short circuit

Strengthening Local Economies for Security in an Unstable World

by Richard Douthwaite

Chapter Two

CREATING ENOUGH ELBOW ROOM

In the world economy, only a very limited range of activities is commercially feasible in most communities because of the intensity of competition from outside. We must therefore build independent, parallel economies if we are to fill more of our needs for ourselves.

The last chapter attempted to make two important points. One was that a large part of the world's population has lost the means and the ability to provide for itself and has become dependent on a single, highly unstable economic system which has no use for a growing proportion of it.. The second was that for the next few years unless there is a trade war, politicians are unlikely to be willing or able to protect their citizens from being damaged by the world economic system even though it is actually running backwards and making life worse almost everywhere.

If both points are valid, is there anything that people like us can do? Can we achieve a better balance between the world economy on the one hand and millions of local economies on the other, many of which have contracted almost to vanishing point or are rapidly withering away? To put this another way, can communities limit the scope of the industrial system and its individualistic culture without governmental help and by so doing create a protected space within which local, peasant-type economies and collective cultures can be recreated or revived?

Before answering these questions, I need to define two terms. First, by a peasant economy I mean a society in which most families own their means of making their livelihoods, be this a workshop, a fishing boat, a retail business, a professional practice or a farm. In such an economy, families would, of course, be free to join with other families to own the source of their livelihoods collectively. Second, by the industrial economy, I mean the system under which activities are primarily ways of making profits for shareholders rather providing ways of life. In the industrial system, groups of investors typically put up the capital and employ workers to carry their ventures out, paying them wages which are regarded as a cost to be minimised rather than a gain. In the peasant system, those wanting a way of life which will also provide them with a livelihood find or borrow the capital to employ themselves and count their wages as a benefit.

The difference between the industrial and peasant systems is not only that one seeks to minimise the returns to labour and maximise those to capital, while the other wants to minimise the return to borrowed capital and maximise a wide range of benefits including income for the group involved. There is also a difference of scale. An investor-owned, industrial-system venture can grow extremely large through mergers or by ploughing back its profits, the techniques which General Motors - with 251,130 people on its payroll and an income which exceeded the GNP of all but twenty-one countries - used to become the biggest company in the world in terms of employment at the beginning of the 1990s. Peasant projects, by contrast, tend to stay fairly small unless they adopt the industrial approach and employ people who are not shareholders or participate in joint ventures with investor-financed firms. Many of the bigger Irish agricultural co-ops owe their size to exactly these non-co-operative strategies.

If there was ever the political support, a better balance could be achieved between the industrial and peasant systems by enacting laws limiting the size to which investor-financed enterprises were allowed to grow and which split big businesses into hundreds of employee-owned parts. In addition, shops and factories could be barred from expanding beyond a certain size and restricted in the type of technology and the amount of capital per worker they could use. Similarly, to keep more families working the land, farmers could be prevented from increasing their acreages. But these top-down tactics are pipe-dreams in the present climate and we have no alternative but to work from the bottom up. In other words, rather than changing the law, we will have to change attitudes and ideas - and consequently behaviour - if we are to build peasant-system economies strong enough to survive the pressures and instabilities of an industrial-system world. Here are three approaches I think we will have to adopt to achieve a satisfactory co-existence.

CHANGE NUMBER 1

We must begin to use local resources to meet community needs rather than the wants of markets far away

At present, all our thinking about the right way to bring prosperity to the places in which we live boils down to identifying goods and services that can be made in or provided from our communities to be sold to people outside. Mainstream economists tell us that with the money we earn from these activities, we will be able to buy the goods and services we ourselves need from wherever in the world they are cheapest and, because each community everywhere will eventually produce and sell only those things which they can provide most effectively, everyone everywhere will be able to have more goods and services and be better off than if they tried to do everything for themselves.

This indirect way of meeting needs worked well when most of the goods and services people needed were still provided from their own areas but now that communities are almost entirely dependent on outside supplies it has become much less satisfactory because of the increased levels of competition and instability in the world economy. For example, if a community organises golfing holidays for wealthy Swedes as my town has done, it may bring extra money into its area for a year or two but, eventually, several dozen other destinations are bound to offer very much the same sort of holiday too, bringing everyone's prices down. This increases the wealth of the Swedes in relation to the communities competing to serve them and explains why, since world trade has become so very important, the gulf between poor nations and rich ones has grown.

After being forced to give price reductions, the communities will be left with a much smaller income for themselves once they have paid outsiders for food, drink, heating oil, electricity, replacements, labour taxes and so on than they expected when they first planned the holidays. This might not be too bad if they were able to shrug their shoulders and go back to the way things were but this is rarely possible: guest houses and hotels which have borrowed to build extra rooms and taken on extra staff now have higher overheads and will find it financially ruinous to revert to their previous levels of turnover. Their dependence on an income flow from the outside world has increased, and, consequently, so has their community's. The conventional economic remedy for the reduced margins is usually to suggest that the community finds another source of high-paying holidaymakers or takes up some other enterprise altogether and makes good profits from that until rivals catch on and, by offering similar products, bring everyone back to square one and force the whole find-a-new-product-or-market cycle to start again.

By offering themselves as holiday destinations in a highly competitive market, the communities have not only become more dependent on outside earnings and seen the wealth of their target customers rise in comparison with their own. They have also increased the risk of economic disruption they run since, should the exchange rate vary, a postal dispute prevent bookings coming in, air traffic controllers strike or a recession develop in the Swedish economy, those involved in the tourist trade could be very hard hit, with knock-on effects on the rest of their communities.

In current conditions, then, selling things outside our immediate areas to earn the money to buy the goods and services we must have to survive cannot be considered the basis for a sustainable, stable local community. What we must do instead is to look at the resources of our areas and see how they can be used to meet our communities' vital needs directly rather than via the conventional, indirect, produce-for-someone-else-and-buy-one's-requirements-in route. It's true we have been taught that the indirect route is more efficient because it takes more resources to grow bananas in Ennis, Essex or Essen than in Ecuador. My response to this is threefold. One is that the much-touted efficiency of the world trade system is a grotesque myth, as I will explain shortly. For the moment, we only need ask ourselves how a system which condemns so many people to spend their lives in involuntary idleness and uses so many scarce resources to do the simplest things can still be regarded as efficient, particularly as we saw in the last chapter that as some countries' output increases, their citizens are actually receiving a smaller amount of economic welfare year by year.

Secondly, even if the indirect system was more efficient, we ought at least to discuss how much inefficiency we would tolerate from the direct route in order to reduce the risk of our lives being blighted and our livelihoods disrupted by instabilities in the external world. Most of us pay premiums for house or car insurance every year, accepting the certainty of a small loss in exchange for avoiding the risk of a big one. As communities we should also be prepared to pay for insurance, in this case against economic disruption, particularly as local economies which boast a wide range of activities are not only more stable but provide much more scope for their members to find niches within which they can fulfil themselves.

Thirdly, bananas are non-essentials and if they were imported as a direct exchange for some non-essential we grew, the fact that we relied on other people to produce them would not matter: either party to the trade would be able to terminate it whenever they wished without seriously harming the other. Our goal should be to minimise our dependence on external trade not to phase it out altogether. Trading outside our communities should become something we can engage in if we choose and then on our own terms, not something which is vital for our survival.

CHANGE NUMBER 2
World prices must not determine what we produce

Existing levels of prices or profits cannot be allowed to decide whether we should make or grow something in our communities or not. This is because there is no connection between an item's value to our community and the price our neighbours pay for it in normal times. True, most economists and right-wing politicians believe that market prices should determine what is produced, in what quantity, by what method and where, because it is 'uneconomic' and 'inefficient' to take other factors into consideration. But this is because they believe that the market price of something is equal to its value and because all their thinking is in terms of the industrial system. Efficiency, however, can only be measured in relation to one's objectives and if we have objectives which those running the industrial system are not permitted to share such as satisfying work, stability, sustainability and fairness rather than the maximisation of returns to investors' capital, our success or failure must be measured with respect to our targets rather than theirs.

In terms of progress towards community goals, local production for local use can be much more efficient than production for outside markets. This is because a community is interested in a much wider range of benefits than solely the profit a business makes. It is, for example, interested in the total income - the wages, the profits, the payments for local materials - that the business brings into or keeps in the community's area. Investors, on the other hand, are usually only concerned with the tiny fraction of a business's total income flow which ends in their hands, an outlook which, from a community's point of view, is very much the tail wagging the dog. Moreover, because a community needs its income for long-term tasks like raising children, it wants to be sure that the activity will continue for many years. Investors, on the other hand, tend to have very short time horizons and frequently give up valuable future benefits to get more immediate returns. In a 1994 survey by the Confederation of British Industry, two thirds of the companies which responded required investment projects to pay for themselves in three years or less[1]. What is efficient for our communities is therefore very different from what is efficient for investors in the wider world.

Unfortunately, the future of the planet as well as of communities is clouded by the 'market price equals value' type of thinking. In 1990 a Nobel prizewinner for economics, Professor William Nordhaus of Yale University, was anxious to calculate how much the United States should be prepared to spend to lower the risks presented by global warming. Because agriculture and forestry, the sectors which would be most affected by any warming, made up only 3% of the United States' national income (which is, course, a measure of its output at market prices) he proceeded to assume that this was their value to its citizens. In other words, he overlooked the fact that all the non-agricultural things which go to make up a modern economy and which would be relatively unaffected by the 2-3 degree rise in average temperature he was assuming - intensive care units of hospitals, underground mining, science laboratories, communications, heavy manufacturing and microelectronics were the examples he gave - would be valueless if people had nothing to eat. This remarkable oversight enabled him to conclude that, as by no means all food and forest production would be lost, the maximum damage likely to be suffered by the US as a result of global warming was of the order of 0.25% of its national income. Consequently, after allowing a generous margin for uncertainties, he argued that it was not worth the US spending more than 2% of its national income each year to reduce greenhouse gas emissions.

Nordhaus's verdict would be amusing if it had not reduced the scale and urgency with which the world's governments have responded to the climate crisis and if fellow-economists were not still citing his paper with approval. By confusing price with value, he failed to recognise that our food, raw materials and energy supplies are worth much more to us than are other products and services on which we might spend the same proportion of our income. Food and transportation make up roughly equal shares of the average American's budget but he or she would give up practically everything to continue eating when faced with death by starvation, but considerably less to secure petrol to keep running a car.

We must not make this mistake. In other words, we must not use world prices to determine which activities are profitable and can therefore be carried on in our communities because, if we do, we might find that the production of items of the greatest value to us, such as food, clothing, light and heat, are ruled out and that increased economic independence is therefore impossible. Indeed, we could well find that the only things which are profitable to do at world price levels are those we are doing already, plus one or two we have only just thought of.

But if a lot of the types of production necessary to make our communities more self-reliant would be loss-making at current, externally-dictated prices, we have a huge problem on our hands because even in a peasant economy, no commercial activity will continue long unless those engaged in it get a reasonable return for their efforts and on the capital they have involved. A generation ago, as we discussed in the last chapter, governments enabled national prices to differ from those on the world market using import duties and quota controls. This widened the range of production which was commercially possible. Now, however, these methods have been outlawed by international agreements and there is no way of preventing world prices from setting local ones in the places in which we live. As a result, unless we can find some way for local producers to make a profit supplying us with a full range of essential goods and services at prices identical with those from outside, our attempts to achieve greater self-reliance are likely to be stillborn.

At first sight our quest for such a way seems doomed to failure, particularly as there are only two basic approaches local producers can use to lower their prices. One is to be so super-efficient that they can match their outside competitors on price whatever the outside labour costs, whatever the technology, whatever the source of raw material, whatever the economies of scale. The second is for us to reduce the prices at which we supply our labour and capital to local businesses by enough to make their prices competitive: in other words, to give them a subsidy. Neither of these strategies seems promising but let us look at both more closely to see if anything can be done.

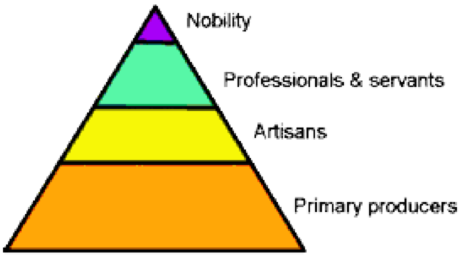
OPTION 1

Becoming super-efficient

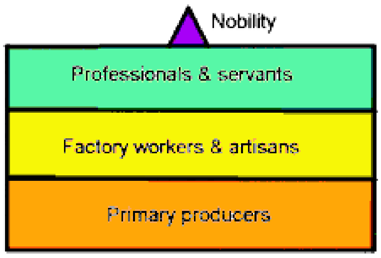
Whatever Professor Nordhaus might think, agriculture, forestry, fishing, quarrying and mining are primary activities which support everything else. A geography teacher I once had at school explained it roughly like this: 'At one time most people were farmers. As their knowledge and skill increased from generation to generation, they were able to produce more food and raw materials than they needed for themselves and this surplus was available to support an increasing number of people in other activities, including crafts, religion, the military and government. Gradually, a pyramid-shaped social and economic structure developed, with the broad mass of the people involved in agriculture or mining at its base, a manufacturing or crafts sector employing a smaller number of people above them, a still smaller professional, military, religious and administrative caste higher still, with the apex made up of the monarch and the nobility.'

That was where my teacher left his analysis but we can take the story on.

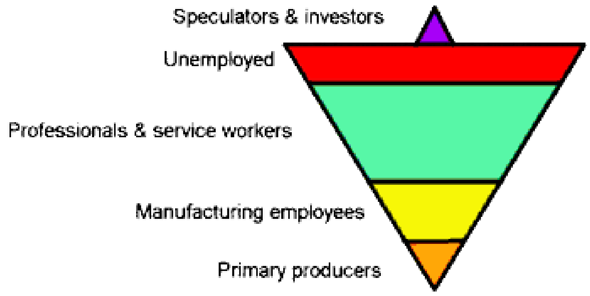
Graph 2.1 The world turned upside down



Five hundred years ago, most of the population of working age was engaged in growing food or in some other form of primary production. Output per person was low, so only a limited number of people could be supported in other activities.



The Agricultural Revolution increased output per farm worker substantially and thus allowed many more people to work in secondary and tertiary occupations. By 1800, British society had a rectangular structure.

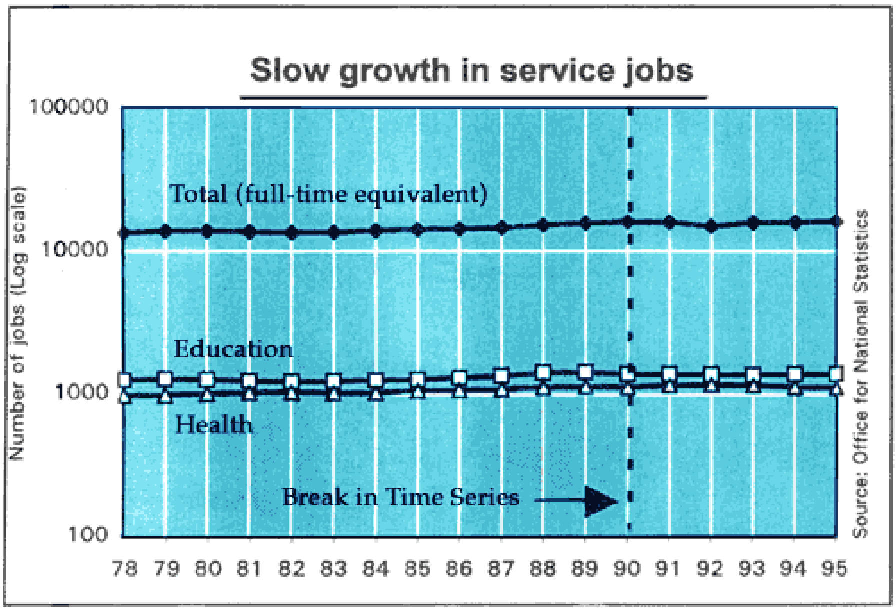


Today, advances in technology have allowed a handful of farm workers, miners, foresters, and fishermen to meet the primary production needs of the rest of the population. Society is now shaped like an inverted pyramid.

By 1800, as a result of the increases in productivity brought about by the Industrial and Agricultural Revolutions, the British economy was no longer shaped like a pyramid. Roughly equal numbers of people were engaged in theprimary, manufacturing and service sectors, making it more like a square [2].Now, two hundred years later, we are back to the pyramid again, only this time it is inverted, since only a tiny number of people - just 3.2% of the working population in England, for example - is involved in primary production and the manufacturing sector itself is shrinking too: in England there was a 17.6% fall, from 28.9% to 23.8% of the employed workforce, between 1981 and 1989. The service sector will probably offer fewer jobs in the future, too, (see panel) while the number of people who are involuntarily jobless has grown.

PANEL: SERVICE SECTOR JOBS MAY BE IN DECLINE

The idea promoted by politicians that the service sector will absorb all the workers losing their jobs in manufacturing industry and primary production may be badly wide of the mark. Professor Jonathan Gershuny of the University of Essex has been pointing out since 1978 that 'with a few exceptions, purchases of services by households in most developed countries have actually been declining as a proportion of total expenditure over the last two or three decades'[3]. This is because families have been doing more for themselves - for example, they have replaced outside laundry workers and inside domestic servants with vacuum cleaners, dishwashers and washing machines, and do their own painting and decorating.



Graph 2.2 If two part-time jobs are equivalent to one full-time, the number of full-time equivalent service-sector jobs in Britain grew by 12.8 per cent between 1978 and 1995, although a break in the way data is given means that this rise is overstated. The number of full-time equivalent jobs in the health and education parts of the sector barely changed over the period.

The reason why this trend has not become apparent is that it has been masked in the statistics by an increase in the number of jobs in health services and education as a result of the increase in state expenditure in these areas in the 1950s and 60s and, more recently, by industrial firms contracting out specialist activities such as cleaning or designwork which were formerly done in-house. Since state health and educational employment is unlikely to increase in future because of the reluctance of taxpayers to finance even its present level and since the scope for additional sub-contracting by industry is limited by both the relatively small proportion of the workforce still occupied there and the amount of sub-contracting which has already been done, overall service sector employment is unlikely to grow. 'The services do not seem to offer a very promising basis for the expansion of employment,' Gershuny says. 'We may be seeing now an overall decline.'

The whole modern economic structure is therefore supported on a tiny primary-sector employment base. However, everyone not involved in primary production still needs food and raw materials from it to survive and, somehow or other, must acquire the right to tap into the supply line to siphon their requirements off. There are many ways they can do this. They can sell goods and services to the primary producers themselves, or to others who provide primary producers with such goods and services or to yet others who, directly or indirectly, perhaps at three or four removes, are involved in the processing or distribution chain. People who are unable to supply such goods and services because they are too young, unemployed, sick, or too old must buy their primary supplies with income transferred from people who are.

As the number of people involved in primary production shrinks because of improvements in productivity or imports from overseas, those displaced from the sector must find places for themselves further up. More and more people have to stand on the remaining primary producers' shoulders, balancing themselves and supporting others above them in ways that become increasingly complex. Each person tries to make their activity an inescapable part of some branch of the lengthening and increasingly complex food chain. As a result, the margin between the price the primary producer receives for his product and the price the ordinary consumer pays for it has to grow continually to support the increasing number of intermediaries in the system and the people who depend on them, directly and indirectly.

For example, in British agriculture, 2% of the working population produces just over half the country's food in expenditure terms, the rest being imported. If the foreign farmers have the same labour productivity as the British, this means that it takes four farmers to support 96 non-farmers, that is, the ratio of farmers to others is 1:24. Assuming that farmers earn much the same after-tax income as the rest of the population, an average of only a 24th of each non-farmer's after-tax income, that is, 4%, will find its way into the farmer's personal bank account. Since roughly a fifth of people's after-tax earnings is spent on food, this means that only around 20% (4% divided by a fifth) of the average food purchase is left with the farmer, the rest going to shopkeepers, manufacturers and other intermediaries in the food chain or to firms which supplied him or her with machinery, fertilisers and other inputs. In other words, roughly 80% of food spending goes to non-farmers to provide incomes and pay taxes so that everyone can tap into the food supply line.

Two things can be said about this. One is that the 80% estimate gives some idea of the scope for creating incomes in our communities by eliminating inputs and services provided from outside. The other is that if we force the present food production and distribution system - or any other part of the industrial economy - to become more competitive, we will destroy some of the ways in which people support themselves and others in the inverted human pyramid. Those dislodged will either find some other way to stay up there or drop off altogether by emigrating, committing suicide, or dying prematurely, as some unemployed people do , from stress and despair[4]. The unemployed are, of course, still up in the pyramid, supported by the rest of the community through its taxes. Analytically, they are a sub-set of the service sector which provides no paid services in return for the primary products they consume. Achieving increased competitiveness by means which increase unemployment simply shifts people from a place in the pyramid where they have an economic role to one in which they do not. Individual firms gain from the shift because the cost of supporting the people involved is moved from the companies' shoulders to those of the nation as a whole. Apart from the companies' shareholders, everyone loses out.

It is not only in primary production that the necessity to support increasing numbers of people at higher levels of the pyramid has widened the gap between what producers get for their products and the price the consumer pays. Exactly the same has happened in manufacturing. Consumer electronics and domestic appliance retailers frequently take a 100% margin while British clothing chainstores and mail order houses generally work on retail mark-ups of 150 to 200%. "Their margins have been high for as long as I've been in business" says a friend who runs his own clothing company. "In the last ten years, however, they have been sourcing from further afield, using the lower prices to increase their margins while keeping the price to the customer down."

These large and increasing margins in highly competitive markets mean that the industrial system's long and elaborate distribution network is forced to charge as much or more for getting products to the consumer than those products cost to make. These distribution networks are the reason I referred to the reputed efficiency of the modern economic system as a grotesque myth. They are the industrial system's weak spot and a key area for attack in any effort to increase local self-reliance. If a local firm or farm has higher production costs than an external one but can short circuit the normal methods of distribution by selling more directly to local consumers, the savings it should be able to make by avoiding the network's 150% mark-ups ought to be more than enough to enable it to survive. However, if local producers distribute their products over a wide area through normal channels, they will acquire their external competitors' cost structure and, if they lack any other advantage, almost certainly fail. Short circuiting as much as possible of the external pyramid by selling direct is therefore the key way to open up a wider range of profitable local production possibilities.

OPTION 2A
Cutting labour costs

The two other ways by which small, local producers can come to compete on price with larger outside firms are almost as powerful as selling direct. They involve the community stepping in to lower the labour and capital costs of community firms. Let's look at labour costs first.

Workers all over the world are being asked to accept lower wages as an alternative to losing their jobs: can we ask people in our communities to accept lower wages in order to create them? The first thing which we need to recognise is that there is an important difference between the two situations. If workers accept less pay from a firm which is selling internationally, there is a very real danger that their sacrifice will compel workers elsewhere to accept lower wages too and thus initiate a world-wide bout of competitive wage-cutting which impoverishes employees and leaves only those consumers whose incomes have not been cut as beneficiaries.

For example, in 1992, Waterford Crystal made some of its workers redundant, forced the remainder to take a 25% wage cut and began importing cheaper cut glass items from eastern Europe. This left its smaller Irish rivals with no option but to cut wages too. "Prices in the market have reduced and if you reduce prices you have to reduce your costs. We must maintain our relative position in the market place" the managing director of Cavan Crystal, Brian Williams, told *The Irish Times* , explaining why the company was seeking a 15% wage cut after its best trading year for some time. "Galway Crystal's workers have accepted a wage cut of 20%" Mr. Williams added. A fourth firm, Tipperary Crystal, was also said to be negotiating cuts [5].

From an economic point of view, all that this type of wage-cutting does is to shift the world supply curve for the particular product upwards, making more available at any given price while shifting the demand curve down because of the consumption effects of the lower wages. These consumption effects are often ignored: during the debate in the US on the North American Free Trade Agreement (NAFTA) and the Uruguay GATT round, pro-free-trade commentators frequently argued that poor Americans would suffer badly if imports of cheap shoes and clothing were restricted in order to protectdomestic manufacturers. What the campaigners failed to ask themselves, however, was who made the clothes and footwear in the American factories and how *their* purchasing power would be affected if their jobs disappeared.

If a firm sells internationally, the purchasing power the workers give up by agreeing to take less pay gets distributed to consumers across the globe and there is no way of ensuring that any of it will return to the communities from which it came. By contrast, if a group of unemployed people decides to set up a co-op producing goods for sale in their community and pays themselves less than the normal rate, all the benefits of their decision stay within the area. No wealth has been lost. Instead, it has been created to the extent that goods or services are being produced where none were produced before.

Moreover, there is no risk of setting off a chain of mutually-destructive wage cuts across the world. Lower wages should therefore be resisted as a method of creating or preserving jobs unless all the goods or services to be produced by the enterprise will be sold within the area where it is located.

But if we agree to accept less than the going rate from a local company whose market is entirely local, we should seek more satisfying work in return. All of us already quote different wage rates on something approaching a local-versus-international basis. For example, when we paint a bedroom at home, we don't charge the family for doing so: we get our reward in other ways. It is the same when we make up costumes for a local dramatic society play - we do it, not for money (in fact, the chances are we'll end up out of pocket) - but because we like being involved. On the other hand, we would never dream of accepting a consultancy contract from an international bank for anything less than the maximum we could negotiate for it.

Both the house painting and the theatrical costume-making represent one end of a money-to-satisfaction continuum on which most of us operate: they provide absolutely no cash but a great deal of the two forms of satisfaction every normal person craves, one of which stems from successfully tackling an interesting and worthwhile project and the other from being appreciated. The bank job represents the other end of the continuum, delivering a lot of cash and a limited amount of either form of satisfaction because no-one outside the bank (and probably within it) will show any gratitude if one fulfils the contract successfully and there is a fair chance that the high income it brings will arouse envy amongst one's friends.

This trade-off between wages and satisfaction is highly complex, particularly as money can be the least important thing that people get from a job. Indeed, being paid for doing something can sometimes damage the satisfaction the activity brings. In a goldmine of a book, *The Market Experience* [6] , Professor Emeritus Robert E Lane of Yale University describes an experiment in which students were paid to do a boring task and got more pleasure from it than a control group which was unpaid. However, when another batch of students was paid to do interesting work, they found it less rewarding than those who had done the same task for nothing. In fact, the paid group doing the interesting job got even less enjoyment than those who had been happy to do the boring task unpaid because they thought it was useful. In another test, unpaid volunteers showed more commitment than paid workers: they were more likely to continue with their tasks when their supervisors left the room.

Lane quotes from a study by F. Thomas Juster which shows that, almost regardless of the nature of their work or their social class, people prefer their jobs to most of their leisure activities:

> People do not work for 'nothing' but what they do work for is often not just the pay they receive..... They may work because meeting the challenges of work increases their sense of personal control, or out of a sense of duty, or because of a pressing need to achieve some high standard of excellence. [Whatever] their motives may be, people evade the market's focus on

exchange, for these motives are satisfied by internal rewards that do not depend upon exchanging money for work.
In my view, the internal rewards Lane mentions are best provided by firms owned and controlled by those working in them which see their role as serving their communities and work not only a source of income but one of the main ways people fulfil themselves. I also think that unless we can construct environments which foster such firms, cut-throat international competition will ensure that in a few years' time, highly-paid jobs will be available only to a fortunate few and that the choice for many of the rest of us will be between unemployment and a low-paid job in a large, highly-pressurised firm scrambling for its place in the world market, a firm to which we can rarely make an individual contribution and matter as people not at all.

If I am right, taking a lower cash wage to work in a peasant-economy firm may turn out in the end not to involve any sacrifice at all. Indeed, in spite of all I have said, these firms may well be able to survive and prosper without paying lower wages than international ones particularly if the worker/shareholders accept part of their pay in a local currency. This is a possibility we will explore in a later chapter.

OPTION 2B
Cutting capital costs

Local firms can also be helped to match external competitors on price if they have access to capital at low interest rates, or, better yet, no interest at all. This is easier to arrange than it might seem: it is largely a matter of enabling firms to avoid borrowing from the high-street banks using techniques explored in detail in Chapters Three and Four. One method involves the community creating its own currency which it can lend to companies at very low cost to spend instead of national currency within the local area. This is already being done in Switzerland where, for the past sixty years, small and medium-sized firms have been able to avoid borrowing large sums of working capital from their banks by creating it amongst themselves. They pay no interest, just a small service charge to keep their mutually-owned system running. Their system is explained in a panel in Chapter 3.

Even when a firm has to have a national currency loan, it should not have to come from a non-local bank. This is because the difference between the rate of interest national or international banking groups offer community savers and the rate they charge community borrowers is often excessive and always drains resources from the area. In 1994, for example, Irish savers received between 0.25% and 0.75% interest on deposits of less than £5,000 at a time when small businesses were paying up to 10.95% for their overdrafts. Much of this margin of over 10% could have been eliminated if local savings had been channelled to local enterprises through community savings and loan institutions especially if, as in many credit unions, a large part of the work involved was done on an unpaid, volunteer basis.

In fact, community bank interest rates can be very low indeed as many people are happy to waive their interest altogether in order to help local projects and, as a result, businesspeople in Denmark have been able to obtain interest-free loans from local co-operative banks for an annual 2% service charge. Details of this are described in a panel in Chapter 4.

CHANGE NUMBER 3
Our key production processes need to be run entirely without inputs from the world system.

If we are trying to build a local economy because we can no longer rely on the world system, our new economy needs to be independent of the world system at every step. For example, it makes little sense to replace external food supplies by using agricultural techniques which lead to crop failure if fertilisers or sprays cannot be brought in from outside. That is just exchanging one form of dependence for another and Murphy's Law predicts that, if we took such a route, the price of agrochemicals would go through the roof. Airliners are built with at least one completely independent back-up to every important system and our economies should be the same.

In the recent past local economies had back-up because, as transport systems improved, it became increasingly possible for communities to turn to the outside world whenever their crops failed or some other disaster happened. Localised famines became much less frequent. Now, however, the easy availability of goods from outside has all but eliminated local production for local use and the back-up has become not just the main system but, effectively, the only one. Worse, this sole system now has very little back up within itself because the giant corporations which control so much of world trade deliberately eliminated spare capacity and duplications whenever they took over firms which had built up the trade.

Not all the components of the world system are equally unreliable, of course, but since they are interlinked, a failure in one is bound to have knock-on effects on the others, distorting their price or affecting their availability. There is therefore no alternative to eventually duplicating them all. Nevertheless, it obviously makes sense to give priority to building alternatives to those parts of the world system where the risks are highest. This is undoubtedly the financial system which could break down completely at any time, as the panel explains.

PANEL: JAPANESE BANKS COULD CAUSE FINANCIAL MELTDOWN

"The scope for a catastrophic debt deflation, with its epicentre in Japan, is much larger than in 1929 " Peter Warburton, the chief economist at a London firm of securities dealers wrote in *The European* in early 1994 [7]. He was concerned that after making huge capital write-offs as a result of the collapse of the Tokyo property market, the big Japanese banks faced the prospect of having to call in many of their loans prematurely if the Nikkei stockmarket index fell below 16,000 for very long. And that, in turn, could cause the world's financial system to collapse.

The banks' situation has not improved since that article. Their problem is that a large part of the capital left after their property losses is in the form of unrealised gains on shares they own. If those gains are wiped away by a stockmarket fall, the Bank for International Settlements, the central bankers' central bank, will insist that their lending is reduced to restore their capital-to-loan ratios to international standards. But if the banks had to call in loans on any scale, forced asset sales by their borrowers would cause property prices to crash around the world. This would weaken the loan book of almost every major bank, possibly forcing them to call in loans too and leading to a rapid, world-wide deflation - a long-term fall in the general price level.

This could come about, Warburton said, if share and property prices began to fall so sharply as a result of the forced asset sales that people and institutions which had put all their wealth into fixed assets found themselves with no money and no way of borrowing any. Those hit in this way would cut back their spending sharply, driving wages and prices lower still and causing companies to collapse as they became unable to service their debts, thus pushing prices down another notch. "This is a description of a classic deflationary spiral" he wrote, suggesting that governments might be powerless to prevent it: "Unfortunately, few governments used the opportunity of the late 1980s economic expansion to straighten out their finances. Their ability to fund large-scale deficit spending in the event of a global emergency is therefore called into question."

At the time Warburton wrote his article, the Nikkei index was being artificially maintained at around the 20,000 mark by the Ministry of Finance which was discouraging firms from issuing new shares. The previous year, before this restriction came into effect, everyone had had a nasty fright when shares sold during the part-privatisation of a railway company had caused the Nikkei to drop to the crucial 16,000 level [8]. It returned to the danger zone in early 1995 when a 20% rise in the value of the yen as a result of the 'flight to quality' during the Mexican peso crisis damaged Japanese companies' export prospects. The authorities were able to save the day briefly by reducing interest rates but had to cut them again during September after four insolvent financial institutions had to be wound up. This second cut brought the prime rate down to only 0.5% and, since interest rates cannot be negative, effectively meant that the tactic could not be used again. International credit-rating agencies reacted by marking down the Japanese banks' creditworthiness gradings with the result that they had to pay a higher rate of interest than large multinational companies for funds they borrowed from non-Japanese banks. The risk of a collapse became so acute in October 1995 that the United States felt it necessary to announce that it had $150bn ready in case a bank collapsed and caused a run on the whole system [9].

The threat from Japan is not the only one the world's monetary system faces. Other risks have been created by the lifting of controls on the way the financial markets can operate. "The weakest link in the chain will give and financial deregulation is a predictable way of creating more weak links in the world system" Rudiger Dornbusch of MIT told a major conference on the risk of an economic crisis in 1989. Laurence Summers, the (then) chief economist at the World Bank told the same meeting that technological and financial innovation had made speculative bubbles which ultimately burst more likely today than had been the case historically. "The risk of a currency crisis is now greater than it was when exchange rates were fixed" he said.[10]

Although events such as the collapse of the Bank of Credit and Commerce International (BCCI) in July 1991 and the speculators' success in forcing sterling, the franc and several minor European currencies to devalue in 1992 proved both men right, nothing has been done to buttress the system. In 1994 even money market traders began to complain about the activities of 'hedge funds' - huge pools of capital, much of it borrowed from major banks - which speculate massively in the market. One of the funds' favourite ploys is to sell large quantities of a stock or a currency which they do not own in the hope of forcing its price down sufficiently so that they can buy enough to fulfil their sales contracts at much less than they were paid, thus making a good profit. The four biggest funds control over $25bn. between them and include Quantum, the fund run by George Soros which claimed to have made £1bn when sterling was forced out of the European Monetary System in 1992 and then lost $600 million speculating against the yen eighteen months later.

It is not unusual for hedge funds to borrow twenty times their assets. This means that in the unlikely event that Soros wished to bet everything on movements in a single currency, he could put $200 billion into play and all 800 funds operating throughout the world could mobilise $2 trillion. "They have undoubtedly produced volatility beyond all previous bounds" one trader said after the markets had taken a dramatic fall in early 1994 11. "Seldom can so many highly-paid economists and analysts have been at such a loss to explain what was happening" The Economist commented after the same event, reporting widespread fears that, if the funds' speculation turned badly sour, they could endanger the banks which had lent them money. Soros himself agreed that there was such a risk in evidence he gave to the US House of Representatives' banking committee a few weeks later.

Although the future, indeed the survival, of hundreds of millions of people has been affected by the hedge fund's activities, no government has yet acted to keep them in check.

A community wishing to minimise the hardships it would suffer if the world financial system collapsed should obviously make monetary independence its first priority. A currency and banking system which can continue to serve a particular area regardless of whatever financial convulsions take place outside that area is fundamental to the construction of a self-reliant local economy, particularly as it also creates an environment within which other aspects of self-reliance can be achieved more readily. Chapters Three and Four describe how such community currency and banking systems can be built.

Once a local financial system is in place, the community should turn its attention to meeting its irreducible energy, food and clothing needs from its own area. In fact, I rate community energy independence second only in importance to monetary independence because food production and many other activities depend on energy use. Moreover, external supplies of energy are highly centralised and insecure and wars have been fought recently to safeguard them. But food production needs to be local too and not just because outside sources might dry up or price fluctuations throw the local economy out of balance. Unless a community can feed itself, it will need to generate a substantial external income to buy its nourishment from outside and the enterprises it will need to operate in order to do so will not only be subject to the fluctuations of the world economy but will also absorb more and more local resources as the outside economy becomes increasingly competitive.

The four basic steps towards greater local self-reliance therefore are:

STEP 1 - the establishment of an independent currency system so that a community can continue to function economically, even if at a reduced level, whatever happens to money supplies in the world outside.

STEP 2 - the establishment of an independent banking system so that an area's savings can be made available to projects serving the community at interest rates such ventures can afford without passing through institutions which would be affected by an external financial collapse.

STEP 3 - the production of enough energy from local renewable resources to meet an area's needs, however difficult this might seem.

STEP 4 - the production of the area's basic food and clothing requirements without the use of inputs from outside.

This list raises an immediate question: 'Are there more steps? How far need a community's quest for greater self-reliance go? Inishbofin islanders may have grown flax to make their own fishing lines but many of the things we consume today cannot be produced in our communities on any realistic basis. Cotton clothes for example: do we have to switch over to locally-grown, locally-spun linen and woollen garments instead?.'

The answer is in two parts. The first is that we only need to produce the essentials of life within our communities and, once this has been done, we can be entirely pragmatic, taking things further only if it suits us. Some clothing is obviously essential and every community should therefore use part of its agricultural resource to produce fibres to turn into garments. However, clothes are a fashion item as well as a necessity and many of us buy many more than we need to stay decent and warm. There is no need for a community to go out of its way to produce this surplus.

Once its essential food, fuel and clothing needs are satisfied, a community should only replace external products with those of its own if it still has people who want to do more paid work than is available. In other words, a community should operate as far down the outside production pyramid as necessary to generate the jobs it needs. In the case of materials it cannot produce for itself like cotton, this might involve buying the raw cloth so that it can be printed and finished locally before being cut and sewn into clothes. This, according to the managing director of an Irish firm which weaves its own fabric to make into duvets, would save about 20% of the price of the finished cloth [12]. If a community went a stage further and did the weaving locally with bought-in yarn, it would save an additional 32%. And, since the raw cotton comprises only 29% of the price of the cloth, if it went the whole hog and spun yarn from imported cotton, it would save another 12%.

The further a community goes down the external inverted pyramid, the more scope it has to create a substantial rectangle or pyramid of its own. Once everybody is fully occupied, though, any further extension of the local economy is impossible unless the community can increase its labour productivity or persuade those of its members still employed in the mainstream economy to give up their jobs there.

The second part of the answer to "How far need we go?" is "Not as far as you think". This is because many products which it would be difficult to make on a community scale are not required in a peasant economy. For example, shipping containers are unnecessary to someone delivering their product next door and small firms are unlikely to want to use complex, high-output machinery for their limited production runs. As we saw in the last chapter when we discussed indices of sustainable economic welfare, a high and increasing proportion of everything produced by the industrial system is consumed by the system itself to keep running and is never enjoyed or used by people at all. Much of this internally-consumed production consists of goods and services which a peasant economy does not require.

Another question frequently crosses people's minds at this stage - What should be the boundaries of the area within which we seek to become more self-reliant? Fortunately, the answer has been provided for us by the proprietors of our local newspapers who, through trial and error over the years, have established the spatial limits within which we, their readers, are interested in each other's doings [13]. If the circulation area of a paper becomes too local, it will lack the advertising and commercial base on which to survive. On the other hand, if it spreads itself too widely, its readers will become tired of turning page after page on which there is little to interest them and switch to papers with a more limited coverage. Advertisers, too, resent paying high prices to reach readers living too far away to become customers and move their budgets to smaller papers covering a more limited area in greater depth. There is therefore a permanent dynamic tension between the benefits a paper enjoys if it expands its circulation area and the advantages it maintains by keeping a tight local focus. Of course, newspaper circulation areas overlap and so will our local economies. Each product or service is likely to have a different distribution area.

A local newspaper's circulation area approximates to what sociologists term a social field, which they define as 'the spatial reach of kinship, occupation and friendship within which people react in economic, social and cultural terms.' In an essay on social fields in Ireland prepared as part of a four-country EU-funded study into the appropriate scale for sustainable development, Dr. Kevin Whelan of the Royal Irish Academy wrote:

> Effectively the social field may be partially, but not exclusively, defined by the local town and its hinterland. This applies to small towns with a population of 1,500 to 10,000 and their hinterlands extending within a ten to fifteen mile radius.....Through commuting, services and shopping, many cementing institutions now operate at this level - the factory, the supermarket, the secondary

school, the bank, bus and rail links, the night club. In many ways these newly-strengthened town hinterlands are the most important level in the territorial organisation of rural communities, especially since the advent of mass participation in post-primary schools. The new patterns of social interaction can be seen in marriage fields: those relatively cohesive territories from which marriage partners are drawn and which now tend increasingly to mirror the economic hinterlands of these towns. The more localised social field has been extended and the traditional territorial order of the countryside has been reshaped. However.....only the local newspapers offer some expression of the nature of these town/country interactions. [14]

Although Whelan says that 'long-term economic and ecological needs may best be met at a regional level' which encompasses a dozen or more social fields, this is largely because he was trying to identify sub-national units in Ireland big enough to suit the European Commission's planning and grant-administration purposes. Significantly, his quest was unsuccessful and he was forced to admit that in Ireland at any rate, 'there is no appropriate regional tier which can attach to or foster local initiatives.'

PANEL: BIOREGIONS OR SPATIAL FIELDS?

Over 200 groups in the US, plus others in Europe, are working to increase economic self-reliance within bioregions rather than within social fields. Does this make much difference? How do the areas derived by the two approaches compare?

'Very closely' is the short answer. Kirkpatrick Sale, the author of one of the few books on bioregional thinking, *Dwellers in the Land* [15], defines a bioregion as 'part of the earth's surface whose rough boundaries are determined by natural rather than human dictates, distinguishable from other areas by attributes of flora, fauna, water, climate, soils and landforms, and the human settlements and cultures those attribute have given rise to'. Thus a bioregion might be the watershed of a river, bounded by hills on one side and the sea on another, physical characteristics which quite obviously influenced the way human settlements and transport links developed over the centuries and hence the shape and size of the inhabitants' social fields. Of course, if a motorway is cut through the hills it will enable some people to widen their social fields without affecting the size of the bioregions it links and the correspondence between bioregions and social fields will be weakened.

In such circumstances, most British bioregionalists would regard human ties as more important than natural barriers and, tacitly at least, work on the basis of the social field. Whether Americans would work on the same basis is open to question. Indeed, it is significant that the bioregional concept was developed in San Francisco in the late 1970s by Peter Berg, a writer, and by Raymond Dasmann, an ecologist, in a country with notoriously weak community ties. Could it have been this which led them to reject social links as a way of delineating the areas within which to aim for greater self-reliance and to choose the features Sale listed? If so, their idea merely enabled them to exchange one problem for another because in many cases, particularly in the United States, individual bioregions cover such large areas that they contain much bigger human populations than is desirable if a true democracy is to be made to work.

Sale, who took Schumacher's idea that 'small is beautiful' and wrote an important 560-page book, *Human Scale* [16], looking at the damage wrought when countries, companies and organisations grew too large, knows this problem better than most. Consequently, in *Dwellers in the Land*, he suggests that bioregions can be divided into sub-regions and sub-sub-regions 'like Chinese boxes, one within another' depending on their dominant natural characteristics. "Ultimately" he says, "the task of determining the appropriate bioregional boundaries - and how seriously to take them - will always be left up to the inhabitants of the area, the dwellers in the land, who will always know them best."

He goes on to suggest that the size of communities and social institutions should also be left for the locals to decide, provided they have 'undertaken the job of honing their bioregional sensibilities'. However, they are likely to be small:

The human animal throughout its history, regardless of continent, climate, culture or character - seems to have favored clusters of 500 to 1,000 people for the basic village or intimate settlement and 5,000 to 10,000 for the larger tribal association or extended community. Only rarely did agglomerations ever exceed this size, as with the capital cities of various empires, and even then they typically lasted for less than a century before shrinking to smaller sizes....Certainly, there is no question that the city of a million people, or even half a million most probably, has gone beyond the ecological balance point at which it is able to sustain itself on its own resources....By contrast, the small community has historically been the most efficient at using energy, recycling its wastes, reducing drawdown and adjusting to carrying capacity. A kind of unconscious wisdom operates at that level, I would argue, that is not necessarily available at other scales: the sensors of the society are most receptive, the feedback systems and information loops most effective, the decision-making mechanisms most adaptive and competent. This is the level, too, at which people have been shown to solve social problems most harmoniously, to survive randomness and change most easily, to know the maximum number of other people with some intimacy, and to retain a sense of the self-amid-others most salubriously. It is not by accident or divine decree after all that the limited community has lasted all these many millennia.

Bill Mollison, the originator of permaculture, the conscious design of landuse and human settlements on a low-input, sustainable basis which shares many common features with bioregionalism, has also suggested that the population of a region aiming at greater self-reliance should be between 7,000 and 40,000 people. In other words, human scale is more important that landscape features and his unit, like that of Kirkpatrick Sale, would be almost indistinguishable from most social fields as defined by the circulation areas of local newspapers.

Problems over the boundaries and sizes of bioregional units have not prevented a considerable amount of useful thought and research from being carried out under the bioregional banner. For example, one of bioregionalism's important characteristics is the emphasis it places on the individual's relationship with the place in which he or she lives. Angus Soutar, who has been active in developing local currency systems in Britain, most recently in Manchester, expressed this very well in a lengthy article he contributed to *Benign Design*, the newsletter published by the British Green Party's policy group on permaculture. "The aim of bioregionalism is simply to know home" he wrote. "We aim to re-establish a sense of place, a sense of rootedness, as a counterweight to the damaging tendency of rootlessness and drift which tends to characterise our current society."[17]

In order to come to 'know home' he suggests that people should study some aspect of their area which interests them: "Perhaps you study local plants, may be traditional building materials and methods, or perhaps old watermill sites. Through these observations you begin to understand that a sustainable way of life is possible and that many of our ancestors achieved it or were close to it." This knowledge, in turn, leads to an understanding of the interconnectedness of people and the environment. As a result, members of the community begin to feel that their lives are part of the continuing history of their region, the ideal perspective for them to have when they help to plan the region's future:

One of [bioregionalism's] fundamental assumptions is that local control of the environment is the easiest way of regulating the use of resources. By local control, we mean control at the neighbourhood or village level. The most intimate understanding of the natural environment can only be obtained by people who are living in the midst of it, constantly observing as they go about their daily activities. That understanding can then inform their decisions and actions - whether it be to harvest, build, quarry, chop down trees and so on. In short, local people have a vested interest in resource use and the carrying capacity of their region and can ensure that they do not run down their natural resource base. An outsider will find it more difficult to recognise the subtle patterns of interactions between people and the land. And an outsider's decisions may be swayed by ideas of exploiting resources in the short-term at the expense of sustainability.

Further information on bioregions (last updated January 2003):

Peter Berg can be reached at the Planet Drum Foundation, P.O. Box 31251, San Francisco, CA 94131, Shasta Bioregion, USA., tel 415 285 6556, fax 415 285 6563, e-mail planetdrum@igc.org. Membership of the Foundation is $30 a year outside the US and includes its interactive magazine,*Planet Drum Pulse* . Apart from his own books, which *include Reinhabiting a Separate Country; A Bioregional Anthology of Northern California*, *and A Green City Program for the San Francisco Bay Area and Beyond,* Berg refers enquirers to the series of bioregional books published by New Catalyst, P.O. Box 189, Gabriola Island, British Columbia, V0R 1XO, Canada., and particularly to *Home, a Bioregional Reader*, one of the series.

In Britain, the Bioregional Development Group, BedZED Centre, Helios Road, Wallington, Surrey SM6 7BZ, tel +44 (0)20 8404 4880, fax (+)44 (0)20 8404 4893, e-mail info@bioregional.com, are the people to contact. The group aims to revive traditional, sustainable land-based industries through the introduction of new, efficient, appropriate scale technologies. "Though traditional land-use is of great interest to us, traditional backbreaking work is less appealing" they note in their brochure. They have produced a number of publications, (including *Bioregional Fibres*, by S. Riddlestone, 1994, 140 pages, £30) on the potential for a sustainable regional paper and textile industry based on flax and hemp, and a report looking at the prospects for reviving charcoal and coppice production in the Weald. Their 40-page report on this costs £20. They have also produced a £20,000 mobile kiln, the Viper, which makes four tonnes of charcoal worth up to £2,800 a week.(See New Scientist, 14/5/1994, for more details.) Another programme of theirs, called "Local Paper for London", enables businesses to recycle their waste office paper to the local mills and then buy it back as high quality paper or card.

The Devolve! steering group provided this information for us:

After seventy five years of campaigning, partial devolution has been won by Alba (Scotland) and Cymru (Wales). There are also 'grass roots' devolution movements in Kernow (Cornwall) and across much of England. More recently 'official' devolution conventions have arisen to match proposed government regions. Genuine political independence is impossible without economic independence but,apart from the Scottish and Welsh movements, until recently few seem to have thought much about this although the Campaign for the North published a paper calling for a regional banking system some years ago. Devolve!(10, Bartholomew Street, Leicester LE2 1FA , e-mail) a pan-English devolution movement is now thinking seriously about this issue. It wants to encourage sustainable, decentralised regional economies. It also argues for and supports moves towards a more participatory democracy and towards cultural empowerment within England. It has now added economic devolution to its tenets. The Devolve! Web Site, www.devolve.org, contains links to most regional and other movements.

The idea that a social field consisting, perhaps, of a small country town and its hinterland should be the area within which greater economic self-reliance is sought upsets many city-dwellers. "What about communities like mine?" a friend living in London asked me when she came to visit one summer. "Your ideas may be fine for people in rural areas but you can't write off the millions of us in the cities."

Of course one can't, but big cities cannot become self-reliant and have never been so. They depend for their survival on an uninterrupted flow of fuel, raw materials and food from outside their boundaries and only grew to their present size when fossil-fuel powered transport enabled them to gain access to increased supplies. This is not to say that they are unsustainable - there is no reason to believe that it will prove impossible to develop renewable energy powered transportation systems which will allow their inhabitants to continue to be clothed, warmed, housed and fed - but their economic function will be undermined if rural communities become more self-reliant. It is, after all, the cities which house many of the people towards the top of the industrial system's pyramid and if countrydwellers find ways to eliminate the over-burden the cities impose on them by building independent small pyramids of their own, jobs in urban areas are going to disappear altogether or move to the country. The dependence of cities on their supply areas and the lack of economic self-reliance in those supply areas are two sides of the same coin and we cannot reduce one without affecting the other.

Citydwellers can do a lot to make themselves less reliant on the world economy, of course, by manufacturing more of their imported requirements and by entering into arrangements with producers in their immediate hinterland for their essential energy, food and raw material supplies. Even so, city populations are likely to fall if the approaches outlined in this book prove successful. A better balance between city and country will emerge and rural decline and depopulation will end.. Indeed, as we will see in the final chapter, it is not only the retired and the rich who are already moving to the country in search of a better life.

LIVING WITH LIMITS

In the past, before transport systems developed enough to allow almost everything to be brought in, the challenge facing a community was to develop a culture, a way of life, which enabled it to live for generation after generation within the confines of its own place. Some communities, even some entire civilizations, failed to do so and disappeared. Other places managed extremely well and imported surprisingly little until comparatively recently. "So little trade went on with neighbouring towns that one carrier with a donkey cart was able to do it all, and even he, it was understood, went to town weekly only if he had orders enough to make the journey worthwhile" writes Walter Rose in his book *Good Neighbours*,[18] an account of life in the village some thirty miles from London in which he was born in 1871. George Bourne, who is best known for *The Wheelwright's Shop*, his classic description of the business his father ran in Farnham in Surrey until 1884, also stresses how little was brought from outside in *Change in the Village*, a fascinating account of the decline of rural self-reliance first published in 1912:

> It is really surprising how few were the materials, or even the finished goods, imported at that time [the 1850s]. Clothing stuffs and metals were the chief of them. Of course the grocers (not "provision merchants" then) did their small trade in sugar and coffee, and tea and spices; there was a tinware shop, an ironmonger's, a wine-merchant's; and all these were necessarily supplied from outside. But, on the other hand, no foreign meat or flour, or hay or straw or timber, found their way into the town, and comparatively few manufactured products from other parts of England. Carpenters still used the oak and ash and elm of the neighbourhood, sawn out for them by the local sawyers: the wheelwright, because iron was costly, mounted his cartwheels on huge axles fashioned by himself out of the hardest beech; the smith, shoeing horses or putting tyres on

wheels, first made the necessary nails for himself, hammering them out on his own anvil. So, to, with many other things. Boots, brushes, earthenware, butter and lard, candles, bricks - they were all of local make; cheese was brought back from Weyhill Fair in the waggons which had carried down the hops; in short, to an extent now hard to realise, the town was independent of commerce as we know it now, and looked to the farms and the forests and the claypits and the coppices of the neighbourhood for its supplies. A leisurely yet steady traffic in rural produce therefore passed along its streets, because it was the life-centre, the heart, of its own countryside .[19]

Now, the limits of place have gone and goods can be transported from anywhere on the globe for those with the money to pay. As a result, one of the strongest bonds holding a community together has been broken and, although the negative feedback mechanisms which warned communities to mend their ways when they had overstepped the mark still operate, they have lost their power: if the fertility of a district's soil declines, if its forests are felled, its mines exhausted, its seas fished out, the better-off know they can always buy their requirements elsewhere or, if necessary, move on. Positive feedback rules most aspects of life in the industrial system because it rewards the nations which consume the earth's resources most rapidly with incomes which enable them to purchase and destroy even more.

There is therefore a close link between local economic self-reliance and sustainability. The most commonly-accepted definition of sustainability - 'meeting the needs of the current generation without compromising the ability of future generations to meet theirs' - is too pat. We need to spell out what sustainability means in concrete terms. The fact is that living within limits and sustainability are one and the same thing and until humankind learns to live within limits again, its future and that of the planet is threatened. Theoretically it might be possible to develop a world-wide industrial culture which enabled humanity as a whole to live sustainably within the limits of the world, but I doubt it; the scale and the complexity of the task are too great, and there's very little time. Moreover, diversity rather than uniformity is desirable if we are to exploit every available ecological niche. A more practical approach is therefore for each social field to achieve ecological sustainability by and for itself.This entails it meeting at least five targets, three of which we have already established are also necessary for economic sustainablity. The targets are:

1) Every system used in its area should be able to be continued, and every production cycle repeated, without environmental deterioration or other problems emerging in the next 1,000 years.

2) The population is should be stable and the district's economy should be growing or changing very slowly, if at all. The district must certainly not depend on economic growth for the maintenance of employment and prosperity.

3) The district must produce at least enough food and raw materials to enable its members to live simple, comfortable lives while staying within the limits of their environment and not exploiting other parts of the world.

4) All the energy used in the district must come from its own renewable resources.

5) To avoid being exploited or disrupted from outside, the district must have its own currency or currencies and its own banking system. Because investors' interests are rarely compatible with those of a community, capital should not be allowed to flow in or out and interest rates, if any, should be determined internally.

A sustainable world will not be one dominated by large companies and run according to the strict conditions necessary to maintain international competitiveness and speed economic growth. It will be one of small communities which run their own affairs and which, rather than trading across the globe, meet or make most of their requirements from their local resources. For it is only if communities develop cultures that enable them to live indefinitely within the limits of their own places that humankind as a whole will be able to live sustainably within the limits of the natural world.

Notes

1 Reported in the *Independent on Sunday*, 7 August 1994.

2 See Graeme Shankland, *Wonted Work: A Guide to the Informal Economy* (Bootstrap Press: New York 1988), p.10

3 From Orio Giarini (ed.),*The Future of Service Employment in the Emerging Self-Service Economy* (Pergamon: Oxford 1987).

4 See Richard Wilkinson (ed.), Class and Wealth (Tavistock: London 1986).

5 Report by Tom McEnaney, 14 September 1994.

6 (Cambridge University Press 1991).

7 25 February 1994.

8 *Economist*, 17 September 1994.

9 *Independent* on Sunday, 5 November 1995.

10 Quoted in Martin Feldstein (ed.), *The Risk of Economic Crisis* (University of Chicago Press: Chicago 1991).

11 Quoted in the *Sunday Times*, 6 March 1994.

12 Telephone conversation.

13 I owe this idea to Gillies MacBain.

14 *The Territorial Spiral: Historical Evidence of Scale Appropriateness*, Working Paper 4, Landscape and Life: Appropriate Scales for Human Development (Cross-Disciplinary Forum, Department of Geography, University College, Dublin), Novemeber 1993.

15 (New Society Publishers: Philadelphia 1991).

16 (Secker and Warburg: London 1980).

17 Issue 4, autumn 1993.

18 (Cambridge University Press 1942).

19 Quoted from the edition published by Augustus M. Kelley (New York 1969), p.103