

The *first*STEP handbook

Draft introductory/overview chapter

This chapter provides an overview of prevalent definitions and interpretations of ‘sustainability’ and sets out the book’s premises that the reasons we find it so difficult to act against our unsustainability are, to varying degrees, ones of culture, education, information and experience. It highlights the potential for active experiential learning to overcome some common social and psychological barriers to change and introduces subsequent chapters which draw together experiential learning theory and practice and explain practice and processes in more detail.

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The story of our species from primate hunter-gatherer origins in tropical rainforests to settled agrarian civilisations spread across the planet is one of barely discernible changes occurring over hundreds of thousands of years. By contrast, the infinitesimal period of evolutionary time elapsed since the Industrial Revolution has witnessed astonishingly rapid progress; from wind, water and muscle power to nuclear, from animal transportation to space flight, from predominantly rural lives to mass urbanisation, and from constrained local horizons to globalisation. No less remarkable has been our human adaptability in adjusting in so short a space of time to lives of continuous and accelerating change.

The catalyst for these extraordinary advances came in learning to harness the energy of fossil-fuels; first charcoal, then coal and, most recently, oil and gas. In particular, the one-off geological gift to humankind of oil has facilitated the most life-changing developments, and now underpins all of the familiar ‘staples’ of modern life that we take for granted - everything from plastics and high-yield chemical agriculture to antibiotics and anaesthetics, foreign tourism, mass car ownership, hypermarkets, instant digital communications, and a globalised system of market-driven economic growth.

But, in only the course of our present lifetimes, it has become apparent that our new dependence on fossil-fuels to improve and enrich our lives has also come to threaten the planet's ability to sustain us. The cheap and abundant energy provided by oil has driven a growth in the world's population from one billion in 1800 to seven billion today and a predicted ten billion by 2050, creating unprecedented new demand for energy, food and water and hastening the depletion of other biological resources. At the same time, it has fuelled a massive global expansion of industry, causing pollution on a scale so large as to have destabilised the Earth's climate and disrupted the life-enabling systems of its biosphere. And whilst, in the West, it has arguably enabled our modern democratic systems, it has also given rise to enormous social inequalities and to autocratic and oppressive regimes in other countries whose economies depend on the production and export of oil (Mitchell, 2011). These already severe interacting trends are compounded by an imminent decline of energy available from fossil fuels, in part because of growing demand from a rising global population, in part because the production of easily accessible oil has now peaked (IEA; 2010), and in part because of the inadvisability of continuing to burn fossil fuels if we want to avoid the worst consequences of climate change.

Taken individually, there are variable aspects to each of these converging trends which make their destructive impacts difficult to predict with exact certainty. But taken together, it is clear beyond doubt that our species is rapidly overshooting the planet's capacity to sustain us. To date, our response to this human ecological emergency has been one of procrastination and avoidance. The psychological and sociological reasons why we have not yet collectively mobilised are multiple and complex and exploring these to find ways of overcoming them is the purpose of this book. Not the least of them, of course, is our understandable difficulty in accepting that it is ourselves and our cultural expectations for unlimited material improvements to our lives that we must mobilise against.

A central premise of the book is that, in the process of becoming so well-adjusted to our modern technocentric living systems, we have lost sight of our absolute dependence on the biological systems that actually do sustain us. We spend the largest part of our lives indoors in human-constructed environments, sheltered from the elements by technology and occupied in activities that no longer require intergenerational knowledge of how to nurture subsistence from soil. We think of ourselves as having evolved beyond nature and so are unmindful of our true ecological place in what physicist and systems thinker Fritjof Capra (1996) has described as "the web of life" (*add footnote*). Our species no longer feels awed by wild nature, only sometimes inconvenienced by it. So we have crucially failed to acknowledge that the problem of sustainability facing us today is the same as that faced by our distant primate ancestors: one of our ecological survival.

It is, of course, not our fault that the way of life we have been born into has so critically estranged us from our habitat. But future generations will justifiably blame us if, now confronted

by the error of our ways, we do not attempt to change them. Finding the resolve, the means and the solidarity to remedy the causes of our unsustainability has become the defining human challenge of the 21st century.

Ecological sustainability

Our starting point, then, must surely be to define what it is that we mean by ‘sustainability’ and what exactly it is that we mean to sustain. So it might seem surprising that, beyond reviewing some prevalent definitions in the context of *ecological* sustainability, this book does not provide its own. Instead it aims, through the activities it contains, to inspire meaningful reflection on what is sustainable and unsustainable in each of our own lives and thereby to motivate us to act upon conclusions we draw for ourselves to the full extent of our ability to do so. Without such direct and personal engagement, even the most comprehensive definitions have proved open to interpretations that dilute their meaning and obscure their relevance to us.

This book proposes that a better starting point would be to consider in what ways our lives and living systems are *unsustainable*. Ecological unsustainability is well explained by nine critical planetary boundaries (*add foot note*) (Stockholm Resilience Centre, 2009), identified by an international team of Earth-systems scientists, beyond which humanity cannot cross if our species is to have the chance of a viable and flourishing future. Three of these boundaries – climate change, the rate of biodiversity loss, and levels of nitrogen pollution in the biosphere – may have already been transgressed, requiring that we ‘back-pedal’ very urgently. Others, such as ocean acidification and damage to the ozone layer, are now being pushed to the limits of safety. This already serious prognosis is made worse by the fact that the nine boundaries are interacting and crossing any single one of them has dangerous potential to adversely force one or more others.

These boundaries represent the ‘limits’ of the stable biological conditions that enable our lives on the planet, beyond which the Earth will cross a threshold into a new state that may well support life, but not human life or the lives of other species that enable human life. Because the majority of us seem largely uninformed of these limits or, at any rate, unmindful of them in our daily habits and routines, we have thus far not been able to agree and apply other limits – to industrial growth, to pollution, to population, to consumption, to human exploitation of natural resources - that might enable us to reverse our current terminal trends and stay safely within the Earth’s ability to sustain us.

In common understanding, the terms ‘sustainability’, ‘sustainable development’ and ‘sustainable growth’ are used so interchangeably that we frequently suppose we are all talking about the same thing. But do we mean by ‘sustainable growth’, for instance, our desire to make our present model of consumption growth ‘hold up’ indefinitely? Or do we mean growth towards the intellectual and spiritual maturity of a culture capable of observing the biological limits of its

habitat? By ‘sustainable development’, do we mean to devise, along with Pearce and colleagues (1989) (*add footnote*) a “social and economic system which ensures... that real incomes rise, that educational standards increase, that the health of the nation improves, that the general quality of life is advanced”? (1989, Pearce *et al*). Or do we place a greater emphasis on equal global development opportunities and fair shares for all?

In 1987, the Bruntland report (*add footnote*) provided the best known definition of sustainable development as “development which meets the needs of the present without compromising the ability of future generations to meet their own needs.” That this definition is well-known and often quoted is not to say that its implications are widely understood. From the perspective of what we now know about the *ecological* unsustainability of modern industrial systems, it would seem to require nothing less than their complete redesign. But, as David Orr (2004) has pointed out, “industrial civilisation... was not designed at all; it simply happened” without any knowledge of “ecological wisdom” or “ecological design”. Instead, once set in motion by the inventiveness of a few brilliant but ultimately single-minded individuals, it has largely determined its own course and momentum since. So it is perhaps understandable that we have not yet agreed on the task of remaking it – or even of how to slow it down sufficiently to do so.

It is unsurprising, then, that most recent definitions of sustainability have emphasised more expedient and convenient aspirations to make, through still-to-be realised advances in technology and efficiency, our present industrial model more sustainable. Nor that even the seemingly unequivocal Bruntland definition has often been taken to imply that the consequences of our unsustainability will impact mostly on future generations, so permitting us to defer remedying their causes whilst we attend to more pressing concerns. We have failed to notice the report’s subtext that we do not have “an environmental crisis, a development crisis, an energy crisis”, each to be responded to separately according to its perceived urgency, because, in human ecological terms, “they are all one.” And, as a generation unborn at the time of the report has now reached adulthood, it is clear that more immediate concerns are ever present and demanding of our attention. So whilst a new vocabulary of sustainability has undoubtedly entered our lives, a collective understanding of what it requires of us has yet to do so.

It is, of course, a very good thing that we have become used now to hearing the the word ‘sustainable’ linked up with others like ‘agriculture’, ‘fisheries’, ‘energy’, ‘housing’, ‘transport’, ‘communities’, ‘jobs ‘ and ‘livelihoods’. Also that we have ‘sustainability’ officers in local councils and businesses and corporations, along with ‘sustainable schools’ and ‘sustainability education’. But our growing familiarity with these terms also can give rise to an impression that sustainability experts are well on the way to making our lives sustainable for us, just as we might imagine that an army of research scientists are busy developing technological solutions, so relieving us of the obligation to engage personally.

The reality is that, at best, current sustainability initiatives are the hard-pressed efforts of largely underfunded individuals and organisations who can only begin to scratch at the thick skin of cultural and institutional inertia and, at worst, are the ‘greenwash’ marketing ploys of dissembling vested interests. And, reassuring though it would be to think that our schools and universities are now preparing young minds for the challenges ahead by fostering literacy in ecology and sustainability, our societies continue to educate for the world as we have known it rather than for the certain uncertainties to come. Sustainability is still little more than an add-on at the periphery of our education systems, far from where it needs to be at the centre of learning, teaching and research.

All current indications are that humanity is now further from sustainability than ever before and still moving in the wrong direction. It is very likely that we are no longer in a position to avert all the impacts of our planetary crisis, only to lessen them and to adapt ourselves to those that have become inevitable. There is also an ever-growing likelihood that, if we cannot engender popular commitment to make radical but still manageable changes in our lives, deteriorating conditions will force unmanageable changes upon us for which we are wholly unprepared. As Stephen Sterling (2001) has noted, “the difference between a sustainable future and a chaotic one is learning”.

A failure of education?

A further premise of this book, then, is that our inability to rectify the causes of our unsustainability is, in large part, a crisis of our education. The education provided in western societies is increasingly standardised and mechanistic and designed to serve the needs of industrial and consumerist societies, not sustainable ones. As early as 1977, economist E.F. Schumacher observed that “the volume of education... continues to increase, yet so do pollution, exhaustion of resources, and the dangers of ecological catastrophe. If still more education is to save us, it would have to be education of a different kind: an education that takes us to the depth of things.” And, in 1979, the late scholar and educator Theodore Roszak put it like this:

“We are used to hearing our schools assailed by critics who want to know why ‘Johnny can’t read, Johnny can’t write’ and who call for a return to ‘the basics’ [...] But why do we stop worrying there? [...] Why not worry that Johnny can’t dance, can’t paint, can’t breathe, can’t meditate, can’t relax, can’t cope with anxiety, aggression, envy, can’t express trust and tenderness? [...] that Johnny does not know who he is? [...] Let us admit that the basic skills have nothing to do with Johnny’s health, happiness, sanity, or survival, but with his employability. Whose interest, then, is Johnny’s education serving?”

To transform ourselves and our societies, a transformation is needed in how we are educated. Many teachers might comment wryly that change is now a constant in our education systems. But, as Sterling (2001) points out, these changes are mostly concerned with adjusting from

education suitable for “the modern industrial age” to education for the “post-modern information age”. In both cases, he argues, “mainstream education *sustains unsustainability* – through uncritically reproducing norms, by fragmenting understanding, by sieving winners and losers, by recognising only a narrow part of the spectrum of human ability and need, by an inability to explore alternatives, by rewarding dependency and conformity, and by servicing the consumerist machine... “Without an ecological understanding, we are in real danger of creating post-modern learning institutions whose graduates are able to exploit others and the environment more efficiently and effectively than their predecessors.”

This observation appears especially true of education in Anglo-Saxon western countries. It seems no coincidence that these same countries, most notably the US, the UK and Australia, have also been the crucible of global warming ‘denialism’ (Painter, 2011) and, amongst their populations, expressed concern for the environment has slumped in recent years (*add footnote*). By contrast, throughout most of Europe, public concern for the environment has remained consistently high (Eurobarometer, 2011) and the European Union has felt mandated to push for the most demanding of international climate change targets.

In the Nordic countries of Sweden, Norway and Denmark, humanistic educational principles have resisted the contemporary ‘marketisation’ of education to remain relatively intact; not only in schools and universities, but also in a widespread tradition of popular adult education. Life-long learning takes place through self-organising citizen ‘study-circles’, institutionalised and part-funded (though not directed) by the state, which can involve as much as a quarter of adult populations at any one time (Larsson & Nordvall, 2010). This self-initiated and self-directed learning has commonly included in-depth study of issues of national and global importance, such as nuclear power or sustainable agriculture, so contributing to an informed process of participatory democracy (Oliver, 1987). These same countries also place high value on environmental and outdoor education and much of their populations’ leisure time is famously spent out of doors. Again it seems to be more than coincidental that environmental concerns figure high on these countries’ public agendas and that their capital cities are regarded as amongst the ‘greenest’ in the world.

It is not the purpose of this book to reiterate the already compelling case for humanistic and holistic sustainability teaching to have a central place in mainstream education and training. Rather, it is to draw upon the affective and cognitive approaches of emerging ‘sustainability literacy’ theory (Stibbe, 2009) and on the practical experience of a small but growing number of grass-roots sustainability initiatives which are already showing high potential to inspire active change. It also draws upon the small group learning methods of participant-led popular education in Scandinavia to engage wide population groups for whom formal education is no longer a regular feature of their lives.

Critics might argue that Scandinavian adult education practices are unlikely to transfer easily to societies without such a strong culture of life-long learning. Also that, where self-initiated sustainability education has taken hold in other societies, this is only amongst small minorities who are already predisposed to ‘transitioning’ to more sustainable lifestyles. It would, of course, be very remarkable if such initiatives were to roll out quickly across whole populations. But it is also of note that new grass-roots learning communities have sprung up in the United States in response to the current worsening economic circumstances of increasing numbers of people (*add footnote*). So, whilst it may seem unrealistically optimistic to hope to engender widespread participation amongst unwilling populations, a future deterioration of social and economic conditions may well attract even very resistant people towards such self-help learning initiatives. Furthermore, ‘tipping-point’ theory (Gladwell, 2000), accounting for how the small but significant activities of only a very few people can spark off new social trends, has been backed up with evidence to show that the active commitment of as few as ten percent of populations can precipitate mass consent to social change (Xie *et al*, 2011). Seen in this light, normalising a population-wide shift to sustainability by engaging only one in every ten people might seem a less utopian goal. Some might further object that such an aim amounts to the ‘social-engineering’ of sustainable behaviour (Butcher, 2007), just as consumer behaviour is manipulated by repetitive product exposure and endorsement. But such concerns are obviated by the participant-directed experiential approaches that are advocated in the pages that follow.

The activities and active-learning methods in this handbook are intended to complement and expand the limited but vital range of existing sustainability education opportunities that already do take place within mainstream education. They are also offered as a contribution to - and a means of outreaching beyond - the grass-roots learning, development and research now underway in visionary community-led movements from Transitions (Hopkins, 2008; 2011) to Occupy. So the activities it contains are suited for use not only in classrooms, campuses and work-place training venues, but also amongst social groups in community meeting rooms, congregations in places of worship, work colleagues in works cafeterias, and family and friends in kitchens and living rooms; in short, any setting where people come together to explore what becoming sustainable means for our lives. And many of the activities are not intended to take place indoors at all, but in natural environments where new insights and learning about ecological sustainability can be most profound.

A failure of information?

If we enter ‘save the planet’ or ‘climate change’ into an internet search engine, we can quickly see that there is no shortage of information available to us about our ecological predicament. But much of this, whether communicated by scientists, governments, non-governmental organisations or by self-appointed opinion setters, has suffered from being partial, over-simplified, lacking in context and, not infrequently, inaccurate. Furthermore, the sheer quantity

of information, far from enabling our constructive engagement, can serve to overload us and blunt our receptivity to the precariousness of our situation.

The most regular means by which our views have been formed and informed is through the reports and commentary of the media. But media coverage has focused largely on climate change alone, to the detriment of wide awareness of other simultaneous and interacting ecological crises. And even this single-issue reporting has been heavily skewed by a media tendency to off-set the increasingly certain consensus of climate science with a disproportionately large representation of underqualified contrarian voices. This is perhaps not just the result of editorial policies and of the demonstrable influence of vested interests, but also of our modern cultural expectations to be perpetually entertained. David Orr (2004) has observed that “to entertain, it is necessary to create conflict and dramatic tension, often where none exists”. Hence, media coverage of severely consequential issues is dressed up as ‘info-tainment’ and so-called ‘balance’ achieved by “equating the views of [NASA] with those of the Flat Earth Society about the shape of the planet”. (Orr, 2004) Without the critical analysis and relational thinking skills that come with ecological and sustainability literacy, complex scientific probabilities can meld in our minds with apocalyptic entertainment fantasies, none of which are borne out by our day-to-day experiences. In this way, large numbers of people have become increasingly sceptical of the science and ever more distanced from the issues that underlie our unsustainability.

Over the past decade, a succession of population-wide campaigns, promoted by government departments and NGOs, have sought to better inform us and thereby to motivate mass behaviour change towards sustainability. These messages too have been over-simplified by focusing predominantly on climate change and their urgent importance been obscured by the inconsistent advice and actions of governments and the obfuscation of the popular media. During this same period, global emissions of greenhouse gasses, resulting largely from vast scale industrial and military activities beyond the influence of ordinary citizens, have continued to rise to record levels. And, after years of international negotiations, governments have so far proved unable to agree binding emissions reduction targets that are sufficient to avoid irreversible destructive impacts (Anderson & Bows, 2011). So it is perhaps unsurprising that, in the absence of unequivocal information, action and example from our political and institutional leaders, the solidarity being asked of their publics to mobilise for the common good has failed to materialise.

The majority of top-down campaigns have used social marketing techniques that aim to progressively ‘nudge’ us into sustainability by first promoting unambitious new behaviours like changing light bulbs, recycling waste and cutting down on plastic bags. But the failure of this approach has been that, important though they are, these new habits are relatively “simple and painless” for us to acquire and, crucially, have not led to the much more substantial and difficult behavioural changes that sustainability necessitates. Tom Crompton (2008) has collated strong evidence (*add footnote*) to show that people’s willingness to suffer “inconvenience and

difficulty” in adopting sustainable behaviour is directly related to their motivation for doing so. Individuals oriented towards “intrinsic goals (of personal growth, emotional intimacy or community involvement) tend to be more highly motivated and more persistent in engaging in... pro-environmental behaviour than individuals motivated by extrinsic goals (for example, of material goods, financial success, image and social recognition).” People with high intrinsic values seem to gravitate naturally towards personally acting on unsustainability whereas others with stronger extrinsic motivations are more likely to feel that they have much to lose by doing so. Extrinsically motivated individuals might conceivably be persuaded to shift from ‘non-green’ to ‘green’ consumerism, but this does little to ameliorate the underlying problem of excessive consumption and can even serve to reinforce the present unsustainable levels.

Such findings would seem to account for the extreme polarity of views that has arisen in public discourse and has proved so divisive to motivating a collective commitment to change. Furthermore, our economic system and our cultural expectations are so firmly embedded in the extrinsic drivers of consumerism, wealth acquisition and individualistic status and reward that it is not hard to understand why a concerted shift to more sustainable lifestyles has lacked wide appeal and failed to gain traction.

It is clear that public awareness-raising and behaviour change campaigns, whether seeking to alarm us into action or else to persuade us of more desirable well-being enhancing aspects of change, have proved insufficient to overcome the types of cultural and psycho-social obstacles outlined above (Eraut and Segnit; 2006). A premise of this book, then, is that information requires to be delivered at a level and in a context capable of engaging the core intrinsic values (of community, reciprocity, empathy, compassion and love) which Crompton has highlighted as being so vital and which we have good reason to believe are commonly shared, regardless of our widely differing backgrounds and our expressed attitudes and motivations. As sustainability educator Paul Murray (2011) notes, “globally, there is little doubt that millions of dedicated and hard-working people share a common desire to make the world a better place and are at least willing to embrace change in order to do so.” What is needed for this solidarity to manifest itself is “the right knowledge at the right level”; knowledge that makes sustainability personal to each of us and equips us with the “skilful means” to cut through the plethora of confusing information that distracts us from doing so.

Sociologist Kari Norgaard (2006, 2011) has advanced a further compelling reason for our failure to mobilise. Her close study of a township in environmentally-conscious Norway suggests that our inaction results not so much from widespread lack of knowledge but from the overwhelming emotions of “fear, helplessness and guilt” that internalising such knowledge entails. She proposes that, far from being in ignorance of our planetary crisis, we commonly see it as so extreme and intractable as to be beyond our ability to solve. So, for everyday life to be able to continue, selective understanding and collective denial become socially normalised and the open

and explicit conversations needed to address our unsustainability become taboo. Psychologist Renee Lertzmann (2010) has also noted a paradox in our reactions. She suggests that social inaction is not because we are generally apathetic in our concerns for the environment. To the contrary, she has found the majority of us to be very concerned about ecological degradation, particularly that of our own immediate environments, but that our ability to act coherently is inhibited by internal conflict between desiring the benefits of industrial civilisation and rational understanding of the damage done by it.

To date, the technical aspects of our ecological crisis have been much better studied than our human responses to it and it is clear that more social science research is needed (Hoffman, 2011; Hulme, 2009, 2011). But such findings as do exist, both from empirical research and from the practical experience of sustainability campaigners and educators, indicate how very powerful and deep-rooted are the psycho-social barriers that need to be overcome. ‘Green’ marketing innovator John Grant (2010) has advocated the importance of interpersonal exchanges taking place between diverse people in structured small group settings. From experience of conducting focus-group research, he has observed “something about the actual group discussions themselves [which seems] quite compelling. A deliberately chosen mainstream group would often leave quite engaged and inclined to explore climate change further [...] Centralised information campaigns won’t on their own create a ‘climate for change’. We need to create forums where people can take it all in, reflect on it and come up with their own plans, trade-offs and ideas.”

Psychotherapist Rosemary Randall (2010) has developed just such opportunities for facilitated small group conversations (*add footnote*) which mirror elements of Nordic ‘study circle’ popular education. Randall argues that public behaviour change campaigns are largely unconcerned with our subjective emotions and feelings but, instead, target only our behaviour as the ‘problem’ to be solved, making us the source of the problem rather than the solution. In order to change, she says, we need supported opportunities to talk about what is wrong. We must feel safe to question our assumptions, face inner conflict and ambivalence and “let go of rationalisations and solutions that have seemed [...] seductive [...] but have also been damaging [...]” “Words like empathy, compassion, relationship and respect that are fundamental to the practice of psychotherapy and which make it possible to face this bigger picture are missing from the language of behaviour change.” (Randall 2011)

In the chapters that follow, various approaches to facilitating these group-based developmental learning opportunities are explored. The activities compiled in the book engender high levels of trust and co-operation, enabling mutual recognition of inner anxieties and dilemmas about sustainability that are likely to be commonly shared, but which we rarely express in our day-to-day lives. Many of us might instinctively be reluctant to believe that we could benefit from such ‘therapeutic’ interventions, for the same reasons that we shy away from revealing publicly our innermost feelings and motivations. But population-wide manifestations of avoidance and denial

are not indicators of strong psychological health, whether of individuals or of whole societies. The learning approaches in this book acknowledge our cultural inhibitions by focusing on enjoyable and engaging active-learning processes that progress through facilitated review into deeper exploration of our values and motivations at a pace and level determined by participants themselves.

A lack of experience?

In addition to the reasons so far advanced for why we find it so difficult to rectify our unsustainability, this book contends that a very significant factor is our lack of direct experiences of its worst consequences. Generations born into advanced societies since 1945 have known only living standards that have been steadily improved by economic growth and industrial progress. Relatively few of us have experience of war or oppression and even fewer have first-hand knowledge of the human suffering of such ecological catastrophes as flooding in Pakistan, drought in the Horn of Africa or toxic poisoning in Bhopal. Nuclear meltdown at Fukushima might have momentarily caused some anxious reflection on the ecological wisdom of expanding nuclear power, but for most of us perhaps only in the way that for a few miles we pay particular attention to our driving after passing a crash on the motorway. Once the headlines have moved on to new events, so also does our engagement.

This is not because we are selfish or thoughtless of the plight of others. Our charitable giving in response to natural disasters shows that we are neither unaware nor unconcerned about deteriorating conditions for large populations who do not enjoy our high living standards and so are least responsible for human unsustainability. It is because we do not personally experience these conditions that we still feel able to carry on with lives which, to all intents and purposes, retain continuity and feel 'normal' and 'familiar' to us. Older generations might wonder at how quickly we have come to rely on new communication technology to facilitate our lives and public opinion may be divided about other rapid social changes such as out-of-town shopping malls at the expense of the traditional high street. Younger generations, of course, who have known no different, take fast-paced change for granted and most of the rest have long rationalised it as 'unstoppable progress'. But, whatever our age or our personal feelings about accelerating change, we still attribute an improving progression to it and it is hard for us to imagine a future that would not be so conveniently and abundantly provided for. So we are not able easily to relate to calls for self-imposed constraints to counter threats that remain largely invisible to us and, in so far as we think about them at all, seem very distant, both geographically and temporally. From our perspective, beyond making some virtuous but ultimately trivial nods towards sustainability, it is still far from obvious to most of us that more substantial changes are necessary or desirable or, indeed, even possible.

A telling example of how disconnected are our personal experiences from the 'bigger picture' of ecological unsustainability might be found in our response to a crisis much more apparent to us,

the current global economic ‘meltdown’. We are told that, since 2008, we have been living through the worst financial downturn since the Great Depression - and possibly since the 19th century. Yet the majority of us have not found ourselves suffering the widespread privations of agricultural and industrial depressions of the Victorian age - or even of the 1930s - because, after fifty years of consumer growth, enough wealth has accumulated in our economies still to cushion us. Ongoing economic turmoil has not yet drastically reduced our comforts or lessened our expectations to return to material prosperity in the foreseeable future. Whilst true that more of us now have unfortunate personal experience of lost jobs and homes and uncertain returns on our pension investments, few have yet been deprived of the absolute necessities of life, as was widespread in our societies in historical episodes of economic downturn. We are still benefitting from the residual affluence of societies who have cut the costs of the goods we consume by outsourcing their manufacture to parts of the world where extreme poverty and life-threatening environmental degradation are still commonplace, but not in our everyday consciousness because they are out of sight and out of mind to us.

So it would seem to be in no small part because we no longer experience the ecological and human downsides of industrial economic growth that we are able to discount limits to it. We might readily agree that the current economic crisis has come about through a housing bubble, a ‘credit crunch’ and excessive levels of debt and greed. But even those who protest the system that has permitted this most often do so on the grounds of growing social inequalities, not because it also perpetuates and exacerbates our unsustainability. Few commentaries have also considered the underlying economic stresses caused by depleting cheap fossil-fuels and other increasingly scarce natural resources that have hitherto enabled our abundant lifestyles. So we expect to persist with an economic model that UN secretary general Ban Ki-Moon (2011) has called a “global suicide pact”, still neglecting to factor in the financial and ecological costs of irreversible and expensive-to-reverse pollution, degraded eco-systems, depleting natural resources, adverse mental and physical health impacts for humans, and the mass extinction of other life-forms. Our personal and cultural expectations are vested so completely in the forward momentum of ‘growth as usual’ that we find it next to impossible to imagine alternative ways of organising our economies and our living systems that could keep us safely within the planet’s ability to sustain us.

This lack of direct experience of consequences is the situation that obtains for us at the moment. But we cannot expect our lives to remain so untouched for long. The authoritative International Energy Authority has warned that the age of cheap oil - the prime driver of our globalised industrial and economic growth - is now over. Since boom turned to bust so dramatically in 2008, economic turmoil has no sooner been contained in one part of the world than it erupts elsewhere, and even the most optimistic of projections sees continuing contagion into the future. And climate scientists increasingly believe that our present trajectory will lead to the extreme consequences of 4°C of global warming by 2050 and even an unthinkable 11°C by 2100 (*add*

footnote). Even the current 0.8°C is forcing climatic changes that are already risking irreversible tipping points. A “perfect storm” of related ecological crises (*add footnote*) is predicted to converge dangerously together over the next two decades (Beddington, 2009). Without mobilising immediately to anticipate and prepare for their impacts, we may find ourselves impelled into experiences that we can no longer ignore, but too late to manage or contain them.

We cannot know precisely how our future will unfold. Some impacts of these converging crises will be incremental and linear whilst others could happen with sudden and shocking speed. What is sure is that no society and no part of the world will remain unaffected. In the west, where initial impacts are predicted to be least severe, we can anticipate, at the least, less abundant choices and lives that will become of necessity more constrained, localised and self-reliant. That these impacts will be unevenly distributed across our societies seems likely to lead to ever more divisive argument about their causes, giving rise to escalating discontent and increasingly authoritarian responses. So, in the current absence of plainly evident causes and effects that could possibly motivate our solidarity against such a chaotic and unhelpful future, this book proposes that we can learn from ‘metaphorical’ experiences; active learning opportunities that do not, of course, expose us to the same severe consequences but can demonstrate clearly and powerfully the good sense of collective preparatory and precautionary action.

In summary

Our modern urban technology-dependent culture has disconnected us mentally, physically and spiritually from the natural biological systems of our planetary habitat. This disconnection has inhibited our constructive responses to the urgency and severity of converging ecological crises. Experiential learning activities which bring us ‘closer to nature’ can enhance our understanding of human systems as operating within, not independently from, the wider eco-system of the biosphere which sustains us.

Lacking this ecological context, varying interpretations of sustainability have diverted our attention from the ecological issues that underlie our unsustainability and permitted us to avoid engaging with them. Conventional educational and informational approaches to improving our understanding and engagement have proved insufficient to overcome powerful social, psychological and cultural barriers to change.

Some of these barriers are beyond the agency of ordinary people to influence and can only be addressed by political and institutional interventions. Without the active commitment of ordinary people to change, these interventions are harder for political and institutional leaders to implement and they seem unlikely to become sufficiently emboldened to bring them about.

In the west, we presently lack clearly attributable experiences of the consequences of unsustainability that are compelling enough to motivate widespread commitment and action to

mitigate them. Active experiential approaches to exploring the issues that underlie unsustainability can motivate and retain such commitment and action by:

- exposing us to ideas, experience and knowledge different to our own and thereby encouraging critical analysis of received wisdoms and cultural ‘norms’ and holistic thinking about the causes and consequences of our unsustainability;
- breaking down interpersonal barriers and fostering trust and group bonding that enables mutual recognition of shared anxieties and inner conflicts, engages commonly held core values, and supports the transfer and application of learning to wider life settings;
- providing first-hand experiences to demonstrate the benefits of inclusive and co-operative problem-solving and ‘futures-thinking’ processes and to enhance individual and collective knowledge, skills and confidence in evolving appropriate and sustainable living systems and technologies;
- improving ecological ‘literacy’ through close involvement with the natural environment and first hand experiences of biological systems, their limits and constraints, and the ecological effects of unsustainability, both for people and for the planet;
- enhancing understanding of physical, material, psychological and spiritual human needs and of reconciling these with the ecological needs of the planet;
- making learning and development about severely problematic issues communally supportive, personally meaningful, memorable and fun.

These characteristic developmental outcomes of active experiential learning are all highly relevant to acquiring the skills and motivation that will help not only to mitigate our present unsustainability but also to prepare us for the inevitable challenges to come.

The first part of this book contains chapters to explain the key elements of experiential learning and of sustainability and ecological literacy and to provide guidelines for the essential processes of groupwork and facilitation, reflection and review, and transfer of learning to wider life applications.

The second part describes a range of adaptable and accessible experiential activities, arranged into sections that make it easy to identify activities suitable for specific study topics and learning areas. The activities have been adapted from many different sources from permaculture to parlour games, bushcraft to balloon debates, motivational interviewing to military command tasks, alternative technologies to arts and crafts, nature study to natural construction techniques and local wildlife watching to remote wilderness expeditions. What they all have in common is

high potential to open up our minds to new insights and inspirations about the crises we are facing that make acting on them much more possible.

It is unrealistic to imagine that any one educational approach, however powerful and affecting, could somehow miraculously make our societies sustainable. But it is reasonable to suppose that many people are already feeling deep concern about the cultural values that permit us to justify gross social inequalities and the degradation of our habitat beyond the point of no return. The purpose of this **firstSTEP** handbook is to facilitate the challenging first steps that lead away from such isolated and debilitating feelings of unease towards the personal empowerment and committed resolve that comes with purposeful communal action.

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