

**T869 Climate Change: from science to lived  
experience**

# **Module 2: The lived experience of climate change**

## **TEXTBOOK**

By Gordon Wilson



## ***Disclaimer***

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## Before you start: aims, learning outcomes and how to study this module

The overall purpose of Module 2<sup>1</sup> is to familiarise you with the concept of ‘lived experience’ in the context of climate change and to explore its potential contribution to policy on adaptation and mitigation.

Within the overall purpose, the module aims to:

Provide tools to enable you to conceptualise and understand the ‘lived experience’ of climate change.

Explain why understanding lived experiences are important for meeting the local, national and global challenges of climate change.

Provide case studies of the lived experience of climate change in order to ground and develop a critical understanding of the subject, and to suggest to you approaches which might be adopted in your own dissertation or other research.

### Learning outcomes

Learning outcomes concern what you should know, understand and be able to do on completion of a module. They are important indicators of your learning development. I recommend that you use them as a checklist of your progress as you work through Module 2.

After studying *The lived experience of climate change* you should be able to:

- a) *Demonstrate knowledge and understanding of:*
  - (i) The concept of lived experience of climate change
  - (ii) The contextual factors of people’s lives which influence the making of lived experience, both individually and collectively
  - (iii) The range of lived experiences of climate change, both individually and collectively, in the global North (richer countries) and South (poorer countries)
- b) *Be able to:*
  - (iv) Engage critically with the concept of lived experience of climate change and develop further conceptualisations
  - (v) Compare and contrast lived experiences of climate change in different contexts
  - (vi) Compare and contrast knowledge gained through lived experiences with knowledge gained from scientific accounts of climate change
  - (vii) Engage critically with the proposition that knowledge of lived experiences should form an essential part of the evidence base for policy making on climate change
- c) *Apply the following key skills*
  - (viii) Understand, summarise and engage critically with a range of media
  - (ix) Search for and make judgements on evidence from a range of sources

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<sup>1</sup> There are two other modules in this series. Module 1 is *Introduction to climate change in the context of sustainable development*. Module 3 is *Interdisciplinary methodologies for investigation into the ‘lived experience’ of climate change*. A *Water case study* is also provided as an extended text. These other modules and the *Water case study* might be referred to from time to time in this e-textbook and corresponding e-workbook.

- (x) Marshall evidence, and develop and communicate in your own words an argument.
- (xi) Construct knowledge on climate change through communicative exchange with others and develop transboundary competence.

## How to study this module

As with other teaching modules in this series, *The lived experience of climate change* consists of a 'textbook' comprising a central narrative about the subject, a 'workbook' containing a series of activities for you to perform, and a detailed case study on water and climate change. The 'textbook' follows on in this document. It is like a conventional book, although being in a virtual learning environment it may refer to a range of media and not just the printed word. Once you have read through the textbook carefully you should be able to meet the 'knowledge and understanding' learning outcomes above.

The 'workbook' is contained in a separate document, and again it may refer to a range of media. The 'workbook' helps you reach a more extensive and deeper, critical understanding of the subject matter. It does this in two complementary ways, by providing: you with:

- Further reading and audiovisual links, and asking you to search yourself for additional sources.
- Opportunities to develop through practice the 'be able to' skills (which we call cognitive or thinking skills in relation to the subject) and the 'key skills' (skills which are transferable across a range of subjects) above.

Thus, although, with one possible exception<sup>2</sup>, the choice is ultimately yours, we recommend that you do not neglect the workbook and its activities. Your sense of overall satisfaction with the module is likely to be greater if you engage with them. Also, although the textbook may refer directly to the water case study, the purpose of this case study is for you to apply critically the principles and concepts of the module to a real-world challenge associated with climate change. Some of the workbook activities will help you do this and therefore the workbook is the main point of reference for the water case study.

How in practice might you combine the three main resources at your disposal in this module – the textbook, workbook and water case study? You should choose the method which best suits your own learning style. One way is to go to workbook activities at the points where they are indicated in the textbook. Another way is to read the whole of the narrative in the rest of this textbook (and the water case study), without worrying too much about remembering the detail. Then, having completed your reading, work through the activities in the workbook systematically, analysing Chapters of the narrative and water case study again more closely as appropriate.

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<sup>2</sup> The exception concerns any workbook activities which might be deemed compulsory by your accrediting institution. The obvious example is workbook activities which are designed for group work. If the key skill of transboundary competence or similar formulation is part of the learning outcomes of the accrediting institution, satisfactory participation in activities that deliver that learning outcome is likely to be a requirement.

# 1. Introduction

This textbook develops the concept of ‘the lived experience of climate change’. It asks questions like:

- What is lived experience?
- How can we analyse it?
- Why is it important?

In its most abstract and general formulation, lived experience concerns the knowledge we gain over time through our encounters with the world around us. It is a subjective knowledge, therefore, which can be difficult to articulate because it is tacit – within ourselves -- and does not lend itself to codification. Also, because our encounters with the world around us are many and the word ‘experience’ bundles these encounters together as a means of making sense of them as a whole, it appears to be of limited use. It is only given useful meaning when we ground the term in something concrete. Thus, to give a simple example, we might speak of the ‘lived experience of watching football’ to capture the subjective individual and collective emotions and excitement associated with that particular lived experience. This we can compare with the more dispassionate analyses on television by pundits of a football match after it has finished – as they try to articulate a kind of ‘science’ of what occurred during the game and why it occurred. By tying to an event with a time-limited boundary, like watching a football match, we can note a further characteristic of lived experience in such a situation, in that it leaves an impression which we might carry over to the next game, which we then compare with the previous one.

In the discipline of Development Studies there is a branch of research called the ‘lived experience of poverty’. This research stems from the discipline’s inherent concerns with poverty, justice and inequality from local to international scales. Thus it classifies the world into richer and poorer countries with varying degrees of power. Within countries it performs the same classification between social groups – between social classes, women and men, different ethnic groups and so on. Even within a relatively small, local community of people the discipline will analyse similar divisions.

The ‘lived experience of poverty’ is used in Development Studies to capture the subjective, contextual, multi-dimensional nature of poverty as it affects real lives. Knowledge of the ‘lived experience of poverty’ is then compared with knowledge(s) from social science disciplines. Working definitions of poverty are derived from these latter disciplinary knowledges. They often fail, however, to capture the complexity and richness of ‘lived experience’ understandings, the most extreme uni-dimensional example being the definition of poverty as surviving on less than 1.25 United States dollars a day<sup>3</sup>. This particular definition is pervasive among many international development aid agencies and halving the number of people surviving on less than 1.25 United States dollars a day is enshrined in the United Nations Millennium Development Goals (MDGs – Box 1.1)

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<sup>3</sup> This is the figure as I write (February 2012). Until September 2008 it was simply one dollar a day.

### Box 1.1 The Millennium Development Goals (MDGs)

These are eight goals established by the United Nations and agreed internationally to be achieved by the year 2015. They encapsulate the world's main international development challenges:

1. Eradicate extreme poverty and hunger through a) reducing by half the proportion of people living on less than 1.25 US dollars a day; b) achieving full and productive employment and decent work for all, including women and young people; c) reducing by half the number of people who suffer from hunger.
2. Achieve universal primary education by ensuring that all boys and girls complete a full course of primary schooling.
3. Promote gender equality and empower women through eliminating gender disparity in education at all levels by 2015.
4. Reduce child mortality through reducing by two thirds the mortality rate among children under five years' old.
5. Improve maternal health by a) reducing by three quarters the maternal mortality ratio; b) achieving, by 2015, universal access to maternal health.
6. Combat HIV/AIDS, malaria and other diseases through a) halting and beginning to reverse the spread of HIV/AIDS; b) achieving, by 2010, universal access to treatment for HIV/AIDS for all those who need it; c) halting and beginning to reverse the incidence of malaria and other infectious diseases.
7. Ensure environmental sustainability through a) integrating the principles of sustainable development into country policies and programmes; reverse loss of environmental resources; b) reducing biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss; c) reducing by half the proportion of people without sustainable access to safe drinking water and basic sanitation; d) achieving significant improvement in the lives of at least 100 million slum dwellers, by 2020.
8. Develop a global partnership for development through a) developing further an open, rule-based, predictable, non-discriminatory trading and financial system; b) addressing the special needs of the least developed countries.

Source: Wilson et al (2009: 282)

From these two brief examples – watching football and poverty – we can begin in the Table below to describe some interwoven characteristics of lived experience, in comparison with natural and social scientific knowledge (or attempts at such knowledge in after-match analyses):

<b>Lived experience</b>	<b>Knowledge based on scientific (natural &amp; social science) disciplines</b>
Contextual, local, specific	More abstract and generalised
Subjective and tacit	Objective and codified
Rich, complex and multi-dimensional	Simpler and more tightly bounded, according to the conceptual frameworks of a discipline
Does not lend itself to easy measurement	More easily measured

Of course, the Table above represents a simplified caricature. Many scientific disciplines do acknowledge context, subjectivity, are prepared to engage with other disciplines, and are not amenable to easy measurement. Nevertheless, as long as not taken too literally, but as tendencies, the Table's categories offer a useful starting point.

Does lived experience have a use in policy making when the above characteristics make it difficult to capture, to say the least? This is a question to which the module turns later, in Chapter 5. Before then, however, we should apply the concept firstly to climate change, as in the ‘lived experience of climate change’ and also interrogate it further. We should do the latter because, although, as indicated, the discipline of Development Studies uses it as the basis of a branch of poverty research, it does not delve into the concept of lived experience much beyond what I have written above. Nevertheless, the discipline claims that such research reveals a fuller understanding of poverty than conventional scientific analyses. This is a claim that I would support, but in offering this support I add that it is all the more reason to interrogate the concept of lived experience critically, to examine its uses and its limitations.

Because the concept has not been properly explored and interrogated, and therefore cannot be ‘taught’ in a conventional way, I deliberately adopt an emergent approach to understanding it with which I invite students and other readers to engage. This approach has many characteristics in common with what is known as ‘grounded theory’. In its idealised form, grounded theory examines data (usually qualitative data) for patterns, eventually developing theory, but with no preconceptions at the start.

## 2. Describing the lived experience of climate change

This Chapter starts with eight short accounts, each of which can arguably be said to describe an individual or collective lived experience of climate change. Because I am British I have chosen United Kingdom sources with which I am familiar<sup>4</sup>. You should be able to search and find similar accounts which relate to your own context on the internet – see Activity 1 in the Module 2 workbook.

### The lived experience of climate change (1): gender impacts in Nepal

Climate change impacts have different effects on women and on men and have been well attested in many places. The need to find water as well as firewood and fodder is a well-known reason for girls to be kept out of school, and male migration has been linked to the spread of HIV and AIDS. In Nepal, increasing crop failure has increased the strategy of men migrating. Women are left alone to look after families yet with the least access to resources to be able to adapt. They have less access to cultivable land to grow food and have to find water, wood, and fodder. Any worsening of livelihood options has to be made up in physical labour, one of the few resources women control. So to compensate for the decline in food production, women are doing more daily waged labour. This is often extremely onerous – such as portering construction materials – and badly paid – women are paid only three-quarters of what a man would earn for the same work. (Jennings and McGrath, quoted in International Institute for Environment & Development [IIED]: Community-based Adaptation to Climate Change 2009: 25)

### The lived experience of climate change (2): cyclones in the Pacific Islands

I am talking to participants A and B about the impacts of tropical cyclones (hariken), whilst we work in B's Garden on the Pacific island of Vanuatu.:

**Me:** So when the hariken came in 1939 you must have been 10 – do you remember it?

**A:** Yes! That's how I know I was born in 1929! ...Every tree went down, we were in Nerenigman [village] and we could see everyone at Totolag and Queremande [villages] as they made their cooking fires in the morning... There was a white man that had a small store on Ra Island where my father worked and that day I went with him – and the big wind comes now! It came; it came until it pulled off the roof belonging to the white man... the sea carried everything from the store right up into the middle of the island! We went and dug out tinned fish, soap – all things belonging to the store.

**B:** [It was the] worst hariken – we can't remember a worse one.

**Me:** You had a hariken this year – can you tell me about that one?

**B:** [We have a] food shortage now! Oh yes, first time is this year. Small, small hariken but...

**A:** Plenty of hariken have hit us before but we have not had a food shortage. But this year – we have a shortage!

**Me:** So in 1939 do you remember a shortage?

**A:** Small, small shortage. But all the old people then, they had good gardens and they stored plenty of dried breadfruit...

**B:** In 1972 it was the same [when a Hariken came]. The gardens were strong.

**Me:** So what's different now?

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<sup>4</sup> You will find that you can also access at least some of the Creative Climate accounts as audio/visual diaries rather than the printed word as produced here.

**B:** I can't tell you straight – but I think it's because of a lazy fashion now! Oh, yes, they'll say they don't have enough land now, but the real reason is they don't want to work. There is enough land. We must plant something every day to make sure we have no shortage of anything – that was the fashion of the people before...

**A:** Custom! Custom belonging to us... must plant banana, taro, cabbage or whatever – every day.

**B:** That was the teaching belonging to our grandparents, that was the talk we used to hear in the Nakamal [meeting house], that was the talk we used to hear in the gardens with our parents. That was the talk before – before school came to Mota Lava. Plant plenty, plant a strong garden, then if disaster comes, you have food.

**A ...** [We are] losing custom, that's why it happens: losing the custom/fashion belonging to the old people before.

(International Institute for Environment & Development [IIED]: Community-based Adaptation to Climate Change: 68)

### **The lived experience of climate change (3): developing a climate timeline, Sudan**

Atbara Partners Consortium members developed a climate timeline as part of a workshop to review a climate change awareness-raising project. The members determined the main climate features that affected their lives and livelihoods and discussed the trend over the past 30 years, but with a focus on the last 10 years as this was (a) easier to remember and (b) a time in which there was agreement that changes away from the normal variation had occurred. Also involved in the discussion were two staff from Atbara Meteorological Station, who questioned consortium members' perceptions, corrected dates, and gave statistical evidence from their records.

The notable disagreements centred on rainfall patterns, with meteorologists conceding that with limited rain stations and the localised nature of flash floods, these could be missed in the records. Increased average temperatures were not verified by the statistics but members' perceptions could be linked to increased humidity (which feels hotter) and increased variation (hence the 2007 record high), which was suggested as an emerging pattern by the climate scientists. The challenges agreed by the consortium are to:

- deepen the analysis to include differences in trend and variability;
- continue the process to determine what the likely scenario for the next 10 years will be;
- how this will affect the vulnerability of their livelihoods; and
- what therefore the consortium should do in terms of project development and implementation.

(International Institute for Environment & Development [IIED]: Community-based Adaptation to Climate Change: 145)

### **The lived experience of climate change (4): activism in a London borough**

*Name:* Lindsay Bamfield

*Organisation:* The Greenacre Project, UK.

*Interviewer:* What first triggered your interest in environmental issues?

Growing up in the country, nature and the seasons were part of my childhood. Noticing how the weather affected wildlife was natural to me. My first 'environmental' action was to stop using aerosols in the 1970s when their effects on the ozone layer were publicised.

*Interviewer: What are you working on, concerned by, or motivated by at the moment?*

The Greenacre Project (Finchley [North London suburb]) is part of the Transition Town Movement and is aimed at raising awareness of environmental matters locally: lower carbon living; using cars less, [using] public transport and bicycles more, growing more food locally, and aiming for more sustainable living as well as fostering a sense of community.

*Interviewer: What do you anticipate working on, or thinking about, in relation to environmental issues over the next 1 year, 5 years, and 10 years?*

Our local magazine 'The Greenacre Times' is in its third year, The Greenacre Bicycle Rally in June will be the third also. Our Creative Writers' group has just completed its first year. Each of these projects is going from strength to strength, but we aim to add more -- from gardening to cycling [projects]! Hopefully all these projects and more will be thriving in 10 years time.

*Interviewer: How optimistic or pessimistic are you as you look at where we might be in 2020, and why?*

Locally the picture is quite depressing at times. This London borough is very much a car-culture one as far as the local council and many residents are concerned. It is said [that] there are more 4x4 [vehicles] here than in rural Devon! Cycling lanes etc are pretty well non-existent, but we are working on it. I think I was the only person in my immediate locality who turned off the lights for Earth Hour last night, but even that's a start. From small acorns [big oak trees grow].

(Creative Climate diary. Note that this entry is no longer accessible).

### **The lived experience of climate change (5): trees in Newcastle, UK**

*Name:* Violet Rook

*Organisation:* Friends of Newcastle Trees "FoNT", UK.

*Role:* Community Development Volunteer

*Interviewer: What first triggered your interest in environmental issues?*

I have had a life-long interest in the environment, which was encouraged by my parents. Though not rich, my parents encouraged a concern for the life around them and the careful concern for preserving the landscape. This involved recycling nearly everything, clothes, bottles, household goods. [It] also encouraged the idea of independence of action via use of transport.

*Interviewer: What are you working on, concerned by, or motivated by at the moment?*

I am involved with the care of trees in the urban environment in the city centre [of Newcastle, North-East England] and the outskirts. [That is, I am involved with] maintaining a green environment despite the adverse actions of construction in streets and green areas.

The Society I am involved with was conceived from the council's Tree Warden Scheme and is now independent of the LA [Local Authority] but is given help by one of their officers and a local tree specialist. We have meetings regularly and talks on the health of trees and tours of the city. There are in total about 60 Tree Wardens, but not all are involved in the day to day running of the FoNT. We [also] have connections with the Woodland Trust [a UK woodland conservation charity].

The Tree Wardens are concerned with the maintenance of a healthy environment for the future citizens of the city and help to monitor developments regarding tree growth, disease and adverse care.

*Interviewer: What do you anticipate working on, or thinking about, in relation to environmental issues over the next 1 year, 5 years, and 10 years?*

Developing a healthy attitude of citizens to the care of trees which will encourage a healthy environment for the future. Education is an important topic with regard to the understanding of how the topic can affect individuals. The oxygenation which trees give to their surroundings is not understood fully in regard to the health and growth of youth and this needs to be stressed.

The well being of wild life is [part of the topic] and can be at odds with urbanization.

The restriction on costs and resources will cause a hardening of attitudes to these factors and must be understood. Consumer demand for material items will perhaps lead to designated areas of green space which will be much more restricted than [public] parks. If this were to happen, a concrete landscape would be the urban future.

Any change in the climate is a factor which is being observed. The reaction of trees to cold, heat and wide variations of these [changes] will have an affect on the future aspect of trees in urban areas.

*Interviewer: How optimistic or pessimistic are you as you look at where we might be in 2020, and why?*

The future of all environmental ideas depends on the policy of administrations. This in turn depends on economic growth, [and] this depends on a global structure. Care of the planet involves care of all aspects of the planet from the smallest plant to humans who have the ability to care for it.

<http://www.open.ac.uk/openlearn/nature-environment/the-environment/creative-climate/explore-the-diaries/community-diaries/violet-rooks-story>

## **The lived experience of climate change (6): from formative experiences to permaculture**

*Name:* Mari Shackell

*Interviewer: What first triggered your interest in environmental issues?*

It developed gradually over many years, but I think the real trigger to action was reading about these things in the 1990s, first in books and magazines and then on the Internet.

*Interviewer: What are you working on, concerned by, or motivated by at the moment?*

I submitted a Permaculture Design Course (PDC) by distance learning in August on a CD and am now getting feedback on this. I was the first student ever to do this, setting a new precedent as a "pioneer". I hope to develop this into a distance PDC for other students. I also continue to be interested in Transition Towns. I was on the original steering group which set up my town of Whitstable, Kent as a TT [Transition Town].

*Interviewer: What do you anticipate working on, or thinking about, in relation to environmental issues over the next 1 year, 5 years, and 10 years?*

I have recently retired so would like to do more in the field of permaculture, perhaps developing teaching materials and visiting projects. I'm particularly interested in urban permaculture because this is where my experience has mainly been. I have lived in East Kent [southern England] for over 30 years now.

*Interviewer: How optimistic or pessimistic are you as you look at where we might be in 2020, and why?*

On a scale of 1 to 5 I think I'm about a 3. I like to think this is because I'm a realist.

*Interviewer: Tell your story in your own words.*

I grew up in Middlesex, now South West London. I was very fortunate that this area had lots of natural parkland which was where I learnt, as a child, about nature study. We also had a good sized garden where I learnt about growing things.

One really formative experience for me was going to Nepal when I was 21 to teach on VSO [Voluntary Service Overseas – a UK Development NGO]. Nepal was the 4th poorest country in the world at that time. The lessons I learnt there about how to live well with very little materially have stayed with me ever since.

<http://www.open.ac.uk/openlearn/nature-environment/the-environment/creative-climate/explore-the-diaries/community-diaries/mari-shackells-story>

### **The lived experience of climate change (7): evolving through the experience of, and engagement with, others**

*Philippa Rowland:* Well I think one of the overwhelming senses that I have at the moment, being in Copenhagen, is one of deep humility and gratitude, and what an honour, really what an honour it is to be here part of this gathering. There are, we've heard it in the news, going to be 192 countries gathered here. But the reality of catching the bus in from where I'm staying in north Copenhagen, and each day on the bus I'm sitting next to somebody from Morocco or Algeria or Peru or Indonesia, having conversations about where we're at, what we're trying to do, where there are shared opportunities, collaborations, it's deeply moving.

As an Australian, I went to our CANA [Climate Action Network Australia – a network of Australian non-governmental organisations] side event today, which had people from the South Pacific sharing stories about their islands which are going under [i.e. drowning]... They were talking about visitors coming to the island of Kiribas [officially Kiribati – comprising a group of 33 equatorial Pacific islands] and coinciding with the King Tide, so a lot of the community's actually on a house on stilts. They were on the veranda, laughing and joking, but this is serious. But the response was: 'Yes but we live with this climate change, we're adapting every moment of every day to cope with what's happening, and underneath there's a lot of grief and concern, but we're living life with joy and hoping for a better future and a safer place for our kids.' And to see these people speaking from the heart their stories and then getting up and dancing their dances was just, I was in tears, you know, I was so moved.

And I think the other pivotal point for me in coming [to Copenhagen] was that Friends of the Earth brought two Nepalese people to Australia with 'The Big Melt', which is about the impact of the glaciers melting on the Himalayan region. One of them was Tenzin Dorjee Sherpa, who has climbed Mount Everest ten times, and he did it from base camp to the top in eight hours ten minutes, and one reason he did that was because of the glaciers melting; there's less snow and ice around. But then he shared that his own village now has one of these glacier melt lakes above it, and old people lie in bed at night, and when it rains they wonder whether they should get up and run to the cave or whether they should stay in bed because they're waiting to see when the moraine might shift and the water might come. And I've been to Nepal twice, and I love it as a country and I love the people, and it just moves me that people that have done so little to contribute to the problem are so much copping the hard end of the stick in terms of the impact. So that fuels a commitment to come and share stories, yeah.

<http://www.open.ac.uk/openlearn/nature-environment/the-environment/creative-climate/explore-the-stories/community/under-dripping-glacier>

## **The lived experience of climate change (8): Mariam Rashid of Prodipan (Bengali for ‘enlightenment’) – a Bangladeshi Development NGO founded in 1983**

*Mariam:* The Government of Bangladesh has actually been quite active and they have set a few good examples on what to do for climate change. Most recently, last year in 2008 September, the Bangladesh Government has published its first ever climate change strategy and action plan, which looks at climate change from the national level. And before that there was no separate climate change policy or strategy or anything like that.

And also in November 2008, the Bangladesh Government completed its national sustainable development strategy and climate change has been included in all the sectors as a cross cutting issue, and the most forward step the government has taken is to realise that climate change is not only an environmental issue, it is a very severe development issue for Bangladesh as well.

And, as such, most of the programmes now, whether it's environment programmes, development programmes, programmes guided towards society, and human rights and equality, climate change comes in at some point, so that is good for the country.

*Voiceover:* One of the biggest development issues for Bangladesh is the internal displacement of people due to climate change as well as other factors which contribute to people moving from rural areas to towns and cities. Climate change is now making it very difficult for people to survive in some coastal areas, as well as in some parts of northern Bangladesh due to floods from the melting of Himalayan glaciers.

*Mariam:* Environment or climate migration has already started in Bangladesh. It probably started more than ten years from now, because after cyclones people are so vulnerable. They lose their homes, they lose their cattle, they lose their livelihoods, and sometimes it's easier for them to pack up and go somewhere else in search of a job, than trying to rebuild their lives.

This rural/urban migration is huge in Bangladesh; 77 per cent right now are rural population but by 2050 it will fall to 57 per cent and the growth rate in urban population is going up. And also the poverty level in urban population is rising significantly.

So these are the environmental disasters that make people move, because they have no other choice, but interventions and help can actually decrease the migration until the government can find a better solution. The government can ensure that when a flood happens, before the flood happens, they can ensure that there is enough water supply and food supply for the people. There's enough seed in the seed banks so that as soon as the water recedes, the people can start planting again and [have] enough fertilisers. These are incentives that will stop people from leaving their homes and migrating.

*Voiceover:* National adaptation initiatives, which are aimed at decreasing the severity of the impact of climate change are continuing too.

*Mariam:* The IPCC [the United Nations Intergovernmental Panel on Climate Change] has said that cyclone intensity is actually getting stronger. And the coastal areas suffer the most. But this time we have realised that the Sundarban Forest acts as a belt, a barrier that actually protects the people on the other side, because it absorbs most of the impact of the cyclones. So that's why one of the major projects in the coastal area is coastal reforestation which will act as a shelter, a barrier for the people in the face of storm surges and cyclones. And that is a programme that the government is really looking into and it's already being implemented in the coastal regions.

## 2.1 Lived experiences as data

We all have lived experiences. To some extent they are highly personal, but to some extent they are also shared with others of similar circumstance. How can we stand back and make generalisations in order to understand them better, and also to make them useful as a form of knowledge which policy makers in Government, for example, might be able to make use of? At first glance, the accounts above show us only how varied they are, and by consequence what a minefield making sense of them will be.

Thus making sense of the lived experience of climate change is a significant challenge. My starting point is to treat the above accounts as data in the broadest sense of the term. We are possibly all familiar with making sense of numerical statistical data, if only in simple terms, for example when we are shopping for a particular product. Then we might classify the price data by ranking them, to select the cheapest or the most expensive or somewhere in between. We might also correlate the price data to the number of features the product might have or some measure of its quality. Making sense of numerical data by creating patterns out of the numbers through classification (ranking) and correlation are things we do daily often without realising.

Table 2.1 below ranks, in descending order, annual per capita emissions of the most important greenhouse gas carbon dioxide (CO<sub>2</sub>) for world regions. Thus, the biggest per capita emitter is top and the lowest is bottom of the far-right column. Figure 2.1 then correlates these CO<sub>2</sub> emissions and the respective annual per capita gross national incomes<sup>5</sup> that are also shown in Table 2.1, to establish whether or not there is a pattern that might reveal a link between the two sets of data. We call Figure 2.1 a scatter diagram of the two data sets, and it should not be difficult to spot a general pattern. Although a careful scrutiny will show exceptions, in general as GNI per capita increases, so do CO<sub>2</sub> emissions per capita. We call the pattern a positive correlation between GNI per capita and CO<sub>2</sub> emissions.

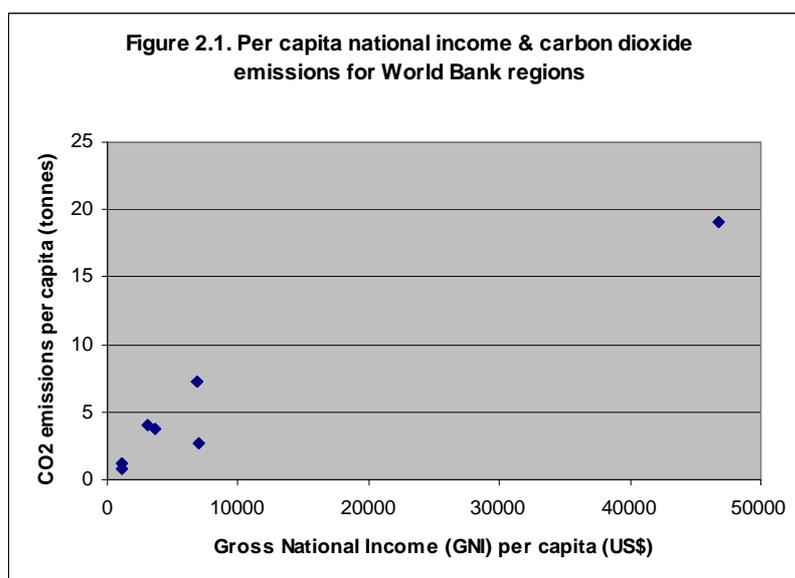
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<sup>5</sup> Gross National Income (GNI) is a common measure of a region (or country's) wealth in monetary terms, usually United States dollars. Per capita simply means per head of population. If you have studied Chapter 3 of Module 1 Introduction to climate change in the context of sustainable development you will see that I have used a different measure of material wealth, Gross Domestic Product (GDP), but it is closely related to GNI. GDP is an output measure of what an economy produces. GNI comprises GDP plus income claimed by a country's citizens from abroad (returns on overseas investment, remittances home while working abroad, etc.) minus income claimed by foreigners (repatriated profits, remittances sent home by guest workers, etc.).

**Table 2.1: Annual carbon dioxide emissions per capita and Gross National Income (GNI) per capita for World Regions<sup>6</sup>**

Region	GNI per capita (US\$)	CO2 emissions per capita
North America	46739	19.1
Europe & Central Asia	6793	7.2
East Asia & Pacific	3143	4.0
Middle East & North Africa	3594	3.7
Latin America & Caribbean	6936	2.7
South Asia	1088	1.2
Sub-Saharan Africa	1096	0.8

Source: World Bank, <http://data.worldbank.org/indicator> (accessed 8th November 2010).



The results of the ranking (North America has the greatest emissions of CO<sub>2</sub> per capita, Sub-Saharan Africa the lowest), and the correlation (CO<sub>2</sub> e emissions per capita increase with increasing wealth) are unlikely to surprise us. My purpose in showing them, however, is not to enter into a discussion about Table 2.1 and Figure 2.1, but to illustrate the kinds of thing we do with numerical data, which is to make patterns out of them. Then I move on to think of what we might do similarly if we think of the above lived

<sup>6</sup> A general problem with the data in Table 2.1 is that they are highly aggregated. For both GNI and CO<sub>2</sub> emissions per capita they are average data for big regions of the world and consequently hide the differences within them. For North America the difference between the United States and Canada is not so great, but Europe and Central Asia includes a wide range from the rich countries of Western Europe, to those of Eastern Europe that are not so rich, to the poorer countries of Central Asia. If the region was just Western Europe, for example, the GNI per capita would be much higher, and probably also the CO<sub>2</sub> emissions per capita. Similarly the East Asia and the Pacific region contains a wide range of countries in terms of wealth.

experience accounts as data, even though they are qualitative data in that they don't involve numbers.

## 2.2 Patterns in the accounts of lived experience

We look for patterns in data for a purpose. Here I am going to generalise from each pattern that I observe to identify what appear to be seven general features of the lived experience of climate change. This is the first step of finding a way of describing and analysing the phenomenon.

### Pattern 1

One immediate pattern that we might recognise is the contrasting accounts of those who are from less and those from more affluent countries. This is a division between what the Development Studies discipline calls the Global South and the Global North. Box 2.1 elaborates on these and similar terms which are used in Development Studies.

Of the eight accounts above, numbers 1, 2, 3, 7, 8 concern the Global South. These accounts stress the direct impacts on livelihoods of weather patterns which are attributed to climate change (see Figure 2.2). The impacts or potential impacts described are generally dramatic. For example Accounts 1, 2 and 8 tell of people having to uproot and migrate because of issues related to climate change.

Accounts 4-6 concern the Global North, specifically the United Kingdom because that is where I'm from. In contrast to the Global South accounts they are not so directly concerned with livelihoods and survival, but with 'nature' and landscape. The actions in which the authors of accounts 4-6 engage concern trying to do things which people think are right, and to think widely about the broader impacts of their relatively affluent lifestyles and how they might reduce them. These latter actions are more directly related to personal values than with concern over their personal livelihoods.

From the brief survey in the preceding paragraph of the data provided by these accounts, I summarise a *1st feature of the lived experience of climate change*: It is contextual, being bound up with where we live in the world, our degree of poverty/affluence, the degree of our dependence on natural resources for our livelihoods, and our capacity to adapt.

### Box 2.1 Global South, Developing Countries, Third World, etc.

A confusing terminology exists when referring to (and classifying) different countries in relation to their level of 'development'. The term 'Third World' was originally coined over half a century ago to describe countries newly independent from colonial rule who would form a collective political entity distinct from the 'First World' (the capitalist countries of Western Europe, North America, Australasia and Japan), and the 'Second World' (the former Soviet Union and its satellites). These terms have largely been dropped today for a variety of reasons. The terms 'developing' and 'developed' countries are still in use, however, to denote poorer and richer countries respectively, but this distinction is criticised on the grounds that no country has stopped developing and that, therefore, development applies to rich countries also which have substantial pockets of deprivation. In more common use today are the terms the 'Global South' and 'Global North' which make a similar distinction based on wealth, although they are not geographically accurate (e.g. some rich countries are in the southern hemisphere!). In this module, however, I have decided to ignore these debates about terminology, mainly because I cite works which between them cover the full range. For the purposes of the module, the terms are inter-changeable.

Adapted from Wilson et al (2009: vii)

## Pattern 2

My first feature has drawn on a pattern of dichotomous contrast between the Global South and the Global North in the accounts. My second feature, however, concerns a pattern of similarity across all of the accounts. Note how each and every one has a personal and a social dimension. By the latter I mean that collective experience is a significant part of each account. This may be expressed as:

- the impacts experienced by groups of people (e.g. the gendered impacts of climate change in Account 1, the migration of coastal peoples of Bangladesh in Account 8),

*and/or*

- the experience of the collective actions which people are undertaking, for example the collective mapping of climate effects in Account 3, the involvement in the Transition Towns (see Box 2.2) movement in Ireland and the UK described in Accounts 4 and 6, and the involvement in a tree planting charity in Account 5.

Thus, to summarise pattern 2:

*The 2nd feature of the lived experience of climate change:* It is both individual and collective (all accounts). The collective dimension concerns socially influenced impacts on groups of people who are more or less vulnerable to climate events and/or those who are involved in collective action to mitigate the impacts.

### Box 2.2. Transition towns in Ireland and the United Kingdom

This term relates to communities who come together in a town to promote sustainable living, especially in relation to climate change and energy consumption. The town becomes an 'official' transition town when the local government authority agrees to adopt plans put forward by the community.

The idea originated in Ireland and soon spread to the United Kingdom, where the town of Totnes (Figure 2.3) is a prime example. Many other 'transition' communities now exist world-wide.



**Figure 2.2. Families in Koyera, Khulna, Bangladesh who have had their homes destroyed by a powerful tidal surge are still living in makeshift homes on the embankment.**  
© Sumaiya S Kabir UKCDS

### Pattern 3

The social and economic impacts of climate change are an element of all the accounts, and this has led to my first two features above. Yet a pattern that strikes me from a closer look is that most of them involve much more than simply describing impacts on their own lives and on the lives of others. Even in Account 1, which appears to focus solely on adverse gendered impacts, it is obvious that the lived experience of climate change embodies complex social relations and how these might change through climate-induced changes in the biophysical world.

Hence, I arrive at:

*The 3<sup>rd</sup> feature of the lived experience of climate change:* The biophysical and consequential social and economic impacts are key dimensions of people's lives, but lived experience is also rather more.



**Figure 2.3 Hal Gilmore and a Totnes Transition Town Display. Photograph by Edmittance Ed Mitchell under a Creative Commons licence.**

I have isolated the 3rd feature in order to draw attention to a tempting fallacy, which is to reduce 'lived experience' to a description of the impacts on lives and livelihoods. I argue instead that to focus solely on impacts reifies poor, vulnerable people especially, as passive victims who are unable to be part of the solution to climate change problems, and who are therefore totally dependent on the trusteeship of others, such as government departments and officers, and charity which is typically provided by non-governmental organisations (NGOs).

What, however, do I mean by 'rather more'? The remaining patterns and features of the lived experience of climate change that I describe here elaborate on those features which are 'beyond' the impacts.

### Pattern 4

The directly personal accounts (2, 4, 5, 6, but not 7) feature individual and/or collective histories. Account 3 relies on collective memory and hence also history. This pattern should not surprise us as a basic definition of experience is that it is knowledge gained over time through living our lives. It follows that our experience today is interpreted through knowledge which represents the sum total of past experience. In other words, the lived experience of climate change is linked to personal and collective histories. We can go further -- it is also linked to the histories of those who have nurtured us and the ways of life of the societies into which we are born. Thus:

Account 2 relays to us the importance of customs and maintaining links with the past in the Pacific Islands (although in this account the links seem to have been broken by other factors).

Account 3 concerns the explicit mapping of climate trends in Sudan over the past 30 years, and of how they have affected livelihoods.

Accounts 4-6 all refer to childhood and parental influence in England. Thus Account 4 records growing up in the countryside, Account 5 the childhood family culture of preservation and recycling everything, and Account 6 the nearby parkland and family garden, inculcating a respect for nature.

Thus, *the 4th feature of the lived experience of climate change* is that, both personal and collective lived experiences of climate change have a history out of which the present is

experienced. The present, however, does not represent the end of history, for it is forever in the making through contemporary events and actions. Thus it is dynamic in the present. Features 5 and 6, taken from the above accounts, capture this dynamism:

### **Pattern 5**

All of the accounts with the exception of Account 2 refer to action in one form or another and it is clear that lived experience is linked significantly to such action. It is useful to distinguish two kinds of action from the accounts (see also Chapter 3 of Module 1 – *Introduction to climate change in the context of sustainable development* - in this series):

- a) Reactive action which is in response to climate-induced impacts. For example:

Account 1: increasing wage labour among women in Nepal due to food shortages.

Account 7: the houses on stilts as the sea rises around the island of Kiribas

Account 8: the migration of Bangladeshi coastal peoples.

- b) Proactive action to mitigate climate change or to put adaptive measures in place before the impacts are felt:

Account 3 and the mapping exercise in Sudan

Accounts 4, 5 and 6 and the Transition Towns and tree-planting work being carried out in England

Account 8 and the work being undertaken by the Bangladeshi Government to adapt to climate change.

Thus, the 5th feature of the lived experience of climate change is that it evolves through action.

### **Pattern 6**

All of the accounts with the exception of Account 1 imply either directly or implicitly engagement with others and their 'other' knowledges. Here it is useful to distinguish between engagement with codified and experiential knowledges. Thus, with regard to codified knowledges, many of us do engage with the science and with the broader aspects of policy, albeit these may be mediated first by another significant actor – the media. Engagement with the science is exemplified in Account 3 where the mapping exercise included meteorologists in discussion with lay members of the Atbara Partners Consortium, and in Account 8 the United Nations Inter-Governmental Panel on Climate Change (IPCC) is cited for its evidence about increasing cyclone intensity. Engagement with knowledge of broader aspects of policy is exemplified in Account 5, which recognises issues concerning the global and national economy and the 'global structure'. It is also a significant aspect of Account 8 with its description of Bangladeshi Government adaptation policies, strategies and actions.

Engagement with other experiential knowledges is part of our everyday engagements with others. It is implied in Accounts 4-6 in relation to environmental activism in the UK. The most explicit example, however, is Account 7, where meeting others at the Copenhagen summit is described, and the feelings and emotions such meetings evoke, as well as the learning which takes place. Increasingly such engagement can take place virtually via the internet with people we have never met who live in places to where we have never been.

The 6th feature of the lived experience of climate change, therefore, is that it also evolves through our engagement with other knowledges, which may be codified or experiential.

The 5th and 6th features draw on what the German philosopher Jürgen Habermas argues makes us human: our capacity to reflect on what we do when engaging in action or with others, and learn. Habermas then argues that this fundamental capacity, which is present in all human beings, is the source of two capabilities (Edgar, 2006, pp.62-64):

- Our ability to ‘labour’, by which Habermas means our ability to transform the physical environment or ‘nature’ for productive use. (Note that this capability formed the underlying assumption in the work of Karl Marx in the 19<sup>th</sup> century.)
- Our ability to interact and communicate with each other, not just in the sense of conveying information, but to justify our reflections in the form of discussion, debate and challenge.

These two capabilities map approximately and respectively onto the 5th and 6th features. I explore them further in Chapter 3 below.

### **Pattern 7**

The final pattern that I glean from the accounts is of a different order. It is that that in all accounts, climate change is interwoven with many other ‘lived experiences’ which are sometimes more immediate. This pattern emerges from all accounts, but is made explicit in Account 2 where the lived experience of a disrupted culture and its associated history is considered seriously to have affected adaptive capacity. To conclude, lived experience cannot be made to fit into prescribed boundaries, precisely because it is ‘lived’.

The *7th feature of the lived experience of climate change* concerns, therefore, the impossibility of separating the lived experience of climate change from other lived experiences. Thus, we always have to consider it as relational rather than as something we can distil and discuss in pure form:

At this point you might wish to undertake Activities 1 and 2 in the Module 2 workbook which invite you to look up some more examples of lived experience, and also to apply the features to the Water Case Study and a ‘climate witness’ whose account has been collated by the World Wildlife Fund for Nature (WWF).

## **2.3 Conclusion to Chapter 2**

We should always interrogate critically what we observe and, to conclude this Chapter and set up the Chapters 3 and 4, I make three comments on the above accounts of lived experience and the seven features I have derived from them.

*Comment 1:* The features overlap and combine in many ways. To take Account 2 as one example: the present is interpreted in the specific context [1<sup>st</sup> feature] of a Pacific Island setting, and historically a high level of self-sufficiency in food production which was learned through interaction with parents, grandparents and at the communal meeting house [2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> and 6<sup>th</sup> features]. This culture of self-sufficiency manifested itself in action [5<sup>th</sup> feature] which involved planting ‘plenty and a strong garden’ as a proactive measure against disaster (typically a cyclone). It suggests a strong individualistic/family culture, although collective action is described in the response to the white man’s store blowing down during a cyclone [2<sup>nd</sup> feature again]. Today, however, this self-sufficiency culture appears to be breaking down as broader lived experiences [7<sup>th</sup> feature] indicate different expectations among younger people.

I should add that I felt uneasy constructing these sentences around Account 2. It seemed that I had broken Account 2 into the seven features and then recombined them. Such a synthesis exists already, however, in the Account itself – the interview of the two island inhabitants. Their account seems much richer than mine precisely because they have not tried to abstract out the features first. This is not to say that I should not have performed this analysis and synthesis. I think it has value, but I should at all times be critically aware of what I am doing.

*Comment 2:* The Accounts appear to me to be too cosy in terms of the knowledge they imply. They suggest that lived experience represents common-sense practical knowledge of what needs to be done, and of what can be done. Other than some brief references to government and policy, there is little broader sense of why people in the South seem far more vulnerable to climate change than those in the North, no sense that knowledge from

the scientific disciplines may be considered more powerful than subjective lived experiences, and no sense that some 'lived experiences' might count more than other 'lived experiences'. In short there is no sense of a 'politics' of knowledge, in which the knowledge of the most powerful actors might dominate.

*Comment 3:* Finally, the accounts are all from or mediated (in Account 2) by professional actors and/or already-concerned citizens who can articulate the issues apparently dispassionately. Only Account 7 seems to capture the emotions and authenticity of a 'real' lived experience as the narrator describes her engagements with the people from different parts of the world she meets at the Copenhagen summit. Only she of all the accounts says she wants to cry. In this sense the other accounts all externalise the lived experience of climate change in one way or another – they talk *about* vulnerable people, and/or *analyse* their own histories and contemporary activities.

Externalising raises two further issues. The first applies to a Southern context, especially Sub Saharan Africa, where what is often pejoratively described as an international 'Development Aid industry' flourishes. Thus, wherever there are poor people, there is Development intervention of one kind or another which externalises and attempts to act on poverty. It involves a plethora of funding organisations (NGOs, rich country government agencies, multilateral agencies such as the United Nations and the World Bank<sup>7</sup>) and their professional development workers. The lived experience of climate change of these professionals is certain to be very different from those on whose behalf they are intervening, yet it is the former who we are most likely to hear. The second issue concerns how one captures the lived experiences of poor people when they articulate their experiences in ways that we (in this case Northern academics and students) possibly do not understand. Also, what are we to make of representation of their lived experiences by others, such as professional development workers?

*Comment 1* indicates that while we have to break down the lived experience of climate change into its different features in order to study it, we lose a great deal in doing so and open ourselves to charges of reductionism (see Box 2.3). In order to capture the dynamism, the overlaps and the mutual influences between features, we have to go a further stage and attempt a re-synthesis through what I call a 'process' analysis. This analysis is the basis of Chapter 3 of the module. *Comment 2* then moves beyond simply trying to conceptualise the lived experience of climate change, to critical engagement with it – lived experience is a form of knowledge, but is it 'good' knowledge? Chapter 4 engages more critically with the construction of lived experience.

Chapter 5 of the module also engages with the question about 'good' knowledge to inform policy, but – drawing on *Comment 3* – it goes further to examine how lived experience is externalised by professionals and articulate citizens who are concerned about the plight of others, and how it might be captured and represented in policy debates. It is interesting to note how external representations, such as by people from the North of the South, can differ from insider representations. Thus all of the external representations in the Accounts at least imply that climate change is unjust to people of the South, and it is made explicit in Account 7. In contrast, the insider representations in Account 2 do not even imply justice or injustice, and instead blame problems on laziness of the current generation on their island. I suggest that the explanation for this difference is that external actors are also external to the culture of those they represent, whereas insider actors are caught up in that culture.

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<sup>7</sup> Strictly speaking the World Bank – officially titled the International Bank for Reconstruction and Development -- is itself a UN Agency, but tends to act independently of it. (Thomas and Allen 2000: 204-207).

### **Box 2.3 Reductionism**

Reductionism can either mean (a) an approach to understanding the nature of complex things by reducing them to the interactions of their parts, or to simpler or more fundamental things or (b) a philosophical position that a complex system is nothing but the sum of its parts, and that an account of it can be reduced to accounts of individual constituents.

Source: <http://en.wikipedia.org/wiki/Reductionism> (accessed 27 February 2012).

### 3. From feature analysis to process analysis: the dynamics of a lived experience of climate change

Chapter 2 provided a basis for the study of the lived experience of climate change by deriving a number of features from various accounts. The approach was to start with the accounts and, putting aside as far as possible any preconceptions I might hold, look for patterns in these accounts to draw out generalisations about the lived experience of climate change, which I have labelled 'features'. As I indicated in Chapter 1, this approach draws on ideas which inform 'grounded theory' as a research methodology. I justify the approach because the subject matter is under-explored. There are no established conceptual frameworks and hence no already-existing analytical tools for studying the lived experience of climate change. Therefore, in my view, we have no option but to start with the data and confront it without preconception as far as possible.

Chapter 2 also stressed that reducing lived experience to a number of features was not enough to capture it and that a more dynamic analysis is needed. This can best be achieved by taking a process approach, which involves the following three considerations, plus a fourth which combines the three:

- Consideration of how the different influences on the lived experience of climate change interact with each other. This consideration is informed by Systems thinking. See Box 3.1.
- Consideration of how the lived experience of climate change evolves over time.
- Consideration of the interplay between 'structure' and 'agency' (Box 3.2), in other words, the interplay between the 'external' influences (biophysical and socio-economic contexts) and our conscious actions with respect to climate change. Another way of examining this is to consider the extent to which we consciously create our lived experiences of climate change through 'free will' and the extent to which our experiences are determined by contextual factors.

#### Box 3.1 Systems thinking

This is the process of understanding how things influence one another within a whole. In nature, systems thinking examples include ecosystems in which various elements such as air, water, movement, plants and animals work together to survive or perish. In organisations, systems consist of people, structures, and processes that work together to make an organisation healthy or unhealthy.

Systems thinking has been defined as an approach to problem solving, by viewing "problems" as parts of an overall system, rather than reacting to specific parts, outcomes or events and potentially contributing to further development of unintended consequences.

Source: [http://en.wikipedia.org/wiki/Systems\\_thinking](http://en.wikipedia.org/wiki/Systems_thinking) (accessed 27 February 2012).

#### Box 3.2 Structure and agency

'Agency' refers to the capacity of individuals to act independently and to make their own free choices. 'Structure', by contrast, refers to the recurrent patterned -- arrangements within society which seem to influence or limit the choices and opportunities that individuals possess. The extent to which structure or agency influences human behaviour constitutes a fundamental debate within the social sciences (see also Chapter 5 of Module 1 in this series): Adapted from Wikipedia:

[http://en.wikipedia.org/wiki/Structure\\_and\\_agency](http://en.wikipedia.org/wiki/Structure_and_agency) (accessed 27 February 2012).

### 3.1 Lived experience as an action learning cycle

It is often difficult to know where to start in a process analysis which appears to have no beginning and end and where the interactions appear mutual or circular or both. My starting point is the person, because it is in the person that the lived experience is ultimately grounded. Doing this, however, raises a deeper question. A dictionary definition of experience is ‘knowledge gained over time’ and the adjective ‘lived’ implies knowledge gained over time in our everyday lives. What, however, is the nature of this knowledge, in other words what is its epistemological basis? Do we *discover* it over time, making mistakes undoubtedly on the way, but nevertheless engaging in a linear process of discovery of something we call knowledge which exists independently of us and which can be found in books, or on the internet, or from others? Alternatively, instead of discovering knowledge, do we *construct* it out of a myriad of influences and our own actions?

Knowledge as discovery has a label – positivism. So does knowledge as constructed – constructivism. See Box 3.3 for a further elaboration of these terms. Although they can give rise to strongly contrasting positions, where, in an allied formulation, positivist knowledge is seen as objective and constructivist knowledge subjective, this need not be the case. Even the most committed constructivist will acknowledge that many scientific laws do exist beyond human contexts, for example the laws of physics that enable aeroplanes to fly and which explain phenomena such as global warming. Conversely, equally committed positivists will acknowledge that discoveries are always open to human interpretation in both the natural and social sciences, which cannot be totally devoid of the context of the interpreter.

I take a broadly constructivist position with respect to lived experience. It seems to me that it is a process of knowledge construction rather than discovery, mostly incremental in nature but where major events can cause big leaps in that construction. Conceived as construction it is also contextual, being derived in part from local biophysical and socioeconomic contexts. It lays no claims to universal laws of, say, physics. I shall examine further in Chapter 5 how its highly contextual nature can complement universal knowledge of climate change in policy dialogues.

#### Box 3.3 Epistemology, positivism and constructivism

Epistemology is the study of ‘knowledge’, how it comes into being, and what distinguishes it from opinion (see also Box 2.1 in Module 3 of this series).

Positivism refers to a set of epistemological perspectives and philosophies of science which hold that the scientific method is the best approach to uncovering the processes by which both physical and human events occur. Source: <http://en.wikipedia.org/wiki/Talk:Positivism> (accessed 27 February 2012).

Constructivism is an epistemological position that argues that humans generate knowledge and meaning from an interaction between their experiences and their ideas. Source: [http://en.wikipedia.org/wiki/Constructivism\\_\(learning\\_theory\)](http://en.wikipedia.org/wiki/Constructivism_(learning_theory)) (accessed 27 February 2012).

Positivism and constructivism are seen as epistemological opposites. The former holds that knowledge is an objective reality that can be discovered by disinterested research, the latter that knowledge is generated through inter-subjective, social interaction.

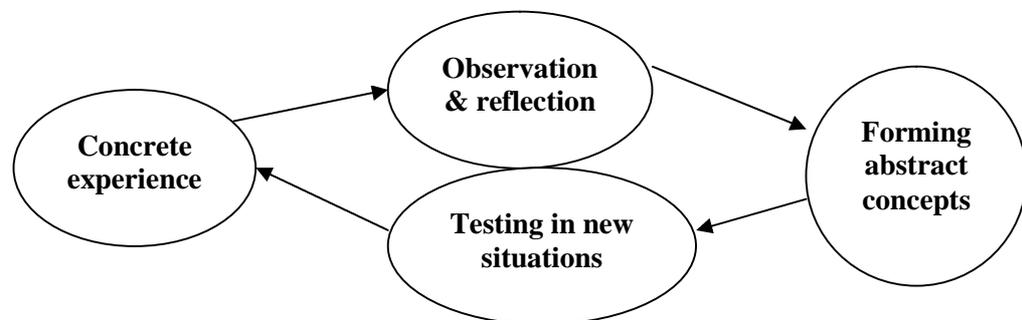
Epistemology, positivism and constructivism are discussed more thoroughly in Module 3 of this series: *Interdisciplinary research methods for investigation into the ‘lived experiences’ of climate change*.

My constructivist approach does not mean that there can be no discovery. People listen to others and, if they are literate, read. In so doing, they often ‘discover’ information which they did not know before. This might be information about changing temperature and rainfall patterns, the patterns being representations of temperature and rainfall data that

have been generated from measurement over time. The important point, however, is that people do not simply receive and assimilate the information they have obtained from whatever source. Rather they interpret it in the light of their existing knowledge, their everyday interactions and experiences. It is this process of interpretation which transforms received information – which represents a construction of others – into knowledge.

Through the person -- our starting point for studying the lived experience of climate change – we are immediately confronted with the question of how she/he/they construct that experience. The closely related ideas of ‘experiential learning’ and ‘action-learning’ are useful here because they draw on qualities that make us human – our ability to reflect and to act in response to such reflection – which I introduced, drawing on Habermas, in Section 2.2.

Exponents of experiential learning are numerous, but particularly important for our subject is the work of David Kolb (1984) who modelled it as a constant and iterative process that involves grasping, reflecting on and conceptualising concrete experience leading to new knowledge and action on the world (quoted in Johnson and Wilson 2009: 35). See Figure 3.1 below.



**Figure 3.1: The Kolbian experiential learning cycle.**

This cyclical idea of learning and knowledge construction is also evident in action learning. Here knowledge is applied in action but there is a mis-match between how the action turns out in practice and the knowledge which informed it. Reflection on the mis-match generates new knowledge, new action and so the process continues. This basic idea was taken further by Argyris and Schön (1996) who suggested two learning cycles or loops<sup>8</sup>:

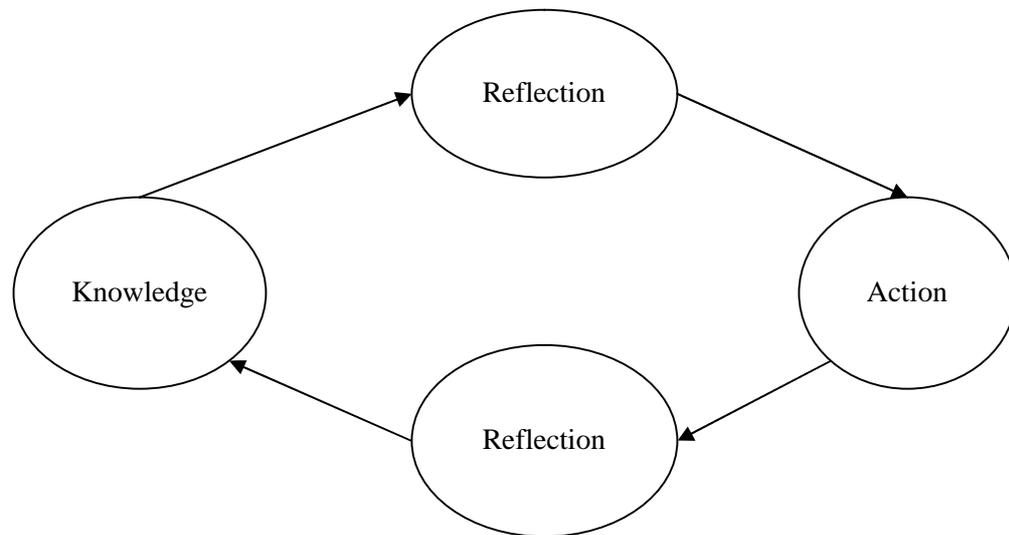
- Single-loop learning where we construct knowledge that enables us to do things *better*. In the context of climate change this might, for example, be to develop drought-resistant strains of a particular food grain (See also Appendix 2 of the Module 2 workbook).
- Double-loop learning where we construct knowledge to do things *differently*. Again, in the context of climate change, this might, for example, comprise a change from farming individually as a family unit to farming collectively and sharing knowledge of drought resistant strains. More reactively, it might mean uprooting and migrating to a new place.

The point about double-loop learning is that it potentially transforms experience, whereas single-loop learning appears more constrained and aims at improvements to existing experience. A further point is that continued single loop learning might lead on occasion to increasing contradictions which can only be solved by a ‘flip’ into double-loop learning. The two loops should therefore be viewed as complementary rather than contradictory.

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<sup>8</sup> Argyris and Schön also invoked a third loop which concerned learning how to learn. This need not concern us in this module.

For the lived experience of climate change, I also suggest action-learning loops of knowledge, action and reflection, which can be both single and double. In my loop, however, reflection appears twice – firstly as reflection on knowledge which generates action, and secondly as reflection on action which generates further knowledge. The process is shown in Figure 3.2.



**Figure 3.2 Lived experience as an action-learning cycle (Adapted from <http://www.learning-theories.com/experiential-learning-kolb.html>, accessed 27 February 2012).**

In other words, learning as a process of knowledge construction is based on reflection. Applied to the lived experience of climate change, Figure 3.2 captures its dynamism and a sense of how it evolves. As it stands, however, Figure 3.2 represents an extreme agency view in that experience is represented solely as a function of our reflections and actions, implying ‘free will’ in these functions (see also Box 3.2 above). It is therefore lacking in several respects, representing only a partial picture. Knowledge, and hence our experience, has other influences which are contextual or structural in nature, and which can be direct (proximate) or less-direct. Drawing on the features that I derived in Section 2, I summarise below three proximate influences on knowledge and experience:

*Proximate influence 1 on knowledge and experience: direct impacts.* Action and reflection usually take place as a response to impacts, or, occasionally, as a preventative action against predicted/potential negative impacts. These impacts might be biophysical such as prolonged floods or drought, or a more long term process of drier/wetter conditions. Related impacts, especially in rural areas of the Global South where people are more directly dependent on natural resources and ecosystem services (see Box 3.4), might concern livelihood changes, even loss of livelihoods, because of changing climatic conditions. There might also be health impacts, for example increasing water-borne diseases after floods. Health and livelihood impacts are often grouped together as socio-economic impacts.

In the Global North, however, the impacts might cut both ways – both positive and negative. In northern Europe, agriculture might actually benefit from global warming. Many negative impacts in the North will concern loss of amenity - the increasing unreliability of ski slopes for example, or noticeable changes in landscape and biodiversity. Some impacts in the Global North might arise out of proactive adaptation and mitigation measures being taken and result in what I call ‘deviant’ experiences. My use of ‘deviant’ is deliberately ambiguous -- technically as meaning divergence from what is expected, while also anticipating that the word for most people carries connotations of disapproval. To understand further, see Figure 3.3 which contains a regional newspaper article from the North of England telling the story of a community protesting against the building of a nearby wind farm.

Wind farms are promoted in the UK as part of a 'win-win' renewable energy policy, both to improve the UK's energy security (less reliance on imported oil and gas) and to reduce its carbon footprint. In many places, however, they are opposed by local communities on amenity grounds, because of their visual intrusion on the landscape and the noise disturbance from the turbines for those living nearby.

### **Box 3.4 Ecosystems and ecosystem services**

An ecosystem describes a community of living organisms and their interactions with one another, plus the environment in which they live and also interact. Thus it includes both living and non-living components and the links between them. The term can be applied at many scales, for example a pond, rainforest, oceans, or even the Earth itself. Source: Wilson et al (2009: 281).

Ecosystem services are the benefits that human beings obtain from the resources and processes that are supplied by natural ecosystems. The United Nations 2004 Millennium Ecosystem Assessment, a four-year study involving more than 1300 scientists worldwide, grouped ecosystem services into four broad categories: *provisioning*, such as the production of food and water; *regulating*, such as the control of climate and disease; *supporting*, such as nutrient cycles and crop pollination; and *cultural*, such as spiritual and recreational benefits. Source: [http://en.wikipedia.org/wiki/Ecosystem\\_services](http://en.wikipedia.org/wiki/Ecosystem_services) (accessed 27 February 2012).

*Proximate influence 2 on knowledge and experience: capabilities.* Action and reflection are not based only on knowledge of impacts, but on our capabilities to act. There are many factors which might limit our ability to act as we would like in response to knowledge of an impact. These factors typically relate to availability of finance, skills and technologies, and this limitation in itself affects our experience and knowledge. Moreover, they do impinge negatively, especially on people in the Global South, although we should be careful not to underestimate the creative actions of many poor people in the South despite these constraints. In the Global North, where finance, skills and technologies are more available, different concerns of 'affluence' arise, as illustrated in Figure 3.3.

w.examiner.co.uk MONDAY JULY 5, 2010 Huddersfield Daily Examiner Monday

# Villagers' anger over 150ft wind turbine plan

By EMMA DAVISON  
News Reporter  
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**VILLAGERS** have slammed plans to build two massive wind turbines near to their homes.

Plans for the development on farmland near to the Kaye Arms pub at Wakefield Road, Grange Moor, include two 47.5m (155ft) tall turbines.

Mitie Asset Management Ltd wants to construct the Brown Hill Wind Energy Development at the edge of the rural village.

But those living nearby have described the plans as "monstrous".

"They are planning to oppose the plans by writing to Kirkstall Council in a bid to block it," Katie Bottomley, 38, whose family home at Greenfield Cres-



**GREEN AND PLEASANT LAND:** Residents say this view could be ruined by wind turbines such as the one right

Council in a bid to block it.

Katie Bottomley, 38, whose family home at Greenfield Crescent is just 600 metres away from the planned development, said: "I think it's a ridiculous idea and I know a lot of people will be objecting to this."

"Our homes look out on to fields and pretty rolling countryside and now all we're going to see is these two big monstrosities."

The company applied to Kirkstall Council last month to build the wind farm on the land at Grange Ash Farm.

In plans submitted to the council it says that the development would save up to 469 tonnes of CO2 emissions each year.

It says that the turbines are large but concluded: "The turbines could be accommodated in the visual context of the wind energy development."

"This is largely due to the scale and characteristics of the receiving environment and other built influences of a vertical nature - including the nearby Emley Moor Mast."

But Katie, who works for an environmental consultancy firm, believes the development would have a negative impact on the small village.

She said: "I'm all for renewable energy but not at a cost to the village."

"These turbines are massive and would be on top of a hill that has a 60ft incline, so they will be all many of us on our estate will be able to see when we look out the window."

"I think it will have an affect on our property prices."

"I also don't think it's right that it should be approved just because of Emley Moor Mast because that's been there forever and is hardly the same thing..."

Katie is also concerned about noise and potential safety risks of having wind turbines near her home.

She said: "The reason we moved up here was for a bit of peace and quiet, but now when we're sitting out in the gardens we're going to hear the throb of wind turbines going round."

"Also when it moves ice can build up on the propellers and who knows what will happen if that starts flying off."

"It just seems as though some of these things have not been thought through."

Public notices about the development are yet to go up and Katie says she only found out about it when she received a letter from the council days ago.

**OBJECTING:** Katie Bottomley says came together to share their concerns about the plans.

Katie now plans to register her objections and expects many residents to join her.

"The public consultation period ends on July 13 when the application will be considered by planning officers."

Grange Moor is the latest village fighting off plans for wind turbines.

In Birdsedge, Pure Renewable Energy (PRE) wants to build four 125m (410ft) tall turbines.

The turbines - with 90m rotors - would be roughly just short of half the height of the Emley Moor Mast.

Several public meetings have been held and protest group Birdsedge and district Opposition to Large Wind Turbines has already been formed.

Figure 3.3. Protesting about wind (zoom in for legible text).

*Proximate influence 3 on knowledge and experience:* engagement. Reflection is often thought as being personal and private, and sometimes it is. Much of the time, however, it results from engagement with others. This might be direct, mutual engagement through conversation, discussion and debate. The engagement might also be technology-enabled, for example through internet discussion forums or simply email exchanges. Other engagements might, however, be one-way and non-mutual, for example engagements with the pronouncements of politicians, experts and public figures of various kinds which are often communicated and mediated through the media. I include in this category of one-way, non-mutual engagement the reading of a book or scholarly article on climate change, or the results of an internet search.

I think of the above -- biophysical impacts (short- and long-term), associated socio-economic impacts, our capabilities to act, and our engagements with others (mutual and non-mutual) -- as *proximate* influences on the lived experience of climate change because they seem to bear directly and immediately on the experiential process of knowledge, reflection and action. Also, however, there are, less direct, but pervasive, contextual influences at work which influence how we reflect and interpret impacts.

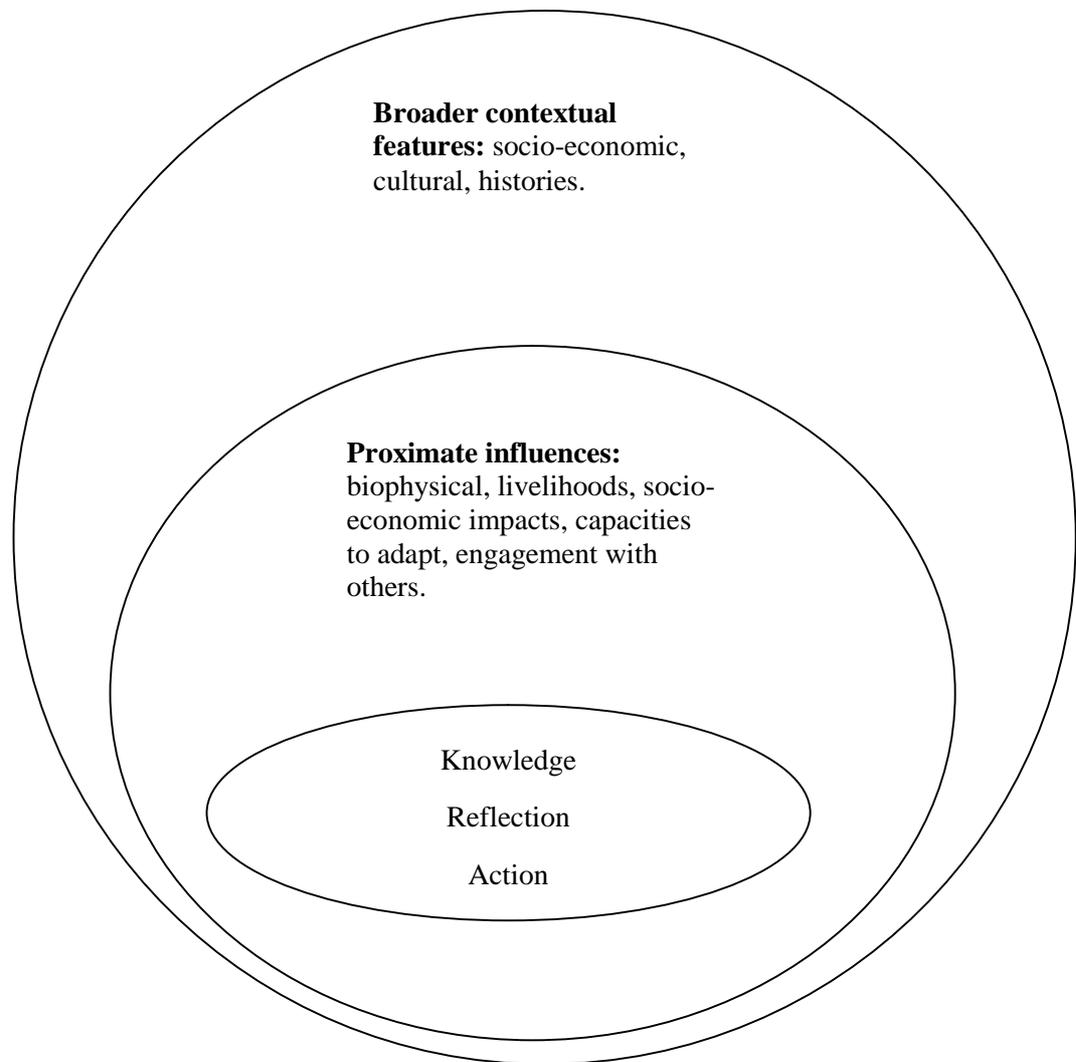
They are pervasive influences because we cannot easily escape from them simply through human will, although we might modify them and rise beyond them over time. They include:

- Our histories. To some extent we are all products of our past, our lifetimes of experiences, through which we interpret the present. We can stretch history further, because we are also influenced by our parents and their histories, their grandparents and so on.

- Our society's culture, in this sense meaning its way of life. For example, it is often argued that people in the North have more individualistic ways of life resulting from the penetration over three centuries of capitalism into our lives, whereas in some rural areas of the South, people are more collective and communitarian. This is undoubtedly a crude caricature, although, as with all caricatures, it contains elements of truth. One must not fall into the trap, however, of considering culture as unchanging. Account 2 in Chapter 2 above is in part a lament about a change in culture on the Pacific Island of Vanuatu from thrift and self-sufficiency to what is characterized as laziness today.
- Our socio-economic circumstance, which might be something we were born into (e.g. born rich or poor) and/or part of our present circumstance. There are many overlapping divisions in socio-economic circumstances, such as those based on wealth (rich and poor), gender (women and men), ethnicity (e.g. minority ethnic groups in Europe), religion, caste (high and lower caste in India), and so on. All of these categories will influence our lived experience of climate change because they affect both how we view the world and the opportunities open to us to act.

These pervasive influences come strongly into play when we represent the lived experience of climate change (see also the end of Chapter 2 above). External representations tend to emphasise history and socio-economic circumstance, often to make claims that climate change constitutes an injustice to certain groups, such as people of the South. Insider representations undoubtedly take history and socio-economic circumstance into account, but they are further mediated by culture, and their claims can be quite different and fatalistic, as in Account 2.

What are we to make of all of the above? It is right and proper that our starting point for this Chapter is the human person who has the lived experience of climate change, and through an action-learning analogy we are able to conceptualise the mechanisms of reflection and action which evolve our experiential knowledge as a dynamic process. However, as the English poet, John Donne, wrote in the 17th century - 'No man is an island/Entire of itself' - there are many influences, both proximate and less direct, on reflection and action which in turn influence how we interpret the world. From this I deduce an initial conceptualisation of the lived experience of climate change, which is shown diagrammatically as Figure 3.4.



**Figure 3.4. Conceptualising the lived experience of climate change – 1st iteration**

I call this the first iteration because I have built it from first principles. It needs testing for its robustness against actual lived experiences. We must treat it roughly, adapting it, confronting it when it does not seem to work. I believe that it is, however, a good starting point.

One first test for me is to examine the extent to which it captures the features of lived experience of climate change that I developed from the accounts in Chapter 2. It certainly accords importance to context (Feature 1) and to biophysical and socio-economic impacts while being clear that it is more than these (Feature 3). It locates personal history as an important influence (Feature 4), and also engagement with others (Feature 6). It expresses the dynamism of lived experience (Feature 5). Although it does not explicitly state that the lived experience of climate change is interwoven with other lived experiences (Feature 7), this is certainly implied as Figure 3.4 is not specific – it could apply to any lived experience.

Figure 3.4 does not as it stands, however, capture Feature 2, which states that the lived experience of climate change is both individual and collective. In fact, my starting point of the ‘person’ implies it is derived in function of individual lived experiences only. The sub-section below investigates its possible application to collective lived experiences.

### 3.2 Conceptualising the *collective* lived experience of climate change

At an abstract level this is an easy task of scaling up from the individual to a group. Thus, rather than a starting point of the person, we have a starting point as the group. Impacts too can then be felt at group level, as can wider influences. This does not affect the construction of Figure 3.4 which does not explicitly state that the starting point is the person (my text did that) – therefore it can be taken to mean either a person or a group.

Complications arise, however, when we start to consider what is meant by ‘group’. What makes a group as opposed to a collection of individuals? What does a group share and what does it not share?

When I think of groups, my range is wide. For example, I think of groups that are based on:

- Location, such as a rural community in the Global South, a village in Europe, a defined area of streets in a city which we call a neighbourhood, etc (see Figure 3.5).
- Organisation, such as a business enterprise, a trade union, a charitable non-governmental organisation, a political party. Many organisations are also associated with location – such as a residents’ association. Some organisations are ephemeral, for example civil society (see Box 3.5) organisations are sometimes established in function of a specific local campaign (e.g. opposition to a wind farm – see Figure 3.3 above) and they might dissolve once that campaign has ended.
- Shared professional interests, such as farmers, lawyers, engineers, doctors, civil servants, local government officials, development workers (the list can go on).
- Shared ascribed characteristics such as ethnicity and faith, where identifiable ethnic and faith groups are often established when they are a minority in society. Ascribed characteristics are also gendered, and women especially form groups to challenge gendered subordination.

A group is an entity that engenders a sense of loyalty. This is because it reflects shared interests, but also to a large extent shared meanings. The latter are most explicit and obvious in groups based on professional interests, but are also evident in the other categories. Shared meanings are often manifested in shared ways of expressing things.

#### **Box 3.5 Civil Society**

Civil Society is that area of organised life in society which is independent of the state, the market-based institutions of business and commerce and the private lives of our families. It is often used as a catch-all phrase to describe non-governmental organisations (especially those involved in development work) and organised, membership-based community groups. A strong civil society is considered important for a flourishing democracy. (See also Chapter 4 Section 4.3.3 in Module 1 of this series).

*Source: Wilson et al (2009: 281).*



**Figure 3.5. Sharing experiences (and a green award) among Totnes Transition Town (UK) members. Photo by Ed Mitchell (Edmittance) under a Creative Commons Licence.**

The members of a group in reality, however, also do not share everything. There are divergences which creates tensions within any group. A rural community in the Global South will have fairly clear demarcations based on wealth, age (older people are accorded greater respect), gender and so on. Scratch beneath the surface of this group and you will soon notice the tensions, even if the public face is united. Thus, no group is homogenous, and the tensions mean that it is in a constant state of flux, forever being redefined.

This is not to say that there can be no collective experiences of climate change which are based on location, gender and so on. If a community is threatened by rising sea level, for example, the potential consequences are so devastating that the tensions within the community might seem relatively trivial, and this will hold even if some members have the capacity to re-locate while others do not. There obviously are collective experiences, but we should also be aware that the picture is far from simple.

A fundamental feature of my conceptualisation of the lived experience of climate is its dynamism through reflection and action, which I have encapsulated as an action-learning cycle. How is action-learning enacted by groups? Much has been written on this topic in relation to organisational learning, which emanates from business studies. My discussion below draws heavily on this literature.

Senge (1990) contends that if individuals in a group learn, so does the group. This appears to be too simplistic a formulation, as has been noted by Johnson and Wilson (2009) who argue that the connection between individual and group learning is by no means automatic. What is true is that, if people within a group have the opportunity to engage with each other, the *potential* exists for group learning and a group experience of a phenomenon such as climate change. This suggests an annotation of conceptualising the lived experience of climate change in Figure 3.4 above where, starting with, and focusing on, the person, I have indicated that engagement with others is a proximate influence on that person's lived experience. Engagement with others thus appears in the second of the three concentric circles. Within a group, however, *mutual* engagement (and note that in the text which developed Figure 3.4 I distinguished between mutual

engagement and linear engagement) of members drives group learning and ultimately experience through conversation, discussion and debate. Mutual engagement therefore *constitutes* the collective reflection element of the group action-learning cycle and should become part of the inner circle. This change constitutes my first annotation of Figure 3.4.

Bringing group learning by mutual engagement to the centre stage, however, raises further questions about the nature of the action learning which takes place. In short, what is learned? Drawing again from the organisational learning literature, and specifically in relation to learning in work groups, Hodkinson and Hodkinson (2004) identify three types: learning that is already known to others, the further development of existing capabilities, and learning that is new to everyone. The first two types map roughly onto single loop learning or doing things better as identified in my citation of Argyris and Schön above, while the third maps roughly onto double loop learning or doing things differently. The third – learning something that is new to everyone - also hints at possible transformation of experience through group mutual engagement.

Hodkinson and Hodkinson's types also map roughly onto the categorisation of human cognitive interests developed by Habermas (1987a), described in Box 3.6. Learning that which is already known to others and further development of existing capabilities can be seen to equate with Habermas' technical cognitive interests, while the learning that is new to everyone equates with a combination of his hermeneutic and emancipatory cognitive interests.

Habermas further identifies, however, the need for a 'background consensus' which lies behind all narrative exchange (quoted in Fischer 2003: 199). Thus, for Habermas, effective communicative engagement can only occur if underlying assumptions are shared. In groups, this allies to the idea of shared meanings between members that I identified above. My own empirical research with Hazel Johnson (Johnson and Wilson 2009: 65-86), on partnerships between environmental health officers in the UK and Uganda, supports this claim. These officers stated repeatedly in interviews that they could work together and share ideas because they 'spoke the same language' ('language' here being a metaphor for shared meanings and assumptions between professional environmental health officers across the world).

Shared meanings help define a group. They form a boundary between who might be included and who is excluded. Thus, while undoubtedly enabling action learning of those included, they simultaneously constrain it. Under such a constraint, the possibility of evolving shared experience through the group then becomes limited to Hodkinson and Hodkinson's knowledge which is already known to others and further development of existing capabilities, Argyris and Schön's single loop learning, and Habermas' technical cognitive interests. This is because, underlying all constructivist approaches to experiential learning, is the idea of difference – difference between existing knowledge and its application in practice which is the basis of action learning as outlined above, and difference between engaging people whether in groups or not. Thus, while shared meanings facilitate communication between members of a group, they also at a certain level impose an ontological 'sameness' or boundary which restricts the scope of the experiential learning. None of this is to argue against single loop learning (or its equivalent formulations from other authors) within groups. Sharing technical knowledge about drought-resistant crops among poor rural farmers in the South, for example, is undoubtedly extremely important, and is akin to the idea of 'communities of practice' formulated by Wenger and others in relation again to work learning (Box 3.7). The point is that the ontological boundaries around groups which facilitate the necessary engagement might also constrain what can be learned and hence limit opportunities for transformation of experience.

### **Box 3.6 Habermas and human cognitive interests.**

Habermas posits three cognitive interests of human beings. These are summarized by Mohan and Wilson (2005) as:

**Technical** — aimed at the material reproduction of society and how one controls and manipulates one's environment (instrumentalism). This is largely based on *scientific* approaches.

**Hermeneutic**— aimed at enhancing understanding and transforming consciousness through binding consensual norms. This is largely based on approaches whereby communication and intersubjectivity allow a greater *understanding* of meanings of the social worlds we inhabit.

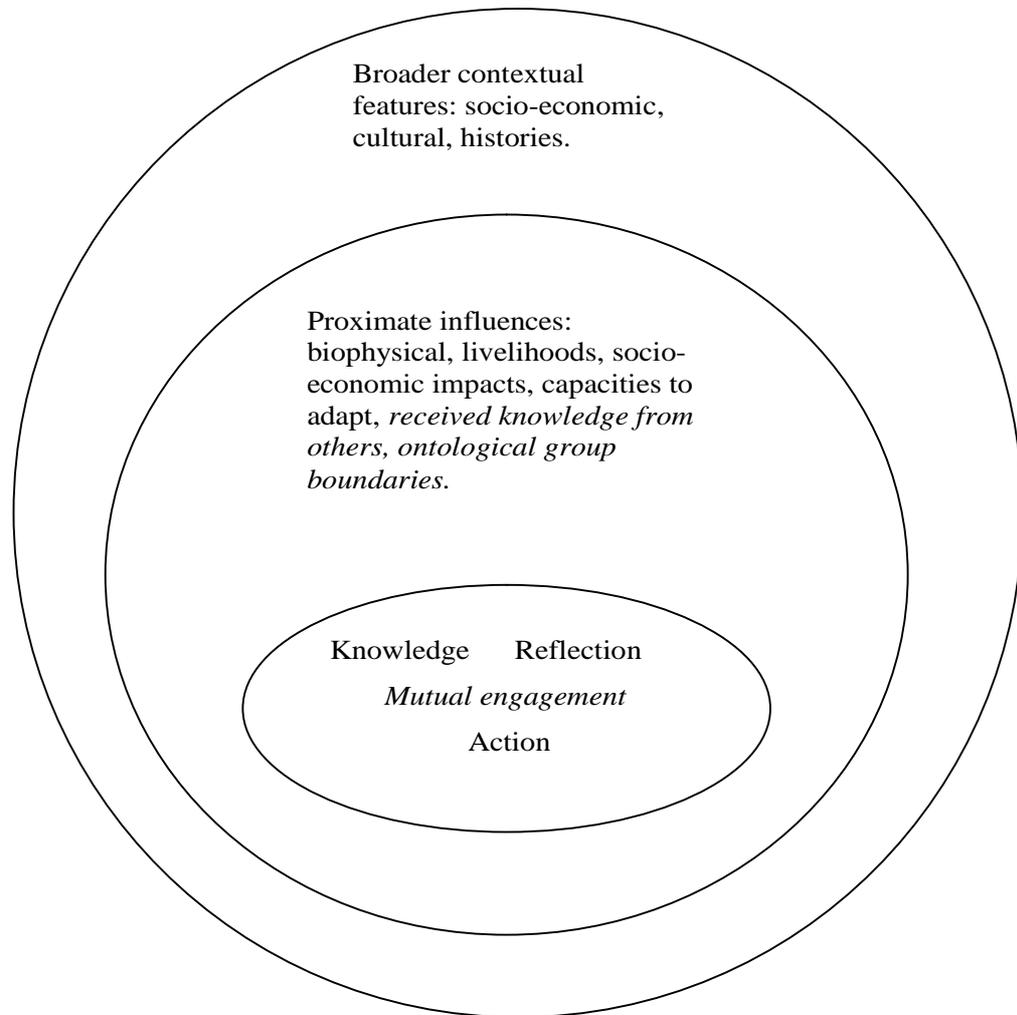
**Emancipatory** — aimed at breaking free from structures which limit our options and which have hitherto been regarded as beyond human control. This involves critical *self-reflection* so that a person can truly recognize the source of their problems.

This discussion about what might be learned in groups and the limits on the transformation of experience through group engagement provides a second annotation to the initial conceptualisation of the lived experience of climate change shown as Figure 3.4. This is that a further proximate influence is that of ontological boundaries which both facilitate communicative exchange and certainly serve collective technical interests, but which are likely to constrain broader exchange which leads potentially to transformation of experience. This annotation, together with the first annotation outlined above, is shown in italics in Figure 3.6 below, to provide the second iteration of the lived experience of climate change. Note that the first annotation has required two changes, arising from dividing 'engagement with others' into 'mutual engagement with others' (which is placed in the central circle) and 'received knowledge from others' (which is my shorthand for 'one-way, non-mutual engagement with others', and which I place in the middle circle).

By way of footnote to Figure 3.6 and especially the second annotation contained within it, I should note that in the real world no ontological boundary is impermeable. People as individuals do engage from time to time with those of completely different mindsets. The heterogeneity within groups also suggests that there is no 'pure' ontological sameness among their members. What happens, for example, when farmers in the Global South engage with professional extension workers? There might be few or no shared assumptions and meanings which allow for the facilitating background consensus (and this might account for some of the critique frequently applied to agricultural extension work in the South which concerns poor communication). On the other hand, the stark differences between the two mindsets are potentially knowledge/experience enriching for both groups of people. In these circumstances, can a background consensus be generated somehow which then facilitates the enriching exchange between the groups? I return to these questions in Chapter 5 below.

### **Box 3.7 Communities of Practice**

These are groups of people with a shared enterprise, mutual engagement in that enterprise and a shared repertoire of knowledge and skills (Wenger, 1998). They are generally seen as informal rather than formal engagements between people with a purpose of joint learning (Johnson and Wilson, 2009: 38-39).



**Figure 3.6. Conceptualising the lived experience of climate change – 2nd iteration**

### 3.3 Conclusion to Chapter 3

In this Chapter I have developed a conceptualisation of the lived experience of climate change which combines the active agency of people and groups with the contextual (proximate and non-proximate) influences on that experience. It is a dynamic conceptualisation based on ideas around action-learning. It can be applied in a variety of contexts, including those of the Global North and South, and to both individual and collective experiences.

While I believe that Figure 3.6 represents a workable and useful conceptualisation which we can put to use, I must confess to a nagging worry. It is drawn to my attention by Young (2004:193), another writer on work-based learning, who distinguishes between interest-based and process-based approaches to knowledge construction. His process-based approach aligns with the approach I have taken. The interest-based approach, however, takes a different tack, raising issues of social interest and power in knowledge construction. I allude partly to these issues in my discussion of ontological boundaries above, because they imply exclusion of knowledges which do not fit within the boundaries. My focus on human engagement, however, suggests that there is much more to be interrogated. Given that no group is homogenous, does this mean that some knowledges, some experiences, within a group carry more weight than others? Whose lived experience of climate change counts? These issues are the focus of Chapter 4 below.

Whatever your personal opinions about the merits of the conceptualisation shown in Figure 3.6, it should be apparent that lived experience is extremely complex and sophisticated. If that is the case, why don't we then hear of it in policy debates and media representations of the climate change challenge, alongside more conventional knowledges which emanate from the natural and social sciences? Answering this question is one focus of the next Chapter, and the main focus of Chapter 5 which relates the concept to policy making and practice.

## 4. Whose lived experience counts: from practical knowledge to knowledge as power?

‘Knowledge itself is power’, famously wrote the English philosopher and lawyer, Francis Bacon, in 1597. He was right, but only partially. Knowledge is not undifferentiated, there are many knowledges and only some are powerful.

Previous chapters have demonstrated the importance of contextual influences on the lived experience of climate change. They have also identified the knowledge of others as one such contextual factor. Other knowledges are likely to influence our lived experiences, however, only if they carry authority and legitimacy in our minds. If they do, such knowledges can be said to be powerful because they shape the ways in which we think and act, not necessarily in any coercive way, but because we accept them as representing the truth and internalise them as natural and normal. What is the basis of this authority and legitimacy?

Following the conceptualisation I first derived and represented in Figure 3.4, and developed further as represented in Figure 3.6, this chapter examines the relationship between power, knowledge and lived experience of climate change at two levels – the broader, macro-level (the outer circle of Figure 3.6) and the proximate ‘local’ level (the middle circle of Figure 3.6).

Just as one ‘giant’ of philosophy in the second half of the 20th century, Jürgen Habermas informed much of Chapter 3 through his ideas around communicative exchange and action (1984, 1987b, 1990), so this Chapter draws heavily on another influential philosopher, Michel Foucault. See Box 4.1 for a brief comparison of Foucault and Habermas and their complementary relevance for the conceptualisation of lived experience.

For the purposes of this module, three elements of Foucault’s ideas are important:

- The production of truth – the process by which a general truth is established at a macro-level in society which then frames what is permissible knowledge, and hence what is learned, in a given domain such as climate change. This general truth is often referred to as a dominant discourse (Foucault 1980a, 1980b).

### Box 4.1 Jürgen Habermas and Michel Foucault: antagonistic yet complementary

Put simply, while Habermas (1929-) stresses our ability to change things through communicative learning and action with others, Foucault (1926-1984) focuses on the social relations of power in communicative exchange which structure what can be known, and the constructed ‘truth’ that emerges.

Using Habermas and Foucault as complementary sources for a text such as this is unusual. The two philosophers were often at odds with one another, particularly over the former’s fundamental attachment to the possibility of rational discussion which can lead to the political emancipation of the oppressed (Edgar 2006: 114).

They are, however, complementary for our purposes because they represent the tension between active social agency to transform collective lived experience and the constraining macro-knowledge frameworks within which such agency operates (Johnson and Wilson 2009: 19).

- Aligning with our broadly constructivist approach, the ways in which knowledge is constructed through, and represents, an assembly of power relations between actors (ibid.).
- Governmentality, or the art of modern government through getting to know one’s population (Foucault 1979).

The first two elements inform section 4.1 and 4.2 below. The last – governmentality – is touched upon at the end of section 4.1, but provides a significant input to Chapter 5.

#### **4.1 The lived experience of climate change and the production of truth at the macro-level**

My historical starting point for this analysis is somewhat arbitrary, and therefore can be contested. Other commentators might suggest delving even further back into history, and others may pick different actors and dates as seminal points. I am confident, however, that my own starting point, and the people and dates I locate, do provide a logic to the story I am about to tell. In any case, I am sure that we will all agree that we must delve further back than the past 30 years or so. Module 1 of this series provides similar brief histories.

The link between carbon dioxide concentration in the atmosphere and variations in the mean surface air temperature of the world was established in 1895 by the Swedish Physicist, Svante August Arrhenius (cited in Hulme 2009: 46-47). The possibility of anthropogenic- (human-) induced climate change through increasing carbon dioxide concentrations was first presented by the British engineer, Guy Stewart Callendar, to the Royal Meteorological Society in London in February 1938 (Ibid: 48-49). Callendar drew on the early work of Arrhenius which was at that time largely dormant and ignored.

Callendar's audience in 1938 was mainly sceptical (Ibid: 50). Other scientists, however, continued the studies. In the late 1950s American scientist Charles David Keeling conducted experiments to measure systematically carbon dioxide concentrations in the atmosphere over time (Ibid: 54-56). In 1975, Syukuro Manabe established in the United States the first computer model for establishing climate sensitivity to carbon dioxide concentrations.

Nevertheless, the concern that climate change is induced by anthropogenic activity remained largely a preserve of natural scientists until the late 1980s. Then, in 1987, drawing on mounting evidence which showed that climate change in the past could have occurred much more rapidly than the slow moving oscillations over thousands of years that had previously been the consensus, American oceanographer, Wallace S. Broecker, argued in the influential journal *Nature* that human activity in the future might trigger abrupt changes in aspects of the Earth's climate (Ibid: 59-60). Broecker was not the only scientist then making the claim, but from this moment on we can identify climate change as a matter of public concern, often dovetailing with, and initially being subsumed within, broader environmental concerns. The following year – 1988 – the United Nations Environment Programme and the World Meteorological Organisation established the Intergovernmental Panel on Climate Change (IPCC) which has reported regularly since.

We should note that the idea of *sustainable development* to address environmental concerns also came of age in 1987 with the publication of the report – Our Common Future -- of the World Commission on Environment and Development (WCED) chaired by the Norwegian Prime Minister, Gro Harlem Brundtland (Brundtland, 1987).

The publication of an influential paper on climate change and of the WCED report on sustainable development did not mean that a truth, or dominant discourse, was established around 1987 which was based on environmental, including climate, concerns. Far from it and, in retrospect, we can now identify these publications as only the beginning of a process which continues today. The main issue – in 1987 as now – is that environmental concerns have an uneasy relationship with a longstanding particularly dominant truth for most of the world, which is that human well-being is predicated on increasing economic growth. Given that economic growth in turn depends on exploiting environmental resources, including fossil fuel energy resources where carbon dioxide is the major pollutant, the tensions are easy to see. The WCED was aware of these tensions in 1987 and the concept of sustainable development it articulated then can be viewed as an attempt to resolve them:

‘Development that meets the needs of the present without compromising the ability of future generations to meet their own needs’ (Ibid: 43).

However, sustainable development as a concept is one thing, putting it into practice has proved significantly more elusive as is considered in more detail in Module 1 of this series, *Introduction to climate change in the context of sustainable development*.

The ‘truth’ of the assertion that human welfare is predicated on economic growth is often used as a justification for many public policy measures of national governments -- from acceptance of the need for bigger/new airports to loosening government controls over the national economy. It is accompanied, sometimes explicitly but at least implicitly, by the pronouncement that there is ‘no other way’. The truth that is encapsulated by the phrase ‘there is no other way’ has, however, often been challenged, for example by the UK Institute of Social and Economic Welfare which has attempted to show that increases of human well-being only parallel economic growth up to a point, after which there is a flattening of the trend (see also Chapter 3 of Module 1 *Introduction to climate change in the context of sustainable development*). Nevertheless, these voices are still in the minority, such is the power of the discourse that economic growth is the key.

Thus, at the 1992 United Nations Conference on Environment and Development (UNCED) attended by world leaders (hence termed the first World Summit on Environment and Development) in Rio de Janeiro, it was no surprise when a major dispute emerged between countries of the Global South and those of the Global North. Having internalised the discourse, economic growth had for many years become more or less synonymous with ‘development’ for the former countries. Put crudely, their economies would have to grow at a faster rate if they were ever to catch up with the affluent lifestyles of the North. The countries of the Global South thus asserted their ‘right’ to development, and declared that the North should pay the costs of clearing up an environmental mess which it in large part had created. We can see in this dispute also that, at a macro-level, there was (and continues to be) a collective lived experience by countries of the Global South of climate change as *unjust*. This in turn is tied to a broader sense of injustice among these countries, aligned to their relatively weak trading positions in global markets, their historical legacy of colonialism, the over-riding poverty of their populations and so on. The injustice, these countries will frequently argue, is structured by their peripheral position on the world stage.

The dispute at the 1992 World Summit was patched over through the slogan which came out of the summit: ‘Think global, act local’. This slogan allowed for flexibility of ‘local’ action while keeping the big picture in mind. Nobody, in other words, was going to attempt to dictate to others what actions they should take.

Catchy slogans notwithstanding, the dispute has not gone away, and the tensions remain. For example, in 1998, six years after the first World Summit, Carley and Spapens wrote of China:

‘Its expressed willingness to work with the global community in reducing carbon emissions notwithstanding, China remains adamant that economic development at home should not suffer to solve a problem it regards as largely created by the industrialised world.’

(Carley and Spapens 1998: 38)

In the North too there have been similar tensions, specifically over international attempts to reduce carbon footprints (and hence mitigate climate change) and the possible negative impacts on national economic competitiveness of doing so. Thus, in 2001, US President George Bush Junior famously refused to sign the Kyoto Protocol – the international agreement signed and ratified by 193 countries (as of end of February 2012) to reduce

carbon emissions<sup>9</sup> -- on the grounds that he could agree to nothing that might adversely affect the American way of life (cited in Hulme 2009: 109). See also Chapter 4 of Module 1 which discusses the politics of climate change negotiations.

Thus, given that the dominant discourse of the necessity for economic growth has been, and continues to be, so pervasive and un-moveable, attempts to establish a truth around climate change have had to accommodate it. Moving to this century, the 'Economics of climate change', the influential review for the UK Government, by Nicholas Stern, shifted the ground in the direction of accommodation by arguing that climate change impacts would be bad for world economic growth, and the countries of the Global South would be worst affected (Stern, 2006). His analysis of what would be needed to hold global carbon concentrations in the atmosphere at an acceptable 450-500 parts per million assumed an annual growth in the global economy between 1.3%. As an aside, this is a good example of how a generally accepted powerful truth like economic growth becomes embedded in real numbers on which influential reports are based. Even higher annual global growth rates of 2.3-3.6% are assumed by the IPCC. Chapter 3 of Module 1 discusses in some detail the analysis of the Stern Review and alternative approaches to the economics of climate change.

The Stern Review certainly did shift the ground, judging by media headlines, for example the Washington Post's 'Warming called [a] threat to [the] global economy' (31 October 2006 – cited in Hulme 2009: 125). The discourse did not stop there, however, and in recent years a more positive tone has evolved. Thus, in 2010 Stern's later book was published. Its main title is 'A blueprint for a safer planet' and its sub-title 'How we can save the world and create prosperity'. Rather than equating failure to act on climate change with economic doom, which was the impact of his Review, the ground has thus shifted further to assert that acting on climate change will create a new kind of economic growth which is predicated on developing green technologies and the skills needed to operate them, and hence millions of jobs. The assertion is further buttressed by predictions that economies based on fossil fuels for energy (primarily oil, coal and gas) are unsustainable. Oil and gas particularly are predicted to run out relatively soon. With increasing demand for these resources by the two most populous countries in the world – China and India – many countries now articulate a challenge of energy security. Meeting the mutually reinforcing challenges of climate change and energy security requires technological choices both to use energy more efficiently and develop alternatives (wind, photovoltaics, hydro-, tidal, nuclear and so on) which are not based on fossil fuels.

Thus I witness an evolving discourse on climate change which links meeting the challenge to economic growth it poses to prosperity, employment and national energy security. This, as I write in 2012, is what I witness to be the current state of the macro-truth. It is a truth that, moreover, is certain to impact on our lived experiences of climate change both because of the messages we receive which purvey it, directly from politicians, business leaders and others in dominant positions, and in terms of public policy and actions for which it is a catalyst. Examples of policy and actions include:

- Increasing vocational education opportunities as Institutes of Further and Higher Education (including Universities) develop and offer courses for training (or re-training for those switching careers) and updating of knowledge about green technologies and the skills they require.
- Significant and increasing employment opportunities in the so-called 'green economy'.
- A rather difficult transition to such an economy where jobs are lost as well as gained.

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<sup>9</sup> See Module 1—*Introduction to climate change in the context of sustainable development* -- in this series, Chapters 3 and 4, for further discussion of the Kyoto Protocol.

- Technological activities which are not necessarily benign in their impacts. Examples include, the wind farm proposal and associated protests highlighted in Figure 3.3 and the discussion in Chapter 3, but which could also be, for example, a nuclear power station, or communities having to re-locate to make way for a hydro-electric scheme which requires building a large dam. Within the Global South, Government legislation to protect natural resources, for example hitherto communal forests, might lead to further impacts. The protection is ostensibly to preserve forests in the name of increasing carbon capture and preventing erosion, but the legislation then denies customary access and livelihood opportunities for local forest communities. In this regard, Nyukuri (personal communication) and (Griffiths: 2007: 32) refer to the Reduced Emissions from Deforestation (RED) scheme of the United Nations Framework on Climate Change Convention (UNFCCC) which provides compensation payments to southern governments for preserving forests. The Clean Development Mechanism of the Kyoto Protocol could have the same impact<sup>10</sup>. Yet another example would be pressure by agricultural extension workers for local farmers to accept new seeds and practices, again in the name of adapting to the impacts of climate change.

If this win-win-win scenario, of:

- a) low carbon emissions,
- b) prosperity and employment,
- c) energy security,

has indeed emerged for the present as a regime of truth around climate change, three features stand out beyond my description of Foucault's general formulation of the concept above.

Firstly, it is a knowledge construction which has evolved over time, as I have indicated. There is no reason to suppose that it will not evolve further (Figure 4.1).

Secondly, there have been many influences on its construction and evolution over time, involving a multiplicity of relations. Some of these relations have been at an international level, where the interdependence of states in the face of climate change has meant that even the most affluent countries in the world have been unable to impose on the less affluent. But part of this regime speaks obviously to local agendas with its emphasis on creating employment out of the situation. To a large extent, this is connected to state-society relations and the need for public policies and practices that are seen as legitimate by the populations they are aimed at. Thus we can see the current truth regime as a kind of distillation of macro- (international) and micro- concerns, with undoubtedly many intermediate layers.

Thirdly, it has involved the subjection of alternative discourses. It is predicated on facilitating continued economic growth and accompanying technological solutions. An alternative discourse might be around lowering consumer demand and a culture of thrift and self sufficiency, all of which attack fundamentally the accepted link between well-being and economic growth. Jehlička (2009) has identified such a discourse among several East European states around the time of their accession to the European Union in 2004. It derived from austerity under the old Soviet domination and also a desire for a certain degree of autonomy from that domination through food self-sufficiency. Thus recycling and vegetable growing were all much higher than in the Western European countries. Yet, under the discourse of 'modernisation' (another element of the dominant truth regime), these countries were forced on accession to adopt the western models which depend on maintaining high degrees of consumerism and technical solutions to environmental problems.

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<sup>10</sup> Or whatever is introduced to replace it post-Kyoto from 2013.



**Figure 4.1. Establishing a truth at the Copenhagen Summit on climate change 2009? UN Secretary-General, Ban Ki-moon, meets delegates. United Nations Photo reproduced under a Creative Commons Licence.**

The third feature above shows further ways in which lived experience, influenced by one discourse such as thrift and self sufficiency, might alter under the influence of another, more dominant discourse, especially a discourse whose acceptance is a necessary condition for gaining other benefits (in this case accession to the European Union).

The second feature points, however, points to a more complex arrangement, whereby not only do generalised regimes of truth affect the local lived experience, but also that local lived experiences and their concomitant concerns with livelihoods affect the construction of regimes of truth. This point relates to another concern of Foucault (1979), anticipated at the start of this chapter, which he termed ‘governmentality’ or the art of modern government. Governmentality requires that governments need to know about the concerns and needs of their populations in order to manage them and be seen as legitimate. I return to the relevance of the lived experience of climate change to governmentality in Chapter 5.

## **4.2 The lived experience of climate change and the production of truth at the micro- (local) level**

This sub-section is less about the mutual relationship between the local lived experience of climate change and the macro-level of regimes of truth, which I covered in Section 4.1 above, and more about the micro-dynamics of direct experiential engagements between actors. It thus concerns the inner circle of Figure 3.6, with its emphasis on reflection through engagement with others.

As noted in Chapter 3 groups of people are not homogenous. Their heterogeneity is invariably manifested in terms of power relations between the members, often disguised and rarely overtly used, but nevertheless omnipresent. To illustrate, consider the following four cameos, the first two of which are hypothetical:

*Cameo 1.* Imagine a village community in the Global South whose members are conferring either formally or informally about a prolonged drought, or a recent cyclone which has caused considerable damage, or a Government decision to lay claim to nearby forest on the grounds it needs to protect it. In conversation and discussion, the views of the village elders are likely to be considered more important than those of the youth; those of men more important than those of women; those of higher caste more important

than those of lower caste; those who own more land and livestock more important than those who own less. An equivalent cameo could also be constructed of community-based groups in Europe, although the compositions of the hierarchies would be different. For instance one hierarchical distinction within a European community group might be between professionals and non-professionals operating in the group.

*Cameo 2.* Now imagine a group of farmers in the Global South who are receiving a visit from a Government extension worker. The extension worker sets about persuading the farmers to change the staple crop that they grow, which is susceptible to extreme weather conditions, to another crop which is less susceptible. The extension worker proposes some trials over the growing season. The farmers are apprehensive because they know little about this alternative staple, how it will grow, what methods of cultivation are needed, and because it will affect their diet – another unknown quantity. Eventually they agree to participate in the trials, partly because they accept the knowledge of the extension worker, and partly because the extension worker has assured them that it will be accompanied by Government support which includes free seeds and inputs, and possibly machinery. They also know secretly that, with some fudging, the trials will take up a minor portion of their land so they can cultivate their traditional crop alongside the trials.

*Cameo 3.* A few years ago I was moderating an electronic forum discussion among Open University-UK undergraduate students about the introduction of genetically modified (GM) crops. One student started her contribution with: ‘As someone who was born and has lived in the Third World for 45 years [I believe]...’ Another started her contribution with, ‘As an organic farmer who lives in Switzerland [I believe]...’ These statements by students which preceded their views about GM crops have one thing in common: they are both claims to authoritative knowledge that is based on their own lived experiences. Other members of the forum immediately deferred to their knowledge.

*Cameo 4.* I have referred in Chapter 3 to my research with Hazel Johnson on partnerships between environmental health officers in Uganda and UK municipalities. There, I referred to the facilitation of engagement through the ‘background consensus’ of assumptions and meanings shared by their profession irrespective of where they are located in the world. The research also revealed, however, that the engagements were not conducted on completely equal terms despite the existence of a background consensus. Thus, the UK and Ugandan officers talked about the different knowledge each brought to their discussions of how to tackle projects in which they jointly engaged – storm drains, water and sanitation, waste management and traffic management in Uganda. The UK officers, it seemed, brought knowledge of ‘best practice’ in environmental health, which was then adapted by the Ugandan officers through their knowledge of the ‘local context’. It was clear which knowledge overall was assumed superior by both sets of officers – that of ‘best practice; which was considered universal and to which the Ugandan officers should aspire (Johnson and Wilson, 2009: 72-75)

The cameos suggest that in Northern groups, Southern groups and significantly North-South groups, collective experiences are likely to reflect the more dominant voices. However, this is unlikely to be complete knowledge dominance. As with the relations between states on the world stage, even in a locally based group there is interdependence of the members (which is one reason for identifying it as a group). During their engagement, claims will be made to authority. Therefore, a complex dynamic is always at play and no single member’s power is absolute. The discourse which emerges in the group represents a kind of accommodation of different interests. The discourse can also be strategically subverted as the farmers in cameo 2 make clear when they seek to ‘fudge’ the trials so that they can continue to grow their traditional crops.

Thus, from a constructivist perspective, knowledge is not neutral, rather it represents a power dynamic, although rarely absolutely the voices of the most powerful. Note that in this Chapter I make no judgement on this situation, but consider it as an analytical fact. I also note, from before, that difference is essential for the construction of knowledge. If

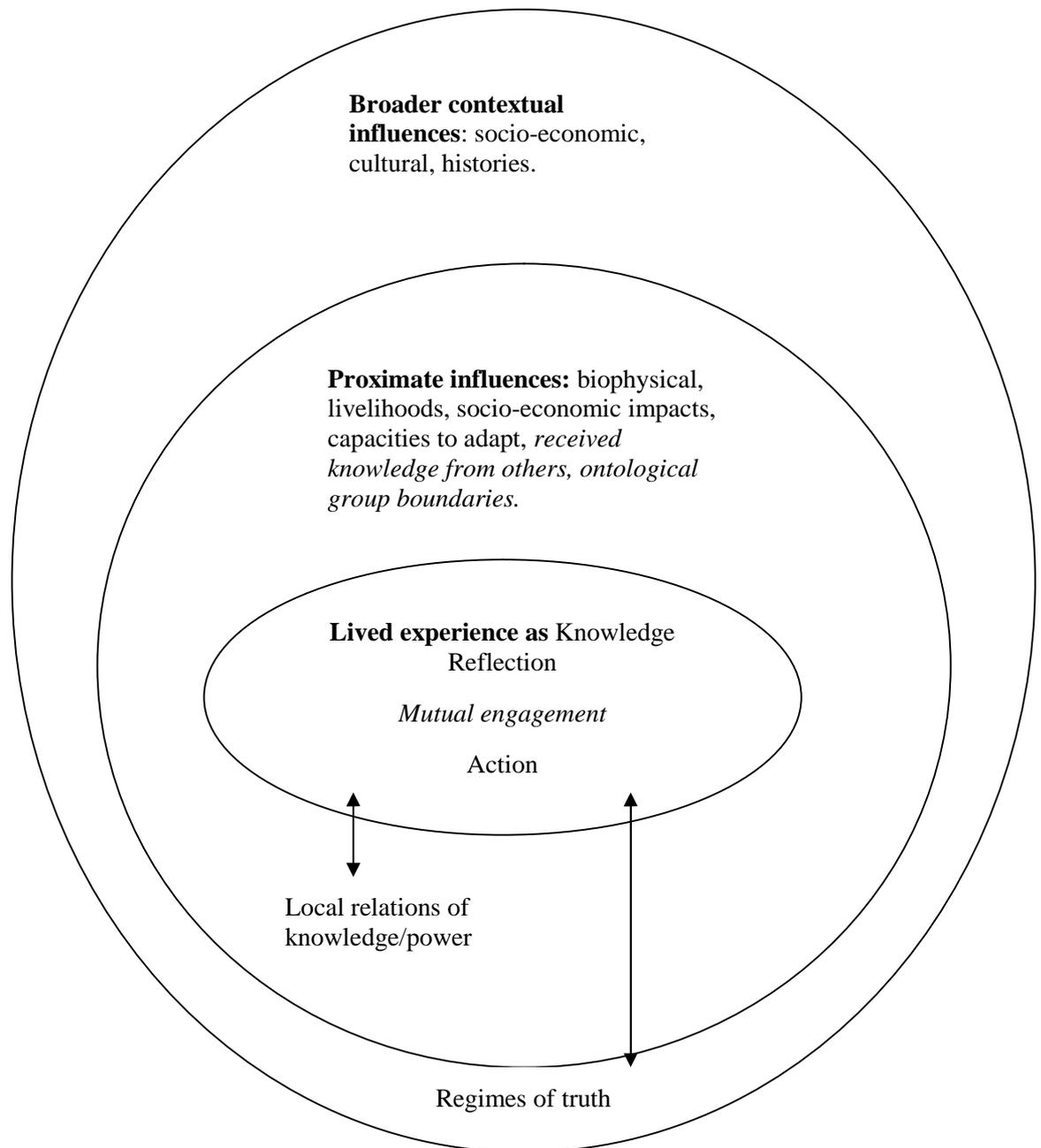
difference also means relations of power between actors, then we have to live with and manage that also.

### 4.3 Conclusion to Chapter 4

Chapter 4 has added a further layer of complexity to my conceptualisation of the lived experience of climate change which I developed in Chapter 3. This is manifest in the following ways:

- It requires an addition to the contextual dimensions in the outer circle of Figure 3.6. This addition concerns the dominant discourses or regimes of truth about climate change which influence ‘from above’ the interpretations and reflections which evolve our lived experiences. The present dominant discourse around climate change represents an accommodation of its acknowledged negative impacts with other ‘truths’ about the necessity of economic growth and the security of energy supplies to fuel this growth. The current discourse is thus presented positively as creating a new kind of employment and prosperity.
- The current discourse is nevertheless not static. It has evolved since the early 1990s and the debates then about maintaining the right of the Global South to development, to the United States position on the Kyoto Treaty early this century, to the present position. In the process of establishing it, other discourses such as thrift and self sufficiency which challenge the basic pillar of economic growth, have become subordinated.
- It has not evolved simply as a top-down discourse, but over time through a multitude of relationships at and between scales. Of importance for this module is that local concerns with livelihoods – a key dimension of local lived experiences – have played an obvious part in shaping it. We therefore have to capture a mutually constituted relationship between lived experience and the current dominant discourse of climate change.
- The conceptualisation contained in Figure 3.6 also requires further consideration of the inner circle, particularly the micro-dynamics of what happens when we engage with others. These engagements are never neutral and power relations between actors mediate these arrangements. It is too simple to argue, however, that in engagements with others the knowledge of the most powerful members will inevitably come to dominate and hence determine our evolving lived experiences. Groups are sustained by an interdependence of members, and interdependence is usually heightened when it comes to confronting issues associated with climate change. Interdependence by definition means that no single power ‘wins’ and accommodation is required. Such accommodation then influences the nature of reflection and action which in turn impacts on the lived experience.

These considerations of knowledge and power make conceptualising the lived experience of climate change an even messier business. Figure 4.2 represents my attempt.



**Figure 4.2. Conceptualising the lived experience of climate change – 3rd iteration**

**Note of explanation to Figure 4.2:** In this figure I have placed local relations of knowledge/power in the middle circle of proximate influences and regimes of truth in the outer circle of broader contextual influences. I have separated them from the main lists in these circles, however, in order to illustrate through double-headed arrows their mutual relationships with the inner circle.

Figure 4.2 represents my third and final iteration of conceptualising the lived experience of climate change. Undoubtedly it can be bettered, further annotated or even replaced by something different. You might like now (and I recommend that you do so) to turn to Activities 3, 4, 5, 6 contained in the Module 2 workbook. These Activities:

- Test your understanding of the development of the final iteration of the conceptualisation through Chapters 1-4 of this textbook.
- Test your understanding of the final iteration as reproduced in Figure 4.2.
- Engage critically with the final iteration. What are its strengths and weaknesses?
- Apply the final iteration to a range of lived experiences of climate change.

If the lived experience of climate change has so many influences, and it also reflects knowledge/power relations among those who engage over it, of what use is it? A critique would say that it is totally subjective, context-dependent, influenced to a large part by more powerful voices, and that we have no basis for deciding whether or not it represents good or bad knowledge. As far as policy making and practice around climate change are concerned, should we not stick to the sciences (natural and social) and their claims to rise above such subjectivity? It is to this and related questions which I now turn.

## 5. The lived experience of climate change, policy making and practice

Climate change and its consequences for the functioning of human societies represent a defining challenge in the 21st century. For this we must thank in significant degree the natural scientists who have achieved a consensus about the scale of the challenge, in particular through their contributions to the IPCC. As Blackmore (2009) notes: ‘The IPCC is an extraordinary example of international and interdisciplinary collaboration between scientists and other academics across the world. Their efforts have advanced significantly our understanding of how the earth’s physical and biological systems, its atmosphere, oceans, land, ice and the living world including ourselves, interact and influence each other.’

More recently other sciences have addressed the theme of climate change, such as political science with respect to governance issues (Breitmeier 2008) and economics with respect to the costs and livelihood impacts associated with the challenge (Stern 2006; Stern 2010). Just as research on climate change has been dominated by the natural sciences, with later entrants from social science disciplines, so too has University teaching. While the reproduction of disciplinary specialists through University teaching is both inevitable and also in many respects commendable in order to gain in-depth insights into particular aspects of climate change, the question arises as to what is then left out of the equation. To answer this question we need to start with the subject – climate change – rather than particular disciplinary approaches.

Climate change is a real-world, global challenge, and such challenges rarely fall neatly within the epistemological boundaries established by academic disciplines. Brewer (1999) put this bluntly when he stated: ‘The world has problems while Universities have departments’. This observation remains the most compelling reason for interdisciplinary approaches to the study of real-world problems (Mohan and Wilson 2005) such as climate change, where exploration at the boundary interfaces of academic disciplines represents opportunities for gaining insights which would otherwise remain hidden. Note, however, that this approach does not seek to challenge the importance of individual disciplines – interdisciplinary should not be equated with anti-disciplinary – but build on their interfaces to construct new knowledge.

The ‘lived experience of climate change’ concept expands the notion of interdisciplinarity by introducing non-academic knowledges into the mix. Thus, rather than restrict interdisciplinarity to exploration at the knowledge interfaces of academic disciplines, for example natural science and economics, I am arguing for recognising alongside these traditional subjects the validity of experiential knowledge gained through the lives of the full range of human beings whatever the basis of their livelihoods<sup>11</sup>.

In this chapter I argue further that, by including lived experience as a valid knowledge alongside traditional knowledge, it is possible to gain a fuller understanding of climate change which is appropriate to informing policy and practice. Firstly, however, I examine arguments that might be made against including knowledge derived from lived experience, while I end the chapter by briefly suggesting ways in which including it might happen.

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<sup>11</sup> This broad approach might also be described as transdisciplinary as it appears to be ‘beyond the disciplines’. There is a danger, however, of entering into a sterile debate over labels such as inter- or trans-disciplinary where there is no clear dividing line. For the purposes of this module we need not enter such debates. I will continue to use the term ‘interdisciplinary’.

## 5.1 Lived experience: subjective and too contextual?

As I noted at the end of Chapter 4, lived experience seems to be so subjective, so subject to influences that are not innocent (such as powerful interests) that we have no basis on which to judge it and its utility. A further, related, argument is that it is so rooted in context that it is impossible to generalise from it in a way that is useful for policy. I deal with each argument in turn below.

### 5.1.1 Subjective

I do not even attempt to claim that the lived experience of climate change is not highly subjective. What I do claim is that, in its subjectivity, it is not as different as first appears from knowledges derived from the disciplinary sciences with their objectivity claims.

Subjects such as physics, biology, chemistry, economics, sociology, social policy, and psychology are all relevant to the study of climate change. These subjects have also evolved over time bodies of knowledge, theories and core concepts associated with each, which ‘discipline’ us to engage with them in particular ways. You can’t, for example, study economics without using the concept of markets, whether uncritically or critically. Moreover, they provide a meta-framework for our further research into the subject, and a rigorous basis for analysing our data which as a consequence appears ‘objective’. Rarely, research enables us to escape from these subject-based meta-frameworks and is heralded as a major ‘discovery’, but nevertheless the frameworks form our starting point.

All of this is legitimate and laudable, although there are issues about the constraining impacts of disciplines on the way we think. We should not claim, however, that this kind of ordering knowledge is objective. Francis Bacon, who I also quoted in Chapter 4, noted at the start of the 17th century that ‘pure objective science was impossible, not only because we are forced to use language, or some kind of numerical notation, which does not “naturally” belong to the objects we name or number, but because we seek patterns, shapes and symmetries in nature which correspond to our own preconceptions, not to anything that is “really” there’ (cited in Carey 1995: xviii). Three centuries later, specifically in relation to atomic physics, the Danish Physicist Niels Bohr (1885-1962) referred to the ‘fundamental limitations... of the objective existence of phenomena independent of their means of observation’ (Ibid: 277). Then, in 1927, the ‘uncertainty principle’ of German theoretical physicist Werner Heisenberg further encapsulated the fundamental issue: ‘The conventional division of the world into subject and object, into inner and outer world, into body and soul, is no longer applicable’ (Ibid.).

Bacon, Bohr and Heisenberg shared similar philosophical observations on the impossibility of objective science. It is a later writer, Bruno Latour, however, who questions its innocence. From the basic premise that science can only be understood through its practice, his book ‘Science in action’ (1987) illustrates how empirical observations, and powerful lobbies as well as individual scientists form ‘actor-networks’ to create a self-perpetuating momentum for scientific research and application.

None of the above is intended as a fundamental critique of science. Indeed Bohr, Heisenberg and others were themselves scientists who raised the issues, and the world has learned to live with uncertainty over recent decades. My three points are that:

- Firstly, in important respects, scientific knowledges have the same uncertainties and doubts attached to them as do lived experiences. For lived experience, as with science, we can learn to live with them.

- Secondly, scientific findings are not innocent. They are seized upon and used by politicians and others to support whatever case they are making (Nelkin, 1977). To take one example, the influential Stern Review was in fact commissioned by the UK Government to make the crucial link between the economy and climate change impacts. Its conclusion that climate change would cost the earth dear, and that these costs would far outweigh the cost of taking mitigation and adaptation measures now, were seized upon by the then UK Prime Minister Tony Blair, who proclaimed of the final report: 'It proves [that] tackling climate change is the pro-growth strategy' (cited in Hulme 2009: 125). Undoubtedly, evidence of lived experience can be used in similar ways by populist politicians, but that does not make it any worse or better than scientific knowledge in this respect. With both we must analyse critically the non-innocent uses to which they are put.
- Thirdly, when we see numerical notation (as Francis Bacon put it) which is applied to a scenario of a future world, we should question what lies behind it. Thus when, in economic scenarios, the IPCC suggests that the world economy will continue to grow between 2.3 and 3.6% annually (see Chapter 4 above), we need to ask questions about the basis for these figures. They contain both an assumption (that economic growth is inevitable and desirable) and a judgement as to the size of the figure. The assumption and judgement may both be sound, but it is well to remember them for what they are – patterns and shapes imposed by human beings.

These three points mean that we should always take a challenging position on evidence from any 'science'. We should also do the same with evidence of lived experience and we should not fall into the trap of valorising the latter at the expense of the former. It is my intention that the conceptual framework I have developed enables critical engagement with the concept and what it can offer. None of this constitutes a reason, however, for rejecting either. Science emphasises triangulation in reducing uncertainty and increasing validity of its results. This is a process of multiple methods of investigation by which a result is either confirmed, confirmed with qualification or not confirmed. A similar process can be used when examining lived experience (for further discussion, see Module 3 of this series *on Interdisciplinary methodologies for investigation into the 'lived experiences' of climate change*).

### 5.1.2 Too contextual

In contrast to the fundamental issues raised in the discussion above about subjectivity, 'too contextual' is essentially a utilitarian argument that applies more specifically to lived experience. I cannot defend lived experience on the grounds that similar challenges of being too contextual confront scientific knowledges (whether natural or social). Instead, the latter are high on abstraction and generalisation. The scientific analyses of the IPCC reports tell us that the world is likely to warm by between 2°C and 6°C by 2050. The Stern Review tells us that the cost of unmitigated climate change is likely to be between 5% and 20% of global gross domestic product per year. And so on.

Thus, a charge that 'lived experience of climate change' is too contextual to be of practical use has to be examined on its own terms. The basis of the charge that, because contexts vary infinitely, it is impossible to draw generalisations which are needed practically to inform policy is strong. Conversely, however, it is possible through the contextual nature of lived experiences to gain insights which are invisible to the greater abstractions of the sciences. For example, while the Stern Review predicts as a generalisation that poorer people in the Global South will be hit the hardest by climate change impacts, lived experiences will reveal insights into the mechanisms of how this will happen and the actions that will be taken in everyday life to adapt. To me, these seem to be important aspects of an evidence base for meeting the climate change challenge. Moreover, for purposes of practical translation into policy, a degree of generalisation can be gained from these insights through comparative analyses of lived experiences which illustrate their wider applicability as well as when they are only

applicable in one place at one time to one person. This is a matter of sifting the evidence, which Module 3 explores in more detail.

## **5.2 Lived experience and the potential to inform public policy**

Having confronted briefly two general reasons that might be given for not using lived experiences of climate change to inform policy, I now move onto some of the potential benefits of doing so alongside scientific knowledges.

### **5.2.1 Governmentality**

I promised in Chapter 4 to return to Foucault and the topic of governmentality (Foucault 1979), or the art of modern government. Writing about Europe, Foucault traced the evolution from arbitrary rule by Kings and Queens, dictators and despots of various kinds to modern representative democracy. He concluded that today, for a population to be governable, the state and the apparatuses which support it must know their population, its needs and characteristics.

To some extent ‘knowing the population’ can be achieved through various forms of census which require data gathering and statistical analysis. The analysis can reveal a great deal – changing social norms and expectations, achievement, health and well-being and so on. Statistics, however, are predicated on generalisation – creating patterns out of large samples. With respect to climate change the lived experience can complement statistical analysis by revealing the subjective and inter-subjective, qualitative dimensions of people’s lives to give a fuller picture. And these dimensions will also reveal concerns which government can seek to accommodate. They help reinforce what the 18th century French philosopher, Jean-Jacques Rousseau, labelled a “social contract” – a set of formal and informal rules that guide the behaviour of individuals, businesses and governments and which grants governments power over their citizens. It is an informal or tacit “contract” in which citizens accept their government as being legitimate and having power.

In Chapter 4 I noted that today’s dominant Government discourse on climate change (in the Global North at least) links its impacts to the economy (and jobs and prosperity) and energy security. The discourse can be seen in part, therefore, as an accommodation of the population’s needs and expectations, at least in terms of public rhetoric. The discourse seems obvious today, but was not so in the early 1990s when it began evolving. I suggest that one reason for this was the early failure to make explicit the links between climate and the economy which we take more-or-less for granted today. Although, in 1990, Government would know about its population’s concern for jobs, it would not have linked this to climate change. An early study, and more systematic knowledge, of lived experience of climate change would, however, have arguably made the link much sooner and perhaps enabled earlier action. It would have represented a shift from messy, unmanaged evolution of the discourse to systematic evolution. It is not as if Governments and other groups do not have methods to capture lived experiences. They do, through focus groups for example, or through academic analysis and distillation of lived experiences.

### **5.2.2 Capturing a wide range of knowledge and insights**

The lived experience of climate change can apply to any individual or group. While this presents a challenge (see Section 5.1.2 above) it means that a rich range of evidence is available.

Applied to groups, especially appropriate are the lived experiences of businesses in the private sector, professional associations, employee associations, non-governmental organisations, public sector units at both national and local government levels, faith groups, community associations and other citizen groups. This list is by no means exhaustive but the result of a quick personal brainstorm. These (and other) groups will have distinctive collective lived experiences which are relevant to climate change policy.

### 5.2.3 Doing no harm

This is a maxim of humanitarian intervention, including sometimes of outside military intervention in civil wars in an attempt to prevent further carnage and possibly genocide. The maxim recognises that any outsider intervention, even with the most noble of intentions such as saving lives, is fraught with difficulty and in danger of going terribly wrong without a full understanding of context. Hanlon (2008), for example, has reported instances of outside intervention in civil wars in Sub-Saharan Africa which have exacerbated the injustices which led to the civil war in the first place.

As far as climate change is concerned, understanding of lived experience is fundamental to understanding the complexities of context and avoiding policy mistakes. In one sense, therefore, it is a variant of the governmentality theme. I referred briefly in Chapter 4 to Elvin Nyukuri's example of East African governments not understanding the contexts of forest dwellers and making bad policy. In brief, East African governments have taken over protection of local rainforests. One way they can do this is through the Clean Development Mechanism of the Kyoto Protocol, where forest protection (envisaged as being a key component of carbon capture) offsets carbon-releasing development elsewhere. Such protection, however, has had a harmful effect on forest communities who have depended on forest resources for their livelihoods. Providing these communities with the means to express their lived experiences could have avoided this situation and potentially arrived at a more nuanced form of forest protection which achieved a 'win-win' -- for the forest dwellers (whose interest is in seeing their livelihoods preserved) and for climate change mitigation.

Examples of high handed government policy and regulations, made with the best of intentions, but which adversely affect the livelihoods of the poorest and most vulnerable groups, abound especially, but not exclusively, in the Global South. Attention to lived experiences of such groups would be time well-spent.

### 5.2.4 Insights into appropriate practice

Poor people in the Global South who are vulnerable to climate change respond rapidly to its impacts. They have no choice because their livelihoods and well-being depend on their ability to respond. Sometimes their response is not one that a national Government would wish. For example whole rural communities might abandon their way of life and migrate to the nearest city, generating a new set of problems both at their new and 'home' locations, as recorded in Account 1 in Chapter 2. No Government is likely to welcome this new kind of 'climate refugee' as recorded in Account 8, which concerns attempts by the Government of Bangladesh to limit migration from the coastal areas.

Many people, however, do not take this course of action, as Account 7 demonstrates. They mostly remain. They adapt to their changed circumstances. I have previously mentioned in this module selectively breeding seeds with climate variability resistance. Account 7 also records building houses on stilts on the Pacific Islands to protect against floods. As the Account notes: 'We live with this climate change, we're adapting every moment of every day to cope with what's happening.'

Each year, alternating between Sub-Saharan Africa and South Asia, an international 'Community-based Adaptation Conference' takes place to share practices and ideas, and to ensure that innovations, which would otherwise be unseen or 'below the radar', are recorded. Box 5.1 gives some examples from the 2010 conference which was held in Tanzania, East Africa. Figure 5.1 is of attendees at the final day of the conference.

#### **Box 5.1 Below the radar innovations in adapting to climate change from the Community-Based Adaptation Conference 2010.**

The annual Community-based Adaptation Conference is organised by the International Institute for Environment and Development (IIED) based in London.

For two days prior to the 2010 conference in Dar Es Salaam (the capital city of Tanzania), participants undertook field trips to see practical examples of community-based adaptation. The following are taken from the official report of the conference, which was produced and published by the International Institute for Sustainable Development (IISD), a policy research institute based in Winnipeg, Canada, with offices in Ottawa (Canada), New York (United States) and Geneva (Switzerland).

**Petra Bakewell-Stone**, Pro-Natura International, offered highlights of a visit to the Kisarawe District, 50km west of Dar Es Salaam, which included vulnerable communities affected by drought and water shortages. She said it remained to be seen whether the conditions were a result of climate change or mismanagement. In one of the coastal villages visited, the group witnessed a successful community project that was adapting to climatic changes by shifting to more sustainable mangrove harvesting after many agricultural sites had been submerged or abandoned.

**Million Getnet**, Haramaya University [Ethiopia] discussed his group's visit to three villages in the coastal Mukuranga region, which has seen an increase in temperatures and erratic rainfall in recent years resulting in drought and water shortages that have had a significant impact on maize and rice production. He said that to adapt to the situation, some of the villages have shifted to cassava production, a drought-resistant crop, as well as diversified into poultry production.

**Nanki Kaur**, IIED, told participants about a visit to a site in the Kinondoni Municipality, Dar es Salaam, close to the hotel venue, where increased rainfall intensity is having a significant impact on urban slums. She noted that communities have found innovative ways of coping with the impacts of climate change that do not require external support and huge investments, such as using rubbish as a flood defence.

Source: IISD's Summary Report of the 2010 conference:

<http://www.iisd.ca/download/pdf/sd/yimbvol135num3e.pdf> accessed 27 February 2012.



**Figure 5.1. Delegates at the the 2010 Community-Based Adaptation Conference, Dar Es Salaam, Tanzania. Photograph courtesy of IISD/Earth Negotiations Bulletin.**

Innovation is also a feature of the private sector, where businesses are likely to fail if they do not innovate. The public sector moves much more slowly, however. This is why it is so important to capture the everyday innovations which are taking place on the ground. It informs policy makers of what is possible and it invites them to tap into the wealth of creativity on the ground. Returning to the 'do no harm' theme, it also invites policy to work with what is being done rather than possibly against it. Again, a systematic approach to recording lived experiences can capture much of the local response to climate change which is already taking place.

### **5.3 Conclusion to Chapter 5**

This Chapter has made the argument that a complete understanding of climate change requires a broad range of knowledge inputs from the established disciplines and beyond. The latter is exemplified by the 'lived experience of climate change' concept. The

Chapter argues that challenges of rigour and validity of knowledge derived from lived experience can be managed through a critical approach to the concept and its use, just as indeed they have also to be managed in the disciplinary sciences (both natural and social sciences). Lived experiences can provide complementary insights to those of the sciences, and these insights can be made generalisable (and hence of use to policy makers) by appropriate comparative studies.

Positive reasons for examining lived experiences as part of the evidence base for climate change policy and practice include:

- Governmentality – gaining legitimacy for public policy and accommodating citizen concerns.
- Capturing a range of insights from businesses, professional associations, employee associations, non-governmental organisations, public sector units at both national and local government levels, faith groups, community associations and other citizen groups, etc.
- Doing no harm through making bad, ignorant policy decisions which adversely affect local livelihoods,
- Gaining rapid insights into appropriate practice and working with innovative adaptation that is already taking place on the ground.

To end this Chapter, I make two further points:

- 1) In Chapter 5 I have taken a more normative approach relative to previous Chapters which have been more analytical. I have thus argued the case *for* inclusion of lived experiences of climate change alongside more conventional knowledges to provide the evidence base for policy making. I offer you the opportunity through Activities 7 and 8 in the module workbook to engage further with my argument.
- 2) I am painfully aware that in the process of making my normative argument I have tended to treat public policy making as a matter of benign prescription in which:
  - a) Evidence on a matter of public concern is collected and analysed,
  - b) Appropriate policy is designed and finally enacted.

I actually believe that public policy making is much more a political process. Climate change became a matter of public concern (both national and international) because influential scientists, other concerned public figures and some high profile international non-governmental organisations (for example, Greenpeace) shouted about it in whatever forums would hear their voices, particularly those of the United Nations. If this had not happened it would still be the preserve of esoteric scientific research and associated publications. The current discourse of linking adaptation and mitigation measures to new employment prospects and energy security arose because of political fears that high-handed actions on climate change would not carry popular legitimacy and could be electoral suicide for elected governments. The scientific evidence too has become a political tool, with the minority of climate change sceptics mounting a challenge to the scientific consensus through attempting to discredit the evidence. It matters not that the challenge may or may not be scientifically sound. What matters in political terms is that it has been made and constitutes a challenge to action (Nelkin 1977: 189-205).

This brief entry into the politics of public policy does not undermine my argument to make the lived experience of climate change part of the evidence base for public policy. It does suggest, however, that making this happen will itself require a large amount of advocacy and political manoeuvring.

I now invite you to further your critical understanding of the ideas contained in this chapter by turning to the Module 2 workbook Activities 5, 6, 7, 8 and 9. Note that Activity 9 is an exercise that can only be undertaken as group work within a virtual

learning community. As such it develops the skill of transboundary competence, which is the ability to engage over diverse knowledge boundaries, and is highly recommended.

## 6. Conclusion: re-visiting the lived experience of climate change

The whole thrust of this module has been that there is no ‘thing’ or even ‘things’ in the plural which we can identify as the ‘lived experience of climate change’. Rather, we have to think of, and analyse, the concept in process terms, a moving target of action-learning in everyday life involving knowledge, action, reflection and mutual engagement with others. We can think of it as either individual or collective (group-) lived experience.

We also have to think of it as an active, rather than passive, process. People and groups in everyday lives do respond, adapt and innovate.

The concept’s processual nature makes it difficult to grasp, precisely because lived experience is not something one can hold. The difficulty is further compounded when we consider that it has a number of contextual influences, which I have divided into proximate and broader influences. The proximate influences concern:

- Biophysical impacts related to climate change, such as unseasonal and/or dramatic weather variation, biodiversity loss, etc.
- Socio-economic impacts such as livelihood loss.
- Received knowledge from scientists, politicians, government departments (local and national), non-governmental organisations, and experts of various kinds. Often such knowledge is mediated via the media, but can be from any source.

The broader influences concern general socio-economic and cultural relations, personal and collective histories, and society-wide regimes of truth concerning climate change which frame knowledge at a macro-level.

Of special interest is the multi-directional knowledge flows between the action-learning cycle of lived experience and the proximate and broader knowledge influences. The current discourse on climate change, at least in the Global North, which links meeting the challenge to economic growth and employment opportunities, is an example of how lived experience concerns over livelihoods have influenced the evolution of this discourse.

Lived experience is not innocent as it is shaped by power relations concerning which knowledge(s) are deemed authoritative. The influence of societal regimes of truth is one example of this. Another is the shaping of lived experience through conversation, discussion and debate in direct mutual engagement with others.

All of the above indicates that lived experiences of climate change are highly contextual compared with the generalised claims of both natural and social sciences. This might be seen as a weakness of lived experience in informing policy. However, the weakness is also its strength because it complements scientific knowledges by suggesting what can be done and, equally importantly, what should not be done if climate change discourses and mitigation/adaptation policy and practices are to have a broad legitimacy.

Also, snapshot generalisations are possible with respect to identifiable categories. Thus, this module has:

- Highlighted and contrasted in general terms Northern and Southern lived experiences
- Highlighted negative (‘deviant’) lived experiences of adaptation/mitigation plans.
- Acknowledged that some lived experiences will be positive.

These and other snapshot generalisations suggest what is possible if you wish to investigate the lived experience of climate change (see Section 6.2 below).

## 6.1 A public action theory of knowledge

‘...further policy fragmentation around climate change is inevitable. But if such fragmentation reflects the plural, partial and provisional knowledge humans possess about the future then climate policy-making will better reflect reality. And that, I think, may be no bad thing.’ (Mike Hulme, Professor of Climate Change at the University of East Anglia, UK, writing for *The Guardian Newspaper* website : <http://www.guardian.co.uk/environment/2010/nov/15/year-climate-science-was-redefined?intcmp=122>, accessed 27 February 2012.

This quotation leads me to my own sweeping generalisation. Having taken myself as well as you the reader through this journey of untangling the web that constitutes the lived experience of climate change, I have come to the conclusion that its major broader contribution to our understanding is that it problematises knowledge in any domain. I have shown that the critiques of lived experience which concern its subjectivity, validity and reflection of power relations can also be applied to scientific knowledges. In this way it offers a critical approach to studying all knowledge, no matter what claims to objectivity they may have.

From this, I offer what I call a ‘public action theory of knowledge’ with respect to climate change. It seems to me that at the heart of policy disputes about climate change, which take place at all scales, from micro- to macro-, are disputes about knowledge. These disputes might occur within a domain – such as within the natural sciences and within economics (see Module 1 of this series) where we find both profound and less-profound differences between the various proponents. They also occur between domains, for example between scientifically derived knowledges and their universal claims and context-bound lived experiences.

What the lived experience approach contributes is to ask the crucial question: Where does knowledge come from? This question may be applied to any domain and also to the knowledge which emerges when the different domains collide. A public action approach to policy asks a similar question: where does policy come from? By public action I mean, following Mackintosh (1992: 3-5), any collective, purposeful attempt to influence policy. The action can be informed by public interests of the collective, for example an NGO which engages in advocacy on matters it believes to be in the public interest, such as climate change. Equally, however, it might be informed by private interests, for example collective lobbying against carbon taxes by industry.

Using this approach, the answer to the question of where policy comes from, is that it arises from agents taking public action, who are informed by either or both their private and public interests. Then, through a process of debate, conflicts (sometimes ruly, sometimes unruly), and alliances and accommodations between agents, policy emerges as a kind of social contract.

Climate change policy is no different, although it does foreground knowledge as a political tool, which has become a focal point for public action. Thus, we can conclude that climate change knowledge involves multiple agents with public and private interests. As a result it is forever emergent and potentially conflictual, but where, at certain points, accommodations can be found. From these points a policy that at least most agents are prepared to live with is agreed. It is my view that, if such policy on climate change at any scale is to be established in a reasonably ruly way through public action, it is crucial for the experiences of a wide variety of citizens and social groups to be brought into the debate alongside the current scientific knowledges and their conflicts.

A major point about theory is that it provides explanatory power. The ‘public action theory of knowledge’ is only sketched here and you are welcome to develop it further. It should of course be thought of as a highly generalised extension of the conceptual framework I evolved as Figure 4.2. By way of further justification, I suggest that it reflects a deeper concern which the article by Mike Hulme, from which I quoted above,

also alluded. This is a concern that calls for greater democracy and consequent accountability in decision-making around the great issues of our time, particularly at global level where the institutional mechanisms do not exist.

## **6.2 A dissertation (or other investigation) on the topic of lived experience of climate change?**

The approach taken in this module to lived experience also allows for considerable flexibility when choosing dissertation, thesis or research topics. If your appetite has been whetted, I end the module with some suggestions.

Two possible general types for dissertation topics might be:

- Dissertations about contemporary or historical lived experiences in relation to climate change. A study of the latter might suggest lessons for the present.
- Dissertations which are analytical or normative, or, more likely, a combination of the two with an inflection towards one or the other.

The following examples are in relation to these two general types. I stress that they are hypothetical and illustrative only. I have not attempted the impossible task of being comprehensive, such is the range of permutations both within and beyond the examples I have chosen. Indeed the general types to which they relate do not claim to be exhaustive either.

### *Example A*

A rural community group in a European country is protesting about a proposal to build a wind farm in the vicinity of its village (see also Figure 3.3 in Chapter 3). A dissertation investigation might take an analytical approach, investigating how the lived experiences of the community group members have informed their opposition. Alternatively, a more normative approach might analyse the possibilities for the planning process to take account of lived experiences, and whether the process should be improved in order to understand and take account of local concerns.

### *Example B*

You conduct a survey of business responses to government climate change/energy-related policies & regulations. An analytical dissertation might then investigate in more depth the lived experiences of some of the businesses in the survey through qualitative case studies (see Module 3 in this series) in order to ascertain the ways in which these are shaping the survey responses. Alternatively, a more normative dissertation might examine the evidence base that was used to create the policies and regulations, and whether consideration of business lived experiences could have improved them and also led to more desirable business responses.

### *Example C*

Your dissertation is to compare and contrast, and critically evaluate, NGO policy documents concerning climate change impacts on areas in the Global South in which they work. An analytical approach might assess the extent to which the lived experiences of the Southern ‘beneficiaries’ of the NGOs’ work have informed this document (or is it a straight socio-economic analysis of impacts?). A more normative approach would be to assess how a more nuanced approach to lived experience might improve these policy documents.

### *Example D*

Your dissertation is to examine how lived experiences have influenced citizen attitudes and behaviours in relation to flood events in European (or Southern) cities, both past and present (see also the Water case study in this series). Yours is essentially an analytical

approach, but you want to use the evidence you generate to create a normative argument that, if policy makers want to influence behavioural change, they must take into account changing lived experiences and the way they influence expectations.

You can also consult the list of topics provided on the project virtual learning space. Although this makes no claim to be comprehensive either, it gives a broader range of possibilities. Then, you may attempt Activity 10 in the workbook which takes you through a process of identifying a preliminary topic for investigation by yourself – either for a Masters dissertation/thesis or for any other substantial piece of work that you are preparing.

Finally, to wrap up Module 2, go to Activity 11 which illustrates through video links some of the ways in which the lived experience of climate change may be captured, even if the concept itself is not used explicitly in these sources. The short videos also provide some examples of how lived experience is being incorporated into actual practice in different parts of the world.

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