12

Land and the Built Environment

Buy land: they're not making it anymore

Mark Twain

As discussed in Chapter 3, within the green economics perspective land is a vital part of human and community identity. The view of the land is quite distinct from the reductionist conception of a 'factor of production' held by classical and neoclassical economists. For many green economists, the breakdown of our relationship with the natural world, what Mellor (2006) refers to as 'disembedding', is the fundamental source of the ecological crisis. The bulk of this chapter will be concerned with policies favoured by greens to manage land. However, first we need to establish the principles which provide the framework for these policies. We will begin by contrasting the green view of the role and meaning of land with that of classical economics, and move on to consider the various strands of thought that have influenced green thinking about land including the indigenous perspective; the Levellers and Diggers of 17th century Britain; and contemporary land-rights movements. The following sections detail green policy prescriptions for sharing the value of land via a system of land taxation; planning informed by a bioregional perspective; building dwellings on land; and managing the process of growing food on land.

[a]Land and Economics

According to the classical economists, 'land' is an overarching term that stands for 'natural resources as factors of production' thus including productive land that can be used for agriculture or development, as well as the minerals it contains (*Oxford Dictionary of Economics*). The classical economics view of land, and the justification for its private ownership, begins with John Locke, who argued that private ownership was more efficient, since it encouraged the owner to invest in and improve the land. Such a view was an inherent part of Enlightenment thinking, imbued with values such as human dominion over nature, Christian virtue as related to improvement and hard work, and the dominant notion of progress.

In agreement with Mark Twain, mainstream economists concede that 'the distinguishing feature of land is that it is essentially in fixed supply to the whole economy even in the long run'. However, it is not considered to be inherently different from capital, and can be discussed as an equivalent 'factor of production' and considered appropriate for sale in a market which determines its prices in terms of supply and demand. The classical economists were concerned about the ability of landowners to live from rents, which they considered led to an inefficient use of land and a failure to innovate, but this concern has declined over time amongst mainstream and neoclassical economists. In strong contrast to the position of green economics, for classical and neoclassical economists land is considered to include all the resources that the land might provide, such as minerals; these are not considered in this chapter but rather in chapter 10, which discusses ecotaxes on such resources to manage their use.

In contrast to the conventional economist's view of land, to the green economist land has a life of its own, rather than being an inert resource to be exploited for human ends:

In societies whose very existence depended upon knowing the earth and how to hunt its animals and forage for its foods—the way of life for 99 percent of human history—respect for the natural world and an appreciation of the land itself as sacred and inviolable was surely inevitable. That sensibility was literally so vital that it was embedded in some central place in each culture's myths and traditions and was embodied in each culture's supreme spirits and deities.

The green understanding of land has been deeply influenced by the approach of indigenous peoples, which one native American describes as follows:

All land is sacred. It is their bible. Indigenous people do not see the land as a commodity which can be sold or bought. They do not see themselves as possessors but as guardians of land. A fundamental difference between the indigenous concept of land and the western idea is that indigenous peoples belong to the land rather than the land belonging to them.

While there is no single view amongst green economists about whether or not land ownership is just and appropriate, the fact that this question is debated indicates in itself how powerful has been the influence of indigenous thinking. For Aldo Leopold, the intimate relationship with land, which he termed a 'land ethic', was necessary to underpin both human relationships and ecological respect: 'when we see land as a *community* to which we belong, we may begin to use it with love and respect. There is no other way for land to survive the impact of mechanized man.' Other commentators suggest that giving indigenous peoples the rights to their own land is a better guarantee of their protection than leaving them open to exploitation by corporations. The example cited is that of the Chipko movement in the Himalayas who were refused permission to fell their own trees, a right which was being granted to a foreign corporation. These are the famous 'tree-huggers' ('chipko' means 'to hug' in Hindi), who joined hands around their trees to protect them and their campaign eventually led to their rights to their own land being protected.

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Box. 12.1. *MST: The Land Rights Campaign in Brazil*

One of the most prominent movements for land reform is the MST in Brazil (Movimento dos Trabalhadores Rurais Sem Terra, or Movement of Landless Rural Workers). The movement began in October 1983, when a large group of landless peasants from across the state of Rio Grande do Sul in southern Brazil occupied a 9,200-ha. cattle ranch which was owned by an absentee landlord. Over the following eight years the movement staged 36 more occupations alongside protest rallies, marches and hunger strikes. They were supported by local radical priests and eventually succeeded in settling 1,250 families on their own land. This campaign took place in one of the most unequal societies in the world, an inequality exacerbated by the pattern of land use in which 1% of the population who are landowners control nearly half of the nation's farmland. This pattern of unequal distribution is a legacy of the era of colonialism and the MST has been a vanguard for progressive forces in both political and religious circles in the country to challenge the historic oligarchs. The campaign has been enormously successful, leading to the redistribution of nearly 30 million hectares of land; today some 45 per cent of Brazil's agrarian settlements are connected to the MST.

Source: Carter, M. (2005), 'The MST and Democracy in Brazil', Working Paper CBS-60-05, Centre for Brazilian Studies, University of Oxford.

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The argument over land rights is now being made in developed Western societies, where most people migrated from the land several generations ago to the urban centres. In the UK, for example, The Land is Ours is a land rights campaign 'by and for people who believe that the roots of justice, freedom, social security and democracy lie not so much in access to money, or to the ballot box, as in access to land and its resources'. As in the example of the Chipko movement, they believe that protection of the land depends on those who are reliant on the land and depend on its protection for their own future, hence their emphasis on low-impact development (as discussed in a later section).

There are more practical reasons for challenging the nature of land ownership which have been a constant strand in radical thinking and have been woven into green economics. In the UK context one prominent example is the Diggers, a group of men and women who carried out an early piece of non-violent direct action by climbing George's Hill in London on April Fool's Day 1649 and proceeding to plant vegetables there. Their aim was 'That we may work in righteousness, and lay the Foundation of Making the Earth a Common Treasury for All, both Rich and Poor, That every one that is born in the Land, may be fed by the Earth his Mother that brought him forth, according to the Reason that rules in the Creation.' This quotation provides a fascinating link with the indigenous wisdom already explored. The reference to 'working in righteousness' is used to draw a contrast with the process of enclosure, already underway in the UK at this time, preventing self-provisioning—a theme that has been covered in more detail in Chapter 4.

This discussion takes us on to consider how the wealth of the land would be used within a sustainable economy. The position adopted by greens can be seen as a reaction against the attitude of domination towards nature that has prevailed since the Enlightenment, characterised as follows:

> The natural world is essentially there for our benefit, our use, our comfort. The Colorado River is there to provide water for the people and farms of Southern California, needing only the technology of a Boulder Dam to complete what nature forgot to do; the Northwestern forests are there to provide lumber that the growing populations of the carelessly sprawling suburbs need to build their rightful houses; the Hudson River flows purposefully to the Atlantic so that human wastes and industrial poisons such as PCBs can be carried away, out of sight and mind, to the sea.

This stance of exploitation, a word used with no sense of moral qualm by neoclassical economists, needs to be replaced by one of respect. Here the insights of ecology are brought to bear, particularly the concepts of 'carrying capacity' and 'regenerative capacity'. Every species within its ecological niche must respect the limits of that niche if it is to survive and flourish. This means keeping the level of population and consumption within the limits of that ecosystem's regenerative capacity, and not exceeding what it can support or 'carry'. These are the key ecological principles that should guide our use of the land.

So we arrive at three principles that inform the relationship between humans and land in a green economist's perspective:

- Land ownership is conceptually dubious, with a preference for stewardship. In fact, for many greens, rather than land belonging to people, people belong to the land.

- Rather than exploiting the earth and its resources we should adopt a posture based on respect for the land, almost as an entity in its own right.
- Since land is a 'common treasury' or 'common wealth' it follows that it should be shared fairly between those who have a need for it, and according to that need.

[a]Taxing Land

The concept of the 'common treasury' has been continuingly popular amongst radical economists and was translated into a powerful policy prescription that has been adopted by greens in many countries: the land value tax. The idea of 'the single tax' was made popular by Henry George, whose book *Progress and Poverty* (1880) became an international best-seller and who achieved the unlikely feat of interesting millions the world over in both economics and taxation! The arguments made by George chimed well with the third principle outlined above, namely that the value gained from land should be shared between all members of the community.

A point made strongly by the Henry George Institute to this day is that land, while in fact providing all the value within an economy, is marginalised within economic theory:

land is a distinctive factor of production, which must be considered separately from the other two factors, capital and labor. This is a point that modern-day economics de-emphasizes, or even denies outright. . . Land is needed for all production, for all human life and activity of any kind. When most people think of 'land', their mental picture is of farm land: crops, orchards, pastures. But in fact, our most valuable natural resource, by a very large margin, is urban land. In cities, activities take less land area per head, but more land value, because the price of city land is hundreds, sometimes thousands of times higher than the price of rural land, per unit area (Henry George Institute website).

The idea of a land tax is taken into policy circles under a number of different names, including Site Rental Tax and Land Value Tax, but the basic underlying principle is the same: land is the most valuable resource available to the human community and thus the value derived from it should be shared between all members of that community. This is the argument from fairness, but it is matched by an argument based on economic efficiency with which some green economists would be more uneasy:

The arguments for a land-rent tax are to do with fairness and economic efficiency. Most of the reward from rising land values goes to those who own land, while most of the cost of the activities that create rising land values does not. This is because rising land values—for example in prosperous city centres or prime agricultural areas—are largely created by the activities of the community as a whole and by government regulations and subsidies, while the higher value of each particular site is enjoyed by its owner.

The economic efficiency argument relates to the fact that should be no incentive to keep land idle while awaiting a rise in its value or to prevent others from using it productive, or to simply live from rental incomes rather than maximising the use of the land. It is clear that there may be something of a paradox when considering the introduction of a land tax from a green perspective. Certainly, proponents of the land tax, including Henry George, saw the rentier class, those who lived from the income their land ownership generated, as holding back economic progress. They could merely sit on their land and

live a comfortable life without having to engage in useful economic activity. A similar argument is made today against the holding of land for speculative reasons, including by supermarkets with their so-called 'land banks'.. A land tax would require that the tax were paid on the land whether it was put to productive use or not, thus increasing the pressure for using land for economic activity. This might run counter to green thinking about limits to growth and the need for 'decroissance' or a reduction in levels of economic activity as measured by GDP (for more see Chapter 7).

There is a third, less pressing, argument in favour of a tax on land and that is to reduce the concentrated nature of land ownership. This is based on both fairness and efficiency criteria. Landholdings tend to pass from generation to generation, especially in societies like the UK, where a lengthy historical continuity in ownership has led to increased concentration of wealth. In the UK context, 157,000 landowners hold 70% of the country, and that 10 per cent of the land still belongs to descendants of the Plantagenets, who acquired it during land grabs following the Norman invasion of 1066! The critique of this lasting inequity in the distribution of the major source of wealth is not restricted to the more radical amongst green commentators. In 1984 Jonathan Porritt wrote that 'the Liberals have given up trying to get across the ideas of Henry George. And that's a pity . . . the only way to break the monopoly of landownership (is) some form of land tax.'

Table 12.1. *Experiences with LVT in various countries*

Country	*Experience*
Australia	Some form of LVT in every federal state
Russia	Following privatisation of land in 2001 land tax was set at fixed rate per hectare
Denmark	Land tax levied on all private property, at a rate that varies between municipalities
USA	Two-rate property and land tax used in Pennsylvania; two rate system used in Pittsburgh between 1913 and 2001
Canada	Some cities and provinces tax land values at higher rates than improvements—a commitment to the principle of land value tax

[!box]

Box 12.2. *Land Tax in Australia*

Henry George made a lecture tour of Australia in 1890 and his ideas found fertile ground. His first speech, in Sydney in May and shortly after his arrival, was called 'The Land for the People'. Many towns and administrations were newly established and the prospect of taxing land, which was far easier to pin down than people and far easier to assess for value than their incomes, had immediate appeal. There was also considerable resentment about the accumulation of land in a new colony in the hands of the few. In one lecture George questioned whether 'If the first people were to parcel out heaven as men parcelled out this world, would there not be poverty in heaven itself?' and is also famously quoted as saying that the landowners of Australia were 'more destructive than the rabbit or the kangaroo'. As a result of his lecture tour many towns and states instituted forms of land value tax including New South Wales in 1905, and a federal land tax was introduced in 1910. Australia is a federation consisting of six states, all of which

have a state land tax, but with variations in implementation. At the level of local government, property rates are permitted to be based on the value of the site, a continuing commitment to the Georgist principle. From 1910 Australia had a federal land tax, whose stated intention was to break up large estates, although this was abolished in 1952. The principle of land value taxation has also been eroded by increasing levels of exemption, i.e. increasingly large amounts of land on which no land tax is payable.

Sources: Forster, G. A. (2000) 'Australia: land and property tax system', *American Journal of Economics and Sociology* 59/5: 399–416; Pullen, J. (2005), 'Henry George in Australia', *American Journal of Economics and Sociology*, 64/2: 683-713.

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[a]Building on Land

The paradox identified in green economics between concern about increased economic activity and the importance of taxing land is resolved to some extent by the interaction of planning and land tax systems. A Land Value Tax could be flexible, with different rates charged to encourage particular forms of land use. For example, supermarket developments could be charged a high rate, whereas organic farmers could be charged a correspondingly low rate. Another example might be the creation of incentives to build on brownfield sites in urban areas rather than greenfield sites or greenbelt land by imposing a low rate of land tax on the former.

More widely, green planning would respond to ecology rather than to business priorities. This would mean 'the melding of ecosystem management, regenerative resource use and conservation, regional planning, regenerative systems, and sustainable community design'; it would be an essentially holistic process. Thayer recognises, as all green economists must, that green planning is itself something of a paradox, since the process is intended to work from the bottom up, respecting the needs of the ecosystem and of local communities, in contrast to their present obligation to fit into hierarchical planning structures. Thayer suggests that New Zealand has moved furthest towards an ecologically responsive planning system through its Local Government Reform Act and Resource Management Act, which passed responsibility for strategic planning to the local regions, which were themselves based on hydrological basins.

The green critique of existing planning is that it responds to market priorities rather than the needs of local people or the environment. Powerful players within the existing economy can ensure that decisions that meet their needs are made, without account being taken of the negative impacts. An example might be the granting of planning permission to an out-of-town supermarket development. The costs in terms of loss of biodiversity for a greenfield site, or the increased traffic generated by the development, may not be considered when permission is given. A green economics perspective on land would suggest planning lives so that environmental impact was minimised, for example by encouraging people to live close to their place of work and to have thriving communities including shops and leisure facilities near where people live to reduce the pressure on transport.

However, the commitment to the greenbelt is not absolute, and for many greens using the land respectfully is more important than condemning the natural world to the status of a museum piece. Some greens have been at the forefront of attempts to challenge restrictive planning decisions; they argue in favour, rather, of low-impact development. Brithdir Mawr, in Pembrokeshire, is an example of such a development.

The homes are self-built and the inhabitants meet many of their needs from the local environment. The community has been refused planning permission, but their discussions with Pembrokeshire County Council appear to have resulted in a change of policy. In 2006 the County published new planning guidance that 'provides a context for permitting development in the countryside as an exception to normal planning policy . . . exemplars of sustainable living may be permitted . . . Proposals need to be tied to the land and provide sufficient livelihood for the occupants.' Proposals for such developments need to include a 'Sustainable Livelihood' section, indicating how 75% of basic household needs can be met 'by means of activities centred around the use of resources grown or occurring naturally on the site.' The permission is also dependent on minimal and sustainable travel and that if more than one family is involved 'the proposal will be managed and controlled by a trust, co-operative or other similar mechanism in which the occupiers have an interest.' In effect, the County Council is accepting that building may take place on land not available for development, when that building is for the benefit of a community who will maintain a sustainable livelihood. Questions remain about connection to services such as electricity and water, about vehicle access and about the possibility of requiring future generations or future owners to commit to the same low-impact lifestyles, but this is an interesting legal development.

These experimental low-impact communities are sometimes referred to as 'ecovillages'. At present they are spearheading a distinct view of 'sustainable development' which may mean allowing more people onto the land but requiring a commitment from them to meet their needs locally and produce minimal pollution. So far planning guidance has not been supportive:

> The tightening regulatory framework together with lack of access to official financing have acted as a significant brake on new and existing ecovillage developments. The first step in addressing this is for government at national and local level to recognize the value of ecovillages as social and technological pioneers and as catalysts for regeneration.

Dawson emphasizes the regeneration potential of this form of community development; this is particularly important since many of those who live in ecovillages exist within an alternative cultural paradigm.

In terms of individual dwellings, the broadly defined 'green movement' has made considerable contributions in terms of social and technical innovation. In the UK context, sustainable construction has largely taken place outside the construction industry and based on the work of committed self-builders working with organisations such as the Centre for Alternative Technology, itself an intentional community based in Machynlleth, Mid Wales. There is evidence of market failure in this sector, with demand out-stripping supply and consumers being better informed and more sympathetic to sustainable building than were construction 'experts'. The research makes clear that the initiators of low-energy housing development in the UK have been registered social landlords, self-builders, and local authorities, with the private sector accounting for only 6% of such developments. The explanation is that the strong values and uniting ideology of the green movement have provided support for sustainable construction developments.

Greens also ask questions about the ownership of housing and of the land, as we have already seen. When applied to housing this is translated into novel forms of ownership, such as the Community Land Trust and co-housing. The most democratic form of shared housing is arguably the Mutual Home Ownership Model developed by David Rodgers and Pat Conaty of CDS (Co-operative Development Society) Co-operatives in the UK. As they describe it, it is a 'market-equity form of tenure in which residents have an equity stake in residential property'. However, it is distinct from private

ownership and a conventional market involvement in the housing market because 'The residents interested and eligible for the housing are admitted into membership of a Mutual Home Ownership Trust (MHOT), a registered Industrial and Provident Society. This enables variation on statutory tenancy provisions and allows flexibility between equity and lease-holding; it also allows increase in equity value to be tax exempt as in conventional home ownership'. In other words owners can keep in step with the housing market in spite of not fully owning their homes, and not owning the land their houses are built on. The process of equity creation is illustrated in Figure 12.1.

—Insert Figure 12.1. Equity Creation through a CLT near here—

The MHOT model is based on joint ownership and a shared mortgage which is taken out against a portfolio of property. This is then divided up into units which residents 'buy' and pay for via monthly mortgage payments. They can increase or reduce the number of units they own as their individual circumstances dictate. Monthly charges are set at 35% of net income, which is considered an affordable level and is related to the individual's ability to pay in a way that market housing purchase is not. There are two levels of ownership within the CLT: one common and the other private. Some people will own many shares in the CLT and gain an income from them; others will only own a few. This is distinct from the amount of space people occupy in the houses themselves. Hence, according to Conaty, 'CLTs are best viewed as a form of dynamic property rights that seeks to find a mutual *modus vivendi* between individualism and collectivism'.

Co-housing is another innovative approach to home ownership that is favoured by greens. Co-housing is based around notions of 'shared space' and a concern that individualised lifestyles in contemporary society are not only socially divisive and pernicious at the community level, but also require an increased level of resources per person and are thus environmentally inefficient. A survey of 14 shared-living projects in Germany (a system similar to co-housing) found that the inability to share space communally and the felt need to own only by the exclusion of others is leading to over-consumption of space and resources. For this reason 'Building a sustainable community one neighbourhood at a time', is the mission statement of the US Co-housing movement. Co-housing developments often require residents to meet other ecological criteria, such as low-energy designs or the exclusion of cars within the area of the project. Co-housing is popular in Scandinavia and the USA. It represents an important step towards breaking down the individualism created by market solutions to housing need and can help to rebuild community and thus offer support to more vulnerable members of society.

—Insert Photo 12.1. Springhill Co-housing near here—

[!box]

Box 12.3. Co-housing in Denmark

The idea of co-housing began in Denmark in the early 1960s and is generally considered to have been initiated by Jan Gudmund-Hoyer, an architect, and Bodil Graae, who wrote an article called 'Children Should Have One Hundred Parents'. This title makes clear the commitment in the co-housing movement to community. Building was begun in 1968 and two communities— Saettedammen and Skraplanet—were ready for habitation by the end of 1973. In 1971 the Danish Building Research Institute sponsored a national design competition for low-rise, clustered housing: the winning proposal focused on the importance of residents being involved in the design of their homes and the sharing of facilities. This supported by spreading of the co-housing movement in Denmark, and the

first rental co-housing community—Tinggarden—built in 1976. By 1982 there were 22 owner-occupied cohousing communities in Denmark. Co-housing is now a popular and common form of home building in Denmark and its innovative design aspects—including shared facilities such as gardens and community houses and a range of housing units of different sizes and ownership types—has spread into the mainstream home development sector.

Source: Milman, D. (1994), Where it all began: co-housing in Denmark (Co-housing company).

[!box ends]

[a]Growing on the Land

The most fundamental role played by land in any human community is as a provider of food and for the past 10,000 years or so that has been increasingly via agricultural systems. However, the systems of farming that have developed have been increasingly intensive and have not been within the bounds of ecology. Whether we think of the highly water-intensive agriculture of California or the monocultural production systems that underlie most of our staple food crops such as rice and maize, modern agriculture does not live in the balance within nature. The criticism of this industrial form of agriculture levelled by green economists has three main strands: the failure to function in balance with nature (what ecologists would call 'drawdown'); the loss of cultural and species diversity as a result of the development of global agricultural monoculture; and the threat to human health from unnatural farming practices.

—Figure 12.3. Agricultural and Economic Systems of Sustainable Agriculture—

Jules Pretty suggest that, while farming has been in existence for 600 generations, during which time it was 'intimately connected to cultural and social systems', during the past two or three generations these connections have been lost, resulting in damage to biodiversity, water quality and human health. He details how food crises such as BSE ('mad cow disease') and the lack of trust in genetically modified crops have undermined faith in conventional, large-scale farming methods. What is more, in an era of climate change and peak oil, where energy used must achieve the maximum in terms of human well-being, the agro-industrial system is seen to be grossly inefficient, requiring 10 calories of energy to produce 1 calorie of food. Tudge sketches the green alternative:

A system of farming that was truly designed to feed people and to go on doing so for the indefinite future, would be founded primarily on mixed farms and local production. In general, each country . . . would contrive to be self-reliant in food. Self-reliant does not mean self-sufficient. . . Self-reliance does mean, however, that each country would produce its own basic foods, and be able to get by in a crisis.

Such a system of local production for local consumption and that worked within the existing ecosystem would owe much to a system of farming known as 'permaculture', first developed by Australian ecologists. The principles of permaculture are outlined in Box 12.4. As well as working positively with ecological systems, permaculture makes use of indigenous knowledge. An example is the traditional Zuni farming practices in what is now New Mexico which were sustainable and productive, but were undermined by US assimilation policies that resulted in the degradation of natural resources. The Zuni people are now working to combine their traditional values, knowledge and technology

with other forms of scientifically based knowledge to develop a sustainable form of agriculture.

[!box]

Box 12.4. *The Principles of Permaculture*

- Working with nature saves energy
- The problem is the solution
- Make the least change for the greatest possible effect
- The yield of a system is theoretically unlimited (or only limited by the imagination and information of the designer)
- Everything gardens (or modifies its environment)

Source: Mollison, W. (1998), *Permaculture: A Designer's Manual* (Sister's Creek, Tas.: Tagari).

[!box ends]

Following the economic crisis in Cuba after the ending of Soviet economic support, Australian permaculturalists used the country as a test-bed for their ideas about small-scale, urban, pro-ecology agriculture, and with very impressive results. The Cubans extended their existing system of *huertos*, urban vegetable gardens, spreading them to rooftops and verges, and created *organiciponicos*, a kind of organic allotment system. By the mid 1990s there were over 28,000 *huertos* in Havana city province, run by 50-100,000 individuals. Cuba was producing between 80 and 90 per cent of its own vegetables, and Havana produced enough to meet 50% of its own needs from within the city boundary.

—Insert Figure 12.2. Percentages of oil used in different aspects of food production and distribution near here—

Green agriculture would be almost exclusively organic in nature. There are two major reasons for this: first, that organic agriculture follows the principles of permaculture by working with nature rather than against nature and therefore preserves the environment, but also the fact that, as shown in Figure 12.2, the largest proportion of oil used in the manufacture of food is actually used on the farm (to produce fertiliser, for farm machinery and to produce pesticides). Greens would use subsidy systems to encourage the transition towards sustainable agriculture. Scotland's Organic Action Plan is a case in point. It began as the Organic Farming Bill, put forward by Robin Harper MSP on behalf of the Scottish Green Party. Having been amended it gained the support of a majority of Scotland's elected members and now provides support for organic farmers as a sustainable sector. The target for the plan was to have 30 per cent of Scotland's arable or grassland in organic production by 2007.

—Insert Photo 12.2. Stroud Community Agriculture near here—

Linking concerns with ownership and with sharing and reconnecting with the land brings us to a system of farming known as community-supported agriculture (CSA). As in the example of Stroud Community Agriculture, in Box 12.5, such schemes change the relationship between farmer and consumer, who now enjoy a much closer link than that typical of a market relationship. Participants in a CSA pay an annual or monthly amount to support the farmer in her/his vital role and then receive a share of the produce. The advantage for the farmer is the removal of anxiety over her/his income and finding an automatic market for the produce; the advantage for the customer is a closer relationship with the land and knowledge about how her/his food is produced.

[!box]

Box 12.5. *Stroud Community Agriculture*

Stroud Community Agriculture is a community-supported farm on two sites between Stroud and Gloucester in the West Country, UK. The farm sites are both owned by educational institutions and make up about 45 acres of farmland in total. The sites are both mixed farms with vegetables and animals, plus hay and grassland and green manures, all farmed according to biodynamic principles (a system based on the theories of Rudolf Steiner—see Figure 12.4). One of the sites belongs to Wynstones Steiner School and was formally called Kolisko Farm—a pioneering Steiner venture. By 2007 the SCA was supplying vegetables to 150 families on a share system, i.e. people paid a monthly sum to be members of the farm, in return for which they received a share of what was produced each month. The farm owns a certain amount of equipment but the major costs are farmers' wages and land rental. The farm is managed by a core group of members elected each year at the AGM. Connecting with the land is a key theme of the farm's activity, with a cycle of festivals reflecting the turning of the year. Seasonality is obviously also built into the provision of vegetables as is a near elimination of 'food miles'. Members of the farm are required to work on fortnightly workdays, and many also contribute extra time; for labour-intensive activities such as haymaking as many members as possible are involved. The farm spreads farming skills among members and has an apprentice with whom these skills are shared.

[!box ends]

—Insert Figure 12.3. The Turning of the Year—