Environmental Refugees:
A New Concept for the Current Day?

"…There can be little advance except in an overall context of what has come to be known as sustainable development…reliable access to food, water, energy, health and other basic human needs – the lack of which is behind many environmental refugees' need to migrate."[15]

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Acronyms:
CRS: Carbon Reduction Strategy
GDP: Gross Domestic Product
IPCC: Intergovernmental Panel on Climate Change
NASS: National Asylum Support System
NHS SDU: National Health Service Sustainable Development Unit
UNHCR: United Nations High Commissioner for Refugees
UNEP: United Nations Environment Programme

ABSTRACT:

Background:

It is now widely accepted that climate change is occurring and that the detrimental consequences for global health, if no action is taken, are significant. Therefore a level of carbon awareness amongst individuals and organisations is essential. One particularly controversial outcome of climate change is migration and the concept of environmental refugees. There are currently 15.2 million 'traditional' political refugees and asylum seekers worldwide. However, current estimations for numbers of 'environmental refugees' reach as high as 50 million.

Methods:

Discussions with asylum seekers in the Mersey and Chester region aided an understanding of the current asylum system in the UK. A literature search was conducted using Athens to locate relevant resources. Key resources were also identified with help from key contacts.

Results:

As individuals in the UK we have far higher carbon footprints than many other nations, and the NHS is a huge contributor to UK emissions. There is an abundance of literature on the topic of environmental refugees, with much debate over typology. Migration appears to be a complex outcome of environmental, political, social and economic factors, thus collated data is difficult to compare due to the multi-causality of the issue

Conclusion:

Taking aside the controversial status of environmental refugees, there is much evidence to support immediate action and policy change. The international community must collaborate in order to improve current migration programmes and prepare for and adapt to the inevitable population movement.

1. An Introduction

1.1…To climate change

It is now well recognised and widely accepted that changes in the Earth's climate due to human activity is occurring. The Lancet and University College London Commission for Global Health summarised climate change as "the biggest global health threat of the 21st century." These health threats come both directly, for example through extreme climactic events, heat waves and changes in disease pattern, as well as indirectly, through conflict, migration and economic and societal collapse[1].

It not only health that will be detrimentally affected by climate change, there are also large economic costs involved. The Stern Review, commissioned by the UK government in 2006 estimated that the average estimated cost of taking active measures to adapt to and to mitigate climate change effects would be 2%* of world GDP each year. Conversely, the costs accrued if no action is taken could be 5-20% of annual world GDP[2]. Some scholars feel that even these predictions are conservative in nature and actually underestimate the potential economic costs of doing nothing[3].

Perhaps the most unsettling part of this, is that the burden will fall mainly on those less developed countries with little capacity to adapt and cope, and as such, those that have contributed the least to the problem.

1.2…To refugees and asylum seekers

A refugee, as defined by the 1951 UN Refugee Convention, is someone who has a "*well founded fear of persecution on the grounds of race, religion, nationality, membership of a particular social group, or political opinion*"[4] and as a result of this has sought sanctuary in another country. In the UK in order to be granted refugee status, an individual's case must be assessed and approved by the Home Office. Whilst they are waiting on the decision this group of people are known as asylum seekers.

Worldwide there are an estimated 15.2 million refugees and asylum seekers, most of whom travel to bordering countries. A further 27.1 million are internally displaced within their own country[5]. Despite popular belief, which can be made largely attributable to the exaggerations by the media, the actual number of people seeking asylum in the UK is decreasing[6]. In fact, the UK in comparison to its global counterparts is ranked only 32nd in numbers of asylum applications and receives only 2-3% of the global population of asylum seekers[7].

The UK, along with other EU members has pledged to provide a fair and efficient asylum system[8]. Unfortunately however, in practice there are many short falls, the Asylum Case Study gives a first hand account of some of the issues faced.

* The original estimate by Sir Nicolas Stern was 1%, but he had to revise this as the rate of carbon emissions in recent years has risen faster than the worst case predictions.

Asylum Case Study

For reasons of confidentiality and anonymity the man whose story this is shall be called Mr A.

Mr A has a wife and two young children. He came to England in 2004 from his home country due to political reasons. Following the murder of one of his friends in the political pressure group he was involved in he decided to leave the country for his own and his family's safety. He had initially planned on only staying 5 years as he planned to return once things had calmed down. For this reason he applied as a dependent on his wife's student visa (which she had successfully gained). Once these papers ran out however and the situation at home was still not safe he decided to apply for asylum for him and his family.

He was not able to use the solicitors provided by the Home Office as they were full to capacity. Luckily his church has been incredibly supportive and they helped find him one who had legal aid. Unfortunately Mr A's case was not received well because he had not applied for asylum when he initially arrived. They were told to go to Liverpool and await further information and the final decision. There was no further communication. One late evening without warning the authorities turned up on their doorstep and told them that their case had been refused and they now had 30 minutes to pack before being taken to a detention centre.

They were moved around several centres and at one point Mr A and his family were split up temporarily – Mr A going to one centre and his wife and children to another. Their experiences at each were generally poor. Although primary health care services were in theory available, when the family members presented with health complaints, they were largely ignored. They felt that it was assumed by the health professionals that any health problem they had was just an attempt at avoiding deportation and therefore was treated with little respect or concern. There were school classes for the children, however children of all ages and abilities were put together so little learning could be achieved. Mr A felt that his children were most affected by the experience, particularly through becoming attached to new friends who were then deported without warning. He explained how his children are still very anxious, and fear knocks on the door and strangers, especially those in uniform similar to the guards.

Mr A and his family are currently appealing their case refusal. He would like to return to his home country but friends and family that remain there have warned him that it is not safe for them to return. Furthermore an interview that he gave to a newspaper about their story and their case was exaggerated and embellished to the point that readers of the article in his home country have responded with abuse towards them for being traitors to their own country and wishing to tarnish its reputation. This adds further fear of returning.

Although his experience of the asylum system has been traumatic, generally his experience of the British people has been a very positive one, with much support coming from his church and their local community. However, after 6 years of being in the UK he would like to provide his children with some stability and certainty in life, but currently he can not, and will not be able to until they receive a final decision.

The asylum process can take anything from a few months to several years and only a minority of first time cases (17% in 2009)[6] are actually granted asylum. Once a claim has been refused an appeal can be made, and again a minority of these are accepted (28% in 2009)[6]. If no appeal is made, the individual becomes a failed asylum seeker. The individual must then voluntarily return to their country or be forcibly removed by the Home Office.

In many cases however, this is not possible due to a lack of safe passage or lack of necessary papers and so they remain in the UK. Support that was initially given to them as asylum seekers by the National Asylum Support Service (NASS) is removed with a refused claim. Thus many of these individuals are left destitute, without accommodation or the means by which to obtain basic living needs. Section 4 support, intended to be a temporary measure until the person can leave the country, can be applied for which provides accommodation and £35 a week in vouchers. However, research has judged this scheme inappropriate as it stigmatises individuals, affecting not only mental health but also physical health as it does not provide sufficient support to meet basic living needs[9]. *Figure I in Appendix I* summarises these chain of events.

The two concepts introduced here: climate change and refugees and asylum seekers, may initially seem unrelated. However, migration patterns are predicted to be heavily affected by climate change. The implication is that environmental reasons for seeking sanctuary will become an increasingly important aspect to consider. This essay aims to explore the importance of carbon awareness in respect to the concept of environmental refugees. As such there are two distinct parts: firstly, examining my own personal carbon footprint along with that of the NHS and ways to lessen them, and secondly, discussing the issue of migration related to climate change effects, and how and why the UK and others should address such as issue.

2. Carbon Awareness

2.1 Personal carbon footprint

A carbon footprint can be calculated for an individual, household, business or product. It is a measure of the annual carbon emissions produced as a result of the person or product. There are a myriad of carbon footprinting tools available online. I decided to use the one designed by the government (http://actonco2.direct.gov.uk/home.html) as I assumed that this would be the one most suited to the UK scenario. My own personal carbon footprint was calculated at 3.28 tonnes CO_2, compared to the UK national average of 4.46. For an idea as to what 3.28 tonnes CO_2 actually is, it equates to driving from London to Manchester and back 25 times!

I think many people, especially those with less money and who are renting property perhaps shy away from addressing their carbon footprint as they perceive 'being green' as an expensive luxury and struggle to see what effective changes they can make to their home when they don't own the property. However, calculating my personal carbon footprint using this tool allowed me to see how much energy and money can be saved through small changes. For example using energy efficient light bulbs and turning the thermostats down by 1-2 degrees both have medium to high energy savings and of course also reduce the heating and lighting bills.

When taken from the global perspective the average carbon emissions per capita is 4.48 tonnes CO_2.[10] This estimation also accounts for emissions from industry, which are equally dealt out between the global population and therefore is slightly larger than an individual's carbon footprint like that calculated previously. However it is a useful measure by which to compare countries and to see the vast discrepancies that exist. For example, the US average carbon footprint is 19.78 tonnes CO_2 and the UK's average is 9.66, however these numbers dramatically shrink when looking at less developed countries like Colombia (1.42) and Uganda (0.06). Perhaps more surprising however, is the differences that exist between the UK and other western European countries like France (6.56) and Switzerland (6.06). Although China is rapidly developing and is actually the nation with the greatest total carbon emissions (having overtaken the US in 2007) its per capita measure, or carbon footprint per person is only 4.58[10].

2.2 The NHS carbon footprint

The NHS is the 3rd biggest organisation in the world, encompassing hospitals, primary care trusts, general practice surgeries and many more institutions that fall in between. Its carbon footprint is estimated to be 18 million tonnes of $C0_2$, making it the biggest public sector contributor to carbon emissions in the UK. Of this 18 million tonnes, 60% is due to procurement, 22% due to direct energy use and 18% due to transport (see *appendix I*)[11]. In the 2009 NHS Carbon Reduction Strategy (CRS) the NHS Sustainable Development Unit (SDU) outlined a plan for rapid action, with a minimum target of a 10% reduction by 2015 (on 2007 levels) in order to meet its ultimate target of 80% reduction in 2030. Clearly, in order to tackle this effectively it is not just a matter of using renewable energy, but also a significant change in behaviour that is needed.

Procurement

Procurement is a general term for the buying, making, selling and maintaining of goods and products. When this 60% or 10.8 million tonnes is examined more closely, it reveals that perhaps unsurprisingly, the largest proportion of the carbon emissions are due to pharmaceuticals[11]. Exactly how this can be addressed is several-fold. Measures, such as regular drug reviews are already in place to try and minimise the amount of pharmaceuticals which are wasted. Of course the most effective method to reduce carbon emissions due to pharmaceuticals is to reduce the requirement for them in the first place. Disease prevention and health promotion are the underlying principles of sustainable healthcare[11]. A healthier population demands less from the NHS and thus reduces its energy requirements. However primary disease prevention has not traditionally been prioritised. It appears that the NHS actually prioritises illness over health – not a particularly sustainable situation. It is not surprising that this is the case when we consider the impact that the 'diseases of affluence' have had on the UK health system. Cardiovascular disease, obesity and diabetes have all grown in prevalence as our society has become richer and more reliant on high carbon lifestyles, and the knock on effect is the huge burden this presents to the NHS.

However, healthcare professionals are in a powerful position to influence their patient population to engage them into a healthy, more active and thus a more sustainable lifestyle. General Practice, with its community base, offers an ideal opportunity for health promotion and supporting patients to take greater interest and responsibility for their own healthcare, and thus wean them off unnecessary medication and medical intervention. Many general practitioners are already doing much of this in their everyday consultations, however, the healthcare system itself must shift its own approach in order to allow and support more health professionals to do such preventative work.

One example of an intervention that addresses procurement emissions, as well as promoting health is developing a sustainable food and catering plan, like that done at The Royal Brompton Hospital. The following case study describes their work and achievements.

CASE STUDY 1: Royal Brompton Hospital (RBH) Food Project[11]

The RBH is one of 4 London hospitals aiming to procure 10% of its food from local and/or organic producers. It has not only achieved this but exceeded its target and is now procuring 14%.

The achievements of this project are several-fold:

- Direct health benefits from the nutritious fresh food: speeds patients recovery time and ensures a healthy workforce and healthy visitor population.
- Leading by example - helps to influence people's own choice of food when they return home
- Waste is diminished – because more people enjoy the food!
- Carbon emissions associated with processing of foods is reduced with organically grown and fresh produce
- Carbon emissions associated with transport of food is reduced due to sourcing locally.
- Although future investment is more expensive in the short term, the longer term financial pay back in shorter recovery times, a healthier population and healthier workforce will be significant.

Transport

NHS transportation must also be addressed if we are to meet the targets of the CRS. Currently 1 in every 20 vehicles on the road is on NHS business, whether they be staff, patients or visitors[11]. Encouraging employees to cycle or walk to work not only lessens carbon emissions but has additional co-benefits for health. The CRS recommends that an active transport plan should be put in place in every NHS trust. This would include promotion of cycle to work incentive schemes, mileage rates that favour low carbon transport methods, and promotion and training for staff in tele, video and web-conferencing. Underpinning all these interventions however should be the aim to move more care out of hospitals and into the community, closer to people's homes. An example of these measures put into practice is at Devonshire Green Medical Practice in Sheffield:

CASE STUDY 2: Devonshire Green Medical Practice

On GP at the Devonshire Green Medical Practice in Sheffield has caused a stir within the local area. Dr Graham McAll has invested in an electric car which he uses for home visits! The practice has also set up to benefit from the NHS Cycle to Work Scheme (receiving tax free bicycles for staff).

This work has resulted in many positive outcomes:

- Reduced carbon footprint by using electric car (40 miles per 27p's worth of electric charge apparently!)
- Reduced carbon emissions for other members of staff who now cycle to work
- Healthier workforce due to cycling
- Positive influence on patient population for healthier behaviour and raising awareness about carbon footprints

Energy

Direct energy use through lighting, heating and cooling in NHS buildings accounts for 22% of the total carbon footprint[11]. In the 2008 budget the Government set out an ambitious target for all new public sector buildings to be zero-carbon by 2018. With this in mind the CRS calls for all new NHS buildings to be low carbon by 2015. Renewable energy sources immediately remove carbon emissions and bring with them energy resilience. These should be especially considered in new buildings which can be built incorporating such technologies. Consideration must also be paid to ensure that new buildings and any new additions can withstand the climatic extremes associated with climate change. Intelligent design of new buildings using natural ventilation and natural lighting where possible has large energy savings in store as well as benefits for staff and patients by improving their environment and supporting their own sustainable behaviour. An example where this has been put into practice is the new wing at Lewisham Hospital NHS Trust, the Riverside Building.

CASE STUDY 3: the Riverside Building at Lewisham Hospital NHS Trust[11]

The Riverside Building provides space for over 400 beds. Its benefits are as follows:

- Natural ventilation through the majority of the building is more energy efficient than mechanical ventilation, therefore reducing energy costs and CO2 emissions otherwise associated with air conditioning
- A photovoltaic system has been incorporated into the design (bought with a grant from the Energy Savings Trust) involving significant electricity and carbon savings
- Both of these interventions improve energy resilience to possible supply failure
- Patient experience is improved
- The workforce is attracted and retained due to the pleasant working environment.

In summary, both individuals and organisations have a social responsibility to be aware of their carbon footprint and to make efforts to reduce it. One can go even further with health professionals and health bodies such as the NHS due to the strong associations of climate change and its detrimental health effects. The role of doctors as outlined by the GMC is to "to protect and promote the health of patients and the public"[12] therefore there is a duty to recognise and address climate change as a health issue.

The following section will now examine the concept of environmental refugees and the issues of migration as a consequence of climate change effects.

3. Environmental refugees

3.1 Defining the concept

The term 'environmental refugee' was first introduced as a concept in 1985 by the United National Environmental Programme (UNEP):

> *"Those people who have been forced to leave their traditional habitat, temporarily or permanently, because of a marked environmental disruption (natural and/or triggered by people) that jeopardized their existence and/or seriously affected the quality of their life [sic]. By 'environmental disruption' in this definition is meant any physical, chemical and/or biological changes in the ecosystem (or resource base)that render it, temporarily or permanently, unsuitable to support human life."*[13]

The definition is intentionally vague in order to encompass all the diverse environmental situations that can result in migration, from acute natural disasters up to and including gradual environmental change and degradation. There have been a plethora of attempts since, to more effectively define and distinguish environmental refugees, the sheer number of which creates challenging reading. One approach identifies five main causalities for environmentally based migration[14]:

1. Natural disasters
2. Development projects that involve changes in the environment
3. Progressive evolution of the environment
4. Industrial accidents
5. Environmental consequences due to conflict

Climate change effects can be held responsible for much of the 'progressive evolution' such as desertification and sea level rises, as well as an increasing number of natural disasters[1]. The fifth group mentioned has a further possible interpretation, with postulations that environmental effects causing resource scarcity will eventual result in social unrest, violence and conflict.[1,2,15-17]

A further differentiating factor within this medley is the element of choice; whether the individual voluntarily leaves or is forced to leave. Applying this to the groups outlined above, the elements of choice look likely to disappear in the context of all but one group: 'progressive evolution of the environment'. These individuals are somewhere between being forced by external circumstances out of their control, and making conscious decisions to migrate – as Bates[18] neatly summarises, they are '*conceptually sandwiched between voluntary migrants and refugees…compelled by deficiencies within the local social, economic or environmental context*'. This begins to reveal why there is such controversy and ambiguity surrounding the topic.

Traditionally, the concept of a refugee as defined under the UNHCR, is fleeing political persecution[4]. A number of scholars have argued that unless it can be proven that the individual is being evidently persecuted by nature then the term refugee should be avoided.[17] Further to this, there are concerns that in expanding the refugee definition the current international protection, fragile as it is will be deteriorate further. By depoliticising the

displacement, governments of receiving countries already heavily burdened, will feel justified to abscond from their responsibility to provide asylum.[19,20]. A further reason for criticism of the term is its implied mono-causality and thus its '*conceptual inadequacy in interpreting the complex structural causes and consequences of flight.*'[21]

In response to the debate the UNHCR have deliberately veered away from using the term 'refugee' and instead have introduced the definition of environmentally displaced persons.

> *Environmentally Displaced Persons: "…are displaced from or feel obliged to leave their usual place of residence, because their lives, livelihoods and welfare have been placed at serious risk as a result of adverse environmental, ecological or climatic processes or events"* [22]

3.2 Current data

Due to the ambiguous multi-causality nature of the issue, it is incredibly difficult to establish an acceptable methodology for data collection and calculation and attempts that are made are subject to heavy criticism and debate. Despite this, however, many efforts have been made by individuals, organisations and policy makers in order to gain some scope of the matter.

An estimate from the UNHCR in 2002 put the global total of people forcibly displaced by flooding, famine and other environmental adverse events at 24 million[23]. Norman Myers, who has written extensively on this topic, estimated a 1995 global total of 25 million environmental refugees, and predicted that this could double by 2010, and may eventually reach as many as 200 million[15,16]. The Stern Review supports this statement with its own prediction of 200 million people displaced through climate change adverse effects by 2050[2]. Myers' further estimates for population at risk of migration due to sea-level rise range from 26 million for Bangladesh, 20 million for India to 73 million in China, and with a global total of 162 million[15]. Indeed just over a year ago in May 2009 the story of the Carteret islands (off the coast of New Guinea) made headlines for being the first evacuation of a population due to rising sea levels[24]. Christian Aid have by far the most ominous of predictions with 250 million due to climate change and another 645 million by development activities such as large scale dams[25]. The numbers are clearly difficult to assess. But what about the evidence to support the claims of environmentally induced migration?

Natural disasters

Migration as a result of natural disasters, is probably the most visible and starkest form. Although there is a dramatic initial migration of people many studies have shown that following a natural disaster there is an incredibly strong tendency for those same people to return and reconstruct their home and environment[26]. Thus the potential here for long term sustained population movement appears small.

Drought and desertification

In the case of progressive deterioration due to drought and water scarcity there is some uncertainty. Mass migrations due to drought have been well documented throughout Africa, as well as in South America, the Middle East and South East Asia, with estimations of the numbers involved reaching the millions[26]. However there is hesitancy surrounding directly

linking desertification and migration by some who observe that migration is often the last possible survival option taken in these scenarios[26]. Nevertheless, the large numbers reported across the world must hold large significance.

Sea-level rises

Conversely the potential for migration due to sea-level rises is clear and substantial. Being a largely irreversible trend its effects will be long term and sustained. Relatively reliable predications for numbers affected can also be made due to available technology. 'Low Elevation Zones' are classed as areas less than 10 m above sea level, only totalling 2.2% of dry land but which currently host approximately 10.5% of the world's population – 602 million people[26]. Not all these people are at risk of rising sea-levels. However using data available from the IPCC it seems likely that those living below 1m will be directly affected within the next two centuries – a total of 146 million people[26].

Conflict

The case of environmental change and resulting conflict remains a cautious proposition. Again, like the case of giving a 'refugee' status, some scholars feel that in directing causality at solely environmental triggers, the host governments can rid themselves of their own responsibility for the multiple other social, political and economic factors that interplay[17]. The Darfur Case Study is an example of this.

CASE STUDY: Darfur – an environmental conflict?[17]

Northern Darfur, starting already as a resource-poor environment, has been in a crisis situation now for considerable time. Reduced rainfall has led to desertification of original grazing land and pastoralist societies have been forced to migrate southwards to find fertile land.

The conflict that has ensued has been directly attributed, by some, to climate change and the deterioration of the environment. Jeffrey Sachs (Director of the Earth Institute, University of Columbia) and the UN Secretary-General Ban Ki-moon both believe the root of the conflict is an "ecological crisis". Indeed, Jeffrey Sachs goes as far to say the crisis is "arising directly from climate shocks". A recent UNEP report comes to similar conclusions: "the impact of climate change is considered to be directly related to the conflict in the region". Although it also acknowledges that there are a multitude of contributing factors, many of which have limited or no environmental links. Similarly to this latter point, the 2007 Tearfund report identifies the undeniably important role of environmental factors in the crisis, however does not accept sole causality.

It is clearly important to recognise the devastating impact of the environmental conditions on the current Darfur crisis, however caution must be taken not to over-simplify the matter and become blinkered to the existence of other equally powerful factors.

3.3 Recommendations

It is important to recognise that migration due to climate change, although disproportionately affecting lesser developed countries is also affecting the richer nations, for example Haitians in the US, and North Africans in Europe[15]. The UK, being a removed island nation is probably less likely to experience immediate effects, however this does not evade its responsibility to support and facilitate the adaptation of those less fortunate. Particularly when considering that the developed world is vastly responsible for the climate change effects themselves. However, in order for this international support to be granted, an agreement is needed regarding the status of environmental refugees. Indeed whether they can be classed as refugees at all, or whether an entirely separate concept needs to be embraced. In light of this the recommendations are as follows:

Recommendation 1
International bodies must collaborate in their efforts and officially recognise populations displaced by adverse environmental effects. The term 'refugee' may not be appropriate for the reasons discussed but an agreed status is certainly needed[17,26].

Recommendation 2
Existing data must be collated and analysed using this new status to provide a reliable and comparable data source to facilitate effective action[17].

Recommendation 3
As much of the displacement is likely to be internal, countries affected must recognise the rights of the displaced to their support, and provide protection schemes for their safe passage of movement and resettlement[26].

Recommendation 4
Community Based Adaptive measures, such as monitoring and early warning systems in high risk areas have been shown to greatly increase a community's resilience and should be implemented. This also includes capacity building activities like income generating schemes to decrease vulnerability[17].

Recommendation 5
International cooperation is essential for when the migration extends beyond borders. Richer nations must also prepare to provide safe passage and refuge for those in need through effective environmental migration programmes, possibly as a branch-off from current asylum systems. An example to learn from is that of New Zealand-Tuvalu agreement.[17]

Recommendation 5
International financial assistance through foreign aid must be better directed, to allow those nations most affected by this migration to adapt effectively[15,16].

Recommendation 6
Preventative policy must gain a greater priority within the international arena. Investment in more sustainable development initiatives within those most impoverished countries will help reduce the need to migrate[15,16].

4. Conclusion

The case for carbon awareness amongst individuals, organisations and nations is clear, particularly when considering the greater impact of climate change on an international scale. As for the case of environmental refugees, the controversy and debate will inevitably continue until responsibility for climate change effects is taken onboard by the developed nations.

5. Reflection

I came to Liverpool with a prior interest in global health having studied international health at Leeds University the year before. This course, specifically relating to issues surrounding asylum seeker health, attracted me because it offered an insight into aspects of global health which were directly relevant to the UK, and for which, as a country we have direct responsibility.

Before this course I had had a brief introduction into the asylum process through some experience at Sheffield Central Health Clinic which offers a GP service specifically for asylum seekers. The experiences in the Mersey and Chester region have given me a much greater appreciation for the immense barriers that asylum seekers face on a daily basis.

I think the most pertinent learning points for me was hearing examples of seemingly arbitrary reasons from the Home Office for failing claims. I can understand that the institution is under immense pressure to keep to quotas and so on and to allow only 'genuine' claims to succeed, however it seems to be leaning too far towards efficiency and away from the equally important principles of justice and compassion. A further learning point for me was the all too common case of destitution that asylum seekers in the UK are forced into. This seems reflects a system that is struggling to fulfil its commitments.

The concept of 'environmental refugees' was something I had heard about very briefly but never studied in any depth. I have found it a challenging but also fascinating topic due to the diversity of opinion on the matter. It has been particularly interesting to explore the philosophical and practical reasoning behind the claims that have been made, although I am still unsure as to my own opinion, which perhaps was clear with the rather all-encompassing recommendations I made.

I have to admit that I was sceptical as to how relevant this was to the UK and its own asylum system. But as I progressed through the reading material it became clear that, taken in its broadest sense the environment, through a multitude of social, political and economic linkages plays a crucial role in forced migration. Furthermore, the role of the UK and other developed nations in supporting and facilitating those countries most heavily affected is incredibly important.

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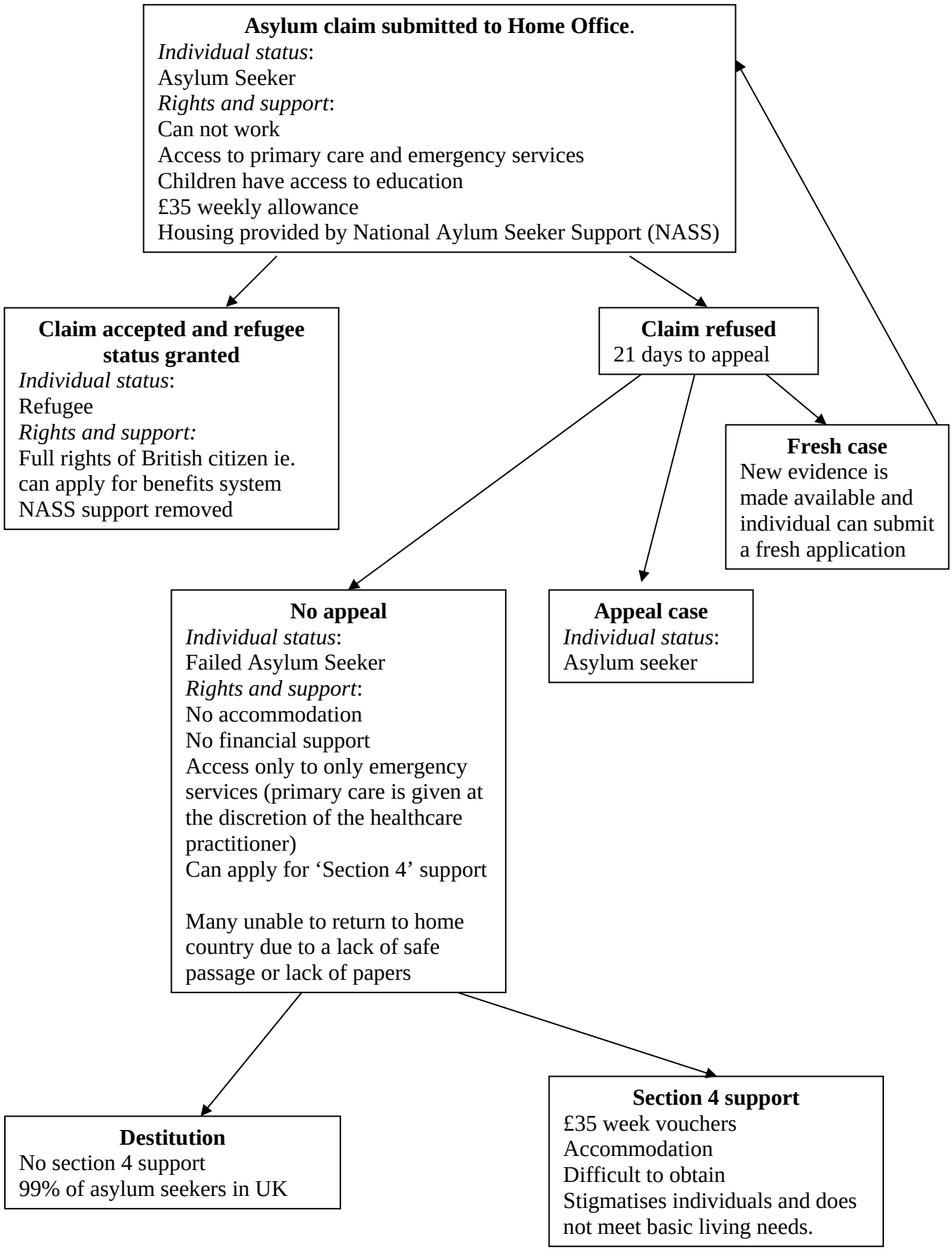
Appendix I: *Figure 1*: **The Asylum Procedure**



Appendix II:

Figure 2. The breakdown of NHS carbon footprint:

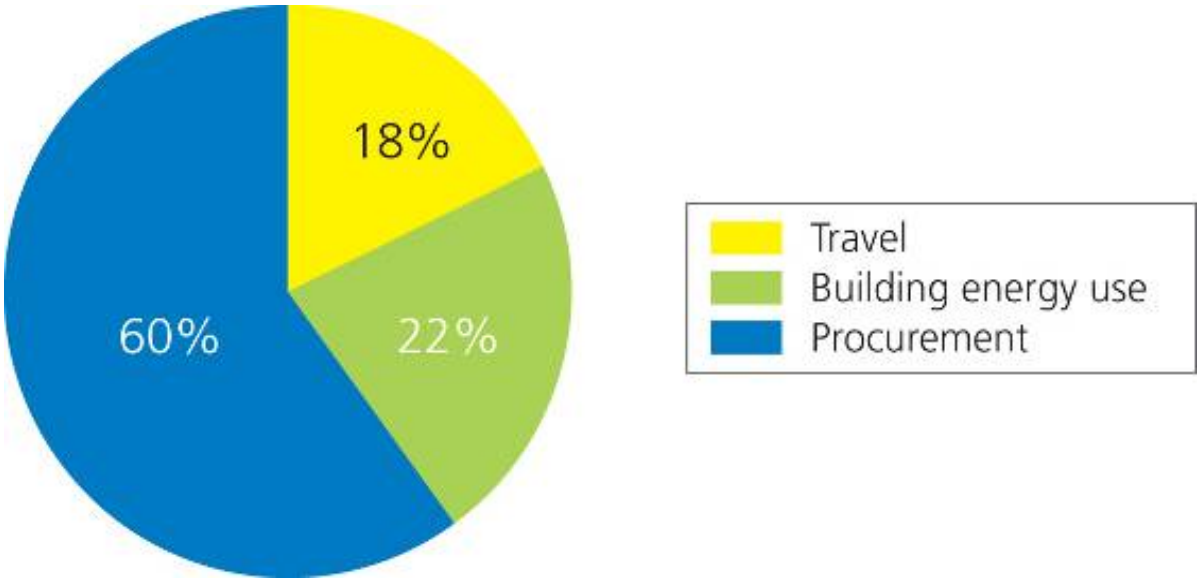
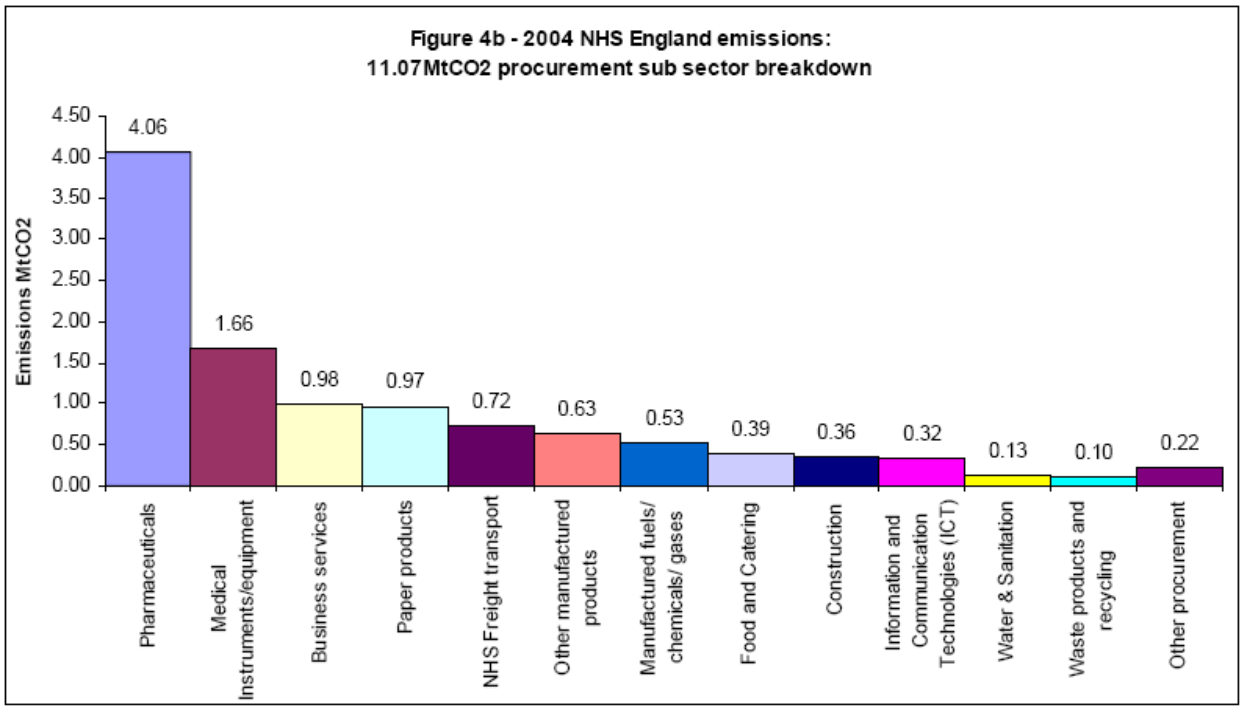


Figure 3. Breakdown of procurement emissions:



Both sourced from: NHS Sustainable Development Unit. *Saving carbon improving health: NHS Carbon Reduction Strategy for England.* January 2009

Appendix III:

Resources:

Most useful websites:

1. UNHCR http://www.unhcr.org.uk/
2. NHS SDU http://www.sdu.nhs.uk/
3. Refugee Council http://www.refugeecouncil.org.uk/
4. Campaign for Greener Healthcare http://greenerhealthcare.org/
5. Act on CO2 http://actonco2.direct.gov.uk/home.html
6. Refugee Action http://www.refugee-action.org.uk/

Key contacts:

1. Mustafa Abbas (via schools@grennerhealthcare.org mailing list) provided 'Migration and Climate Change Resource Guide'
2. Frances Mortimer (at Campaign for Greener Healthcare)
3. Jan Macintosh (STAR Women's Group) 0151 355 4008
4. Illa Kamal (Asylum Link Merseyside) 0151 709 1713
5. Euan Wilkinson (1 Arthouse Square, Seel Street, Liverpool)

Appendix IV:

Proposed timetable for a week's course in Climate Change and Health

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
AM: Introduction - Overview of physical science behind climate change - Climate change and health effects (consider loaning out films like 'The Age of Stupid' and 'An Inconvenient Truth') - Explain the relevance of the rest of the week's activities PM: - Calculate personal carbon footprint and develop a plan to reduce it - NHS carbon footprint (consider showing 'Maisie and George the future of their planet') See: http://www.bmj.com/video/climate.dtl - Role of the health professional as leaders and 'good citizens' in the move towards sustainable healthcare - Health co-benefits of lower carbon lifestyles	AM: LCIP meeting with asylum seekers PM: LASAR asylum drop in clinic ? Explore the possibility of identifying asylum seekers or refugees who can talk about first hand experiences of the environmental changes in their own country	AM: Meet with local hospital sustainability officer eg. Joan Brookman Head of Sustainability Liverpool PCT See: http://www.carbontrust.co.uk/cut-carbon-reduce-costs/reduce/public-sector/carbon-leaders/pages/carbon-leaders.aspx PM: Euan Wilkinson "Public Health perspective on Climate Change" (or perhaps he could come and do a workshop on Monday's introduction session?)	AM: Trip to visit a case of good practice Local GP? Hospital ward? (maybe contact Joan Brookman for assistance in finding a good example) Activity for Friday: '*low carbon lunch*' to bring in and share within the group discussion – everyone has to make an effort to try and source low carbon foods eg. local produce, consider vegetarian options…(may have to explain this on Monday – give people time to go and shop around!)	AM: Meeting with representative of Liverpool School of Tropical Medicine – discuss the effects on infectious disease PM: Low Carbon Lunch Groups discussion to recap week: - learning points - individuals opportunities - Liverpool University opportunities - Hospital Placement opportunities - Share experiences of good/bad practice

**Also consider day trip to alternative energy centre or to pharmaceutical company