

Changing environments

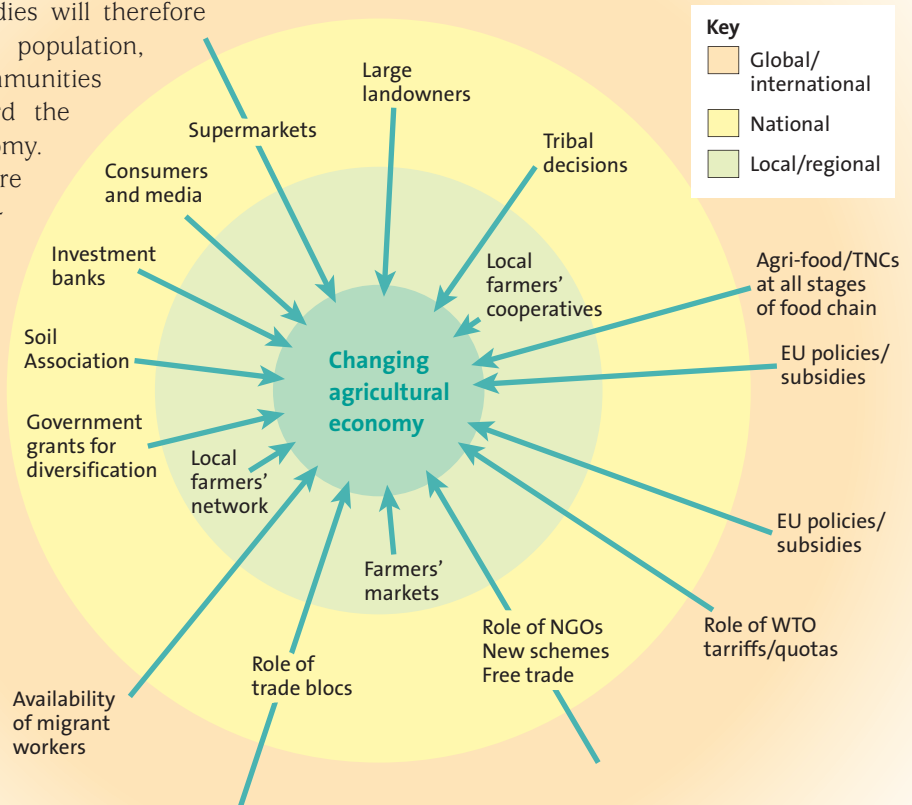
Factors leading to change

In both developed and developing countries rural areas are undergoing rapid socio-cultural and economic changes. These changes have an impact on the communities, economy and environment. Driving many of these changes are demographic factors such as population dynamics and migration.

Agriculture (Figure 2.1) was traditionally the mainstay of rural life, but in many rural environments, almost always in developed areas, it has now been pushed more to the margins of the rural economy in terms of employment and its contribution to production. As we shall see in Part 4, in the future it is likely that many rural landscapes will become **post-productive**, with consumption and protection of rural environments more important than production. Inevitably the direction of change affects the quality of the rural environment.

The following case studies will therefore explore first changing population, second changing communities and services, and third the changing rural economy. Overall the changes are known as rural restructuring because of their intensity, their rapidity and the totality of their impact in many areas. They not only operate at a local scale, to produce more diverse rural environments, but also result from national and global factors, in particular, technological innovation and government policies as well as social modernisation and globalisation.

Figure 2.1
Players and factors influencing the changing agricultural economy



For example, if we are looking at agricultural change, as shown by Figure 2.1, the farmer is only one of a series of players operating at a range of scales, which influence or even control the direction of change.

Changing population: overview

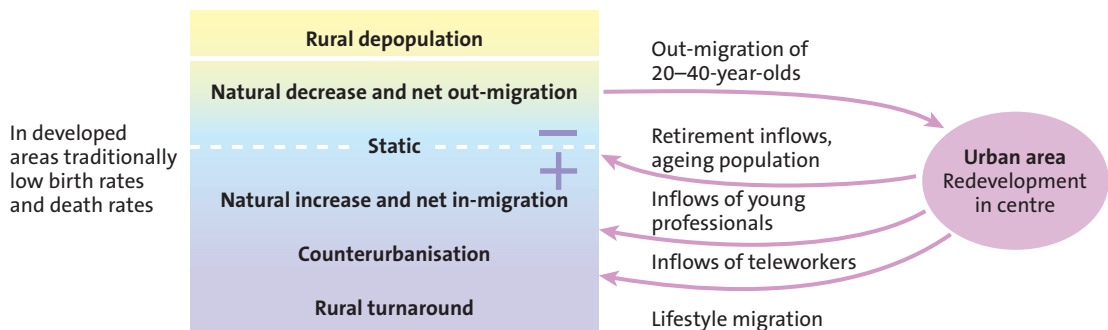
In developed areas the overall trend has been, until recently, rural-to-urban migration, which, depending on the scale and pace, has traditionally led to **rural depopulation**. In general it is the productive, fertile element of the population that migrates to gain the greater opportunities and economic rewards offered by urban areas. However, a reversal of the flow was first noted in North America in the 1960s and soon spread to western Europe in the 1970s, then to other areas such as southeast Australia. This reverse flow, known as **counterurbanisation**, involves the movement of people from large towns initially to accessible rural areas, thus beginning the **rural turnaround**.

As most of the in-migrants were middle-class professionals with families, this stemmed rural depopulation and often led to a steady increase in population. While the flows were at their greatest in the 1970s and 1980s, they have continued until the present day, in spite of moves to encourage reurbanisation in the city centres for young professionals. By the 1990s counterurbanisation had spread to more remote areas with the advent of retirement migration to coastal districts and attractive market towns. This influx adds numbers to the population, but does little for growth. A further strand is provided by teleworkers, who can operate anywhere with a fast broadband connection. Many choose lifestyle migration (amenity migration) for their families and enjoy the **rural idyll**, and if sufficient volumes occur this can stem rural depopulation, especially if there is no significant outflow of the traditional young rural dwellers who are often forced out by a lack of employment and affordable housing.

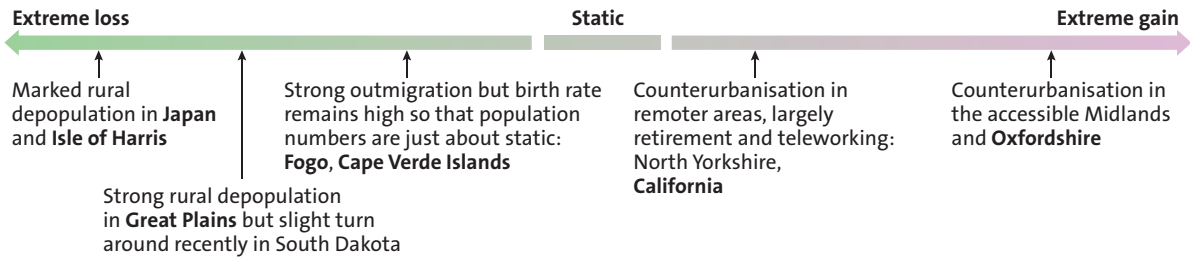
So the balance between significant population growth in rural areas and significant rural depopulation is a fine one, varying from place to place and over time in one location.

Figure 2.2
Population change in rural areas in developed countries

Figure 2.2 shows the impacts of demographics and migration flows on population in developed countries.



The case studies chosen illustrate the variations in population change, as shown.



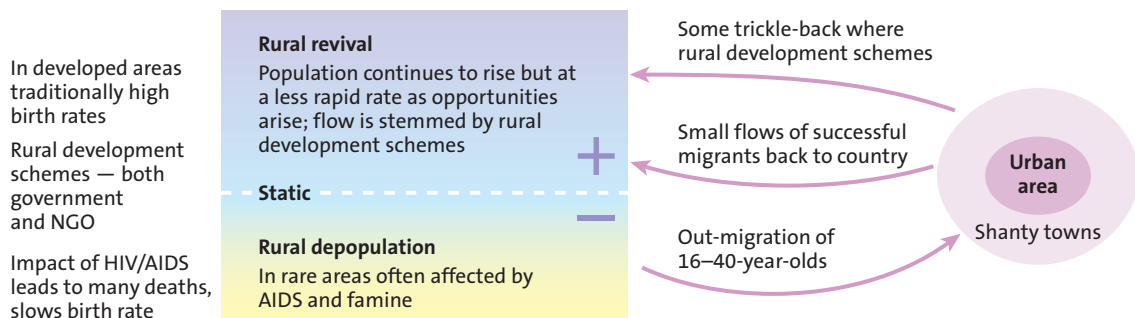
In developing areas, the trend of rural–urban migration began much later, in the 1950s in South America and from the 1970s in Asia and Africa. There were strong disparities in opportunity between the poverty-stricken rural areas (issues of a lack of employment and basic health and education services, as well as uncertainties caused by natural disasters such as drought-related famines). Subsequently the growing large urban areas were seen as having better services and employment prospects. In general it was those aged between 16 and 40, especially males, who migrated, often to the nearest large town, before sometimes moving on to very large cities (a process known as step-migration).

In general birth rates were traditionally very high in rural areas (c. 3%), so the out-migration rarely led to extreme rural depopulation, although it did cause difficulties in farming the land to provide food, which became the role of the elderly, especially women. Where HIV/AIDS was prevalent, however, or extreme famines or wars had occurred, many children and babies died, so rural depopulation became apparent. There are a number of factors which tend to stem the flow of out-migration, as the case study of Burkina Faso shows (*Case study 12*). These include successful rural development (often by NGOs) and schemes funded by remittances sent back by successful migrants. The Vietnamese case study (*Case study 11*) also shows how government-funded and organised schemes to eradicate rural poverty can also begin to stabilise the situation.

In some developing countries, especially in South America, and to some extent in South Africa, counterurbanisation is just beginning, as rich urban dwellers seek to build their luxury homes in the **rural–urban fringe** zone and commute to work, or in the case of China rural land is ‘grabbed’ to develop new urban settlements.

Figure 2.3 summarises the impacts of demographics and migration flows on the structure of population in developing areas.

Figure 2.3
Population change in rural areas in developing countries



While the predominant movement is currently out-migration, the populations are in general growing but at differential rates, as illustrated by the case studies.

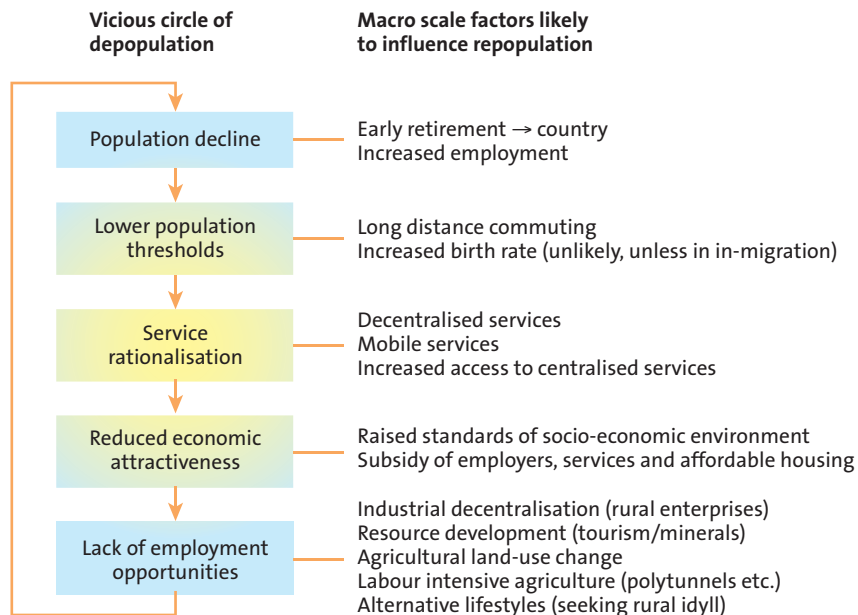


Changes in the developed world: population and services

Figure 2.4 summarises the vicious cycle of depopulation. Absolute depopulation is likely to occur if people leave and are not replaced. Examples exist of deserted villages in the Apennines and the Spanish Meseta, and in rural Japan (*Case study 4*). A threshold of non-viability is reached (a tipping point), where it becomes uneconomic to supply private or public services, leading to accelerating decline.

Relative depopulation occurs where young people leave but are replaced by, for example, retired people. In this case, while population numbers remain similar, the ageing society will ultimately contribute to a state of natural decrease (hence the forecasts in the Japan case study). Moreover, second-homers also purchase much of the property in attractive coastal or remote villages, again contributing to depopulation by forcing house prices beyond the reach of local people. Figure 2.4

Figure 2.4
The cycle of rural depopulation



shows the macro-scale factors likely to stem depopulation or even encourage repopulation. The experience of the USA (*Case study 5*) shows that even where the situation was thought to be beyond redemption, the macro-factors of worldwide recession in 2008–10 actually led to a revival of some areas in the Dakotas such as Sioux City, as these places were relatively untouched by the credit crunch.

The Isle of Harris in the Outer Hebrides is seeking to rebrand the whole island as Scotland's third national park in order to address its absolute decline in population (see *Case study 18*).

The case study of Fogo in the Cape Verde Islands (*Case study 6*) shows a declining community whose numerical loss is masked by a continuing high birth rate. The Cape Verde Islands, a former Portuguese possession, are in some ways a developing country, but have the fourth highest per capita GNP in Africa. With measures in place to stem the outflow of young people, such as providing further education and upgrading the infrastructure, the situation is potentially reversible.

THE ENDANGERED COMMUNITIES OF JAPAN

Case study 4

As a result of Japan's rapidly ageing and overall decreasing population (Japan has never had strong pro-natalist strategies or encouraged widespread immigration), communities deep within the mountainous areas are finding it increasingly difficult to survive: 2643 communities are likely to disappear in the future and 423 are in danger of disappearing within a decade. Since the last survey in 1999, 191 communities have completely vanished.

Residents of these ageing and rapidly shrinking communities face numerous difficulties. Bus services are being abandoned because of lack of users, community events are being discontinued because of lack of participants, and elderly residents spend thousands of yen getting to hospital appointments — these communities are endangered because all their social functions disintegrate. Diminishing communities also adversely affect the surrounding ecosystems and other communities downstream from the mountains, because of the lack of people to farm the land. Abandoned rice

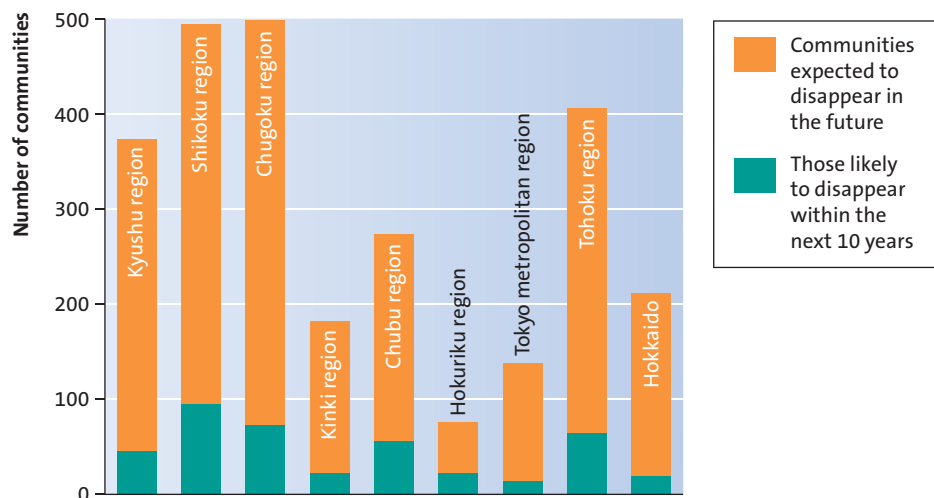


Figure 2.5
The number of communities on the brink of disappearing in Japan, April 2006

paddies have an impact on the firefly and frog population, and woods not managed and appropriately thinned lose their capability to retain water.

The biggest issue is whether local governments can support these shrinking, sparsely populated communities, and how.

One suggestion is to relocate the few remaining elderly people to more convenient areas, to cut administrative costs, and so to abandon these marginal areas. Some local governments have launched schemes to attract migrants from urban areas with subsidies, or to develop innovative ways of providing services and also to support farmers who are cultivating the steep slopes in the endangered communities, but the future is very gloomy for remote rural Japan.

Case study 5 THE PLAINS DRAIN IN THE USA

Figure 2.6 locates the key areas of rural depopulation in the USA — note the huge swathe of country stretching through middle America. Eleven states cover around 15% of the US land area and are all facing depopulation and rural decline in many counties.

North Dakota is one of the most sparsely populated states in the USA (average population density 3.6 per km²). Overall the state has a static population fluctuating around the 650 000 mark, but some of its most rural counties, e.g. Hettinger, have experienced depopulation of up to 50% in the last 20 years. Most out-migrants are young adults aged between 20 and 35 and they migrate to the only two towns, Bismark (100 000 — capital) and Fargo (200 000 — main town), and the large cities such as Minneapolis. This leaves behind a greater proportion of older people, leading to an ageing population and the potential for natural population decrease (Figure 2.7). A plethora of issues including shortage of jobs, a harsh climate (especially in winter) and isolation from comforts and services combine as push factors.

Figure 2.6
Rural depopulation in the USA



The decline in population means that some businesses and services are forced to close, leading to a spiral of decline. Falling population also means a declining local tax base and an inability to provide public services (schools etc.) and infrastructure. The population of Mott, the principal urban centre of Hettinger, declined from a high of 1600 in 1950 to 800 in 2000. In 1950 there were over 80 businesses, but now only a handful remain, and the high school, even after a merger with a school in a neighbouring county, only has under 70 students today. Following the US subprime mortgage crisis, many homes remain empty.

In Cheyenne County in eastern Colorado circumstances are a little different — the current record prices for wheat and the growth of corn for biofuels mean it is not especially poor. The root problem is a shrinking agricultural employment base. Improvements in technology favour huge, highly mechanised farms, and as farmers retire or quit, their land is bought by huge agribusinesses.

In 2006 this small county lost 300 people in just one year, so depopulation is again an accelerating process as services close. Three hopes for survival include windfarms, superfast internet and a superhighway from Mexico to Canada which could pass through Cheyenne county.

The challenge for the future in the Prairies and the Plains is not to stem the tide (deemed impossible) but to keep life as pleasant as possible for those who remain. To young people in particular these areas seem very unequal spaces, with major issues of opportunity deprivation and mobility deprivation exacerbated by rising fuel costs.

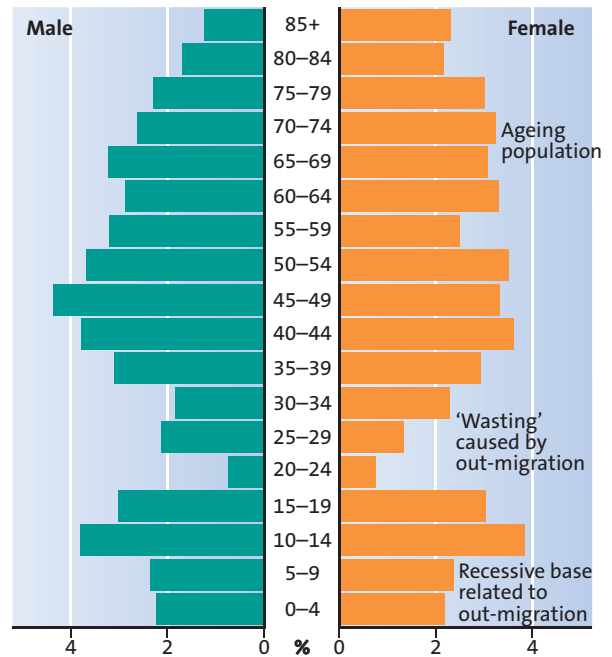


Figure 2.7
Population pyramid for Hettinger County in 2002

FOGO, CAPE VERDE ISLANDS

Case study 6

In spite of a comparatively high birth rate among a young, fertile population, which means that overall the total population remains static at around 38 000, the island registered a net loss of over 6600 people over the last 10 years, i.e. around 16% of the total.

The out-migration is largely to Praia on Santiago Island, especially by the younger people in search of training. In the 1940s, the population of Fogo actively decreased as there was so much out-migration to the Boston area of the USA and to Fortaleza in Brazil. Push factors included a lack of infrastructure (only 44% of households had electricity and only 30% had running water; 71% dumped garbage outside their houses) and a lack of employment, with a diminishing tourist industry, fluctuating agriculture and limited manufacturing — in 2000 unemployment rates were over 30%.

Forty-two per cent of Fogo's population were registered as poor, with many families relying on remittances from abroad to survive. Housing surveys suggested that only 56% had a bathroom with toilet, and only 7% owned a truck or car. Furthermore, 36% of families were receiving insufficient food. All these facts suggest that poverty is at the

Figure 2.8
 Poor living
 conditions on Fogo,
 Cape Verde Islands



mediacolors/Alamy

root of out-migration. The only reason why there is currently not an overall decline in Fogo's population is the consistently high rate of natural increase. While Cape Verde is considered to be Africa's fourth wealthiest state, inequality of opportunity and wealth between the islands is what drives the out-migration (Figure 2.8).

Counterurbanisation and the rural turnaround

Figure 2.9
 Predominance of
 counterurbanisation
 and urbanisation
 for 11 European
 countries

Counterurbanisation is almost entirely a phenomenon of the developed world, although the twenty-first century has seen it begin in Chile, Argentina and Brazil. Figure 2.9 shows how it varies (spatially) over time in a range of countries.

