.

² *ibid* 40.

³ United Nations General Assembly (UNGA), ‘Human Security Report of the Secretary-General 64/701’ (2010) UN Doc A/64/701 (UN Human Security Report) www.afes-press.de/html/pdf/UNGA_A64701_ReportOfTheSecretaryGeneralOnHumanSecurity.pdf.

⁴ UNGA, ‘World Summit Outcome’ UNGA Res 60/1 (16 September 2005) UN Doc A/RES/60/1 (UNGA Res 60/1).

as 'the freedom from fear and freedom from want.' The second is the composite construction of the concept under which 'the main elements of human security' are said to comprise the 'seven key components'⁵—economic, food, health, environmental, personal, community and political securities. These definitions and constructions are all bound together by the core reasoning behind the initial proposal that

The concept of security has for too long been interpreted narrowly as security of territory from external aggression, or as protection of national interests in foreign policy or as global security from the threat of a nuclear holocaust.⁶

As such, the concept of human security is put forward as a new 'framework' on which national and international institutions, governmental and otherwise, can base their policies and actions.

The framework, as defined in the 1994 UNDP Report⁷ and subsequent texts,⁸ misrepresents the reality of the threats to both the seven key component securities of the concept and the broader aim of 'freedom from want and freedom from fear.' Ultimately, ensuring a common level of security for all peoples, relative to both the innumerable social, cultural, economic and political realities of themselves and their states, is highly improbable, if not impossible, without it being set at so low a threshold as to be meaningless.

As such, a solid and enforceable basis for universal human security, from which the more subjective components may be aspired to by states with the capacity to do so, is both a necessary and more achievable goal. Such a framework would protect the elements upon which less regimented and universal development can be built through the imposition of minimum obligations that all parties can meet and can progress from. Examples of this approach already exist in the international legal sphere in the fields of human rights and environmental law.

Human rights law offers protection relating to many of the issues raised by the discussion concerning the scope and definition of human security within the texts considered above. They demand basic standards in relation to fundamental provisions and certain 'minimum core obligations'⁹ where an element of relativity is required. Environmental law, however, presents both commonalities and potential conflicts to the proposed

⁵ UN Human Security Report (n 3) 14.

⁶ UNDP Report 1994 (n 1) 22.

⁷ UNDP Report 1994 (n 1) 24.

⁸ UN Human Security Report (n 3) I(4) and UNGA Res 60/1 (n 4) 31.

⁹ UN Committee on Economic, Social and Cultural Rights (CESCR), 'General Comment No 3 the Nature of States Parties' Obligations (Article 2(1))' in 'Note by the Secretariat, Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies' (12 May 2003) UN Doc HRI/GEN/1/Rev.6 (CESCR General Comment No 3) 10.

concept of human security, though its subject matter offers arguably a more effective basis from which it might be possible to achieve the aims of the concept.

However, enforcing human security, or directly seeking a basis for it through legal measures, would be fraught with difficulties. This is owing to the problem of identifying objective criteria upon which to base provisions that both address the needs of individuals and garner the necessary compliance of states with the resultant obligations imposed upon them. The inappropriate nature of a legal approach to guaranteeing a minimum level of human security in itself is accepted, albeit implicitly, in the drafting of the 2012 General Assembly Resolution on the issue. The Resolution states that 'Human security does not entail additional legal obligations on the part of States,'¹⁰ thereby relegating it to being a mere policy framework to be considered in the formulation of, and as an aim for, prospective legislative provisions.

A framework for on-going policy and action in the area of human security, however, requires an element of underpinning or a structure upon which it can be based. For example, economic, social and cultural rights are subject to progressive implementation that suggest goals in a manner akin to a policy framework, but have minimum core obligations to ensure efficacy. While some states will forego short term gains and interests in the name of achieving long term stability, they are in the minority.

Thus, in order to ensure that minimum standards capable of supporting the most basic aspects of human security are preserved, and from which a higher level of the concept might serve as an aspiration, provisions of a binding nature are essential. Relativity in particular contexts is, however, an essential consideration to ensure the highest legitimacy and efficacy of any such measure. This is evidenced by the perpetual debate over the merits of universalism and cultural relativism in human rights law. Both the fields of human rights and environmental law have developed methods of dealing with the aforementioned issues of relativity where necessary and offer a means that could afford a suitable legal basis for the elements of human security.

Environmental security, in particular, represents a basis that could allow states to meet the minimum human security standards suggested above. This could be achieved through a relative legislative approach, of the type accepted as fundamental, in order to include the innumerable aspects of the framework as it is currently defined. This is because many of the elements of human security, and certainly those with which the individual is most concerned and reliant upon, demand a requisite level

¹⁰ UNGA, 'Follow-up to Paragraph 143 on Human Security of the 2005 World Summit Outcome' UNGA Res 66/290 (25 October 2012) UN Doc A/RES/66/290, 3(h).

of environmental security to ensure them. Thus, it is suggested that in order for human security to be achieved, a legislative basis centred upon ensuring environmental security, without which human security cannot be assured, must be laid down. Using existing examples of provisions and approaches from the fields of environmental and human rights law, and suggesting protections that might be afforded in a similar manner, it is suggested that only through ensuring environmental security is it possible to achieve the same result for human security.

This proposition is illustrated in a number of ways, firstly, through established environmental law where, only when the environment has been placed above solely anthropocentric concerns, has it been truly effective in safeguarding not only environmental concerns, but also factors inextricably linked to the composite construction of human security. The result demonstrates that environmental security can exist without human security, but the reverse is not true. The two concepts cannot therefore be regarded as mutually exclusive. Moreover, acceptance that a stable and consistent environment is integral to ensuring the concept of human security (as defined by the United Nations), and is attainable to any worthwhile degree in practice, is necessary. The potential for the two concepts to conflict in their role as a framework for international legal and policy development is therefore not only apparent, but also real in practice and in need of resolution.

II. ENVIRONMENTAL EXEMPLARS

The means by which protection has been afforded to the environment has varied widely, with the efficacy of some measures being severely questioned whilst the success of other means has been extolled to an equivalent degree. Arguably one of the clearest examples of this is the void in efficacy between the international legal responses to atmospheric damage caused by carbon dioxide and chlorofluorocarbons (CFCs).¹¹ The presence of both in the atmosphere has been increased or caused by human action and yet the action to curtail their impacts varies considerably. Whilst the responses could never be identical, aspects of the regulation of CFCs, which are regarded as the cause of its success, were not transferred to any noticeable degree onto those aimed at constraining atmospheric carbon dioxide and other greenhouse gases, which appear in later treaty texts.

¹¹ Whilst better examples of contrasting success and failure in international environmental protection are available, the provisions used are well recognised and have particular relevance to the contentions concerning human security. Many thanks to Dr Elizabeth Kirk for her contribution here.

A number of other factors have irrefutably influenced the success of efforts to reduce emissions of carbon dioxide through legal mechanisms, but the basic elements of the drafting approach, which has been taken to ensure the reduction of levels of emissions of the gas, are starkly contrasted to those used to achieve the same goal in relation to CFCs. This is reflected, it is suggested, in the positioning of environmental concerns in the hierarchy of considerations taken in the drafting and application of the legal instruments in question. The preamble of the Montreal Protocol on Substances that Deplete the Ozone Layer¹² is clear in its 'determination' to

protect the ozone layer by taking precautionary measures to control equitably total global emissions of substances that deplete it, with the ultimate objective of their elimination on the basis of developments in scientific knowledge, taking into account technical and economic considerations and bearing in mind the developmental needs of developing countries.¹³

The Kyoto Protocol¹⁴ to the United Nations Framework Convention on Climate Change¹⁵ by contrast merely refers back to the aims contained within the preamble of the Convention itself, which state the 'determination' to 'protect the climate system for present and future generations', whilst also considering the need for 'sustained economic growth', and that provisions 'will be environmentally, socially and economically most effective if they are based on relevant scientific, technical and economic considerations'.¹⁶

The Montreal Protocol accounts for technical and economic considerations separately in relation to CFC reduction, suggesting they are of secondary concern, as opposed to Kyoto, which considers their environmental, economic and social viability as a whole, implying equality in the significance of each of those elements in achieving the aims of the Convention. Again, this may be an oversimplification as the number of practices and processes emitting carbon dioxide are far greater and include a far broader range of naturally occurring substances, however, valid and accepted parameters for their reduction are available. Approaches akin to those aimed at eliminating the production of CFCs altogether may therefore be transferrable.

The reluctance of the Kyoto Protocol to focus upon the environmental concerns of climate change and to regard the economic and social

¹² Montreal Protocol on Substances that Deplete the Ozone Layer UN Doc UNEP/002565 (1987) (1987) 26 ILM 1550 (Montreal Protocol).

¹³ *ibid* Preamble.

¹⁴ Kyoto Protocol to the United Nations Framework Convention on Climate Change (adopted 10 December 1997, entered into force 16 February 2005) (1998) 37 ILM 22.

¹⁵ United Nations Framework Convention on Climate Change (adopted 9 May 1992, entered into force 21 March 1994) (1992) 31 ILM 849 (UNFCCC).

¹⁶ *ibid* Preamble.

considerations, which present little or no negative consequences to the environment, as necessarily peripheral to the central aim of reducing carbon dioxide to a measurable level has cemented its inefficacy. The Protocol is riddled with numerous concessions to anthropocentric concerns, most significantly, the imposition of a trading scheme allowing states to, in effect, 'buy their way out' of their international obligations under the treaty text in order to preserve their economic, social and developmental concerns. In turn, this has undermined the ability of the mechanism to curtail emissions globally, as evidenced by the recent passing of the threshold of 400 ppm¹⁷ of carbon dioxide in the atmosphere, which is considered to be a significantly difficult point from which to return.

The assertion that international law is ultimately based on the consent of sovereign states is a valid one. The undeniable success of the Montreal Protocol would suggest, however, that this is not based solely upon naïve utopianism. Indeed, as further evidence, at the time of its drafting the Montreal Protocol was not universally regarded as the best means of achieving the cessation of the use of CFCs, yet it is now hailed as one of the most successful framework mechanisms in the history of environmental law.¹⁸ The Kyoto Protocol by contrast lacks certain key parties, such as the United States, and is regarded by many as a 'deeply flawed agreement that manages to be both economically inefficient and politically impractical.'¹⁹

Moving from the political difficulties in achieving consent to international treaties, the contrast in the success of the two protocols in practice can be attributed to the differences in drafting and the priority that was given to the environmental goals, which form their respective purposes. The Montreal Protocol aims at the elimination of the use of certain substances in their entirety. Whilst such a goal with respect to carbon dioxide and other greenhouse gases is not possible, and could not therefore be set, achieving and legally imposing 'carbon neutrality' in particular industries, or in relation to certain products in the manner utilised by the Montreal Protocol, is not so inconceivable. The United Nations itself is committed to such a goal for the organisation by 2020, according to its 2012 report,²⁰ which also contains a foreword by Secretary General Ban Ki Moon stipulating his belief that Member States have given the organisation 'a mandate' to achieve such aspirations.

¹⁷ Parts per million.

¹⁸ Former Secretary General to the United Nations Kofi Annan is widely quoted as having said that 'Perhaps the single most successful international agreement to date has been the Montreal Protocol.' K Annan, *We the Peoples: The Role of the United Nations in the 21st Century* (New York, United Nations Department of Public Information, 2005) 56.

¹⁹ WJ McKibbin and PJ Wilcoxon, 'The Role of Economics in Climate Change Policy' (2002) 16(2) *Journal of Economic Perspectives* 107.

²⁰ A Steiner, 'Foreword' in UN Environment Programme (UNEP), *A Vision of a Sustainable UN—2020* (UNEP, 24 October 2012) www.greeningtheblue.org/sites/default/files/vision_sustainable_UN_27.01.13_3.pdf.

In spite of this, the construction of the framework of human security reflects a priority hierarchy akin to that of the Kyoto Protocol rather than the Montreal Protocol, even though the latter has been hailed as the greater success. Given that the framework of human security 'calls for people-centred, comprehensive, context specific and preventive responses'²¹ to threats to its component securities, this hierarchy undermines that core concept. This is because placing the concerns of developed and stable human situations alongside environmental concerns in any priority structure, fails to reflect the accepted position of the United Nations Development Programme that 'the poorest regions of the world, which contribute least to the causes of global climate change, are most vulnerable to its consequences'.²² Instead, such a hierarchy is based on the flawed approach of balancing the concerns of the developed minority against environmental considerations.

The assertion that the present approach fails to take into account the overriding importance of environmental security for all peoples is an undeniably bold one. However, when the critical role of the environment in terms of the present and future goals for each of the other components of the human security framework is considered, the inadequacies of the current structure in arguably affording the most fundamental aspects of human security are evident. In this regard, the argument is that without some concept of environmental security being assured, other aspects of human security as overriding considerations are neither achievable nor justifiable.

III. POLITICAL PROBLEMS

Arguably the most difficult of the seven key components of human security to illustrate as dependent on environmental security, is that of political security. Broadly defined as comprising freedom from political repression by the state and organs thereof,²³ the immediate relevance of the environment in avoiding such eventualities is not apparent. However, the UNDR 1994, which introduced human security in the form it is now conceived, itself proclaimed the connection between the two concepts.

Indeed, upon reflection, and considering some contemporary and historical socio-political tensions, it is clear that 'when people perceive threats to their immediate security, they often become less tolerant ... Or where people see the basis of their livelihood erode such as their

²¹ UN Human Security Report (n 3) 69.

²² UN Development Programme—Global Environment Facility, 'Annual Report: Adapting to Climate Change' (May 2010) (UNDP-GEF, Annual Report) 16 www.un.org/ru/publications/pdfs/unep%20annual%20report%202010.pdf.

²³ UNDP Report 1994 (n 1) 32.

access to water, political conflict can ensue.²⁴ Given also the variety of political situations internationally, both in terms of structure and form, and in relation to current affairs, the 'emphasis on the interconnectedness of threats'²⁵ in the field of human security would suggest that threats to political security arising from other factors would be the primary concern for this framework.

Similarly, the 'preventive' approach of human security supports the contention that it is the causes of political insecurity that ought to be the focus of policy and legal approaches to ensuring human security. Indeed, to attempt to prevent political security without preventing its causes would be farcical. Enabling political regimes, regardless of the form they take, to provide for the most basic needs of its population is, therefore, the most logical approach to ensuring this component of human security. In this regard, ensuring environmental security, and the 'basis of their livelihood' in the broadest sense, is integral to preventing political insecurity from arising by virtue of discontent among peoples.

Essentially, whilst political security is by no means guaranteed absolutely by protecting an environment capable of meeting the most basic needs of peoples, the failure to do so will dramatically increase the likelihood of political *in* security. As Sands notes, 'a failure to protect the environment adequately may give rise to individual human rights violations, particularly in relation to rights associated with the enjoyment of a person's home and property.'²⁶ Similarly, it was noted in the Brandt Report that 'ensuring survival' through securing the most basic environmental features was necessary 'to make the world more peaceful and less uncertain.'²⁷ As such, it is clear that the United Nations' suggested framework of human security for the development of international law and relations does not recognise this previously acknowledged necessity to ensure environmental security in order to avoid almost inevitable political insecurity.

²⁴ *ibid* 23.

²⁵ UN Human Security Report (n 3) 30.

²⁶ P Sands and J Peel, *Principles of International Environmental Law*, 3rd edn (Cambridge, Cambridge University Press, 2012) 797.

²⁷ Brandt Commission, *North-South: A Program for Survival. (Report of the Independent Commission on International Development Issues)* (London and New York, Pan Books, 1980) 77.

IV. FUNDAMENTAL FOR FOOD

A connection between food and environmental security is far more apparent. In numerous texts published by the United Nations, it is stated that

climate change is expected to affect agriculture and food security through its impacts on water availability, land and crop productivity, and the distribution and productivity of rangelands, fisheries and other ecosystems.²⁸

The impact of adverse climatic and environmental changes upon almost all food sources is undeniable. For this reason there is considerable irony in the fact that livestock production to supply said food accounts for 18 per cent of greenhouse gas emissions, 26 per cent of the ice free terrestrial surface of the planet and eight per cent of global human water use.²⁹ This set of statistics is compounded by the fact that 'it is estimated that 30–50% (or 1.2–2 billion tonnes) of all food produced on the planet is lost before reaching a human stomach.'³⁰ As such, preserving the environment through policies aimed both directly at that goal and at reducing the consumption of natural resources to produce food, including the waste thereof, will in turn eliminate a threat to food security.

Such a suggestion, it must be conceded, is fairly broad in nature. Although the notion of climate change has been alluded to as a seminal factor, the issues of consumption and pollution of both water and land, the emission of non-greenhouse gases and non-organic waste, as well as the ability to produce the requisite energy needed to produce food on a scale to support a burgeoning global populace, are all inextricably linked to food security. All of these factors are subject to, or have proposed, policy prescriptions or legislative instruments concerning them as a whole, or aspects thereof. This is illustrated by the fact that tailored responses to each are achievable.

By contrast, the construction of an instrument to assure a prescribed level of security would not be possible owing to the inexorable plethora of variables that such a text would have to take into account. The environmental factors listed above, as well as the domestic economic, social and health issues in each individual state, would have to be assessed and amalgamated to arrive at any comprehensive framework that is inclusive of all the potential factors influencing food security globally. Such an

²⁸ UNDP-GEF, Annual Report (n 22) 35.

²⁹ United Nations Food and Agriculture Organisation, 'Livestock's Long Shadow: Environmental Issues and Options' (Rome, May 2006) xxi–ii.

³⁰ Institution of Mechanical Engineers, 'Report: Global Food: Waste Not Want Not' (January 2013) Executive Summary www.imeche.org/docs/default-source/reports/Global_Food_Report.pdf?sfvrsn=0.

achievement, if possible, would result in the construction of an instrument that is likely to be so diluted as to be condemned to ineffectiveness.

This criticism has already been levelled at international legal developments in relation to the closely aligned notion of sustainable development.³¹ There it is contended that an inability to clarify the definition of the concept of sustainable development, and factors influencing it, have led to its 'dilution into a concept with little meaning'.³² By contrast, the prioritisation of environmental security allows for the incorporation of scientifically imposed aims of a specific nature but also reflective of a global reality, such as the much vaunted rise in global temperature or parts of carbon dioxide per million in the atmosphere, to act as an indicator of the effectiveness of efforts to curb climate change.

Multinational cooperation on environmental security could thus bring about national or regional approaches to achieving food security relative to particular national or regional situations. As a result, gaps in nutritional balances, poor harvests or the inability to grow particular foodstuffs could be balanced by economic markets and multilateral trade agreements. This in turn would reduce the need to create as great a volume of potentially cumbersome and ineffectual policy and legislation that must grapple with a concept so diverse, in terms of both its form and influencing factors, as that of food security.

The contention that environmental security ought to be prioritised to avoid undermining the other component parts of human security, and therefore the proposed framework itself, does not account for factors of a non-environmental nature. More specifically in relation to food security, the issue of equitable food distribution domestically and internationally is one with considerable repercussions for, and emanations from, political security, given that ultimately not all individuals cultivate their own food and very rarely does an individual provide for all of their own and their dependants' needs. Nor does such an approach assure healthy and balanced diets for the global populace potentially achieved by a free market in food, itself subject to social and political influence.

However, we can be sure that failing to prioritise what ultimately allows us to cultivate food in the most basic sense, will inevitably result in food shortages and potentially give rise to threats to the political, economic, social and health security of individuals. As such, the interconnected nature of the component aspects of human security is not negated by the

³¹ See D Tladi, *Sustainable Development in International Law: An Analysis of Key Enviro-Economic Instruments* (Pretoria, Pretoria University Law Press, 2007) 80 www.pulp.up.ac.za/pdf/2007_03/2007_03.pdf.

³² D Tladi, 'Sustainable Development, Integration and the Conflation of Values: The Fuel Retailers Case' in D French (ed), *Global Justice and Sustainable Development* (Leiden, Martinus Nijhoff Publishers/Brill Academic, 2010) 76.

suggested prioritisation of environmental security. Achieving such an aim through a narrow approach would not be possible, given the aforementioned diversity of potential and interrelated factors that comprise food security.

Assuring the basic environment on which measures to achieve the goals on which food security is based, is arguably realisable; certainly, the creation of provisions that bring about the critical factors in protecting food security is achievable. Even so, regulating a notion as subjective as 'adequate food'³³ or 'dietary needs'³⁴ could be fraught with difficulties and disagreement. Indeed, General Comment No 12 of the Economic and Social Council of the United Nations concedes, in its pronouncement on the right to adequate food, that 'the precise meaning of "adequacy" is to a large extent determined by prevailing social, economic, cultural, climatic, ecological and other conditions, while "sustainability" incorporates the notion of long-term availability and accessibility'.³⁵ Thus, the concept of sustainability is inexorably bound up with environmental stability.

As such, there is already a degree of recognition of the overbearing significance of environmental security to the other aspects of human security and, indisputably, in the case of food security. In this regard, instruments prescribing the maintenance of certain thresholds within the natural environment have both been suggested and put into force. The Kyoto Protocol is one such instrument. The absence of a text prescribing a specific target for nutrition, without any element of subjectivity, is notable and illustrative of the premise of this chapter—that only once environmental security has been adequately assured can any concept of food security also be achieved.

V. HARMING HEALTH

Similar to food security, the concept of health security bears apparent connections to, and dependencies upon, a certain standard of environment. The quality of air, cleanliness of water and avoidance of malnutrition through the production of food, as detailed above, are all critical aspects of ensuring the requisite level of health to describe an individual as secure in this regard. In turn, these aspects are all dependent upon the

³³ UN CESCR, 'General Comment No 12 Right to Adequate Food (Article 11)' in 'Note by the Secretariat, Compilation of General Comments and General Recommendations Adopted by Human Rights Treaty Bodies' (12 May 2003) UN Doc HRI/GEN/1/Rev.6 (CESCR General Comment No 12).

³⁴ *ibid* 9.

³⁵ *ibid* 7.

aforementioned standard of environment security that is capable of supporting the needs of individuals. Such aspects could, however, be ensured through the imposition of anthropogenic solutions to natural problems. For example, food could be transported to areas where it might otherwise not grow; similarly, water could be piped to arid areas or locations where natural water sources have been contaminated.

The threats posed by adverse or abnormal environmental conditions are, however, far broader than the provision of the basic biological needs of air, food and water. By way of illustration, 'Almost 40% of world materials consumption converts to the built environment,'³⁶ and, whilst efforts are being made to increase the sustainability of both building practices and the materials used therein globally, absolute reduction of consumption is impossible. Thus, environmental security also plays a role in ensuring shelter for individuals, another aspect of health and also personal security that calls for some discussion.

One area in which the potential threat to health security arising from adverse or abnormal environmental conditions has been subjected to considerable research is the area of infectious disease and sanitation. This is especially true in relation to developing states that suffer the impacts of environmental change most acutely. Focus has been placed on diseases such as dengue fever and malaria, the latter of which 'is an extremely climate-sensitive tropical disease, making the assessment of potential change in risk due to past and projected warming trends one of the most important climate change/health questions to resolve.'³⁷ The knock-on effects of climate and ecosystem alteration in relation to such carrier-borne diseases with their carriers, Arthropods, which are 'exquisitely sensitive to climate',³⁸ are potentially immense. In a similar vein, the availability and quality of water, which is heavily dependent upon environmental security, is key in ensuring the reduction of cholera and diarrhoea, two of the largest killers of vulnerable individuals in the developing world. Therefore, to consider the role of water separately as an aspect of both food security and health security, fulfilling both differing and allied roles in each instance, would be farcical. Water is needed both to produce food and quench thirst and also to provide vital sanitation.

³⁶ FM Pulselli, RM Pulselli and E Simoncini, 'Environmental Accounting of Buildings: Outcomes from the Energy Analysis' in U Mander, CA Brebbia and E Tiezzi (eds), *Sustainable City IV: Urban Regeneration and Sustainability* (Southampton, WIT Press, 2006) 490.

³⁷ JA Patz, and SH Olson, 'Malaria Risk and Temperature: Influences from Global Climate Change and Local Land Use Practices' (2006) 103(15) *Proceedings of the National Academy of Sciences of the United States of America* 5635.

³⁸ PR Epstein, HF Diaz, S Elias, G Grabherr, NE Graham, WJM Martens, E Mosley-Thompson, and J Susskind, 'Biological and Physical Signs of Climate Change: Focus on Mosquito-borne Diseases' (1998) 79(3) *Bulletin of the American Meteorological Society* 409.

Applying a global framework that attempts to secure both functions of water would potentially give rise to a clash of priorities. Similarly, infrastructures to supply water to all regions vary considerably from one state to another. To prescribe a policy that fits all situations would be immensely difficult and any enforceable provisions to ensure these aims would be rendered ineffectual. In this regard, therefore, the most universal approach would again be represented by the application of specific and measurable environmental standards aimed at preserving both water quantity and quality. This might take the form of the reduction of water consumption, increases in recycling and the restriction or elimination of practices that excessively consume or make unrecyclable this essential resource.

Similar measures might be applied to reduce consumption of natural resources in the construction industry. Meanwhile, food security could be taken into consideration in the construction of such a framework based around the security of an environment that is able to support the most basic aspects of human health for all. From such a basis, aspects of health security in relation to individual states, regions and even continents could be applied at a more appropriate level and in response to specific threats. Thus, whilst malaria is a significant health concern in Africa, to consider it within the formulation of a global framework on health security would be remiss when a regional measure would be more appropriate to that specific threat.

By contrast, the provision of adequate water for sanitation and food to stave off malnutrition and to avoid diseases brought about by such deficiencies, and at the same time reducing the spread of more regionally focused diseases by maintaining a more predictable climate, is an appropriate global focus. Such aims would therefore be best served by the prioritisation and active protection of environmental security as a basis for a framework on which health security and the other component securities of human security could be established.

VI. PERSONAL PERILS AND CONDEMNED COMMUNITIES

The concepts of personal and community security may be considered in conjunction with, and in relation to, the potential threats that unfavourable environmental conditions might pose. Personal security is firstly derived from the desire of the individual to be free from potential physical harm or violence. Community security recognises the desire of individuals to be a member of a community and to reap the benefits thereof. This is irrespective of whether the basis for said interaction between individuals is cultural, religious, geographical or otherwise. In both cases, the form of security and threats thereto can take numerous forms and can also be undermined or enhanced by environmental factors.

As has been acknowledged, 'When people perceive threats to their immediate security, they often become less tolerant ... Or where people see the basis of their livelihood erode such as their access to water, political conflict can ensue.'³⁹ More specifically, the 1994 UNDP Report that defines the concept of human security, as discussed here, re-iterates the point that there is an increased likelihood of reduced tolerance, xenophobic practices and instances of oppression resulting in violent protests as a result of concerns regarding immediate security.⁴⁰ Such individual and communal perceptions of threat are incomprehensibly numerous and subjective. However, as Walker states:

for some people and some social groups the environment is an intrinsic part of living a 'good life' of prosperity, health and well-being, while for others the environment is a source of threat and risk, and access to resources such as energy, water and greenspace is limited or curtailed.⁴¹

This variation in perceptions and instances of threats raises feelings of insecurity that severely constrain the efficacy of any response thereto whether based on policy or legislation. An all-encompassing response to all potential threats to personal and community security is unequivocally unachievable. Indeed a response to all potential threats to any one of the component securities of the suggested framework of human security, considered by the UNDP Report 1994, is arguably unfeasible. As such the framework should reflect that reality, and nowhere is this truer than in relation to personal and community security, and threats thereto. No single framework could hope to encompass all possible causes of threats to personal security and community security.

The suggested inefficacy of such an approach is based on the argument that the potential threats, which are under consideration, are highly variable owing to differing historical, political and social contexts within a state or region and even within smaller federal subdivisions. For example, the relations between the indigenous peoples of the United States of America and Canada and their respective state organs contrast in numerous crucial ways, such as in relation to property ownership and even when it comes to the classification of 'indigenous'. Similarly, the causes of threats to an individual's personal security could be equally as diverse. Even where such threats only emanating directly from state organs are considered, such as persistent police or armed forces brutality, violent protest against policies, or intentional segregation and ill-treatment of a designated group, the underlying causes are incomprehensibly divergent. The threats to these two component securities arising from the

³⁹ UNDP Report 1994 (n 1) 23.

⁴⁰ *ibid.*

⁴¹ G Walker, *Environmental Justice: Concepts, Evidence and Politics* (Oxford, Routledge, 2012) 1.

continuing political violence in Syria and the protests in London arising from the imposition of raised tuition fees for higher education students differ both in form and severity, similarly the source of discontent in each case that provoked the responses constituting those threats is not shared equally.

Similarly, any international response to these examples would be based on significantly dissimilar political, social and economic contexts and degrees of influence external to the state. These two instances are by no reasonable means comparable and yet both give rise to threats to personal and community security, if the definitions provided in the 1994 UNDP Report,⁴² which suggest they are components of the broader framework of human security, are taken into account. To maintain, therefore, that a single conceptual framework for on-going and future policies and actions by states, within regions or on a global scale, could hope to take into account such variation and respectfully direct future measures would, at best, be remiss. Thus, the potential causes that can be addressed on a level outside of those wildly variant national contexts ought to form the basis of any framework originating from outside them, with issues of a nature primarily relative to states being subject to similarly relative domestic responses.

Such an approach is akin to the notion of 'weak cultural relativism' proposed by Donnelly in his consideration of approaches to striking a balance between a utopian vision of a universal human rights regime and respect for the diversity of culture globally. He suggests an approach in which 'Universality is initially presumed, but the relativity of human nature, communities, and rules checks potential excesses of universalism.'⁴³ Whilst Donnelly only considers the implications of imposing rules over, or submission to, cultural variations in relation to human rights law and the moral validity thereof, his premise is undeniably applicable to the limitations of the concept of human security considered above.

Beginning from the premise that there are some policies capable of forming a universally applicable framework to which all states could adhere in relation to threats to community and personal security, and indeed entire component securities, is appropriate, the perception that all eventualities within all states could be encompassed by any such framework is farcical. In addition, it would potentially lead to the 'excesses of universalism' of which Donnelly warns. The imposition of a framework that fails to take into account the variability of national,

⁴² UNDP Report 1994 (n 1) 30–32.

⁴³ J Donnelly, *Universal Human Rights in Theory and Practice* (New York, Cornell University Press, 2003) 90.

social and economic contexts could lead either to it being disregarded by states or to the rejection of its implementation by the very individuals whose rights it is intended to secure. The difficulty in imposing a framework such as that of human security, as suggested in the 1994 UNDP Report,⁴⁴ and any necessary legislative underpinning, rests in finding universal threats and concerns that can be combatted effectively using international responses.

The scientific basis for a human security framework that safeguards the aspects of environmental security underpinning it, and which is in turn integral to ensuring the other component securities, is by its very nature universal. This is because it is composed of accepted and collated data and knowledge from states. Thus, responses to threats may be based on the objective conclusions attained by analysis of said data. Political and economic considerations can then be taken into account where necessary, for example, in the cases of a need for positive responses bearing considerable costs or the restriction of highly profitable commercial enterprises. This was the case in relation to the provisions concerning CFCs in the Montreal Protocol,⁴⁵ at the time the most widely used refrigerant globally.

VII. EMBRACING ECONOMICS

The economic costs of prioritising environmental security are potentially dissuasive from implementing such an approach in some instances. This is especially true where the necessary action requires the use of technology or resources held primarily by developed nations. In such instances it is regrettably often the geographic regions where the security of the environment must be assured as a priority to avoid the most damaging threats to the other component securities that are subject to the sovereignty of lesser developed nations.

The potentially massive increase in the prevalence of carrier borne diseases, such as malaria and dengue fever, owing to relatively minor climatic changes, discussed above, is a prime example of this irony. Ultimately, however, the distribution of resources and the sharing of technological and scientific knowledge and equipment will be determined largely by bilateral or multilateral agreements made outside of the sphere of the institutions imposing any framework based upon, or akin to, that of human security. This reality is predicated upon and defers to the continuing respect for the sovereignty of states,⁴⁶ all but eliminating the potential

⁴⁴ UNDP Report 1994 (n 1) 24.

⁴⁵ Montreal Protocol (n 12).

⁴⁶ See in this regard H Steinberger, 'Sovereignty' in R Bernhardt (ed), *Encyclopedia of Public International Law*, Vol IV (Amsterdam, Elsevier, 2000) 501.

for any legislative instrument that could impose such magnanimous action. As such, economic considerations of this nature must be accepted as being beyond the realms of any such framework outside of a general non-binding obligation to share and promote the sharing of such resources where their use is inextricably bound up with the aim of said policy framework. Whilst the suggested framework must negate to the greatest degree any possible economic influence upon the principles and policies espoused within it and any binding provisions arising therefrom, the role of that framework, based upon the prioritisation of environmental security in ensuring elements of economic security, is a significant consideration.

The concept of economic security presented by the 1994 UNDP Report focuses on the notion of 'a basic income—usually from productive and remunerative work'.⁴⁷ However, in the more recent conceptions of the framework, a broader approach to this component security is evident. Indeed, in relation to the global financial and economic crisis, 'the multidimensional effects',⁴⁸ and, most pertinently, the 'ecological costs'⁴⁹ thereof, have been recognised. Whilst the concept suggested in the 1994 UNDP Report reflected an emphasis on job and income security, rather than a more broad conception of the economic security of individuals, the breadth in the more recent considerations⁵⁰ of the concept are reminiscent of the notion of the human right to a livelihood,⁵¹ and the ability to sustain oneself and dependants,⁵² as perceived in international law. Indeed, the 2012 text following the earlier resolution of 2010, which considered only economic variations and issues in relation to states, also recognises the threats to the 'livelihood' of individuals.

Such a progression is reflective of the reality that whilst macroeconomic policy, which supports financial and commercial infrastructures, is an area of concern, and onto which a framework might be applied, ensuring the ability to provide for the most basic needs of individuals at a national level is paramount. Sustenance, sanitation and shelter are the three key needs in this regard, yet in the modern context rarely is a family or group able to provide all of these for itself in its entirety. Instead, some semblance of an economic transaction will occur and will do so regardless of the macroeconomic climate. Instead, it is predicated on the most basic of abilities to provide. An individual would be far less concerned, if indeed

⁴⁷ UNDP Report 1994 (n 1) 25.

⁴⁸ UN Human Security Report (n 3) 35.

⁴⁹ *ibid.*

⁵⁰ *ibid* 6 and UNGA Res 60/1 (n 4).

⁵¹ International Covenant on Economic, Social and Cultural Rights (adopted 16 December 1966, entered into force 3 January 1976) 993 UNTS 3 (ICESCR) Article 11.

⁵² As interpreted in UN CESCR General Comment No 12 (n 33).

at all, with macroeconomic issues were they able to provide for all their own needs for themselves and their dependants, without the need for any external assistance or interaction.

In this regard, it is essential that basic environmental factors enabling such actions are assured, as highlighted in the 2010 resolution where an emphasis is placed upon the reality of the 'interconnectedness of threats'⁵³ and 'interdependence of the challenges we face'.⁵⁴ Specifically, the text considers that 'the impact of rising food prices along with climate-related emergencies, protracted conflicts and the global financial and economic crisis is of particular concern to human security.'⁵⁵

It does not, however, consider whether all such impacts might, in part at least, potentially stem from environmental security concerns and threats. The connection to food prices and climatic issues is apparent and the relationship between the discontent arising from such issues is often a cause, or increases the likelihood, of conflict of a physical nature, which in turn poses a threat to personal and community securities.

Similarly, the more traditional notions of economic security are subject to the influence of environmental alterations and impacts. The recent rises in food prices are partially attributable to extreme weather and climatic conditions, which in turn place inflationary pressures on economic policy makers the world over.⁵⁶ Continued reliance upon non-renewable fuel sources, and the inevitable political influence their possession gives a state, are also issues with inextricable environmental security aspects and give rise to concerns about the other component securities that have already been discussed.⁵⁷ The stability of the market relies, amongst other things, upon environmental factors. Fluctuations in stock market prices of significant corporations and the value of key national currencies in response to events of an environmental nature are clear evidence of this. Irrefutable proof of the impact of human activities on climatic and weather conditions is not, however, universally accepted. Indeed, where it is, the degree of the said impact is certainly not uncontested. As such, all threats to human security arising from natural sources, whether caused by our actions or otherwise, cannot be controlled by politicians or lawyers. However, measures to stabilise food prices, impose the greater use of sustainable energy sources, eliminate harmful emissions and pollution,

⁵³ UN Human Security Report (n 3) 30.

⁵⁴ *ibid* 31.

⁵⁵ *ibid* 38.

⁵⁶ International Monetary Fund, 'Global Monitoring Report: Food Prices, Nutrition and the Millennium Development Goals' (IMF, 2012) 114.

⁵⁷ J Scheffran, M Brzoska, PM Link, HG Brauch and J Schilling (eds), *Climate Change, Human Security and Violent Conflict: Challenges for Societal Stability* (London, Springer, 2012) 763.

or reduce waste, can be imposed through a legislative underpinning to a conceptual framework such as human security.

Those tasked with implementing a human security framework must take into account that the security of the environment represents a foundation stone to its success. In turn, such a foundation adds an element of certainty to factors such as those outlined above, thereby giving rise to a more stable basis for economic security where the ability to afford the most basic of needs is more commonplace than at present. The hope of reducing poverty to zero is a highly utopian, if admirable, goal. Ultimately, however, the distribution of even the most fundamental of resources is bound up with incalculable external factors, ranging from economic, through political, to even community concerns.

To suggest that any significant improvement in the current levels of income and resource distribution, job security, or the ability to provide for oneself and dependants could be achieved and maintained without a stabilisation of the key aspects of environmental security to the greatest degree possible, would be remiss. As such, the connection suggested between the component concepts of human security and environmental security is also evident in relation to economic security. Whilst environmental security does not ensure economic security alone, the lack of the fundamental aspects of environmental security, nationally, regionally or globally, doom any prolonged concept of economic security to failure or meaninglessness. By way of example, an individual with considerable wealth and an assured occupational status is by no means secure if he cannot feed himself or his family owing to a lack of supply of basic foodstuffs. In such a scenario, his economic security, in terms of monetary wealth, becomes diminishingly relevant.

VIII. FINDING COMMON GROUND

The concept of human security is based upon the common needs and concerns of all peoples. It has an ethical basis that resembles the foundation of human rights law in 'inherent human dignity.'⁵⁸ Individual fundamental human rights, enshrined in all human rights texts, are based upon common moral and ethical positions shared by all peoples to some degree, such as the value of human life, the degrading and barbaric nature of torture, a fair trial to deal with breaches of the law, democracy and equality. Whilst all human rights are not universally applied, for the most part, a

⁵⁸ Universal Declaration of Human Rights (adopted 10 December 1948) UNGA Res 217 A(III) (UDHR) Preamble.

base level of fundamental aspects of the rights, as drafted, can be found in the form of non-derogable rights or minimum core obligations placed upon states in international treaties. Nevertheless, common positions in relation to the component securities of human security, which were considered above, are not so forthcoming. As has been discussed, a degree of relativity is required when suggesting a universal framework that might be potentially applicable to all situations. For any framework to be applicable and its goals achievable, a degree of commonality must be found onto which some structure of compliance with measures to achieve those goals can be mapped.

As Blanco and Razzaque rightly argue, 'in order to have an effective system of compliance it is necessary to have an agreed system of rules and standards'.⁵⁹ Thus, in order to have both a basis upon which to build the framework and any degree of success and direction to its development, there must be some degree of compliance. Returning to the analogy of human rights, the right to life,⁶⁰ by way of example, is disputed in relation to the death penalty and abortion, and indeed various levels are applied in its enforcement.⁶¹ While arbitrary killing, on the part of the state, is universally regarded as a breach of the right, the establishment of universal minimum standards for the component securities is not so simple.

Contempt for the arbitrary taking of another human life is a shared norm throughout different cultural, political and social structures across the globe, with clear parameters between the living and the dead and without an established defence prescribed by law. Shared economic norms, beyond the ability to provide for the most basic of human needs, are not as readily ascertainable. Even those needs themselves, and the means by which they may be met, vary from an individual in a developed state to one in a less developed situation. As Donnelly states, "'human needs" is almost as obscure and controversial a notion as "human nature"'.⁶²

Job and income security are suggested as indicators of a level of human security within the 1994 UNDP Report,⁶³ though this fails to take into account the broader application of economic security, as espoused by the later texts concerning the framework that is supposed to cater for the most basic needs of the individual. To illustrate, although this would be

⁵⁹ E Blanco and J Razzaque, *Globalisation and Natural Resources Law* (Cheltenham, Edward Elgar, 2011) 251.

⁶⁰ International Covenant on Civil and Political Rights (adopted 16 December 1966, entered into force 23 March 1976) 999 UNTS 171 (ICCPR) Article 6.

⁶¹ With regard to abortion, see American Convention on Human Rights (Pact of San José) (adopted 22 November 1969, entered into force 18 July 1978) 1144 UNTS 123 Article 6; with regard to the death penalty, see ICCPR Article 6.

⁶² Donnelly (n 43) 13.

⁶³ UNDP Report 1994 (n 1) 38.

unlikely to be the case, the relevance of employed status or the comfort of an income for an individual would be non-existent if they did not, by extension, afford the ability to provide the basic necessities of life for oneself and one's family owing to prevailing environmental conditions.

Health is by no means a universal concept either, average life expectancy, degree of inoculation from viral infection, access to clean and safe drinking water and a toilet are by no means universally assured to any degree, nor do they, even if assured, 'secure' health. Imposing a reality with these factors effectively assured through a global framework and based, where possible, upon an objective legislative basis, without taking into consideration local realities, would fail. The effective regulation of access to drinking water, for example, considering the natural prevalence of the resource, the availability and efficiency of recycling and use for other needs, such as food production, or economic realities facilitating payment for water in every instance, would not be possible.

Similarly, the concept of food security is reliant upon unpredictable factors at a level that is unmanageable from any degree of detachment, such as the global context. Local prevalence of water, weather, native fauna and flora, cultural and traditional preferences and economic incentives for producing non-edible products are a mere selection of the factors that may have a considerable impact upon this component security, as has been discussed. As such, finding common standards applicable to all situations would again be nigh on impossible. Even the notions of 'an adequate standard of nutrition' or 'sufficient food' are fraught with subjectivity with regards to differing perceptions of adequacy and sufficiency.⁶⁴

The imposition of a specific, personal, political or community reality, or aspects thereof, would not only potentially increase tension in certain contexts, increasing the likelihood of disturbance and thus threats to the very securities intended to be protected, but might also constitute a breach of the aforementioned human rights to freedom of speech, expression and association. Indeed, the imposition of political, community and personal standards at a national or regional level is arguably, from a historical perspective, one of the most common causes of conflict. This fact has been recognised by the concept of self-determination, which is present in numerous international legal texts, especially concerning human rights, and is itself inextricably connected to the suggested framework of human security.

⁶⁴ In this regard, one need only consider that there was a need to publish a text suggesting methods to achieve the realisation of this concept. See United Nations Food and Agriculture Organisation, 'Methods to Monitor the Human Right to Adequate Food' (Rome, 2008).

Common environmental standards are, however, potentially ascertainable and indeed have been found in relation to a number of factors. The inherently scientific nature of such standards is arguably at the root of this reality. Common scientific standards in relation to food and health security may be equally achievable, but the aforementioned need to consider cultural, political and economic realities is unavoidable. Environmental standards, which are common to all states and regions, are, however, both ascertainable and universally implementable, whether through abstention from particular practices, or through greater efficiency in other practices. As a basis for a policy framework such as human security, this allows for minimum standards not only to be set, but also to be enforced.

The ability afforded by the scientific basis for environmental protection to set objective and specific thresholds that can form the basis for binding provisions, as evidenced by international environmental law generally, is the key to the identification and implementation of such a basis. As the other component securities of the human security framework cannot provide such a basis, as discussed above, there is also an argument of practicality to using this component security as an enforceable basis upon which to build the framework. Whilst this contention is based upon the presumption that such a base is required, the likelihood of states foregoing their self-interests to ensure human security to a minimum degree common to all states, and not reneging on a non-binding commitment to do so at any point, even in the face of threats to their own security, is miniscule.

Gillespie suggests one theory amongst many to explain the current actions of states with regard to environmental protection at a level above the national sphere. The 'self-interest justification' theory proposes that 'nations pursue interests at the cost of other nations'⁶⁵ and there is undeniable evidence of this to some degree in negotiations regarding innumerable environmental texts.

An enforceable minimum obligation, akin to that suggested in relation to economic, social and cultural rights in international human rights law,⁶⁶ would, however, potentially ensure a basic standard of environment to support the progression of human security. Provisions enshrining such a basic standard of environment would also allow states to compare and criticise each other in relation to those obligations, thereby improving adherence to them by enabling them to utilise diplomatic pressure to direct others to meet the targets set. A communal model of enforcement

⁶⁵ A Gillespie, *International Environmental Law Policy and Ethics* (Oxford, Oxford University Press, 2002) 25.

⁶⁶ CESCR General Comment No 3 (n 9) 10.

and compliance, reducing 'the need for enforcement mechanisms',⁶⁷ and that goes beyond monitoring of the standards set, would thus emerge in a manner akin to that suggested by Blanco and Razzaque. This is a far cry from the theory of 'deep ecology', whereby the need to protect the environment is placed above the need to protect the individual or state.

However, discerning a common standard, a minimum that all, or most, states would be happy to pursue individually and to be held to collectively, would achieve a similar result. Such a position would, theoretically, sit between the anthropocentric and deep ecological approaches, finding a middle ground between human needs and ecological preservation. Such a reality would not be possible if human security alone were to be prioritised above the composite elements that have already been discussed.

Instead, a narrower anthropocentric paradigm, based on short term considerations, would emerge and the environment would 'only be conserved on account of the instrumental values attributed to it by humans',⁶⁸ and without an overbearing consideration for the impacts to the environment as a whole. The setting of specific thresholds would also lead to greater cooperation in achieving them, where the benefits of shared action warrant such decisions and a judgement could be more easily reached in light of clear and universal goals of the type offered by scientifically backed environmental standards. Again, it should be reiterated that such a reality in no way assures human security globally. Yet, to fail to protect that which underpins it in incalculable and inextricable ways, as the environment does, would be foolhardy.

IX. CONCLUSION

The concept of human security is by no means a completely flawed one, indeed the consideration of the numerous influences on the 'freedom from want and freedom from fear' suggested by the composite definition, is more reflective of the interconnectedness of reality than many measures that are constructed within the international legal and political sphere. Rarely, if ever, is a non-binding text so inclusive of factors that might otherwise be deemed irrelevant or excluded, owing to overbearing political and participatory considerations. As Helm points out in relation to the Kyoto Protocol, although the dilemma he outlines is more broadly valid, 'trying to be too ambitious early has left the main players ... on the side-lines.' While 'some element of international altruism' is necessary to

⁶⁷ Blanco and Razzaque (n 59) 251.

⁶⁸ Gillespie (n 65) 17.

achieve environmental aims, the reality is that in relation to undertaking efforts to fulfil some of them, in many senses, 'countries are better off if they do not'.⁶⁹

In order to construct a basis onto which binding legal obligations can be applied in order to keep states committed to the common goals such a framework aspires to achieve, common minimum grounds must be found. As Helm goes on to state with regard to any binding international environmental legal text when 'sufficient countries ratify it so that it comes into effect, it provides perhaps the only credible means of asserting moral pressure'⁷⁰ on other states.

Economic, political, community and personal securities are inherently variable and are influenced by an incalculable number of factors. Similarly, the most basic aspects of health and food securities can be threatened by an equally immeasurable series of possibilities. A basis for a framework aimed at ensuring such securities, must be constructed around common standards, objectively measurable and attainable by all, whilst allowing the requisite elements of relativity. This balancing act has plagued the development of international law in a broad sense, but the balancing of community, national and regional concerns with global goals is no more prevalent than in relation to environmental law.

In spite of this, however, irrefutable successes have been achieved in this field where short term anthropocentric concerns have not been given priority—the Montreal Protocol, discussed earlier in the chapter, is a clear example. To have any hope of achieving the goals it espouses, the framework of human security and legislation stemming from this concept must also take this approach. As has been shown, whilst human security and the six other component securities, beyond that of environmental security, are not guaranteed by a minimum level of environmental security, the failure to achieve any definition of them without it, is. There is something of an irony that it is an environmental threat to human security that forms the basis of an analogy of the delicate nature of the concept, when it is stated that

Among these seven elements of human security are considerable links and overlaps. A threat to one element of human security is likely to travel like an angry typhoon to all forms of human security.⁷¹

However, it is another environmentally inspired analogy that more aptly describes the relationship between the component aspects of human

⁶⁹ D Helm, 'Climate Change Policy: a Survey' in D Helm (ed), *Climate-Change Policy* (Oxford, Oxford University Press, 2005) 26.

⁷⁰ *ibid.*

⁷¹ UNDP Report 1994 (n 1) 33.

security, which have already been considered, that of the house built upon the sand, which is doomed to collapse. Human security and environmental security as conceptual frameworks would only be at legal loggerheads where an implementation of the former failed to consider the integral role of the latter, or where efforts were made to apply it absolutely, without any regard to this fact. Thus, the construction of a framework aimed at ensuring freedom from want and fear, and any legislative or policy instruments stemming therefrom, would be predestined to fail if it did not take into account the inextricable reliance we, as individuals and as a national, regional and global society, retain upon the natural environment around us to provide for the most basic needs of that which it sets out to secure—the human being.

