WHOSE REALITY COUNTS?

Putting the first last

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The Challenge to Change

Nothing is permanent but change
Heraclitus, c.500 BC

*In the last years of the twentieth century, change accelerates and the future
becomes harder to foresee. As instant communications spread, and power
and wealth concentrate, so ideas spread faster. A balance-sheet of develop-
ment and human well-being shows achievements and deficits. Power and
poverty are polarized at the extremes, with a global overclass and a global
underclass. An evolving consensus converges on well-being, livelihood, cap-
abilities, equity, and sustainability as interlinked ends and means. Huge
opportunities exist to make a difference for the better. The challenge is
personal, professional and institutional, to frame a practical paradigm for
knowing and acting, and changing how we know and act, in a flux of
uncertainty and change.*

An overview

As we approach the end of the twentieth century and the start of the twenty-
first, we, humankind, have more power and more control over things, and
are more closely and instantly connected with each other, than ever before.
At the same time, more people than ever before are wealthy beyond any
reasonable need for a good life, and more are poor and vulnerable below any
conceivable definition of decency. New power, knowledge and social and
economic polarization coexist on an unprecedented and scandalous scale.

Many of the hopes of earlier decades have faded and many beliefs have
been challenged and changed. The visions of the 1950s and 1960s for a
better world with full employment, decent incomes, universal primary edu-
cation, health for all, safe water supplies, a demographic transition to stable
populations, and fair terms of trade between rich and poor countries, have
in no case been realized. The beliefs of those times – in linear and con-
vergent development through stages of growth, in central planning, in un-
limited growth, in industrialization as the key to development, in the
feasibility of a continuous improvement in levels of living for all – these
now have been exposed as misconceived and, with the easy wisdom of
hindsight, naïve. Hundreds of millions of people are worse off now than
twenty years ago. That some nations should be rich and others poor can
even seem inevitable as we watch, year by year, the indicators of well-being
improve in some, and decline in others, with lower incomes, fewer children
in school, deteriorating services in health, mounting civil disorder, lower
expectation of life, and greater vulnerability.

These deep divisions seem rooted in the sort of people we are. It is tempting then to accept and excuse them as unavoidable. The truisms trot off the tongue – 'There always have been rich and poor . . . There always have been wars . . . You can't change human nature'. So we accept the unacceptable, telling ourselves we are bowing to the inevitable. But the coexistence of extremes of wealth and poverty, or of power and vulnerability, is not inevitable. It is the result of innumerable human choices, actions and non-actions. We do not bow to physical diseases as inevitable – polio, measles, malaria, TB. Nor is there any reason to bow to social sicknesses and discords, as many millions of courageous and committed people show through the lives they live. The challenge, as with all that is not right, is to analyse, reflect and act to make things better.

The problem has many levels – international, national, regional, community, household, and individual; many dimensions – of gender, class, caste, age, occupation, and physical and mental capability; and many implications in domains which are political, legal, economic, social, psychological and ethical. All of these have a bearing. All of these present points of entry and leverage for change for the better. Nor is this all. Some would say that no book about deprivation and development is complete without chapters on war and civil disorder, on bad and worsening international terms of trade for what poor countries produce, on debt and the bad effects on poor people of policies of structural adjustment, on the insults to the environment by the affluent North, on the practices and impacts of transnational corporations, and on the ideology of greed implicit in neo-liberal economics. These are surely all relevant. All demand analysis and action. Nothing in this book should be taken as undervaluing them. Nothing written here should be taken as an excuse for ignoring them. To offset them, and to augment positive aspects and trends, have to be priorities.

I have chosen, though, a different focus. This starts with 'us', with development professionals. It asks about failures, errors and learning, about what we do and do not do, and how we can do better. The argument is that we are much of the problem, that it is through changes in us that much of the solution must be sought. An earlier book (Chambers, 1983) was subtitled 'Putting the Last First'.[1] But to put the last first is the easier half. Putting the first last is harder. For it means that those who are powerful have to step down, sit, listen, and learn from and empower those who are weak and last.

So this book is concerned as much with those who are first, with 'us' and our errors, omissions, delusions and dominance, as with 'them', the last. We are many. We are from both North and South. We include political leaders, writers, lawyers, film makers, businessmen, and bankers; students and teachers in schools, colleges, polytechnics, training institutes and universities; researchers in all development disciplines – agriculture, animal sciences, botany, ecology and other environmental sciences, economics, education, engineering, fisheries, forestry, geography, health, human nutrition, irrigation, management, political science, public administration, sanitation, social anthropology, sociology and others; all who influence or work for and with the multilateral agencies – the IMF and the World Bank, the regional Development Banks, and that litany of acronyms – the

CGIAR, FAO, the FAO Investment Centre, IFAD, the ILO, UNDP, UNESCO, UNHCR, UNICEF, WFP, and WHO, to name but some of the larger and better known; all those, too, who influence or work for and with bilateral aid agencies and international NGOs; we include senior decision-makers in all countries; and most numerous of all, those who are closest to the action, the fieldworkers and headquarters staff of government departments and agencies and of NGOs in the South who are directly engaged with poor people and development.

I am referring to us as a group, as 'we' and 'us'[2], after this point without inverted commas. The radical activist in a remote village in Bihar may not identify with the president of the World Bank; nor he with her. But we are all actors in the same 'upper' system of organization and communication which is ever better linked; and our decisions and actions impinge on those in the 'lower' system of local rural and urban people and places. We are all trying to change things for others, we say for the better. We are all development professionals.

There are many starting points. Each chapter is in a sense a start on its own. But I hope to show that all chapters converge. To begin, let us set the scene by examining the context of contemporary conditions and change within which this book is written.

Accelerating change

Most ages have had their chroniclers who see themselves living through times of exceptionally rapid change, and facing imminent doom. But continuous change is a natural condition of physical, biological and social systems; and fears of doom are endemic. So given that change is inherent in nature, and in human society, one can ask whether change in the mid-1990s is different.

It seems to be different in its combination of scale, speed, global scope, and unpredictability. More seems to be changing and changing faster; changes are more interconnected and more instantly communicated; and the future is harder to foresee.

This is a view from a 'core', from a place which in our terminology is called central, in a rich country, linked in with global communications, and in the mid-1990s. The waves on which we find ourselves swept along are political, economic, technological, environmental and social, and they seem to be ever accelerating. If this book survives into the twenty-first century, anyone reading it may find of historical interest the changes which seem so dynamic in the mid-1990s.

Politically, the effects of the end of the Cold War have been dramatic. Global power is now concentrated in the North, and especially in Washington. The North is now less concerned with what happens in the South. The relative stability of the Cold War has given way to flux. Against expectations, multi-party democracy is in process in more and more countries. The plural nation-state has found it harder to hold together: some countries have fallen apart and split up, peacefully or with violence – Czechoslovakia, Ethiopia, Somalia, the USSR, Yugoslavia; and many have unresolved conflicts involving violence – Afghanistan, Angola, Burundi,

Cambodia, Chechenya, Georgia, India, Indonesia, Iraq, Liberia, Rwanda, Sierra Leone, Sri Lanka, Sudan and the UK, to mention only some of those more often in the news. Against this dismal backdrop, the liberating achievements of South Africans have given the human spirit a huge lift.

Economically, power relations have polarized. The North is no longer inhibited by post-colonial guilt; the countries of the South have become weaker; and the North now more freely imposes its latest economic ideologies on the countries of the South. Globalization of the free market means that economic change is less subject to human control, and states have less control over their economies. At the same time, in the 1980s and 1990s, the World Bank, the IMF and other banks and donors have set conditions for domestic economic policies in the South to a degree unthinkable in the 1960s or 1970s. More than ever before, power is concentrated in the cores of the North, including power to determine national policies in the South.

Technological change has, if anything, been even more rapid and startling than political and economic change. Its effects on the Northern view have been strong, through accelerating rates of innovation and obsolescence especially in microprocessing and communications. Instant communication has spread to those connected through E-mail, fax and Internet, and instant news comes from CNN and the BBC. Television has shrunk our world to a visual village.

Environmentally, as every Northern schoolchild now knows, change is upon us, much of it threatening, through air, sea, water and soil pollution, through global warming and rising sea levels, through the thinning of the ozone layer, through the dangers of disarming and disposing of nuclear weapons, through nuclear waste disposal, and through deforestation and erosion.

Socially, in terms of well-being, for many in the North the experience is of increasing unemployment, job insecurity, crime, drug abuse, and anti-social anomie. Simultaneously, for the privileged of both North and South, the visual social reality perceived or repressed includes mass slaughter, genocide, starvation, child soldiers, mutilation by land mines, and the like, brought literally home on television screens.

All this is how things appear from a stance in a core, that is, either in the North or in a position of power and privilege in the South. Contrast the view from the other end, from the remote (that is, remote from many of us) peripheries in the South. From there, there is no one view, but a multiplicity. Social change is rapid in almost every part of the globe, though largely unperceived in the cores. Tens of millions are deprived and marginalized each year through political, economic and physical disasters. More, not fewer, people become refugees; more, not fewer, migrate each year in desperation and distress, hoping for a less bad life. For others, from the farming or fishing village, the pastoralists' camp, the small town or the city slum, the details differ, for each is local and special. For them, the world is not a global presence that has penetrated the living room, as in the North, but a specific outside, a particular surrounding of people, resources, services, opportunities, threats and conditions.

There is, though, one meaning, shared by the majority who live in the peripheries. For them, 'remote' refers to the cores, to the places of wealth, power and privilege which are far away. For those in the cores, 'remote' is

reversed, and refers to the peripheries, the places of poverty, weakness and deprivation. For the powerful minority of the cores and the powerless majority of the peripheries, the world is opposite ways round.

Both perspectives, from Northern cores and Southern peripheries, are tied to a time in history, the present. What they share, and what will persist, is the unpredictability of the future. The faster the change, the less secure the forecasts; and the quicker and more global the communication, so the greater the costs of error. Futurologists are discredited: they have been spectacularly wrong, and the errors of economic forecasters have not been few. William J. Baumol (1991: 1) has expressed the uncertainty that many feel with his statement that 'I feel obliged to confess that I can offer with any degree of confidence only one prediction – that the future will surprise me'. New humility, sensitivity, nimbleness and willingness to change are needed for the more fluid and transient conditions of contemporary life in the North. And in the peripheries of the South, the world remains uncertain, as in the past, subject to sudden changes in markets, prices, services, supplies, institutions, government staff, weather, and civil order. At any time, the world outside the local community can bring human-made or natural threat and disaster.

Polarization: overclass and underclass

Accelerating change sharpens the challenges of social and economic 'development'. The faster the change, the greater are both opportunities and dangers. Just how acute these challenges are can be gauged from progress and regress in the human condition over recent decades. These show striking contrasts: huge successes and achievements; and disastrous failures and shortcomings.

Let us start conventionally, with statistics. These are notoriously flawed and liable to mislead. The multiple and diverse realities of poverty and well-being defy capture by standard measures. Reported improvements or declines can be fictions. Yet for all their limitations, conventional figures can at least suggest some orders of magnitude, trends and contrasts. Aggregate figures for some common indicators show average improvements, as in Table 1.1. But any complacency would mislead: gross deficits

Table 1.1: Reported improvements in indicators of human well-being

	Least-developed countries		All developing countries	
	1960	1993	1960	1993
Life expectancy (years at birth)	39	51	46	61.5
Infant mortality per 1000 live births	173	110	150	70
Adult literacy rate (per cent)	29	46.5	46	69
Real GDP per capita $US	580	900*	950	2700*

Source: HDR, 1995, 1996 * rounded

remain; achievements are unstable and need to be maintained; as populations rise, absolute numbers deprived can rise even when averages improve; and deprivations interlock, making it harder at the margin to help those who are badly off.

In each sector the record is mixed. The glass that looks half full, with the achievements reported, is also half empty, with what has not been achieved for basic well-being.

In health, life expectancy in all developing countries reportedly rose, between 1960 and 1993, from 46 to 61.5 years (HDR, 1995; 1996) and infant mortality per 1000 live births reportedly more than halved, from 150 to 70. Smallpox was eradicated from the earth, and polio and Guinea Worm disease greatly reduced. In little more than a generation the proportion of rural families with access to safe water was reported to have risen from less than 10 per cent to more than 60 per cent.

On the other hand, there has been a resurgence of malaria and tuberculosis, the time bomb of HIV menaces whole peoples and economies with its insidious spread, and in some countries with civil disorder, famine and breakdown in government services, life expectancy has fallen.

In education, the adult literacy rate in developing countries reportedly rose, between 1960 and 1993, from 46 to 69 per cent, and in little more than a generation, the proportion of children in primary school is said to have risen from less than a half to more than three-quarters.

On the other hand, nearly one billion people remain illiterate, and the primary school drop-out level is said to be 30 per cent. The goal of universal primary education is not remotely in sight.

On females,[3] from 1970 to 1992, in low- and middle-income countries, rises were reported in female life expectancy at birth from 56 to 64.5 years, and in the ratio of female to male literates from 54 to 71 per cent.

On the other hand, the enormity of discrimination and violence against females is simply outrageous. In 1993, two-thirds of all illiterates were reported to be women (HDR, 1993: 12). The abuse, sexual and other, of girl children is still largely concealed by the sacred secrecy of the family, and is only beginning to come to light. India is not alone in exhibiting discrimination against females on a scale which beggars the imagination. The bad effects of dowry in India intensify as lower castes and economic groups adopt and exploit it, contributing to the selective abortion of perhaps a million female foetuses a year following prenatal sex-determination. The liberal-democratic traditions of South Asia, especially India, have allowed these issues to be exposed and debated. Bangladesh, Pakistan, and China are also implicated. At the sub-Saharan African sex ratio of 102 females to 100 males, India had 41 million missing females in 1992 and China 48 million.[4] Comparing the female:male ratios of developing countries as a whole (96 to 100) with those of industrialized countries (104 to 100) presents the staggering figure for the developing countries of over 170 million females missing.

On the military, in recent years, global military expenditures, the numbers of people in armed forces, and the numbers employed in arms industries, have all declined (HDR, 1993: 9–10), and the nuclear arsenals of the United States and the former USSR are gradually being reduced.

On the other hand, civil wars break out, some like Yugoslavia and Rwanda in the world's eye, and others like Angola, Liberia and Sudan largely forgotten in the world of international communications. Whole peoples, ethnic groups and cultures, for example the Tibetans, the Marsh Arabs of Iraq, the Kurds, the South Sudanese, and the people of East Timor are still, in the mid-1990s, oppressed and persecuted. Thirty-five million people were estimated to be refugees or displaced within their countries in 1993 (HDR, 1993: 12) and their numbers have continued to rise.

On economy, from 1960 to 1993, in developing countries as a whole, real GDP per capita nearly trebled, from US$950 to $2,700. On the other hand, the rise in the least developed countries was much more modest, from US$580 to only $900. In 36 of the 83 low-income economies and lower/middle-income economies per capita GNP from 1980 to 1991 was reported to have declined. The number of people in the world who are defined as in absolute poverty has increased and is increasing.

Globally, too, personal deprivation more broadly defined has in many places deepened. This can be understood through the interlinked dimensions of physical weakness, isolation, income-poverty, vulnerability and powerlessness (Chambers, 1983: 108–39). In any balance sheet, vulnerability is easily overlooked, yet its spread and aggravation have been widespread (see e.g. Davies, 1996; Scoones, 1995b). Hundreds of millions have become more vulnerable. They are more exposed to risks, shocks and stresses; and with the loss of physical assets and fewer and weaker social supports, they have fewer means to cope without damaging loss.

Deprivation has become more regional, concentrated more in those countries which have the least capability to improve conditions, as in many of sub-Saharan Africa, or in regions within countries, as with BIMARU (Bihar, Madhya Pradesh, Rajasathan and Uttar Pradesh) in India, with its population of some 370 million. Typically, the countries most affected are heavily in debt. Many are politically unstable and have had declining levels of living. The terms of trade for their exports are subject to long-term decline so that they have to run harder just to stay in the same place, let alone progress. Donors and creditors who proclaim their commitment to anti-poverty programmes nevertheless require poor debtor countries to pursue policies which further weaken and impoverish the poorest. A new underclass of countries has evolved, mirroring the dimensions of personal deprivation – physically weak, isolated, poor, vulnerable and powerless.

Even though the trends and tendencies are mixed, the polarization of humankind between privilege and deprivation, between security and vulnerability, and between power and impotence, seems to be intensifying. Within countries, income disparities have tended to widen. When SIDA reviewed the 21 countries which it had been aiding, it found that income inequalities had grown in all of them (pers. comm. Gunilla Olsson, 1995). In general, the distribution of income has become increasingly more unequal since 1960 (Tabatabai, 1995). There are now more very poor and vulnerable people in the world than ever before; and they are more and more concentrated in regions and nations which are themselves weak and deprived, lacking resources, or the capacity or will to act, or impoverished

Table 1.2: World Classes 1992

Global class	Overclass	Middle	Underclass
Category of consumption	Overconsumers (1.1 billion)	Moderates (3.3 billion)	Marginals (1.1 billion)
Income per capita	over US$7500	US$700–7500	less than US$700
Diet	meat, packaged food, soft drinks	grain, clean water	insufficient grain, unsafe water
Calories consumed[5]	too many	about right	too few
Transport	private cars	bicycles, public transport	on foot
Materials	throwaways	durables	local biomass
Shelter	spacious climatized	modest	rudimentary
Clothing	image conscious	functional	secondhand or scraps

Adapted from Korten, 1995: 6 and Durning, 1992: 27

by debt and declining terms of trade, or racked by civil disturbance, or suffering combinations of these. Personal deprivation is nested within national deprivation.

With the withering away of Marxism, the usefully vague word class has gone out of fashion. Humankind can, though, be seen to have two polar concentrations – an overclass with wealth and power, and an underclass which is poor and weak, with a mixed and mobile middle. In 1992, this was described by Alan Durning (1992: 27) as three World Consumption Classes, whose characteristics are elaborated in Table 1.2.

The overclass of overconsumers is the same size as the underclass of marginals. The income taken home by the wealthy overclass is not twice, or 4 times, or 8 times, or 16 times, but 32 times that of the poor underclass.

The overclass is a majority within the countries of the North, and a minority within the countries of the South. There is a 'South', perhaps 20 per cent of the population, in the North, and there is a 'North', again perhaps 20 per cent of the population, in the South. In the North, the overclass makes up a democratic majority which votes for its own interests against the smaller underclass, and luxuriates in a 'culture of contentment' (Galbraith, 1992). This overclass gained from the neo-liberal right-wing governments of the 1980s. And the North as a whole has gained from its dominant position vis-à-vis the South. Despite this, the minority overclass in the South finds common interests with the overclass in the North. Wherever it is, the overclass holds power, and bears the main responsibility for what is done and not done.

The categories of overclass and underclass dramatize the polarization of our world. Like all such categories, and all statistics about complex realities, they simplify the reality. Conditions, people, trends, resource

endowments, and relationships, are diverse – within families, groups, communities, regions, and nations. All the same, the overclass and underclass are stable: the overclass has multiple interlocking privileges, securities and advantages which keep it on top; and the underclass has multiple interlocking disabilities, vulnerabilities and deprivations which hold it under. The question is how to help them converge, how to narrow the gap, how to enable the overclass to accept less, and how to enable the underclass to gain more.

An evolving consensus

Faced with many shifting dimensions, the temptation is to simplify or despair. Ambiguity, diversity and plural realities can be difficult to tolerate. Refuge can be sought in negativism. The outside cover of *The Development Dictionary: A Guide to Knowledge as Power* (Sachs, 1992) asserts that 'The idea of development stands today like a ruin in the intellectual landscape'. That is no grounds for pessimism. Much can grow on and out of a ruin. Past errors as well as achievements contribute to current learning. So it is that in the mid-1990s a consensus may be evolving on concepts, objectives and actions for a better future.

It seems bold to assert that in conditions of accelerating change, concepts may be stabilizing. Ideas for development policy and practice have continuously changed, not least in response to the conditions from which they derive and on which they act. With the extension of instant overcommunication on the cybernetic superhighway, and with new concentrations of intellect and power in central places, Northern and donor-driven lurches of policies to promote and fashions to follow can now spread faster. At any time there have coexisted a range of vocabulary, concepts, and values, some considered old-fashioned, some current, and some avant-garde. So it is only to be expected that the frontier words of the mid-1990s, such as accountability, ownership, stakeholder and transparency will be followed and perhaps superseded by others. All the same, certain other words, concepts and phrases have gradually grown in usage and have a generality and utility which seem to fit them for survival even in volatile and turbulent conditions and debates.

At a general level, there is putting people first, featuring in the titles of at least two books (Cernea, 1985 and Burkey, 1993). A massive shift in priorities and thinking has been taking place, from things and infrastructure to people and capabilities. Consonant with this shift, five words, taken together, seem to capture and express much of an emerging consensus. These are well-being, livelihood, capability, equity and sustainability. Each is linked with the others, as in Figure 1.1.

Each word can be presented in a statement:

○ *The objective of development is well-being for all.* Well-being can be described as the experience of good quality of life. Well-being, and its opposite ill-being, differ from wealth and poverty. Well-being and ill-being are words with equivalents in many languages. Unlike wealth, well-being is open to the whole range of human experience, social,
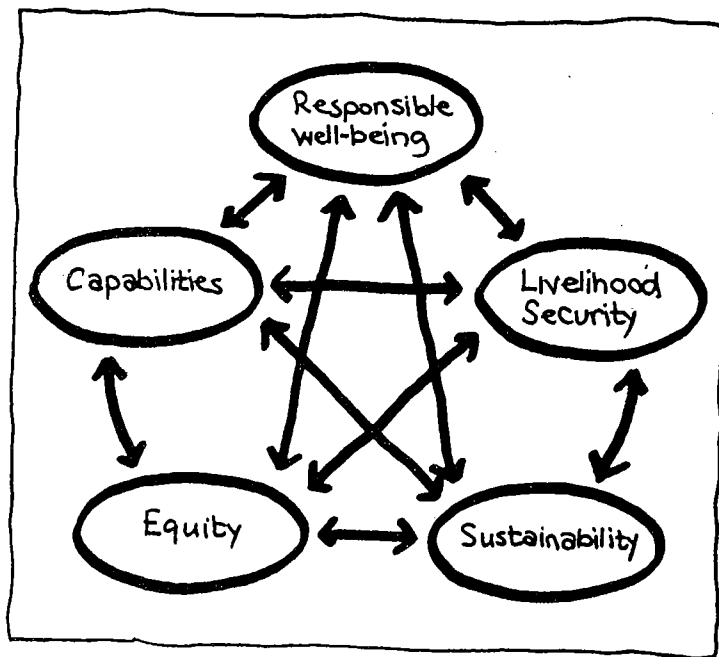
Note: The overarching end is well-being, with capabilities and livelihood as means. Equity and sustainability are principles which qualify livelihood to become livelihood *security*, and well-being to become *responsible* well-being.

Figure 1.1: The web of responsible well-being

mental and spiritual as well as material. It has many elements. Each person can define it for herself or himself. Perhaps most people would agree to include living standards, access to basic services, security and freedom from fear, health, good relations with others, friendship, love, peace of mind, choice, creativity, fulfilment and fun. Extreme poverty and ill-being go together, but the link between wealth and well-being is weak or even negative: reducing poverty usually diminishes ill-being, but amassing wealth does not assure well-being.

o *Livelihood security is basic to well-being.* Livelihood can be defined as adequate stocks and flows of food and cash to meet basic needs and to support well-being. Security refers to secure rights and reliable access to resources, food and income, and basic services. It includes tangible and intangible assets to offset risk, ease shocks and meet contingencies.[6] Sustainable livelihoods maintain or enhance resource productivity on a long-term basis and equitable livelihoods maintain or enhance the livelihoods and well-being of others.

o *Capabilities are means to livelihood and well-being.*[7] Capabilities refers to what people are capable of doing and being. They are means to

livelihood and fulfilment; and their enlargement through learning, practice, training and education are means to better living and to well-being.

o *The poor, weak, vulnerable and exploited should come first.* Equity qualifies all initiatives in development. Equity includes human rights, intergenerational and gender equity, and the reversals of putting the last first and the first last, to be considered in all contexts. The reversals are not absolute, but a means of levelling.

o *To be good, conditions and change must be sustainable – economically, socially, institutionally, and environmentally.* Sustainability means that long-term perspectives should apply to all policies and actions, with sustainable well-being and sustainable livelihoods as objectives for present and future generations.

Each word relates to the others, but they are of different sorts. Equity and sustainability are principles. They also combine in intergenerational equity, the principle of assuring the rights and opportunities of future generations. For their part, capabilities and livelihood security are intermediate ends as means to well-being. The overarching end is well-being, qualified by equity and sustainability to be responsible. This means that well-being is not at the cost of equity and sustainability, but is enhanced when it contributes to them. Responsible well-being recognizes obligations to others, both those alive and future generations, and to their quality of life. In general, the word 'responsible' has moral force in proportion to wealth and power: the wealthier and more powerful people are, the greater the actual or potential impact of their actions or inactions, and so the greater the need and scope for their well-being to be responsible. The objective of development around which consensus might coalesce is then *responsible well-being by and for all.*

When it comes to policies and practice, less agreement can be expected. What ought to be done, and how it should be done, is sensitive to conditions. Any tentative outline of consensus here is more open to challenge, and more likely to shift and vary. Still, some elements in a mid-1990s view of how to achieve well-being, livelihoods, enhanced capabilities, equity and sustainability, might include:

o combining and balancing the state and the market, to benefit, serve and empower the poor;

o seeking livelihood-intensity in social and economic change;

o securing human rights for all, including peace, the equitable rule of law, and secure rights of property and access for the poor;

o ensuring means of livelihood for all, comprising access to livelihood resources and/or employment, together with safety nets;

o providing basic services for all, including health, education, water, housing; and

o facilitating participation, with approaches which are bottom up with processes of learning, rather than top-down with blueprints.

On concepts and objectives, and on policies and actions, there is no final word. There are, as it were, two polarized paradigms: one with a structure which is linear, organized, predictable and converging on equilibrium; and

one with a form which is non-linear, chaotic, unpredictable, divergent and non-equilibrium. In the latter, everything is provisional and subject to review. Change and learning know no boundaries. Realities are multiple. But some elements of learning do persist; and time will show whether those above will be among the survivors.

The power and will to act

A basic question is what power and will there are to act to put people first, and poor people first of all. Among the conditions affecting power and will, three deserve note:

1. Much that happens on a vast scale is neither accountable nor under effective control. Uncontrolled globalization adds to uncertain or negative outcomes for the poor. Transnational corporations (TNCs) are footloose, shifting nimbly to their advantage from country to country, and subject to little regulation. Foreign-exchange speculations on an unprecedented scale cream off fortunes for a few at the expense of the many. Whether the poor gain or lose from TNCs depends hardly at all on any regulation; and profits from currency speculation would appear to be at the cost of the whole of the rest of humankind, including the poor. Such global trends present themselves, like the weather, as hazards to be observed and forecast fallibly, but seemingly outside human control.

2. Fundamentalisms are divisive, and weaken any sense that individuals can make a difference. They lure the unsuspecting and insecure into belief systems which separate people into 'either/or' groups – believers and unbelievers, the saved and the damned, the chosen and the rest, the proletariat and the bourgeoisie, the ideologically sound and the ideologically unsound, often with closed categories. Caricatured in their vulgar forms, both neo-classical and Marxist theory render the individual virtually powerless to change the course of human affairs. What happens is determined by self-interested maximizers and historical forces respectively. The human world can then appear a neo-classical system driven inexorably by greed, or a Marxist zero-sum game in which gain for one is loss for another. In neither case would the overclass willingly accept loss or forgo gain so that the underclass could be better off. For fundamentalist cynics, the global haves will always hold on to what they have, and never give over anything for the global have-nots; and the individual is largely impotent.

3. Fine rhetoric is rarely matched by equivalent action. In words, aid agencies have been squarely for the underclass. The Overseas Development Administration of the British government has had as its declared policy: 'The purpose of our overseas aid for developing countries is to promote sustainable economic and social development and good government in order to reduce poverty, suffering and deprivation and to improve the quality of life for poor people' (FCO, 1993: 40).

Successive presidents of the World Bank have repeatedly stated their similar commitment, as for example Lewis Preston in 1993: 'Sustainable poverty reduction is the World Bank's fundamental objective. It is the benchmark by which our performance as a development institution should be judged' (Preston, 1993); and at the Social Summit in Copenhagen in 1995, leaders of the world's richest and most powerful countries committed themselves to: '. . . the goal of eradicating poverty in the world, through decisive national actions and international co-operation, as an ethical, social, political and economic imperative for humankind' (WSSD, 1995).

Yet reviews (ActionAid, 1994; 1995) by NGOs found 17 out of 21 donor countries cutting aid, with a 6 per cent decline between 1992 and 1993, leading to the conclusion that 'Despite many assertions that poverty focus is the priority of official aid, there is little hard evidence that money is actually following the rhetoric' (ActionAid, 1994). The problem is to make rhetoric bite in the real, messy world.

Interpenetrating these negative conditions are others that are positive. Much, but not all, that TNCs do is bad for the poor. Much, but not all, of the windfall profits of currency speculators, is used selfishly: George Soros,[8] gave away some of the billions of pounds he made out of British devaluation to support education and development in Eastern Europe. He did not have to do that. But there are others in the overclass who go much further, who organize and work for the underclass and who inspire through their vision, lives and leadership, not just those like Gandhi, Freire, Schumacher, Mother Theresa and Mandela who are well known, but those unnamed millions who work for NGOs, in governments and in other organizations, in a spirit of service. And even if the quantity of aid stagnates or declines, some of its quality improves.

The key is personal choice. The actions of TNCs, of currency speculators, of UN agencies, of governments, of NGOs are all mediated by individual decisions and action. The point is so obvious and so universal it pains to have to make it. People are complex and diverse. People can choose how to behave and what to do. The assumption of pervasive selfishness and greed in neo-liberal and male-dominated thought, policy and action supports a simplistic view of human nature. This overlooks or underestimates selflessness, generosity and commitment to others, and the fulfilment that these qualities bring. Development theorists have neglected the drives and pleasures of generosity and altruism, and the personal trade-offs between satisfactions.

As words go, 'altruism' is a Cinderella of development. It provokes the cynic to see through to other, less flattering, realities. Human motivation is many-sided, and almost any act can be seen in a good or bad light. Whatever other negative interpretations may also apply, there is a level at which part of the motivation for many actions is to help others, to make things better for those who are less fortunate or in need. Altruism is a fact of human behaviour, and can be chosen. The huge achievements of recent decades in health had many causes, but the desire to reduce suffering, to cut infant mortality, to make life better for those who are deprived, was surely one. No one is fully determined; no one is immune from altruism.

Beyond this, the new concentrations of power in the 1990s present new opportunities for action. The unipolar focus of power, influence and

decision-making in the eastern United States presents new opportunities for individual intervention. Washington is the home of the United States government, of the World Bank, and of the IMF. New York is the headquarters of the United Nations. In the democratic environment of the United States, all of these can be confronted and pressured.[9] A busy small group of committed NGO lobbyists in Washington has an influence far out of proportion to its numbers. Moreover, like their colleagues in other countries, it has shown repeatedly that policy and practice are not fully determined, can be changed, and flow from accumulations of individual decisions about what to say and do. Humankind is closer together, and the peripheries are closer to the centres of power, than ever before. And the changes with which we are concerned are not between political Left and Right, or between states and markets. They are between the priorities of the powerful and those of the weak.

The potential for deliberate, chosen change is there. If the levers of power are stronger, so too is the potential for change. Many are now better placed to act than were their predecessors. Whether they now act in favour of the weak and poor depends on many motivations. The choices are real; for all actors there is an agenda for personal fulfilment and responsible well-being through generosity, vision, commitment and courage.

The challenge to change

The problem is how, in conditions of continuous and accelerating change, to put people first and poor people first of all; how to enable sustainable well-being for all. The thesis of this book is that solutions can be sought in a new paradigm and a new professionalism.

Basic to a new professionalism is the primacy of the personal. This recognizes the power of personal choice, the prevalence of error, and the potential for doing better in this thing called development. The personal, professional and institutional challenge is learning how to learn, learning how to change, and learning how to organize and act.

The new paradigm needs change and adaptability in its genes: for if nothing is permanent but change, then managing and coping with change has to be inherent in the paradigm itself. In this respect, it is a meta-paradigm, a paradigm about paradigms. Different elements will have different degrees of robustness and permanence. Which will endure is not knowable. That they will change is the only certainty. The analytical challenge is to frame a practical paradigm for knowing and acting, and changing how we know and act, in a flux of uncertainty and change.

2
Normal Error

. . . a waste of money and a bloody mess.
Official of a multilateral agency on
Integrated Rural Development Projects

Some of the potential gains from personal and professional change can be gauged through analysis of error. Errors in development are so common as to be normal. Some are embraced and lead to quick learning; others are embedded and sustained. Past errors are evident in many domains. Examples include: macro-policies; beliefs about food and famines; projects, programmes and packages; science and technology; and beliefs about people and the environment. The puzzle is why we, development professionals, have been wrong so often and for so long. Learning has been slow. The challenge is to learn faster and better.

Errors: embraced or embedded?

'To err is human' is oddly absent from *The Methuen Dictionary of Clichés* (Ammer, 1992). Yet Alexander Pope's phrase is common currency in colloquial English, and error is normal in all domains of human activity. That the history of development is littered with errors is, then, scarcely surprising. The other side of the coin is that if we could learn from errors and avoid them in future, 'development' would be transformed. This chapter presents and analyses examples of error to provide a basis for seeing how to do better.

Errors in development lie on a continuum between two poles: at one pole embraced errors which lead to learning; at the other, embedded errors which sustain mistakes.

Errors which are recognized and embraced can lead quickly to better understanding and performance. Faced with the complexity, diversity and dynamism of people, conditions, institutions and actions, it is only to be expected that mistakes will be made. Those who take responsibility and act have to learn, adapt and adjust on the run. For them, lessons from mistakes are needed for learning to do better. There is, then, a class of errors which can lead to quick improvements. They are short-term and reversible. They are known as trial-and-error, learning-by-doing, and successive approximation, and found and expected in pilot projects and in a learning process approach (Korten, 1980, 1984; Rondinelli, 1983). The opportunity they present is to 'fail forward' (Peters, 1989: 261–2). They are errors for learning.

Embedded errors go deeper, last longer, and do more damage. Often they reflect widely held views, and are generalized. Often they fit what powerful people want to believe. They tend to spread, to be self-

perpetuating, and to dig themselves in. Embedded error proliferates and sustains failures.

This chapter is concerned more with embedded errors. Some academics delight in exposing them, and I am not guiltless on that score. But the consummation sought is not an orgy of morbid glee. It is to understand how and why we, development professionals, so often get it wrong while so sure we are right.

Effective action requires understanding of the physical and social world on which we seek to act. We have to know what works and what does not. The presumption has been strong among development professionals that we do know what we are doing. But many beliefs, policies, projects and programmes which have been part of conventional wisdom at one time have proved later to have been false or flawed. Those which follow are a few, selected because they are accessible, and have been well analysed and documented. The aim is to understand how these errors arose and were so deeply embedded, and how similar errors can be avoided.

Macro-policy

The most serious such errors in scale of impact have been in macro-policy prescriptions for development, since these have affected so many people so much. In the 1950s industrialization was seen as key to progress for the underdeveloped countries. A linear view of development was concerned with a convergent evolution of economies, with 'catching up', with, in Rostow's (1960) term, 'take-off into sustained growth' which would pass through standard stages of development. Infant industries were protected. National planning was prestigious and the norm. Parastatals proliferated. But in the 1970s, much prescription changed. Natural resource endowments were seen to be crucial, and agriculture and rural development were stressed. Large-scale loans were disbursed for capital investment. The 1980s followed with heavy indebtedness and the neo-liberal lurch, leading to the imposition on weak, impoverished and now deeply indebted governments, especially in sub-Saharan Africa, of policies of structural adjustment by their creditors. These policies, it was hoped, would enable their economies to recover and their debts to be repaid. Markets were to be freed. State bureaucracies, which had earlier been encouraged to swell, were now to be shrunk. So the development dogmas of the powerful did a U-turn, from a neo-Fabianism of direct government action and of parastatals, in which the state did more and more, to a neo-liberalism of privatization and a free market, in which the state did less and less.

To be fair, policies make more sense in their contemporary conditions than they seem to later. Also, whatever policies are followed, some people will usually be hurt and so the policies will be open to criticism. All the same, with hindsight, one can see a succession of massively damaging mistakes: first, to expect weak states to do so much through central planning and direct government action; then to drive them deep into debt with enormous loans; and then, when they were in no position to argue, to thrust on them policies of structural adjustment which made life worse for the poorest. The policies were flawed, but at the time most professionals, especially economists,

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thought them right. The puzzle is how such errors, so obvious after the fact, could have occurred, and on such a phenomenal scale. And since the confidence and conviction of the powerful seem sustainable in the face of such errors, the questions are how much they and other development professionals are still wrong, and may continue to be wrong, while sure they are right; and how we can all of us learn to be less wrong in the future.

Integrated Rural Development Projects

The literature on development errors is neither sparse nor all of it recent (see for example Wood, 1950; Baldwin, 1957; Hirschman, 1967; Chambers, 1973; Cassen et al. 1986; Hill, 1986; Porter, Allen and Thompson, 1991; Morse and Berger, 1992). Errors and failures are found in the work of all development organizations, not just in international agencies, bilateral donors, and host governments, but also in NGOs and banks. The project and programme errors considered here involve the World Bank, because it combines huge scales of operation with self-critical transparency in sharing some of its learning with others.

Following Robert McNamara's speech in Nairobi in September 1973, rural poverty and rural development became priorities for World Bank lending. Smallholder farming and farmers were identified as the main target. Since rural development and smallholder farming had many related aspects, it was considered that many of these should be tackled simultaneously. To make this manageable, bounded geographical areas were identified for integrated rural development projects (IRDPs). The designs sought to combine simultaneous and co-ordinated actions, often by different organizations and departments, but with an on-site project management.

Between 1973 and 1986, the Bank lent US$19 billion for nearly five hundred (498) rural development projects, the total costs of which were estimated at $50 billion (i.e. averaging about $100 million each). Area development projects were 40 per cent of the portfolio. The outcome for these was a large proportion of failures, especially in sub-Saharan Africa (World Bank, 1988 passim). In the words of the Bank's own, commendably self-critical evaluation: 'the Bank apparently lost sight of the reality that the cost of failures, in what were identified from the outset as risky experiments, would be borne by borrower countries and not by the Bank' (ibid. xviii).

The evaluation concludes that there are many lessons to be learnt. They included problems arising from:

o institutional and managerial complexity;
o lack of the viable technical packages which had been assumed; and
o supply-driven lending, high targets, and urgent large-scale action without pilot projects.

Beliefs about food and famine

Few fields are of more intense concern for human well-being and development than food. Lay people can be forgiven for supposing that human nutritional requirements would have long since been established by hard

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science, and would be universally recognized. This, however, has not been so, either with the composition of diet, or with calorie requirements.

On diet, it was believed in the 1950s that protein deficiency was the major cause of malnutrition, and that the solution was to increase the intake of protein. This led to feeding undernourished children with expensive high-protein foods. Then it came to be understood that the main deficiency was usually calories, not proteins. In consequence, feeding priorities shifted from proteins to ensuring adequate calories through carbohydrates, which were also cheaper. Although some debate continues about how important proteins are, adequate calories are still recognized as usually the top priority.

Micronutrients have been another big change. In the past decade, vitamin A, vitamin C, thiamine and niacin, and iodine, iron and zinc, have been found to matter more to physical well-being than earlier thought (Uvin, 1992: 39-50; 1994: 20-26). Micronutrient additions to the diet, especially vitamin A, can reduce morbidity and mortality among many children (Beaton *et al.* 1993). On current form, it would be surprising if coming decades did not see yet further discoveries about diet and nutrition.

On calorie requirements, the belief current in the 1950s and 1960s was that these were around 3000kcal or more. This was for an active male in the North. When the figures were applied worldwide, very large numbers of people were classified as seriously malnourished. In 1950 Lord Boyd-Orr, the first Director-General of FAO, wrote in *Scientific American* (cited in Uvin, 1994: 63) that 'a lifetime of malnutrition and actual hunger is the lot of at least two-thirds of mankind'. But since then estimates of individual nutrient requirements have shown a long-term downward trend. The National Academy of Sciences estimates of food energy requirements for a moderately active man of 70kg bodyweight declined from 3200kcal in 1958 to 2700kcal in 1974 (see Table 2.1), and FAO estimates for a moderately active man of 55kg declined from 2830kcal in 1957 to 2450kcal in 1985.

The technical issues are not simple, given variances by body weight, basic metabolic rate, sex, life cycle (including pregnancy and lactation), season, physical activity, climate and state of health. These variables give experts plenty of leeway to choose between alternative estimates. It seems that estimates of requirements, and of numbers of people undernourished, have been influenced not just by research, but by a shifting climate of opinion, judgements by individuals and committees, and political considerations (Pacey and Payne, 1985 ch. 1; Uvin, 1994 ch. 3). One fear was that if estimated calorie requirements were reduced, the numbers for the hungry would decline, and support for international agencies and aid would be undermined.

Even more radical changes have taken place in the understanding of famines. For many years, the received wisdom was three commonsense beliefs: first, that famines resulted from a shortage of food; second, that deaths in famines resulted from starvation; and third, that the action required was to supply food when people could no longer feed themselves. In his 1981 book *Poverty and Famines*, Amartya Sen challenged the first belief, arguing that famines were more the result of lack of entitlements – the lack of the ability to command and obtain food, than of lack of food or

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Table 2.1: Some estimates of food energy requirements

Year	Kcal	A: Male, bodyweight 70kg
1958	3200	NAS moderately active
1968	2800	NAS moderately active
1974	2700	NAS moderately active
		B: Male, bodyweight 55kg
1957	2830	FAO moderate activity
1965	2500	active, in Africa
1973	2530	FAO moderate activity
1983	2400	ICMR[1] recommended daily intake adult, moderate physical activity
1985	2450	WHO/FAO/UNU ditto (est. 2710, corrected for overestimate of BMR[2])
1985	2200	as above, with minimal activities
1985	1960	as above, with body weight adjusted to 44kg
1985	1550	as above, 'survival' requirement

Sources: Pacey and Payne 1985: 23 and Payne 1990: 15 citing various sources.
[1]ICMR = Indian Council for Medical Research; [2]BMR = basic metabolic rate.

decline in food availability. In his 1989 book *Famine that Kills* Alexander de Waal challenged the second belief, arguing on the basis of extended fieldwork that in Darfur in 1984-85, that disease, often water-borne, was the overwhelmingly important killer in the famine, not hunger. In her 1996 book, *Adaptable Livelihoods*, Susanna Davies has challenged the short-term reductionism of the third belief. Drawing on research and experience in Mali and elsewhere, she establishes the case for earlier interventions, and for a shift to save livelihoods, not just lives. These three books, and the research on which they are based, change the way famines are viewed and the prescriptions for actions to be taken in response and in anticipation. But none of these new received wisdoms is itself final, and each is subject to continuing debate.

The learning from all this is that what appear to be hard scientific facts and figures can be selected according to the climate of opinion and to political considerations; that combinations of scientific knowledge and common sense can be wrong; and that in matters as complex and locally and individually variable as the relations between human physiology, deprivation, famine, food and livelihoods, there is much to doubt and probably much still to learn.

Post-harvest losses of grain

In matters amenable to investigation by hard science, development professionals are inclined to believe that 'we know', and that our technology is superior. There are areas where this is well established and credible, and

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where modern scientific knowledge has an advantage over local knowledge. This is especially the case with the very small and microscopic, as with viruses, bacteria, and their related diseases; and with the very large and macroscopic, as with comparative conditions in other places. There are other areas where accurate knowledge has been claimed, or has appeared to have been established, but where there is actually uncertainty and error. An example is village-level post-harvest losses of foodgrains. On this, the principal sources used here are Martin Greeley's (1980, 1982, 1986, and 1987 Ch. 2) analyses of the origins and explanations of estimates of village-level post-harvest losses of grains.

Post-harvest losses of food at the village level became a major focus of attention in the 1970s, especially following the World Food Conference of 1974. They were identified as 'the neglected dimension in increasing the world's food supply' (Bourne, 1977, cited in Greeley, 1986: 333). Estimates were high. The most extreme, cited by Lester Brown (*Seeds of Change*, 1970) was where 'according to one calculation, based on local reports, 50 per cent of the grain crop of India was lost to rodents, 15 per cent was lost during milling and processing, 15 per cent was lost to cows, birds and monkeys, 10 per cent was lost to insects and 15 per cent was lost during storage and transit – a grand total of 105 per cent'. Less extreme but still high figures were taken more seriously and widely quoted. Parpia (1977: 20) argued that 'In most of the food-deficit countries, actual shortages (of food) represent 4–6 per cent, while losses have been estimated at 20–40 per cent of production'. The figures of 30 and 40 per cent were widely and loosely quoted in many different contexts. Typically, an account of participatory research concerned with post-harvest losses in Tanzania opens with the statement that 'As much as 30–40% of grain harvests in Tanzania have been lost annually' (SPRA 1982: 6).

The belief in such huge post-harvest losses of grains at the village level led to the establishment of large-scale programmes of intervention. FAO set up a Post-harvest Loss Prevention Programme, and its budget for postharvest-related programmes rose from US$2.5 million in 1976/77 to over $19 million in 1981. USAID tripled its authorized expenditure between 1976 and 1978, from nearly US$5 million to nearly $15 million.

When careful multi-disciplinary field-level research was later carried out village-level post-harvest losses were found in practice, again and again, to be low. Tyler and Boxall (1984) reviewing ten storage loss studies reported that 'the results from nine of the ten farm-loss studies showed that losses appear to be fairly well contained about or below the 5 per cent level over the storage season'.

The wrong belief appears to have had several sources. One was losses of high-yielding varieties in the Green Revolution which led to large marketed surpluses for which storage was a problem, and which were more vulnerable to pest attack. Another source was on-station research conducted by de Padua (1976) at IRRI. This measured losses in harvesting, handling, threshing, drying, storage and milling. The aim was to see how losses varied with time of harvesting. The results gave ranges of loss. Summing the lows gave 10 per cent; summing the highs gave 37 per cent. A technical critique (Greeley 1986, 1987) shows these figures were themselves high (correct multiplying

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gives 32 per cent, not 37, etc). Though derived from an on-station experiment to determine ranges of losses under different, including suboptimal conditions, the figures were subsequently quoted by others as applying to the farm level, and as late as 1985 as evidence of up to 37 per cent losses at the farm-level in South-east Asia (ASEAN 1985).

The belief in high losses proved resiliently sustainable. Commercial interests had no cause to underestimate losses, since silos and other storage technology lent themselves to profits from capital-aid programmes: in Bourne's laconic words (1977: 15): 'figures that have been obtained by careful measurement are manipulated for various reasons'. Rural development tourists were vulnerable to the way in which 'farmers, usually village leaders, will often oblige the visiting post-harvest 'experts' by displaying the severity of their post-harvest problems (perhaps the few remaining insect-damaged, rodent-chewed cobs from a harvest long since past)' (Greeley 1986). Thirty per cent and 40 per cent were easy figures to remember and repeat for those who write general development briefs, compose speeches for ministers, and personally pontificate at conferences. Moreover, high farm-level losses were attractive because they blamed the farmer and invited a modern technological fix. There were many reasons for wanting to believe in high losses.

The learning is that vested interests and professional predispositions can sustain an entrenched belief long after it has been repeatedly exposed as false.

Animal-drawn wheeled toolcarriers

The source for this section is Paul Starkey's scholarly and sobering study *Animal-Drawn Wheeled Toolcarriers: Perfected yet Rejected* (1988).

Wheeled toolcarriers are multipurpose implements that can be used for ploughing, seeding, weeding and transport. In the three decades to 1987 about 10 000 wheeled toolcarriers of over 45 designs were made, mainly in and for Africa and Asia. The toolcarriers were designed by agricultural engineers, developed and tested in workshops and on research stations, and then passed on to farmers for trials and to manufacturers for production. The International Crops Research Institute for the Semiarid Tropics (ICRISAT) developed toolcarriers which received much publicity. Up to 1200 were distributed to farmers through credit and subsidies of up to 80 per cent. Worldwide, more than one hundred senior person-years, and several hundred person-years of less senior staff, were devoted to the development of these toolbars, and the cost at 1987 prices was estimated to be over US$40 million (ibid: 142).

Wheeled toolcarriers were rejected by farmers. The reasons were high cost, heavy weight, lack of manoeuvrability, inconvenience, complication of adjustment, difficulty in changing between modes, and higher risk and less flexibility than with a range of single-purpose implements. Their design was a compromise between the many different requirements. Farmers did better, by their criteria, with single-purpose implements. Of the 10 000 or so toolcarriers made, Starkey found that the number ever used by farmers as multipurpose implements for several years was negligible (ibid: 9). Wheeled toolcarriers were, in sum, a resounding failure.

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Farmer rejection was apparent from the early 1960s. At a conference at ICRISAT in 1979, an economic analysis (Binswanger et al., 1979) cautiously supported further development, but on a field visit during that conference farmers who had been trying out the ICRISAT toolcarrier embarrassingly rejected it, on three grounds: the strong bullocks needed to draw it, its cost, and the large area required for it to be economical. Nevertheless, work on the toolcarrier continued. After his careful comparative research, Starkey concluded that 'No wheeled toolcarrier has yet been proven by sustained farmer adoption in any developing country'. Yet as late as 1987 'Research, development and promotional activities (were) continuing in at least twenty countries in Africa, Asia and Latin America' (ibid. 131).

Much technically expert work was done; but, to borrow the title of Starkey's book, the wheeled toolcarriers were 'perfected yet rejected'. There was a collective myth. When Starkey corresponded with those who were developing and testing these implements, a common reply was that they were facing difficulties, but that they knew toolcarriers had been successful elsewhere.

The learning is that we have a puzzle: to understand how so many able agricultural engineers, scientists and researchers, and so many donor agencies, were able to persist in the face of negative evidence, how they could have gone on being, for so long, so wrong. It seems that personal, professional and institutional commitment to a failure can be sustained in many ways.

Woodfuel forecasts

Mistakes in forecasting are normal, but the errors in forecasting the wood-fuel crisis in African and some other countries crossed the boundary into pathology. The forecasts were documented and critiqued by Gerald Leach and Robin Mearns in *Beyond the Woodfuel Crisis: People, Land and Trees in Africa* (1988) (see also Dewees, 1989b and Mearns, 1995).

The woodfuel crisis was 'discovered' in the mid-1970s after the oil price rises of 1973 and 1974. Evidence had been accumulating of deforestation and of increasing shortages of fuelwood. The problem was analysed according to 'woodfuel gap theory'. This estimated current and projected consumption of woodfuels set against current stocks and a projected growth of trees. In the first half of the 1980s, this type of demand and supply analysis for woodfuels was conducted in the sixty-odd UNDP/World Bank energy-sector assessments for African and other countries in the South (ibid: 6). Typically, consumption was found greatly to exceed the annual growth of trees. This led to predictions that the last tree in Tanzania would disappear in 1990 and in Sudan in 2005. Leach and Mearns' observation in 1988 (ibid: 7) that 'There are still many trees in Tanzania' remains true in the mid-1990s.

The gap calculations were multifariously flawed in terms of both supply and consumption:

Supply
o total tree stocks were usually grossly underestimated by forest departments since they knew little about trees outside forests, for example on farm, fallow and village common lands;

o natural regeneration was usually omitted, although 'tree regrowth can soften dramatically the dire predictions of gap forecasts' (ibid: 8);
o surpluses were not accounted for arising from land-clearing, often the largest source of woodfuel;
o farmers plant and protect trees to provide for their needs and also to meet market opportunities;
o much tree-based fuel is, in practice, dead branches, twigs and leaves, and does not entail depletion of living stock.

Consumption
o woodfuel consumption figures were unreliable and conclusions were sensitive to small differences in assumptions;
o consumption was assumed to rise in proportion to population, but people have many coping strategies for substitutions and economizing in face of scarcity. Substitutions occur, and change over time, between tree-based fuel of different sorts, dung, crop residues and fuels such as kerosene. For example, Patrick Darling (1993: 2) has reported for Ethiopia that: 'Western economists . . . calculated tree requirements, assuming that Highland people had similar per caput fuel consumption levels as those elsewhere in Africa. Had they consulted local people, they would have found that fermentation and rapid cooking of *t'ef enjera* pancakes has reduced per caput fuel consumption by a factor of up to ten';
o woodfuel and other fuel-consumption patterns are highly variable locally and seasonally, making averages of aggregates misleading, and defying generalization (Mearns, 1995). For example, in a survey of 38 villages in Ethiopia (CESEN, 1986 cited by Mearns), energy consumption was found to vary between 4 and 38 gigajoules per person.

Few would deny that rural energy is often a problem or that it bears heavily on women. That the problem was grossly misperceived and exaggerated by planners also seems beyond dispute. Some of the prescriptions that flowed from these analyses were for urgent top-down large-scale afforestation in Africa. The need now perceived is for actions which are small-scale and local.

The learning is that central planners, cut off from local conditions, confined with their computers, uncritical of bad data and ignorant of how people live, are prone to construct for themselves and their colleagues costly worlds of fantasy, prophesying doom and prescribing massive programmes which are neither needed nor feasible.

People and the environment

The view is widespread that poor people are bad for the environment and more poor people are worse. The following quotes illustrate:

The interaction of poverty and environmental destruction sets off a downward spiral of ecological deterioration that threatens the physical security, economic well-being and health of many of the world's poorest people (Leonard, 1989: 6).

The human factors responsible for this degradation are becoming increasingly apparent. High rates of population growth destroy the land and our future capacity to respond to the world's needs (CGIAR, 1993).

Others have seen a process in which a critical human mass is exceeded globally, leading to a 'gigantic, and widely synchronized population crash' (Pennycuick, 1992: 104 cited in Darling, 1993: 13).

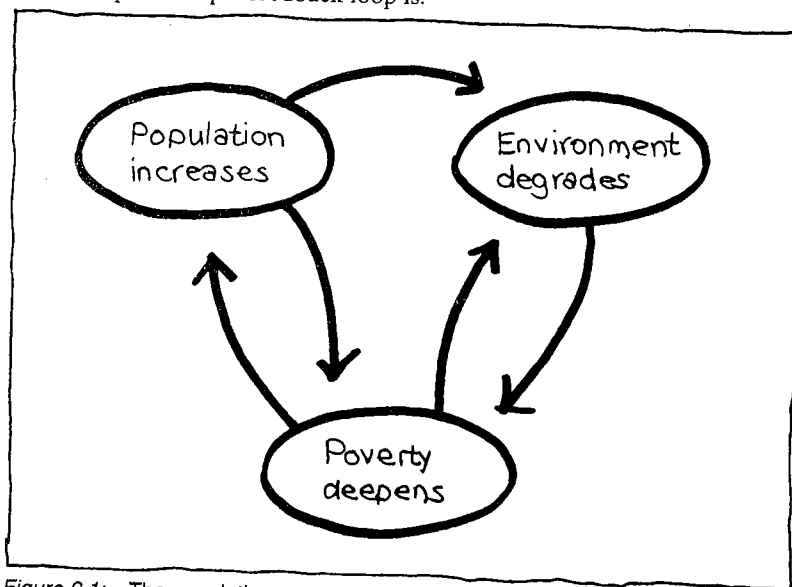The implicit simple feedback loop is:

Figure 2.1: The population–poverty–environment stereotype

An authoritative statement of this view, carefully written and qualified, is UNICEF's 1994 *The State of the World's Children*. This posits a Population-Poverty-Environment (PPE) spiral which has multiple negative causation. Part of this is a negative link between population and the environment. More people causes environmental degradation which in turn causes more poverty and so a larger population.

This is sometimes true. Moreover, UNICEF's policy prescriptions are generally sound, as far as they go. The problem is that these negative relationships are stated as universals, implying that more people always and necessarily means more environmental degradation. There is much evidence of professional error in this belief, and much local contrary evidence (see e.g. Binns, 1995). Let us examine some examples.

Planting and protecting trees

Trees are planted and protected by small farmers in many parts of the world. Preconditions are secure rights to land and trees, and a need for tree

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products or opportunities for their sale. But in countries and conditions as diverse as those of Kakamega, Kisii, Murang'a and Machakos in Kenya, of the hills of Nepal, and of Haiti, farmers have confounded the prophets of doom by planting and protecting trees to increase their density.

Research conducted by the Kenya Woodfuel Development Programme (Bradley *et al.*, 1985; Bradley, 1991) in the 1980s in three densely populated districts – Kakamega, Kisii and Murang'a – used a careful combination of methods, including aerial surveys, questionnaire surveys, and less formal RRA-type investigations. Especially but not only in Kakamega District, it found denser population associated with more, not fewer, trees. The denser the population and the smaller the farms, so the denser were the trees per unit area: 'As farm sizes become smaller with increasing population density, the proportion of the farm devoted to tree management increases' (ibid: 134–5). Further, not only did the gross quantity of woody biomass increase, but a greater proportion of it was deliberately cultivated. There was reason to expect the same higher woody biomass with denser population in most of the high-potential lands of the Kenya highlands (Bradley, 1991: 280) as was found also in the more marginal agroecological conditions of Machakos District (Mortimore, 1991; Tiffen *et al.*, 1993: 213–25). A national-scale aerial sample survey of high potential land in Kenya, comparing photographs taken in 1986 and 1991, combined with fieldwork, showed an annual increase of 4.7 per cent in planted woody biomass, leading to the conclusion that:

> Instead of increasing fuelwood deficit and land degradation following rapid population growth, Kenyan farmers seem to apply wise and sustainable-management practices, including tree growing.
> (Holmgren *et al.*, 1994: 390)

In Nepal, as supplies of non-timber forest products (NTFPs), especially fodder and fuelwood, diminished from forests and from common property resources, farmers have planted and protected trees on their own land to provide substitutes; and with changes in tenure and community-forest management, forest degradation has been observed to be reversed (Gilmour 1988; Carter and Gilmour 1989; Gilmour 1989; Fox 1993; Shrestha 1996). Gerard Gill has slides of two aerial photographs of the same land in Nepal, taken ten years apart. One has many trees, the other few. He asks audiences which is the later photograph. They guess the one with fewer trees; but it is the one with more.

More people, less erosion: Machakos District, Kenya

The universality of core professional beliefs about people and the environment has been challenged by research in Kenya, conducted in the later 1980s by the Overseas Development Institute, London and the University of Nairobi (Gichuki, 1991; Mortimore, 1991; Tiffen, 1992; Tiffen and Mortimore, 1992; Tiffen, 1993; Tiffen *et al.*, 1993). This investigated changes over a 60-year period, 1930–90 in Machakos District. During this period the population of the district rose almost six-fold (from 240 000 in 1932 to

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1 393 000 in 1989). During the first three decades, there was acute official alarm at soil erosion. Describing the condition of the district in 1937, Colin Maher (1937: 3 quoted in Thomas, 1991) wrote:

> The Machakos Reserve is an appalling example of a large area of land which has been subjected to uncoordinated and practically uncontrolled development by natives whose multiplication and the increase of whose stock has been permitted, free from the checks of war and largely from those of disease, under benevolent British rule. Every phase of misuse of land is vividly and poignantly displayed in this Reserve, the inhabitants of which are rapidly drifting to a state of hopeless and miserable poverty and their land to a parching desert of rocks, stones and sand.

By 1990, erosion was sharply reduced; the density of trees had increased; almost all cultivation was on terraced land; labour-intensive composting and stall-feeding of cattle were common; and agricultural output (in maize equivalents) had risen more than threefold per capita and more than five-fold per square kilometre. The explanations identified by the researchers include infrastructural investment, capital inflows from earnings outside, the proximity of the Nairobi market, and marketed crops (coffee, horticulture etc). Perhaps most, though, they stress a rapidly rising population and labour force. Indeed, the principal researchers entitled their book *More People, Less Erosion: Environmental Recovery in Kenya* (Tiffen *et al.*, 1993).

People and forests in Guinea

In Guinea, too, conventional wisdom about bad effects of people on the environment has been turned on its head. Meticulous research conducted by James Fairhead and Melissa Leach with their co-researchers Marie Kamano and Dominique Millimouno (Fairhead *et al.*, 1992a and b; Leach and Fairhead, 1992, 1994; Leach *et al.* 1994; Fairhead and Leach, 1995) in the Kissidougou Prefecture has led to one of the most dramatic reversals of professional wisdom in the history of rural development.

The Kissidougou Prefecture consists largely of savannah grassland with islands of forest. The researchers reported in 1992 that:

> Ecologists, botanists, agronomists and social scientists, whether expatriate or Guinean, all share the view that Kissidougou Prefecture is undergoing rapid and potentially disastrous environmental change. Their various works are mutually reinforcing in this conviction. The region is believed to be undergoing a transition from forest to savanna, with the relics of its once-extensive humid forest cover now found only as small islands around villages, in small reserves, and in inaccessible places.
>
> These forest islands have been believed by botanists, foresters, ecologists, development planners and policy-makers to be relics of a recently much more extensive humid forest cover. This degradation is considered anthropogenic, and to be aggravated by economic and social modernity and by increasing population pressure. (Fairhead *et al.*, 1992a: 1)

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The researchers' in-depth research methods included archival research, analysis of aerial photographs, oral histories, and extended participant observation. Their findings flatly contradict the professional view. When they examined archival evidence

> We ourselves were shocked to find that there has been virtually no significant change in the distribution and extent of the vegetation types in Kissidougou Prefecture during this century. We were equally shocked to have these conclusions from the archives validated by oral histories. (ibid: 33)

They conclude that the woody vegetation cover of savannahs has been increasing during the period when policymakers have believed the opposite; that the island forests, far from being remnants, have been created by people around their settlements; and that people have sophisticated and labour-saving ways to protect forests from fire by grazing cattle and cultivating near forest fringes, and by pre-emptive burning of grass when it is short and damp with dew and the fire is less hot; and that fires are used to help establish forests. During periods when this controlled early burning has been banned, fires have come later in the season, and with the higher grass and drier conditions have been hotter and worse and have done more damage. The presence of people, and their use of controlled burning, has, then, preserved, not destroyed, the forest, which was threatened not by local people but by fire control policy, at least in the North. When, as part of government policies, people moved to larger settlements near roads, protection of old forests became less effective, but new forest islands have been formed around the new sites. It was not population pressure that limited the forest area, but lack or absence of people; and it was not the people's management practices that were the problem, but those of government.

In their parallel study of the history of the Ziama Reserve, Fairhead and Leach (1994) found another misperception of history. What is now regarded by professionals as pristine forest, a relic of the diverse and species-rich original forest, actually supported a dense human population in the nineteenth century, as recorded in detail by colonial travellers; and they cite other evidence that most of West Africa's high forests contain old abandoned village sites (*ibid*: 481–4). Human and ecological history, when carefully and sensitively investigated, was found to be more complicated, dynamic, changing and locally specific than scientists and administrators had ever supposed, and to contradict many of their beliefs.

The authors stress that they are not saying there is no deforestation, nor that all forest patches are created by people, and they caution against dangers of overgeneralizing. Nevertheless, evidence is amassing that the Guinea perspective is relevant across the forest-savannah transition zone of West Africa, with local variations (Fairhead and Leach, forthcoming). They find widespread evidence across the zone of forest advance into savannah over the last few centuries, assisted by both people and climate. Their re-evaluation suggests that recent forest loss in West Africa has been massively exaggerated and during the present century may be only about 15 per cent of the usual estimates.

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Nepal

The main source for this section is research by Gerard Gill (1992, 1993a and b, 1995) and Devika Tamang (1992, 1993).

The received wisdom about Nepal has been that increasing population has led to the cultivation of more land, the degradation of forest, and declining woody biomass. A 1991 report bearing the authority of the National Agricultural Research Council and of the Asian Development Bank put it thus:

> Continued population pressure on land resources in the hills and mountains has resulted in expansion of farming onto marginal cultivable land, with ensuing environmental degradation – soil erosion, losses of soil fertility, a deterioration of forests and forest covers. (NARC-ADB 1991: 15).

This view was supported by official statistics for cultivated area which indicated a steady annual increase. But as Gill has shown, this trend has an origin both curious and spurious. The figures derive from two sources for cultivated land: the decennial National Agricultural Census, which has lower figures, and the ongoing Cadastral Survey which gives higher figures. The Cadastral Survey raises the figure for cultivated area on average by a factor of 3.7. Each year it covers one or two more hill districts and their totals are added to the national figure. The source of the upward trend in cultivated area has, then, been these annual additions to the total. The trend was not field reality but professional artefact, based on method and ignorance.

A different field reality is reported by Tamang (1992, 1993) and Carson (1992, cited in Gill, 1993a), both of whom travelled extensively in the hill areas, in Tamang's case conducting a 400km transect through the hills. Their more credible reality is that cultivated land in the hills is declining. This is a consequence of loss of organic matter, soil acidification, build-up of aluminium toxicity, and outmigration. Shortage of labour through seasonal or permanent outmigration means less organic matter collected from forests, less maintenance of terraces, and abandonment of land which is marginal because distant from the homestead, difficult to work or infertile, while cultivation concentrates more intensively on smaller areas. Terraces break and erode for lack of maintenance. There are many causal linkages and there have been historical sequences. Perhaps population pressure has historically led to an expansion of cultivated land in the hills. Currently, it seems, the process is in reverse. Erosion and degradation are linked with lack of labour. Hedged with qualifications about likely local variations and about oversimple statements, one dimension of the problem can, then, be hypothesized as not too many people but too few.

The lessons from the planting and protecting of trees, and the upending of conventional wisdom about people and the environment in parts of Kenya, West Africa and Nepal, are sobering. Environmentally, each zone deserves separate understanding in its own right, informed by local knowledge and historical evidence. A more general conclusion, when such widely-held beliefs prove wrong, is that all embedded beliefs deserve

repeated sceptical scrutiny, including those which have just been established as the latest conventional wisdom. With processes as complex and dynamic as the interactions of people and environments, there may be some underlying principles with some stability, but current realities are diverse. The easiest error is to overgeneralize from particular cases and assume uniformity.

The puzzle: why were we wrong?

Nor are these isolated examples of error. I have chosen them for their diversity, and variously for their scale of impact, the tenacity with which they have been upheld, their topical relevance and the credibility with which they have been qualified or overturned. Other examples might have been human-made desertification (Darling, 1993; Swift, 1996), the theory of Himalayan environmental degradation (Ives, 1987), soil erosion in Africa (Stocking, 1996), pastoralism (Scoones, 1995c, d and f), the Integrated Rural Development Programme in India (Dreze, 1990), or others, e.g., in Leach and Mearns (eds) book, *The Lie of the Land* (1996). Patrick Darling has concluded from his review of Western myths on the population–environment interface in Africa, that

> where they have been challenged by indigenous technical expertise and tested seriously by time-series studies, the main thrusts of their past analyses are proving to be incorrect in every major vegetation zone in Africa.

Errors and myths have persisted through decades, reinforced and reasserted by intelligent, highly educated people across the range of disciplines and professional occupations.

Learning and change have been slow and often resisted. Some changes and modifications, as with errors in macro-policy and projects, were provoked by feedback and failures, learning from experiences, and effects in the field. Some were so deeply entrenched that it required long-term, meticulous and versatile research and lobbying to modify or overturn them. The processes differed. Sometimes the research was largely through the insightful analysis of secondary data, as with Amartya Sen's entitlement theory of famine, and Gerald Leach's and Robin Mearns' demystifying of the woodfuel crisis; sometimes through personal social-anthropological field research, as with Alexander de Waal's identification of disease, not hunger, as the main killer in most famines; sometimes through extended multi-disciplinary research with scrupulous measurement, as with Martin Greeley's and others' findings of low post-harvest losses; sometimes through research and correspondence, as with Starkey's discovery that multi-purpose wheeled toolcarriers were everywhere rejected by farmers; sometimes through combinations of multi-disciplinary historical, archival, ecological and social-anthropological field research, as by Mary Tiffen, Michael Mortimore and F.N. Gichuki for Machakos in Kenya and by Melissa Leach, James Fairhead and their colleagues for the forest–savannah zone in Guinea. The researchers used different combinations and

sequences of methods. All were methodological pluralists. All invested much time and effort in their research and analysis. And all their insights met opposition from the development establishment.

In most of these domains, new understandings are now quite widely accepted. The puzzle is how and why errors were so deeply entrenched in the first place in the beliefs, thinking, values and actions of development professionals. These included managers, scientists, planners, academics and consultants, of many disciplines, and working in many organizations, such as aid agencies, national bureaucracies, research and training institutes, universities and colleges, and private firms. How could they all have been so wrong, and wrong for so long? How were these errors possible, and why were they so sustained?

How could it have been supposed that complex large-scale IRDPs could be implemented rapidly and would work well? That the priority for hungry children was proteins more than calories? That post-harvest grain losses at the village level were 5 to 10 times higher than they were? That multi-purpose wheeled toolbars were a good idea accepted by farmers? That fuelwood would run out and trees would disappear? That Machakos District in the 1930s had exceeded its human carrying capacity? That people in Guinea turned forest into savannah? That cultivated area in the hills of Nepal was expanding and it was the expansion that was causing erosion?

Different observers would give different answers. There are multiple shifting realities. We choose answers which fit our constructs and pre-dispositions. I am no different from others in having a personally idio-syncratic view and wanting to believe some things more than others. The mix of explanations can be expected to vary.

A first answer lies in the political economy of received narrative, in who gains materially from what is believed. When myth supports policies, pro-jects and programmes, many stand to gain. These are both individuals and organizations: bureaucrats, politicians, contractors, consultants, scientists, researchers and those who fund research; and their organizations – national and international bureaucracies, political systems, companies, firms of consultants, research institutes and research-funding agencies. Any one, or several, or all of these, can benefit from the acceptance of wrong ideas, projects or policies.

Conditions vary. Where commercial and political interests dominate in large projects, myths may scarcely be needed: the Pergau Dam in Malaysia, financed illegally by the British government to assist the sale of arms, may be an example. Where commercial and political interests are weaker or combine less, myth and bureaucratic interests can play a bigger part. The IRDPs were sustained by donor and host-country bureaucracies, which gained variously by disbursing and receiving large loans. The beliefs that protein was the priority for starving children, and that post-harvest village-level grain losses were high, were good for those who made and sold milk powder and silos respectively. Those who invented multi-purpose wheeled toolcarriers had personal interests in renewals of project funding. With natural resources, those who seize land and exploit forests can divert atten-tion from their rapacity by blaming the poor for erosion and deforestation. And to add an example, the myth of desertification in the Sahel, as

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carefully documented and analysed by Jeremy Swift (1996), was sustained through a convergence of the interests of three main constituencies: national governments in Africa; international-aid bureaucracies, especially United Nations agencies and some major bilateral donors; and some groups of scientists.[1]

Nothing in this book should detract from the significance of vested inter-ests and the distortions and distractions to which they give rise.

The puzzle and the challenge

But as an explanation, the 'who gains and who loses?' approach of political economy takes us only part way in understanding the genesis and longevity of myth; it is relatively weak with some myths, such as the forecasts of fuelwood shortages or locally erroneous beliefs that overpopulation was degrading the environment. To complement vested interests, three other explanations stand out: professionalism; distance; and power.

Professionalism is concerned with our knowledge, and how we learn, analyse and prescribe. In all these examples, the erroneous beliefs were embedded in the concepts, values, methods and behaviour normally dominant in disciplines and professions. Those who were wrong had had long education and training, whether as macro-economists, engineers, agronomists, ecologists, foresters, administrators or social scientists. Most were highly numerate. Most were specialists. All were linked in with other professional colleagues around the world. Through letters, the telephone, workshops, conferences, professional journals and papers, they were in touch with their professional peers and with current dominant values and beliefs. Their learning was, then, more likely to come laterally or from above than from below, and to follow current ideologies and fashions. This leads us, in Chapter 3, to the analysis of professional realities.

Distance blocks, blurs and distorts vision, and distance is institu-tionalized. Most of those who were wrong were physically, organiza-tionally, socially and cognitively distant from the people and conditions they were analysing, planning and prescribing for, and making predictions about. Physically, they were centrally placed, in headquarters, in offices, in laboratories and on research stations, far from and isolated from local, complex, diverse, dynamic and unpredictable rural realities. Organiza-tionally, they were trapped by norms of behaviour, by routines and by resources (or their lack), which kept them in central places and rewarded them for working there. Socially, they were different and apart from rural people. Their contact, if any, was confined to short special occasions, as development tourists. Cognitively, they were distant, having different cat-egories, criteria, values and life experiences.

Being distant, they relied on secondary data. They calculated with the figures that were to hand, and treated numbers as reality. Fuelwood projec-tions were made far from the sources of fuelwood or the users. Analysis, planning and action were top-down and centre-outwards. In the IRDPs it was assumed that technological packages were available. Centrally-determined packages could be transferred to and imposed on local condi-tions. This leads us to explore, in Chapter 4, the transfer of reality.

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Power hinders learning. Those who were wrong were powerful. They were senior, almost all men, mostly white, and influential, whether through age, professional authority, control of funds, or position in a hierarchy. Their very power conditioned their perceptions and prevented them from learning. This leads us to examine, in Chapter 5, how power deceives.

Professionalism, distance and power can combine with vested interests to offer spirited resistance to new insights. Old professionals deny new understandings and realities. At the same time, the acceleration of change, the concentration of power and the diversity of people and conditions now make error both easier and more dangerous. It is easier because through new communications, professionals in central places have more instant power, and still little direct contact with the realities their actions affect. It is more dangerous because those who may be affected are more numerous and likely to be affected more quickly. So being right matters now more than ever.

The question remains how correct, in their turn, new insights are. One conclusion has to be self-doubt. We have to ask how and why we construct our realities, how and why we learn and mislearn. 'Self-critical epistemological awareness' is an ungainly phrase but its acronym is apposite – SEA. For when faced with the complexity, diversity and dynamism of human and local conditions, there is no normal bedrock on which to anchor, and few fixed points. Rather, we need a repertoire of skills for staying afloat, steering, finding our way and avoiding shipwreck on a turbulent and transient flux. So much we thought we knew we did not know, or were wrong about; and very likely much we now think we know we still do not know, or have got wrong; and what we need to know is constantly changing. I have found myself repeatedly revising the section in this chapter about Nepal, and am still in doubt about it; the reader will note the words 'it seems' near the end. The realities of life and conditions are elusive: they are local, complex, diverse, dynamic and unpredictable (or lcddu for short). Central professionals are pervasively ignorant, out-of-touch and out-of-date, about lcddu realities.

It is not 'them', those who are peripheral, poor, weak and vulnerable, who are responsible for these problems of knowing, acting and error. For it is not they who have been wrong, but us. The first step, then, is humbling. It is to recognize our ignorance and error. Gradually, and none too soon, development professionals are coming to see that the problem is more 'us' than 'them'. It is with ourselves that we have to start.

3

Professional Realities

Thomas Gradgrind, sir, A man of realities. A man of facts and calculations, a man who proceeds upon the principle that two and two are four, and nothing over, and who is not to be talked into allowing for anything over . . . With a rule and a pair of scales, and the multiplication table always in his pocket, sir, ready to weigh and measure any parcel of human nature, and tell you exactly what it comes to. It is a mere question of figures, a case of simple arithmetic.
Charles Dickens, *Hard Times*, Chapter 2

Normal professionalism – the ideas, values, methods and behaviour accepted and dominant in professions or disciplines – is a means to status, power and wealth. Commonly, its elements derive from, and fit, things more than people. Universals are valued, based on measurement in controlled conditions. Specializations and reductionism separate parts from wholes. Complex realities are simplified and ordered in single scales such as poverty lines, and measures of production and employment. In the social sciences and policy, economics dominates, and gives primacy to mathematical analysis; what has been measured and counted becomes the reality. All this makes it hard for normal professionals to understand and serve the local, complex, diverse, dynamic and unpredictable realities of the conditions, farming systems and livelihood strategies of poor people. Normal professionalism creates and sustains its own reality.

The purpose of this chapter is to examine us, development professionals, as a type, group or class. Professionals, like others, seek to order and make sense of their experience. Like others, they construct realities, their interpretations and ways of construing the world. To understand their realities, a starting point is to ask what ideas, values, methods and behaviour are accepted, dominant and rewarded in a profession or discipline, or in professions and disciplines as a whole. These can be described as normal professionalism.[1]

Normal professionals, like other people, can be expected to have common preferences which are physical, financial, and social and psychological. Physically, these include comfort, security, cleanliness, and access to good services and facilities; financially – money, and more rather than less; socially and psychologically – status and esteem, being accepted, valued and respected.

Three characteristics commonly distinguish professionals from other people: (i) extended education and training when young, delaying responsibility and exposure to the real world; (ii) later, livelihoods gained in organizations with fellow professionals with shared values; and (iii) throughout