Chapter 1
Introduction and Overview

This chapter provides the reader with a sketch map of where the book is going and an overview of its content like that found in the final, summary, chapter of many books.

The book was written as a contribution to the quest for ways of tackling the serious ecological, economic, and social problems facing our society. To paraphrase Ekins1.1: There are endless good ideas for ways of dealing with these problems, but it is almost impossible to get our leaders to take the necessary actions and, especially, to act in concert on a worldwide basis. Ekins’ observation suggests that the problems which face us are not, in fact, economic per se but arise mainly from the way society is run. That is, they have centrally to do with deficiencies in the arrangements made to collect information, sift it for good ideas, use it to initiate innovative action which will be in the long-term public interest, monitor the effects, and take appropriate corrective action when necessary. In other words, the need is for a better monitoring, learning, and management system.

Environmentalists who call on governments to address our profound ecological problems are whistling into the wind - for two reasons. First, the actions they call for are generally insufficiently integrated and programmatic: They lack a foundation in an understanding of the systems processes of which acute problems are often but a symptom. Second, they fail to acknowledge that government is already grossly overloaded and that our procedures for getting public servants and politicians to orchestrate communal action for the common good are inadequate.

As the work of the Taylor Nelson Monitor1.2 and the Aspen Institute1.3 has shown, more and more Westerners are concerned about conservation, our iniquitous trade with the Third World, and the waste of human and natural resources associated with centralised production and distribution. Many wish to see care for the aged, the isolated, and the sick being provided through re-designed communities which facilitate neighbourly support rather than through the (highly unsatisfactory) channels of the commercial marketplace and impersonal bureaucracies, and many want those who provide such care to be appropriately rewarded. Most people are by now well aware of at least some aspects of the perilous state of the environment and population time bomb. They sense the social disintegration of their own society, and are acutely aware that our current societal management arrangements - whether “market” or “public-sector management based” - are not only ineffective, but are unlikely even to engage with the problems looming on the horizon.
These concerns lie at the heart of the British Liberal Democrat and Green parties’ *raisons d’etre*. But a large proportion of those who vote Labour, and many Conservatives, also share them. The Taylor-Nelson Monitor’s surveys show that, cross-culturally, the proportion of the population endorsing this cluster of concerns and priorities (collectively termed “The New Values”) is higher in the UK, Holland, Austria, and Norway than it is in the other countries studied. A similar conclusion emerges from work carried out by Social and Community Planning Research:14 The majority of the British public have not actually embraced the “enterprise culture” and they never endorsed the aims, procedures, and beliefs of Thatcherism. The problem is that they neither know how to translate the New Values into effect nor see social research and organised reflection as a way of gaining the necessary insights or developing the required social arrangements.

*Toward the Heart of Our Problems*

It is easiest to grasp the nature of the problems which confront us by reflecting on the implications of two modern realities. First, as will be documented in Chapter 3, in many countries, including most countries of the European Union, the spending of some 75% of the gross national product is, in some sense, under government “control”. This means, among other things, that the role of money in the management of society has been overturned. Whereas such authors as Adam Smith and Fred Hayek argued that adoption of a money-based market mechanism would enable everyone to give effect to their knowledge and feelings - and thus determine the direction of development - by voting with their pennies, the situation now is that the control of cash flows is used to orchestrate actions which have been determined through the politico-bureaucratic process. It follows that the economic system no longer - if it ever did - provides a management system *per se*. Second, as will also be shown in Chapter 3, the present public management system has, at least in part, come into being for the best of reasons. It gives us control over physical, social, and economic forces which lie outside the marketplace and were previously beyond the control of humankind. We are no longer totally at the mercy of plague, disease, famine, and blind economic forces. Moreover, if our society is to take appropriate action in the light of the information which is available about the state of the environment and what is likely to happen in the future - that is to say, if we are to create a society which has a future - we will need more, and especially more effective, information-based management. Unfortunately the need to undertake even current levels of public management has grossly overloaded our governmental apparatus. The result is poor decision-making on the one hand and feelings of powerlessness on the other. These symptoms of malaise are often attributed to public management *per se* when they are, in reality, attributable, to the way in which we manage our affairs.

One effect of attributing our problems to government *per se* is that, although there is an urgent need to gain still more control over economic, social, biological, and physical processes (or to get more control over our own behaviour so as to live in greater harmony with biological processes), many people are reluctant to call for the kind of action that would be needed because they believe it would mean government action of a kind of which they are (rightly) suspicious. In fact, there is a conspicuous need to co-ordinate policy in different parts of the world and, within countries, to co-ordinate what at first sight appear to be relatively independent domains of activity. Examples include agriculture, urban planning, and health; education and employment; and disease control and population policy. This need has become even more significant with the growing internationalisation of problems. One country’s effluent, efficiently disposed of into the air, rivers, or seas, has become another
country’s poison. Western knowledge of pest and disease control has been largely responsible for the population explosion. Western prosperity, based on trading policies (such as GATT) orchestrated and enforced by the G7 through, among other things, the International Monetary Fund (IMF), is increasingly based on the impoverishment of other countries. These countries in due course export pollution, disease, migrants, and social unrest to the West. It is this need for more, and better co-ordinated, intervention which has led, on the one hand, to the establishment first of federal countries like the USA and then to federations like NAFTA and the EU, and, on the other, to recommendations - by, for example, the Brandt and Brundtland Commissions - for still greater intervention in world economic processes.

The main problems which plague the world today and, unless things change dramatically, are likely to plague it even more forcefully tomorrow, stem in part from the world-wide mis-management of human resources, energy, food, and minerals and in part from the pollution of the land, the seas, and the atmosphere. These problems will not be tackled by the so-called ‘invisible hand’ of the economic marketplace. It was processes associated with the “marketplace” (actually largely a facade for corporate and government management) that created the problems in the first place. Despite Smith and Hayek’s claim that the marketplace provides a mechanism whereby widely diffused bits of information can influence what happens, there is in fact no mechanism whereby much of the most important information - such as that on the effects of our activities on the global environment - can influence market processes. Left to themselves the unfettered workings of market processes - and, perhaps more importantly, those which have promoted a market facade which conceals a very different reality - will lead to further disintegration of our social fabric and further destruction of the fertility of the soils and the seas. They will, in the end, lead to the elimination of many more species, perhaps including homo sapiens. As Keynes observed, market mechanisms work, if they work at all, too slowly and too destructively. Perhaps more importantly, one of the things which will be demonstrated later in this book is that faith in market processes is even more misplaced than even the more sceptical among us suspected.

Many of the industrial plants (if not their owners’ head offices) responsible for our problems are located in countries which have inadequate legislation to control pollution and insufficient resources and international influence to maintain the health and well-being of their citizens. The reasons why standards are so low, and enforcement of the legislation so poor, include lack of information on the consequences of the processes involved - whether they be manufacturing, agriculture, mining or waste disposal. But they also include the lack of an effective bureaucracy to generate and enforce standards. This is itself a product of the intrusive demands of the trans-national corporations and the IMF’s insistence that “debtor” countries should export food, raw materials, and manufactured goods in an artificially induced buyer’s market at prices far below their costs.

It would, however, be a mistake to lay most of the blame for the world’s ills at the door of the economic marketplace. Much more destructive have been the actions which governments and international bodies have taken to advance their own interests in the name of creating conditions in which market processes and democracy can function. Market processes are, in reality, rarely allowed to take their course on the international scene. Instead, highly interventionist, ideologically-based, “solutions” are imposed by financial and military might.

This imposition of an economic faith by the sword is nothing new. It was not economic forces which led subsistence farmers to move off the land. It was the demand for taxes - enforced by private militia and the army. It was not the attraction of pay which forced even
these destitute migrants to accept work in factories. Rather it was the confiscation of common lands and the press gangs who forced “beggars” into workhouses where they could not avoid their fate. Likewise, it was not an absence of food which led to the mass starvation and emigration from Ireland at the time of the “famine”. It was the government military interventions which were deemed necessary to ensure that market processes could work: The large amounts of food still available in the country had to be exported under armed guard and replaced by grossly inadequate food “aid” inhumanely administered by the same military personnel who “knew” that if the people were starving that was because they were too lazy to work. Exactly the same processes can be observed in many parts of Africa today and in the Ethiopian famine of the late ‘80s.

Most of the IMF’s “solutions” to “problems” (which anyway often only exist in the minds of economists and statisticians) are likewise imposed by political fiat. The “problems” to be tackled include, not the number of starving people, the quality of life, or the predictable worsening of the conditions of life on the planet, but highly suspect abstractions like balance of payments, the “money supply”, or the “need” for debtors to “repay” “debts” (which are, actually, as we shall see in Chapter 4, entirely notional). The “solutions” to these moneylenders’ problems are imposed on the “debtors” rather than the moneylenders - and not infrequently by overt or clandestine military intervention. The overall effect is achieved by an alliance between the IMF, Western governments, Western banks and the trans-national corporations. (The question of the extent to which this is a conspiracy rather than an effect of like attracting like will be discussed in Chapter 11.)

A World of Problems or Opportunities?

When considering the problems of modern society it is vital to recognise that choice of an appropriate way forward presents us with major opportunities to enhance, not reduce, the general quality of life. It is not just a question of dramatically reducing the damage done by our lorries, the time we spend in our cars, and changing our lifestyles. There are also opportunities to eliminate many of the unproductive, unsatisfying, and stressful aspects of work. New societal arrangements could mean less unproductive paper-work and committee work. There could be real opportunities for large numbers of people to get off the employment treadmill without being subjected to demeaning treatment at the hands of “welfare” agents. There could be many more opportunities to engage in work which is personally satisfying - creative work, or work which directly meets the needs of others, rather than the requirements of bureaucracies or the demands of profitability. There could be more opportunities to labour together for the common good. What we are faced with, therefore, is a real opportunity to meet the needs of those who espouse new personal as well as social values and to enhance the quality of life of all.

It will be shown our quality of life depends hardly at all on the quantity of manufactured goods we possess. It depends on such things as the quality of our relationships, our opportunities for accomplishment, and the extent to which we feel we have been able to influence what happens in our organisations and society. It depends on our opportunities to contribute in ways which please us or extend us. It depends on the human scale, levels of amenity, and more general liveability of our cities, our personal security, our ability to give and receive help, and our security for the future. It depends on our freedom from demeaning inquisitions into our private lives by “welfare” agencies, and harassment by tax collectors or the police. It depends on whether we have sufficient security to be able to think about the future without fear and to think creatively about the steps needed to create a desirable future.
It depends on whether we are allowed to take the kind of action which is needed to create a secure future - something our current welfare legislation denies the “unemployed”.

In later chapters shows in more detail that the market mechanism is incapable of recognising - let alone delivering - most of the potential sources of life satisfaction mentioned in the last paragraph because they cannot be monetarised. And most of those it can recognise - like security - can only be purchased collectively, not individually. Since our quality of life depends hardly at all on the factors with which the market engages it is obvious that it could be greatly enhanced at the same time as our consumption of resources and the impact which such consumption has on the global environment was greatly reduced.

But make no mistake about it: We cannot allow ourselves to hope that finding a way forward will somehow evolve through trial and error. We cannot secure the future by proceeding in an academic or leisurely fashion. As we will see in the next chapter, we may, from an environmental point of view, already be beyond the point of no return. We may have already done irreparable damage to the soils, seas, and atmosphere. The problem of the environment is upon us. It is no longer something which, just might, occur in the future and which we could, by taking thought, avert. Nevertheless each of the problems we face is accelerating exponentially. The great danger is that, as they interact, the whole situation will spiral out of control. Thus the strain on our food base will interact with the population explosion and, in all probability, global warming, to threaten the very substance of human life. At that point it is virtually certain that governments and terrorists will deploy our massively destructive arsenal of biological and nuclear weapons in an effort to retain or increase their own chances of survival. We will be trapped in a self-reinforcing cycle spiralling irrecoverably toward disaster.

**Historical Connections**

The need for this book as it emerges from the above discussion has been identified by Bookchin¹⁶ while discussing how Green economics might be distinguished from visions of a Green economy:

“The current celebration by writers such as Susan Meeker-Lowry of entrepreneurs who voice Green pieties within an economic system that makes a mockery of their most well-mean ecological aims requires forceful criticism ... In the absence of a coherent critique that goes to the heart of the present ecological crisis ... we run the very real risk of slipping back into economic apologia, dressed up in formulas such as 'backyard revolution', 'steady-state economy', 'consumer responsibility' ... I do not wish to depreciate the very good intentions of proponents of these formulas. Their solutions ... may in the best of cases plug some holes in a sinking ship, but they ultimately fail to address the damage a market society must inexorably produce unless it is radically replaced.

“But replaced by what? Certainly not by a mythical “revolution” occurring in the backyards of the world or by investment in Green mutual funds ... A Green economy, qua economy, would no longer be describable in economic terms. It would be, above all, a political and ethical project ... Green economists would be obliged to ask whether market exchange relationships should exist at all ... They would have to ask whether ownership of the means of production should be ... replaced by free civic assemblies of the people ... whether our present metropolitan urban belts should be replaced by ... a polis-type network of humanly scaled communities. Finally they would have to ask whether the
nation-state should be replaced by a ... confederational association of municipalities united by mandated, recallable, and rotating deputies of civic assemblies ...”

Our book’s title links it to Adam Smith’s *Wealth of Nations*. Historically, Smith can be seen as someone who both gave society insight into the dramatic changes which had recently come about in the way in which it was organised, and as facilitating those very changes. We hope we can, in some small way, emulate him.

Our book is directly linked to the most fundamental question Smith sought to answer in providing an intellectual justification for the market mechanism. The problem was the following: It was noticeable that decisions taken by politicians and government officials were often far from wise. No one had anything approaching complete information on anything. The information individuals possessed was often not verbalised, never mind formalised. And the actions any one person took on the basis of the information which was personally available influenced the decisions everyone else took on the basis of the information available to them. The problem was to create a dynamic system which would enable these widely dispersed, inarticulate, incomplete, and reciprocally determining bits of information to have a cumulative and continuously self-correcting impact on what happened in society.

Smith suggested that the emerging market economy would solve the problem. People could vote with their pennies to give effect to their preferences on the information they possessed. They could vote separately on a myriad of issues. They could change their minds as they saw what transpired. The mechanism, without centralised or deliberate control, would automatically result in the greatest good accruing to the greatest number. Nothing could differ more from a political system offering people a single vote every five years or so and requiring them to vote for or against a package of issues.

The most fundamental problems with this solution are, as we shall see in later chapters, (i) that too many costs and benefits elude the mechanism, (ii) that the cost of the time required to calculate and weigh the costs and benefits of alternatives and negotiate deals with others - that is to say, the transaction costs - are enormous, and (iii) that the system has been used to derive cumulative indices (such as GNP\(^{1,2}\)) which are used to as a basis for political intervention instead of allowing the guidance to come from the operation of the system itself.

Nevertheless, it cannot be too strongly emphasised that the most important problem facing society is still to find an alternative way of solving the problem with which Smith sought to grapple. *The primary purpose of this book is to propose an alternative solution*. It is in no sense to list specific requirements for a sustainable society. It will outline an alternative, dynamic, system for social experimentation, learning, and management.

It is not only the central problem on which we have sought to focus which links our book to Smith’s. The solution we propose also has much in common with his. Smith proposed a process which was anything but tidy and centrally controlled. What was proposed was a learning and management system which was decentralised, dynamic, and characterised by a ferment of innovation and evaluation. So too is ours. It will not appeal to those who are preoccupied with centralised planning, control, orderliness, and narrowly defined types of efficiency.

It will be argued that many of the difficulties our society currently faces arise from four fundamental errors\(^{1,8}\) in Smith’s analysis - errors which were of no particular importance at
the time but which have been elaborated into belief systems which, when applied in a very
different world, result in utterly dysfunctional activities.

The first of his errors was that, while acknowledging that public servants contributed
significantly to the improvement of the quality of life, and, indeed, by enforcing ground rules,
to the very functioning of the economic system he proposed, Smith regarded them as
“unproductive” members of the community.

Yet surely those who contribute to the creation of an infrastructure which makes the
provision and distribution of food and goods possible - by providing roads, transport,
sewerage systems, new knowledge (research), medical systems, security, insurance and so on
are productive. To take a simple example, if one desires the production of more eggs one
would be better advised to invest in civil servants who will do research into the feeding and
lighting arrangements required to make hens lay more eggs, who will disseminate such
information, make the economic arrangements required to stabilise farm prices, and arrange
to get foodstuffs to farmers and eggs to consumers, than simply to offer farmers more money
for their eggs. Farmers alone - without investment in the public sector activities required in
these domains - simply cannot control key aspects of the productive process. It follows that
public servants, by developing an understanding of biological, social, and economic forces,
and inventing ways of harnessing and bending those forces, have contributed much more to
the production of eggs than have farmers. It is often argued that the public servants don’t do
any real work: They only manage. But, on that logic, is it not true that the farmers “only
manage” the “real” workers - the hens? It follows that public servants have produced wealth
every bit as surely as have the farmers.

One of the most important changes in perception to which it is hoped that this book will
contribute is, in fact, to the recognition of the key creative, managerial, contribution which
public servants make in the creation of wealth. It is on finding ways of getting them to
perform this role more effectively that we must focus.

Smith’s second error was to identify the wealth of a society with the quantity and quality of
the manufactured goods it produced, thus overlooking the significance of other determinants
of quality of life. In actuality, any index of the wealth of a society should take into account
such things as the ability of its members to lead satisfying lives (mainly associated with
quality of working and family life) and their ability to avoid plague, disease, urban blight, and
the horrors of economic depression. Not only are many of these missing from traditional
economic indicators, the quality of working and family life is, as we shall see in Part II,
actually driven down by market processes, and the contributions of those who do most to
enhance the quality of life - such as parents, wives, and friends - are not recognised because
their work cannot be commoditised and exchanged for financial reward.

Smith’s third major error was to misunderstand the nature of money. This led him - and still
leads classical economists - to seriously flawed conclusions.

In the first place he believed that, by and large, money circulates; that the price system is
self-liquidating. When money was mainly a medium of exchange if I paid you £10 for some
chops then that money got distributed. You spent it on food, clothes, housing, education. The
recipients then spent it on other things. Such a system could go on indefinitely. But now it is
obvious from the fact that world debt is increasing at an ever increasing rate that, on average,
it costs us more to live than we earn. We have to borrow more and more. One consequence of
this is the money distributed through the system as a result of the sale of an article becomes less and less. What is happening is, however, seriously obscured by the fact that much of the debt is collective, not individual. What looks like taxation to pay for services is, very largely, money siphoned off through taxation to pay collective debts. One vitally important consequence of this process is that the banks have come to have a lien on more and more of the real wealth of society. Another is that the gap between real wealth and monetary values has become wider and wider. Money is not wealth. Its possession gives its owner a claim on wealth. Smith’s assumption that money and wealth are much the same thing is now seriously in error. Today it is the international banking community which has by far the greatest claim on the real wealth of nations. Classical economists continue to believe that, by and large, money lent by banks comes from savings. Unfortunately, as will be shown at some length in later chapters, it does not. Only a fraction of the money that is lent by the banks comes from this source. The banks mainly lend money which they have themselves created. Not only does the money sucked in as “interest” on this self-created money undermine the foundations of the self-liquidating price mechanism, the assets offered as security for these astronomical “loans” gives the banks a lien on far more of the real assets of any society than Smith would ever have believed possible.

Smith’s final error was based on this, for it had to do with savings. This oversight continuously worried Keynes, although he never understood it. Smith realised that it is what is done with money which is important ... but he went on to advocate saving. Unfortunately savings may or may not be invested. Keynes noted that they may simply be taken out of circulation. This produces the disastrous results to which he drew attention. It follows that the issue is not one of savings per se but the direction in which savings are invested.

Responsibility for the direction of investment cannot safely be left to the marketplace. For example, insurance companies sell land, property, and companies to each other at higher and higher prices in order to generate the inflation they need to appear profitable. Although such an arrangement increases the monetary value of assets, it does not lead to an increment in the quality of life - or even to the capacity to improve the quality of life. That is, it does not lead to any increase in the genuine wealth of society. Even in the more restricted sense of promoting traditional forms of innovation, insurance and pension companies as owners of other companies are unable to make the kind of judgments of people which would be required to guess which investments are really likely to pay off in terms of successful innovation. What one has is, not the endless decisions taking account of a multitude of non-verbalised bits of information envisaged by Smith, but a few powerful people making world-shattering decisions on the basis of a single criterion - being as certain as they can of a high level of profit. Those who run these organisations - far larger than any economic entity known to Smith - have no pretensions to the concern with humanity evinced by the wise men Smith castigated and whose power he sought to erode. It follows that Smith failed to solve the problem he most centrally set himself - namely to invent a system which would take account of widely diffused and disjunctive information without the need for wise men making complex judgments. It follows from this discussion that it is on the decision-taking process which guides investors who have power, wealth, and international connections that we must focus.

The Way Forward
So far, this chapter has highlighted some points which will be made at greater length in Parts I to III of this book. The remainder of the chapter will sketch in something of what will emerge when, in Part IV, we come to consider the way forward.

The new societal arrangements which are required to introduce the radical transformations that are required in the way we run our society turn out to have three components. It is not without irony that these build centrally on our existing politico-bureaucratic arrangements, the procedures the Trans-National Corporations use to manage world affairs in their own interests, and, most directly, on the procedures the Japanese use to manage the world in their interests.

But, before we review these components, two points may be reiterated. The first is that public servants play a vital role in creating the wealth of modern society. It is not only in sectors producing commodities, whether in the EU or Japan, that the activities performed by public servants are of vital importance. They also play a vital role in enhancing the quality of life directly through public provision - for example through the design of living and working arrangements or by creating conditions of security both now and into the future. For this reason it is to finding ways of getting public servants to play their key role in releasing energy into innovative activity more or less across the board that we must attend. The role which the public service plays in wealth creation is far too great to be adequately directed and supervised by multi-purpose elected assemblies. It is on public servants themselves - and not governments - that we must focus. We need to change our expectations of them and we need to develop better arrangements to direct and monitor their work. Most importantly, we need to develop new arrangements to ensure that public servants seek out and act on information in an innovative way both in the long-term common interest and in the interests of sub-groups of the population.

The first requirement for any radical transformation in society is the creation of a pervasive climate of innovation. This means setting aside time for, attaching importance to, and establishing the network-based working arrangements required for everyone to become involved in what Kanter\(^{19}\) has termed “parallel organisation activity concerned with innovation”. In this way everyone will be able to contribute their diverse, and often unverbalised, insights and distinctive talents to the process of identifying and introducing the almost endless changes that are required. This will lead to numerous contradictory “experiments” based on different definitions of “the most important problem” and routes to its solution.

The development of the arrangements needed to create this hive of innovation need to be linked to much better arrangements for monitoring the experiments that are initiated in such a way as to learn from their effects, for carrying out the crucially important fundamental research that is required, and for ensuring that action is taken on the basis of results. The necessary research and development organisations themselves need to be run very differently to most of today’s universities and policy research units.

The process of innovation needs to be supported by new arrangements which will enable everyone concerned to get credit for having contributed in very different ways to the difficult, demanding, and frustrating activities involved in innovation. The outcome will be a very messy process, almost exactly the opposite of the current preoccupation with authoritarian direction, streamlined (“lean and mean”) arrangements for implementing directives, and the
almost complete absence of arrangements for learning from the effects of action or taking corrective action when necessary.

Public servants have the key responsibility for creating this pervasive climate of innovation and for introducing the arrangements needed to support it.

The second, overlapping, requirement involves the evolution of much better arrangements for initiating the collection of information in the first place, bringing it together, sifting it for good ideas, initiating action based upon it, monitoring the results of that action, learning from the monitoring process, and re-starting the cycle. Clearly, this is again primarily a responsibility for public servants.

The third set of necessary developments involves the introduction of new ways of thinking about management, bureaucracy, democracy, and citizenship. The most important development in our ways of thinking about management involves recognition that it has centrally to do with *releasing the energy, creativity, and initiative of others in a hive of innovation*. This in turn underlines the importance of developing of new procedures to ensure that politicians and public servants both set about creating such a ferment of innovation and themselves consistently seek out and *act on information in an innovative way in the long-term public interest, monitor the effects of those actions, and take corrective action when necessary*. The arrangements required to do this involve the introduction of much better, social-science based, monitoring procedures, and the evolution of much improved ways of exposing the behaviour of public servants to the public gaze (so that they are more likely to act in the long term public interest) and finding ways of giving them credit for engaging in the risky, creative, demanding, and publicly visible activities involved in innovation.

The development of better ways of exposing the behaviour of public servants to the public gaze turns on the evolution of new forms of participative democracy grounded in network-based supervision of the public service. This has major implications for concepts of citizenship.

Although implemented through our existing structures, the result will be a devolved, dynamic, experimentation-learning-and-management system very different indeed from what we have today. What happens will be determined - as in Smith’s market mechanism - by a wide range of people who have different priorities, perceptions, and bits of information. It will not be determined by central decree. But the invisible hand of the marketplace will be replaced. It will be replaced by visible monitoring and learning arrangements aimed at understanding *systems* processes - an understanding which will allow the consideration, assessment, and control of multiple determinants of events and the identification of a wide range of desired and desirable outcomes.

At this point many readers will be wondering how all this activity is to be paid for. Later chapters will show both that this is not really the correct way to pose the question, and that, even if posed in this way, there is really no problem. We can hint at the answer here by saying that the correct way to view the problem is to focus on the redeployment of human resources. There is ample scope for this. We have lots of unemployed people. We have a incredibly ineffective public sector. And we have a market process the provision of which (as we shall document) consumes two thirds of the selling price of all goods and articles which pass through it. “Paying” for the process is, therefore, like the wider problem of which it is a symptom, essentially a management task rather than an economic one.
The use of the words “learning” and “management” in the previous discussion poses problems. Those which are associated with the use of the word “learning” are most apparent in Milbrath’s work. Milbrath, like ourselves, noted that the key development required is the evolution of a “learning society”. Unfortunately, use of this term tends to evoke entirely the wrong impression since the word “learning” has been captured and given an inappropriate meaning by educationists. What is needed does not correspond to the image conjured up by the phrase “lifelong desk study”. What is required is the kind of learning involved in making one’s own observations about how biological, economic, and social processes work, identifying points at which those systems might be influenced, acting on those tentative insights, monitoring the results in order to learn more about the nature of the problem and the effectiveness of one’s strategies, and initiating further action on the basis of what has been learned from the “experiment”.

It has become fashionable to say that we live in the “information age”. This phrase is used in two distinct ways. In Britain, it is taken to denote a society in which information can be traded. Used in this way it refers to everything from the publication and sale of books and information on the codes required for genetic engineering, to the whole paraphernalia of conferencing the non-information generated by the climate of “publish or perish” in academe. But at the heart of the Japanese economic “miracle” lies another interpretation: the use of information. In Japan, quality circles use information to improve production. Networks of discussion groups and the media participate in debates to decide on the future and how it is to be achieved. A continuous massive worldwide trawl is conducted to find information of potential use in product development - and the information so collected is carefully sifted and acted on in an innovative way in the interests of Japan. The way the international banking system works was carefully studied and the information so obtained used to acquire worldwide assets - and simultaneously to prevent outsiders acquiring assets in Japan (and especially the control of Japanese companies). Careful studies are made of how every political economy on the globe works, and this information is used to invent ways of making them work in the Japanese interest.

The main aim of this book is to help to operationalise a concept of “the information society” as “a society in which information is collected, sifted, and used in an innovative way in the long-term interests of the planet”. The most fundamental question the book addresses is: “How does one run a society in which money has ceased to perform the functions which Adam Smith envisaged for it - that is, to weigh and coordinate (through prices) numerous bits of (often feeling-based rather than explicit) information to provide feedback and determine the direction of development?”

The information required is complex and involves the study of systems processes - of the way in which processes which can be analysed and studied separately interact to produce unanticipated - and often self-reinforcing - results. Whether or not one takes on board the full ramifications of the Gaia hypothesis - which sees the Earth as a unified organism evolving as the conditions of its existence change - it is not difficult to conceive of our world as a system of systems. Each of these systems, the ecological, financial, political and so on, has its own set of thresholds and feedback loops, but they also feed into one another, so that change in any one of the systems leads to change in the others. This book will provide many examples of such interconnections, and is intended to address the question of how to collect and give effect to the vast amount of information needed to manage the global supersystem.
Just as one needs to understand the word “learning” more broadly than is encouraged by the way in which it is used in most books and discussions in education, so, if one is not to be misled, one needs to understand the word “management” to refer to a much more subtle process than that most often envisaged when the word is used in the UK and US - though, again, not in Japan. Ironically, effective management in the UK and US embodies everything the word is intended to imply when it is used in this book. Studies of effective management\textsuperscript{1.13} show that it involves actions which release the energies of others into innovative activity which harnesses the goodwill, creativity, and serious-mindedness of those concerned in a collective and concerted effort to find ways forward. It involves taking deliberate steps to create a pervasive climate of innovation in which many people contribute in very different ways to the process. Management does not involve making decisions for individuals and issuing instructions. It involves managing situations so that people’s own problem-solving behaviour leads them forward. There is no way central government can prescribe all the actions needed to create an effective educational system or society.

\textit{A Contribution to the Third World}

There is one final comment to make in concluding this chapter. This is that, if the book contributes to the evolution of a better way of running our own society, we will have stumbled upon the most important contribution we could possibly make to the Third World and Eastern Europe. The problems facing these countries are not economic as such. They are management problems: They involve finding ways of harnessing their human resources to manage their own affairs effectively and to control the damage done through their interface with the rest of the world. We hope to provide the framework needed to do this.

\textit{Notes}

1.1 Ekins, 1986
1.2 Taylor Nelson Monitor, see Large, 1986.
1.3 Yankelovitch et al., 1983
1.4 Jowell and Topf, 1988; Social and Community Planning Research, 1993
1.5 The G7 countries are: the USA, the UK, Germany, Canada, France, Italy, and Japan.
1.6 Bookchin, 1992
1.7 GNP stands for Gross National Product. This roughly corresponds to the total value of all goods and services produced in a country. In later chapters, we will explore some of the interpretational problems posed by the figure.
1.8 These errors were actually clearly perceived by Douglas more than 60 years ago (Douglas, 1935/78b).
1.9 Kanter, 1985
1.10 Milbrath, 1989
1.11 Educators tend to use such terms as “lifelong learning” to refer to formal, “education-defined-as-telling” learning, not the ability to develop oneself, develop one’s own talents, make one’s own observations, initiate action, monitor the results, develop a better understanding of the problem one is tackling and the effectiveness of the strategies one is using and, as a result, make more appropriate interventions, the ability to build up a new understanding of current social and ecological processes and the ability to intervene in them.
1.12 The best-selling book in Japan in 1993, selling over two million copies, was \textit{How to Live in Poverty with Dignity}. It consisted mainly of teachings drawn from ancient Japanese manuscripts. Although these sales may be interpreted as evidence of sudden endorsement of the “New Values” - which are actually ancient Navajo and Japanese values - in Japan this is not necessarily the case. Much of the deliberate crafting and presentation of misleading persona to the rest of the world has been legitimised by saying that Japan is a poor country which needs to protect itself. A strengthening of this self-image may therefore lead, not to the expected internal transformation of society, but to a strengthening of the tendency to concealed protectionism and international exploitation.
1.13 Raven, 1984; Spencer and Spencer, 1993