The human tsunami

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(When Sam Knight was in Nandom, Northern Ghana, Kees van der Geest, Fred Zaal and Ton Dietz and their Ghanaian research colleagues had long discussions with him and we very much like the nuanced picture he sketches in this beautifully written essay)

The heart of Nandom is a fork in the road. It is here, in one of the northernmost towns in Ghana, that the buses come and go. You would call it a station if it was anything more than a triangle of reddish dust, surrounded by fast-food stalls, general stores and the rural bank. Once a week, a market sets up. The rest of the time, it’s the buses themselves, privately owned mini-vans known as “tro tros”, daubed with prayers for the road – “Lord Have Mercy”, “My Redeemer Liveth” – that provide the action: the logic-defying piling on of people and goods, the waiting, in midday temperatures of 40° C, for enough passengers to fill a van.

The buses are important to Nandom, the administrative centre for more than 50,000 people – chiefly farmers – in one of the poorest corners of Ghana, because the population is leaving. Migration has long been part of life in the dry reaches of west Africa, but in recent years, with economic development taking place elsewhere and erratic rains making rural life increasingly difficult, more and more people are taking to the road. The figures are inexact, but about 20 per cent of those born in northern Ghana are now thought to live in the richer, more urbanised south. In Nandom, the numbers are much higher: half the population has gone. People from the town offer varying reasons for the exodus – lack of jobs, enticing “greener pastures”, deteriorating climate – but they agree that it cannot go on indefinitely, this whittling, or Nandom will never prosper. “What is happening,” a local priest told me, “is that our society is to a certain extent being disintegrated.”

I went to Nandom to try and understand a phenomenon known these days under names that combine words like environment, migrant, displaced person and refugee. In short, the idea that climate change is going to displace millions of people. Since 1990, when the Intergovernmental Panel on Climate Change predicted that “the gravest effects of climate change may be those on human migration”, the prospect of rising seas, spreading deserts and a concatenation of natural disasters has been accompanied by the image of people on the move.

The logic is powerful: 10 per cent of the world’s population would be inundated by a 1 metre rise in sea levels – possible by the end of this century – while another 30 per cent, more than 2 billion people, live in drylands, like Nandom, that are vulnerable to endemic drought. All these people, the argument goes, will have to end up somewhere. In February, the British ecologist James Lovelock suggested that they might come here, and that the UK will become a “lifeboat nation” of migrants. Estimates of the number of environmental refugees in 2050, when the global population is expected to peak at 9 billion and the planet is forecast to be in the throes of a 2°C-or-more temperature rise, vary between 50 million and 1 billion people. But the most commonly repeated number – included in Britain’s 2006 Stern Review – is between 200 and 250 million, or around 10 times the number of refugees and internally displaced persons in the world today.

The numbers are enormous, the scenarios abstract. And until 2005, for most of us, they remained on the screens of Hollywood disaster films such as The Day After Tomorrow, in which American climate refugees pile across the Rio Grande, seeking shelter in Mexico. But then came Hurricane Katrina, and the displacing power of nature was made plain. A category 3 storm, striking a city whose vulnerability was well known, in the world’s richest country, managed to cause the largest movement of people in the history of the US. In 14 days, 1.5 million people – three times more than moved during the great Dust Bowl migration of the 1930s – fled the Gulf coast. Half the 2005 population of New Orleans, some 300,000 people, have still not come back.

Nothing spectacular like this has happened to Nandom, even if, like New Orleans, half the people are gone. “Our trees are still standing. Our trees are not capsized,” one farmer told me. “You cannot see it. You can even live through it and not see it. It is only when you sit down and think that you realise.” And that is why places like Nandom rarely get written about. Most stories about environmental migration have focused on three or four so-called “canaries”: the first human habitats set to disappear. These range from the village of Shismaref in Alaska, which is falling into the sea, to entire states, like the low-lying Maldives, which now has a fund to buy land abroad for its 400,000 citizens.

But these stark cases do not represent the future facing most people who might become climate migrants. Friends of the Earth, which shares the 250 million estimate of environmental refugees by 2050, puts the total number of displaced people from small island states like the Maldives at 1 million.

The other 249 million will come from humdrum places more like Nandom: poor, agricultural societies that have existed for a long time in marginal climates, with little room for error, but now find themselves
struggling to support their populations. It is here that the real numbers – the tens of millions of potential migrants – lie and yet it is also where the future is hard to read, where there is hope still, and where climate change is often taking place in among other profound transformations, such as economic development, rapid population growth or political upheaval.

This interplay of factors makes it difficult to imagine what environmental migration is going to look like. And since the early 1990s, when migration emerged as a logical corollary of climate change, academics have argued about how best to approach the problem. On the one hand, there is the sheer enormity of human movement. According to Professor Norman Myers, a British academic who has done more than anyone to raise the alarm over climate migration, this alone will be enough to overwhelm the world’s current refugee laws and humanitarian agencies. “We do not seem to have the institutions in place that can measure up to a challenge like this,” Myers told me. “We are talking about big numbers,” he said. “I will be very surprised if there aren’t eventually half a billion of these environmental and climate refugees, and that will alter the basic demographics of a lot of countries.”

Seen from this angle, the scale of future migration will be enough to cause a pulse quickening mixture of humanitarian emergencies and security breakdowns. And Myers has argued that the world’s richest and most ecologically stable countries will come under increasing pressure to accommodate those seeking safety. “Developed countries cannot isolate themselves from distress and disaster in developing countries,” he wrote in 2005. “Already there are sizeable numbers of environmental refugees who have made their way, usually illegally, into OSCE (Organization for Security and Co-operation in Europe) countries — and today’s stream will surely come to be regarded as a trickle when compared with the floods that will ensue in decades ahead.”

Cutting against the anticipated scale of environmental migration, however, is the variety of ways in which it might unfold. And this makes it hard to treat as a single problem. Climate change is expected to hit different parts of the world in different forms and at different speeds. The spectrum is enormous. It stretches from increasingly frequent sudden disasters, such as Katrina, to cases like the African Sahel and Australia’s Murray-Darling Basin, where drought and wildfires threaten large-scale forced migration over the next 30 to 40 years. Then there are the Nandoms, the marginal zones where millions of people are hanging on in increasingly inhospitable climates. While at the far end of the scale, a sea level rise of 3mm a year (its current rate), or even considerably more, will play out over generations – the “migration” of a coastal community might be no more than the changing shape of their city. All these scenarios will involve the movement of people, but beyond that, how far do the similarities extend?

For some, this has led to the very notion of “environmental migration” misleading. Richard Black, a professor of human geography at the University of Sussex who has studied the question for the United Nations High Commission for Refugees (UNHCR), told me he had several problems with the idea. In the first place, he said, it has been used to raise the spectre of massive international migration, even though people displaced by environmental disasters overwhelmingly tend to stay within their national borders, often as close as possible to their former homes. This can still be a great strain, but it is not the same as hordes of people crossing borders. It is also, incidentally, how migration from northern Ghana is playing out. A survey of 204 families in Nandom in 2004, for instance, found not a single relative among them who had migrated outside the country.

More broadly though, Black disputes the idea that environmental migration is somehow new, or different to other kinds of migration. The decisions of every migrant, he argues, even those made under great stress, are shaped by a mixture of economic, social and cultural factors, and the environment is just one of these. By imagining that climate change has some kind of special influence over migration, Black argues that we run the risk of overlooking similarities between people who move for environmental reasons and those who move for political or economic reasons, and those who do not move at all. The scale of impending migrations may be alarming, but that does not mean they are exotic, or should be treated in isolation. “Assuming that an exceptional event must have exceptional causes is sloppy,” said Black. “It’s sloppy thinking.”

The clashing interpretations of Myers and Black are important because, between them, they will shape how environmental migration is tackled and researched over the coming years: as security threat, humanitarian crisis or another piece of the development conundrum. So far, however, the result has been a stalemate. In the last major report by the Intergovernmental Panel on Climate Change (IPCC), in 2007, the two approaches cancelled each other out. Unable to decide who was right, the IPCC predicted that nobody would be displaced by climate change at all.

Despite what the IPCC says, the buses have continued to leave Nandom. I arrived in the town in March, expecting the landscape to look drier than it did. The bus journey from Wa, the capital of Ghana’s Upper West region, revealed a savannah as we approached the town: arid, golden grasses and humps of earth, waiting for planting. But the dust was shot through with green. This, I later found out, was because there had been a downpour in January, a full three or four months before the normal start of the rainy reason and another confusing note in the region’s discordant climate.

Unpredictability is Nandom’s problem. The 1990s were a decade of steady, improving rains in northern Ghana, but since the turn of the century, the seasons have lost their shape. The region’s historic five-month rainy reason, from March to August, has shrunk to just two or three months, but sometimes with just as much, if not more, rain. Last year 95mm of rain – 10 per cent of Nandom’s annual total – fell on a single day in August, destroying crops and houses. Flooding, normally unheard of in northern Ghana,
has occurred in each of the past two years, with the UNHCR coming to the help of 75,000 people in 2007.

The volatility is here to stay. Climate models predict a one or two degree rise in temperature in Ghana and West Africa by mid-century and a simultaneous 10 per cent decrease in rainfall, but the line is a jagged one. Zinedeme Minia, the deputy director-general of Ghana’s Meteorological Agency, told me it was much easier to map 20- or 30-year trends than know what will happen in the shorter term. “Climate change will bring surprises,” he said. And for poor farmers who rely on rain-fed agriculture, that uncertainty is too much to bear. “You are doing a gambling game,” said Minia. “You are never sure when you are likely to get something and when you will lose completely. That is the issue.”

Farmers in Nandom spoke in alternating tones of fatigue and bloody-mindedness about their capricious rains. One day, around noon, I met Leo Yiryel, the 84-year-old chief of a small village just outside the town. “The rain is punishing us a lot,” he said. “There used to be only a hard dry season, but now there is also a rainy season that can destroy your crops.” Yiryel was sitting on a bench under a mango tree, surrounded by grandchildren who listened raptly. There seemed to be dozens of them so I asked Yiryel where their parents were. He told me he had 12 children – a 13th died young – and that 11 of them had migrated to southern Ghana. “I never expected that,” admitted Yiryel. “I thought when they were in school and in training that all the jobs and opportunities would be here, but they are not. They are all down there.”

But some are determined, whatever Nandom’s future, to stay. Later that day I went to Brutu, a village with a dam, where farmers try and grow vegetables all year round. But this year, in the depths of the dry season, the water had run out. I found Isaac Abeikpep surrounded by tomatoes, cabbages, peppers and yoro, a local fruit related to the watermelon, all dying. “The land is not all that good,” Abeikpep said, but he wasn’t going anywhere. “I have too many mothers and grandmothers.” Abeikpep, who is 29, vowed he would never leave his plot, but talking about the months ahead, he could not suppress his anxiety. “I hope this year will be okay,” he said. “But the longer you hope, the more you realise that you will be disappointed.”

Nandom as a whole, however, is doing more than hope. The district has been taking measures to adapt to its hostile climate since 1973, when the local Catholic Church set up the Nandom Agricultural Project to help farmers improve their agricultural techniques. The date is significant because it relates to the sub-Saharan droughts of the 1970s and 1980s, which killed an estimated 100,000 people in west Africa and triggered the migration of more than a million people from the worst-affected countries of Mali, Niger and Burkina Faso to their southern neighbours, mainly the Ivory Coast and Ghana. In Nandom, the struggle to cope with a marginal climate has been going on for decades. For much of that time, the struggle has been led by Stanislaus Nasaal. Sitting in the offices of the Nandom Agricultural Project, with last year’s rainfall statistics posted on the wall, Nasaal said that farmers were adapting to shorter growing seasons with new crops – quicker-maturing millets and maize – and new methods of planting. Unsure of the rains, farmers now spread their seeds among ridges, hillsides and low-lying ground to improve their chances of withstanding droughts, floods, or both. “We can always mitigate,” said Nasaal several times, as if it was a chant. “We can always mitigate.”

As we discussed adaptation, I noticed that migration, in various forms, kept coming up. One of the new tilling techniques in Nandom, for example, in which farmers look for inclines in their fields and then build earth ramparts around each seed to catch water, is from Burkina Faso, courtesy of the migrants who filed the droughts there a generation ago. More often, though, Nasaal mentioned migration as a way of helping families spread the risk of farming in such uncertain conditions. Relatives are sent away to the farms and cities of southern Ghana to find a steady income. “If we are two brothers,” said Nasaal. “I will go in case you fail. We will complement each other.”

Quite how many people are going to leave the savannas of northern Ghana has the attention of policymakers in Accra, the country’s capital. The last time the numbers were officially counted was in Ghana’s 2000 census, which showed a total of 700,000 north-south migrants. But William Agyemang-Bonsu, the country’s climate change co-ordinator, believes that there are many more now, with more to come. “Unless there is serious intervention,” he said, “very serious intervention, I don’t think people in the north will be content to live there. They will definitely migrate.”

Agyemang-Bonsu is concerned both about the places losing migrants and those absorbing them. The impact on Accra is visible. Migrants from the rural north perform the city’s most menial jobs and live in its least healthy slums. Their nickname is kayayei, which means porter. The few who come all the way to Accra, and going down slum alleys that were black underfoot – charcoal is put down to soak up occasional floods – I came across women from Nandom brewing beer from millet as if they were at home. We talked about the north, the climate and their reasons for migrating, but looking around, I realised, it didn’t matter. Once they are in Accra, people from Nandom, whatever their reasons for coming, belong to another, already-established world of good and ill. It is the same across Africa, where urban populations are growing at a hectic 5 per cent a year, and migration from rural interiors to coastal and major cities has been under way for decades.
At the receiving end, environmental migration can be just another flame under a pot of troubles that is already boiling. In Accra, whose population is growing at 4 per cent a year, migrants from the north have to contend with an inadequate water supply, a housing shortage (slum landlords demand rent three years in advance) and their relative lack of education. They even face new environmental hazards: an ugly irony of environmental migration is that people who leave hostile climates often end up in the ecologically cursed parts of cities, prone to flooding and disease. Late last year, Accra suffered two cholera outbreaks in areas popular with northern migrants.

It is when the negative aspects of environmental migration begin to dovetail with other problems, such as poverty and urban planning, that you wonder how useful it is to consider the issue on its own. And the same goes for possible solutions. In Accra, as in Nandom, the question of what to do about environmental migration, and climate change as a whole, is entirely bound up in the overall challenge of development. That is how certainly how Agyemang-Bonsu sees it. “You cannot differentiate between adaptation and development,” he said. “Look at the Netherlands compared to Bangladesh. Why are the Dutch able to live even though it is below sea level? If the Netherlands was a developing country like Bangladesh, I can assure you they would have moved long ago. But they stay, because they have the capacity.”

This is the real counter-argument to imagining environmental migration as something new and frightening. Although a few corners of the world are facing a future like nothing before, for most threatened communities the last best plan for adapting to climate change looks a lot like what they are trying to achieve anyway: a mature, diverse economy in which survival does not depend on next month’s rainfall. Seen this way, the prospect of environmental migration appears less compelling as a reason to create new international agencies or new refugee laws – one popular proposal – than it does an argument for merging economic and environmental policies that are currently distinct. It is striking that schemes in Ghana specifically aimed at reversing internal migration – ranging from resettlement to simply laying on buses to take people home – have tended to fail, and policymakers have noticed. Between 2007 and 2009, the European Commission funded a pilot study, known as EACH-FOR, to examine environmental migration in 23 countries and regions around the world. In its study of Ghana, EACH-FOR advised the government to stop trying to control the movement of people, and instead to focus on the growing poverty gap between north and south and to improve transport links and trade between the two.

This kind of approach doesn’t mean ignoring migration, or the environment, but instead means coming up with development plans that are sensitive to the local conditions of climate change. Ton Dietz calls it “needlework policy”. Dietz is a professor of geography at the University of Amsterdam who has spent the past 10 years studying climate change adaptation. He was in Nandom during my visit, along with Kees van der Geest, a Dutch PhD student, who carried out the EACH-FOR study of Ghana and has spent the past nine years studying the country’s migration patterns.

Dietz explained that fragile societies facing a worsening climate needed two things above all: a good education system – because the brightest tend to migrate first – and trusted local institutions. Whether financial or political, these must be able to respond quickly to changing conditions: suspending taxes during a drought, for instance, or providing loans or insurance to farmers to buy new seeds if the rains failed. “You don’t need a very strong and wealthy government,” said Dietz. “You need a system that is alert to the signs of the times.”

What Dietz said echoed one of the findings of EACH-FOR: that decisions to migrate from areas under environmental stress are often caused by an accumulation of small crises. “A lot of people said, ‘We just didn’t have any other options,’” said Koko Warner, a research officer at the UN University in Bonn, who helped run the study. “So we asked them, ‘Well what if you had had a little bit of micro-insurance, a little bit of government support, or a relative who could have helped you out?’ And they said, ‘Well in that case it would have been totally different.’”

It is in the realm of these modest acts of assistance that migration reappears in a different, final guise: no longer an act of abandonment, but part of what allows people to stay. Nandom’s exodus means that 90 per cent of households in the district now receive remittances from relatives who have moved to southern Ghana. These make up 10 per cent of a typical household’s income – a small amount, but enough to soften the impact of one more small drama or another. The leaving of some, in other words, means others don’t have to.

The links between those who leave and those who stay in places like Nandom are likely to play a significant role in helping communities adapt to the strains of climate change. There is scant data on the role of remittances in internal migrations, but the power of international remittances – estimated in their hundreds of billions of dollars, far larger than any development budget – is known. The Overseas Development Institute, a UK think-tank, has shown that money wired from migrant diasporas – instantly, and straight into the hands of victims – can be just as effective as government-run recovery efforts in the wake of natural disasters. After Hurricane Stan hit Guatemala in 2005, migrants sent $413m to the disaster area, almost 20 times the amount pledged by governments to the UN. Families receiving remittances in northern Pakistan, meanwhile, were almost twice as likely to live in a concrete house when the earthquake struck that same year, killing 73,000 people.
Long-term, the more people and places that are connected to a global network of sympathetic relatives and countrymen, the better they will withstand the shocks and chronic stress of climate change. Migrants stand for the hope, as well as the despair, of communities under threat.

In the real world, no one expects European and other wealthy countries to invite migrants from environmentally traumatised places such as Nandom as a way of helping those communities survive. But the very idea shows how migration will function both as a way of adapting to climate change and as a symbol of the disaster. And that, in the end, is the reason why migration itself is a false target. The deeper problems lie behind. In Nandom, a community eroding under an unstable climate and the flight of its young, people want migration to stop and they need it to continue. The same priest who told me that society was disintegrating said: “Our people are always searching for something.”

A single person can embody the two outlooks. In Accra, I looked up one of the migrant sons of Leo Yiryel, the old chief I met in Nandom. His name is Eric and he was studying to be an accountant. Eric turned out to be the closest thing to a purely environmental migrant I met in Ghana. He had planned to stay in Nandom and become a commercial farmer until the floods of 2007 changed his mind.

“When I saw the disaster, it scared me,” said Eric, who also admitted his father’s distress at the flight of his children. “He doesn’t say it, but you can see it.”

But now that he was in Accra, Eric could not disguise his excitement. “You do what life offers,” he said. “If life gives you an orange, you make orange juice. But life has given me accounting. I will follow it to its logical conclusion.” He told me he was even considering moving abroad, and at the end of our conversation, he asked me whether there were really no mosquitoes in London. I told him it was true. “Wow,” he said, and thought about it for a moment. “But they are suffering a credit crunch. So I can’t be a worker in London now.”

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