

2 Dealing with demographic decline

This chapter examines a range of policies that can address socio-economic changes associated to demographic trends in the OECD and Korea and offers an overview of Korea's responses in terms of policies and strategies to manage demographic pressures in regions and rural places.

Introduction

Since the 1950s, virtually all OECD countries, including Korea, have experienced three important demographic trends. The first is a steady increase in the share of the total population that is urban in nature, reflecting both internal migration from rural areas within a country, and inflows of migrants from other countries to major metropolitan regions. This has led to the rural share of national populations declining, even in those countries where rural populations grew in absolute numbers.

A second trend has been the growing linkage of urban economies to proximate rural regions, which has resulted in these rural regions being absorbed within the boundaries of metropolitan regions. As a result, rural territory becomes part of an urban agglomeration. Consequently, in many OECD countries a large share of the territory assigned to metropolitan regions remains rural in nature, but the people in these areas are considered urban (OECD, 2020^[1]).

The third trend is more recent and is an absolute decline in the number of rural people within a country, reflecting the combination of, falling fertility rates, steady increases in average life expectancy and ongoing outmigration. In most OECD countries until fairly recently female fertility rates in rural areas exceeded those in urban areas, allowing the rural population to increase, even though outmigration rates were fairly high. More recently, rural fertility rates have shrunk to the same level as in urban areas, and in many OECD countries this level is below the natural replacement rate. In the short run, as life expectancy increases, more older people will live longer in rural regions and this partially mitigates the effect of lower fertility rates. But in the longer run low fertility rates and youth outmigration inevitably lead to rural population decrease.

In many rural regions the key workforce problem of the past was too few job opportunities for the number of available workers, but in the last few decades it has shifted to too few workers for available jobs. With the fall in fertility rates, longer life spans and steady outmigration, many rural regions have entered a period of steep work force decline.

As time progresses, impacts on the local labour force become more evident as fewer people enter work. Throughout the process the older age cohorts become a larger share of the local population and place an increased demand on public services for their care, particularly after they retire. And, as long as young people continue to leave the region, population decline continues to accelerate, until at some point the local economy may no longer be viable and communities collapse. Thus, while at the national level demographic decline leads to a smaller and older population, the effects and responses will vary greatly by region, with some regions potentially able to find ways to continue to grow both in terms of population and economic activity.

The next sections of the chapter discuss how demographic change affects the nature of regional economies, community social relations and implications for local governance, provides a perspective on how national governments might structure their response to the problem of demographic decline in rural areas and outlines Korean's current policy responses.

Key actors driving regional and rural development in Korea

In Korea the national government has accepted the challenge of dealing with demographic trends at the highest level. Three Presidential committees and a task force provide a forum for identifying new policies and programs to improve conditions across the national territory, they are:

Presidential Committee for Balanced National Development and Prime Minister’s Committee for Quality of Life

Two inter-ministerial committees, the Presidential Committee for Balanced National Development and the Prime Minister’s Committee for Quality of Life, drive the development in regions and rural areas in large measure. Together these two committees oversee myriad initiatives for economic development and the well-being of people.

The committee on Balanced National Development, launched in 2003, provides direction and oversight regarding key policies to implement balanced national development and drives much of the economic agenda in the regions. It is composed of government (12 ministries) and civilian members; other special committees report to it, such as those for metropolitan area management, regional innovation and transferring public institutions to local areas, among others. The Committee is responsible for Five-Year Regional Development Plans and the Special Account for Regional Development, as well as project management and evaluation. It also plays a key role in co-ordinating sectoral policies by different ministries (OECD, 2021^[2]).

The Quality-of-Life committee concentrates on service delivery and well-being in fishing and farming communities. This committee is responsible for establishing the basic plan for improving the quality of life of farmers and fishermen and developing rural areas every five years (the fourth basic plan is being implemented for the period of 2020-24). The committee, chaired by the Prime Minister, is composed of 14 ministries and 6 administrative agencies of the central government, and the Ministry of Agriculture, Food and Rural Affairs (MAFRA) is the lead ministry. Under this basic plan, the committee establishes the annual implementation plan, monitors and evaluates its implementation, and then reports the outcomes to the National Assembly each year. The committee also co-ordinates sectoral policies by different ministries (OECD, 2021^[2]).

Presidential Committee on Ageing Society and Population Policy Task Force

The Committee was launched by the Korean government in 2005 in an effort to tackle demographic challenges Korea was facing. In 2019, the government acknowledged the possibility that the low birth rate in Korea would be unlikely to be reversed. In response, the government promoted a two-track approach by introducing measures to strengthen the entire society’s adaptive capacity to the changing environments, while continuing efforts to increase the chronically low birth rate mainly through the Presidential Committee. In addition, the Government also created a pan-government Population Policy Task Force to promote measures to foster the society’s adaptive capacity to the changing environments.

The first-round task force was launched in April 2019, followed by a second round in January 2020 and a third one in February 2021, currently being implemented. Examples of outcomes of the first two rounds Task Force include (MOLIT, 2021^[3]):

- support to the discussion on the possibility to extend the legal age for retirement so to bolster workforce in the labour market;
- establishment of a new supply/demand model for teachers and the promotion of pilot projects for the combination of schools with other community facilities including day care centres, libraries, gyms, and parking lots;
- definition of a number of countermeasures against the demographic hollowing out of small and mid-sized cities in regions, with a focus on managing vacant homes, enhancing competitiveness of farming and fishing communities, and providing more customised transport services. In detail:
 - regarding the “Management and utilisation of vacant houses in regions”, the government has established an “integrated management system” with relevant bodies (e.g. Korea Real Estate Board and Land and Geospatial Informatix Corporation) with the scope to integrate information

on vacant houses nationwide. Further, it was reduced the tax on capital gains for the use of land for public works projects and there are consultations for the modification of the nation's Fund Management Plan with the scope to expand loans for the maintenance of vacant houses.

- regarding the “More elderly-friendly transport” policies, it was introduced the compulsory use of low-floor buses and consultations are underway to revise the Act on Promotion of the Transportation Convenience of Mobility Disadvantaged Persons. Lastly, it was created a fund for local government to foster the use of demand-responsive vehicles in regions with low passenger demand.

Currently the Task Force (in its third round) is focusing on four main strategies: 1) absorbing labour shortage shocks caused by demographic changes, 2) responding to the shrinking society, 3) taking pre-emptive action against possible local extinction, and 4) improving the sustainability of the society as a whole. Specific policy measures to prepare the Korean society to population changes target four defined categories - women, elderly, local citizens, and general public - and include (MOLIT, 2021^[3]):

- Women: measures to facilitate developing or maintaining a career, also finding more career opportunities and improving employment conditions, as well as to reduce household burdens.
- Elderly: measures to provide more opportunities to senior citizens who want to work to be economically active and increased access to health care and nurse care services after retirement (e.g. through at-home medical centres and use of ICT).
- Local citizens: incentives to maintain and attract talents and skilled workers in regions (e.g. national universities acting as regional growth hubs and fostering of lifelong vocational education in colleges linked to regional strategic industries; region-specific pilot visa projects to attractive skilled foreign nationals), and development of regional hub cities and development of community infrastructure between regions.
- General public: measures to provide more opportunities for capability development, protect workers and employment, protect families and households, develop skills and digital education, improvement of demographic statistics infrastructure and composition of research teams for demographic policies.

Actions and measures deployed by the Population Policy Task force to deal with demographic changes and regional development in Korea will be outlined in more detail in the next sections of the chapter.

The Presidential Committee for Balanced National Development, the Prime Minister's Committee for Quality of Life, the Presidential Committee on Ageing Society and the Population Policy Task Force will develop the foundation for new strategies to support rural and regional development that will in turn lead to new policies that will be introduced by appropriate ministries. A number of these strategies have already been developed and can provide a means for improving the co-ordination of policies and programs introduced by relevant ministries. These include: i) the Strategy for Balanced National Development, ii) the New Deal Strategy, the Comprehensive National Territorial Plan.

Korean's Strategy for Balanced National Development

To tackle current trends and challenges such as low growth, polarisation, low fertility, population ageing and localisation, the government is pursuing sustainable and balanced national development OECD Regional Outlook 2019.

The Korean Government's “Vision and Strategy of Balanced National Development”, published in February 2018, sets the goal of “establishing a regional-led independent growth foundation”. To do so, the document put a special emphasis on decentralisation, inclusiveness and innovation, and identifies three major strategies to be developed within a “Five-years Plan for Balanced National Development” (Development, 2020^[4]):

- People-oriented strategy (stable and decent life in all the regions). 1) Retain talents in regions linking education and jobs locally. 2) Strengthen regions' cultural assets to contribute improving leisure and job creation. 3) Strengthen regions' health and welfare system to ensure a happy and basic quality of life anywhere and to enhance regions' attractiveness.
- Spatial strategy (vitalising regional space). 1) Revive agricultural and fishing villages that are suffering from population decline and ageing. 2) Develop an urban regeneration new deal. 3) Improve settlement conditions in all regions.
- Industrial strategy (regional innovation and job creation). 1) Establish new growth engines in the regions through "innovation cities". 2) Promote industries locally through fostering i) local mid-sized companies and local star companies, ii) youth-friendly industrial complex and iii) investment in human capital and equipment. 3) Enhance the vitality of the local economy through the valorisation of local assets.

Korean's New Deal Strategy

The Korean New Deal was introduced as a national development strategy to support the country's recovery from the pandemic crisis and lead the global action against structural changes. Its three main objectives are: 1) Create jobs (not only government-supported jobs for low-skilled workers, but also jobs that support the structural transition towards a digital and green economy). 2) Build infrastructure for a digital and green economy that will restore investments and support job creation. 3) Set the groundwork for Korea to adapt to structural changes in the post COVID-19 era. This plan forms an institutional basis on which a digital and green economy can be supported.

To this end the government plans to introduce two main policies – the Digital New Deal and the Green New Deal – and an overarching policy to strengthen the employment and social safety net.

- With the Digital New Deal, the government plans to build large-scale ICT infrastructure including a 'Data Dam,¹⁵' which serves as the foundation for a digital economy. This promotes a data-driven economy including the collection, standardisation, processing and combining of data, and ultimately secures a competitive advantage for the country by creating new industries and accelerating the digital transition of key industries.
- At the same time, Korea's Green New Deal aims to achieve net-zero emissions and accelerates the transition towards a low-carbon and green economy. To this end, the government plans to build eco-friendly energy infrastructures that promote energy saving and an increased use of renewable energy. The mobility, energy, technology and other types of climate-friendly industries will be strengthened in all possible ways.

The government intends also to establish a 'future-oriented job training system' by investing in human resources, thereby allowing a smooth transition between occupations and nurturing talent for innovation (MOFA, 2020^[5]).

Korean's Comprehensive National Territorial Plan

The Ministry of Land, Infrastructure and Transport (MOLIT) is the leading ministry to draft the Comprehensive National Territorial Plan (CNTP). As a long-term overarching regional development plan, the CNTP is a vehicle to encourage inter-ministerial co-ordination and to align subordinate regional plans. Since the enactment of the National Land Planning and Utilisation Act in 2003, replacing the Urban Planning Act and the National Land Use Management Act, the Korean spatial policy has expanded its scope to include non-urban areas along with urban areas, thus allowing rural policies to have a territorial perspective. According to this comprehensive perspective employed in the CNTP, the ministry is leading the nation's balanced development across regions. The newly begun fifth CNTP (targeting 2020-40, formulated in December 2019) proposes a vision "Our land, shared future: Towards balanced, smart and

innovative cities and regions for all". The new plan puts the priority on people living on the national land, shifting the focus from the land itself. Along with the three major objectives to make the territory balanced, smart and innovative, the plan presents six implementation strategies: i) Facilitate regional development in a way that enhances local identity, based on solidarity and co-operation. ii) Innovate regional industries and promote culture and tourism. iii) Build safe and liveable places for all generations. iv) Create quality and eco-friendly spaces. v) Ensure efficient infrastructure operation and smart territory. vi) Bring peace to the national territory and connect the continent with the ocean. For regional development, focal points include achieving compressed development through spatial rearrangement, strengthening competitiveness through inter-regional linkages, nurturing hubs for balanced development, like innovation cities, and seeking shared prosperity between the Seoul capital region and the rest of the nation (OECD, 2021^[2]).

Policy implications for regions and rural areas

Moving to the policy and program stage requires a comprehensive assessment of how demographic decline, in conjunction with other major changes in society and the economy are influencing opportunities and constraints in the different parts of Korea. These changes include: climate change, technological change and broad social changes. This section of the chapter introduces some of this context.

Context

Demographic decline reduces the possibility for one of the main drivers of economic growth – an increase in the number of workers. This means that in countries and regions where the workforce shrinks, increases in productivity will be required just for current levels of output to be maintained. In those countries and regions where the current labour force participation rate is relatively low, an obvious strategy is to increase participation rates, particularly for females and for those now only weakly attached to the workforce. Attracting immigrants to a country is another obvious way to increase the size of the national labour force. Within countries some regions will be able to attract internal flows of workers, either on a temporary or permanent basis, to increase their labour force. But obviously this leads to fewer workers in other regions. Nevertheless, internal flows may be an effective way to increase productivity if workers are more effective in a different region.

In general, a smaller workforce will require more skills, and the relative scarcity of labour will lead to more investments in equipment and technology to maintain efficient output (Goodhart and Pradhan, 2020^[6]). Rural regions have historically had relatively limited skill development programs and have a larger share of lower skilled workers, making both the need for, and potential value of, investments in skill development high. Similarly, opportunities for good jobs for women in rural areas and good quality childcare facilities have been limited, once again providing an opportunity. Significant increases in their labour force participation rate will require major adjustments to skill development and family support programs. Many of those now marginally attached to the labour force will require skill upgrades to increase their wage potential and encourage greater engagement. For women, a key impediment to labour force participation is often inadequate access to child support, especially for young children. Providing ready access to good and inexpensive childcare can provide two benefits – greater female participation and a modest increase in fertility rates. Finally, for rural regions it will be important to provide a higher quality of life by improving the standard and variety of services than is often now available, if they are to attract new workers and stem the flow of out-migrants.

Local, regional and national governments will play key roles in facilitating adaptation to a smaller workforce and an older society. Clearly more people and facilities will be required to care for older citizens, especially if families are less able to provide this care due to increased participation in the formal economy. Those local governments experiencing the greatest reduction in the number of workers and large declines in

economic activity will face major challenges in providing new services and in making investments in appropriate housing for the elderly. At the same time, ongoing expenditure on education and basic public services will still be required and may even be more expensive to provide due to lost economies of scale, particularly in rural regions. With a need for major new investments and a shrinking revenue stream, local governments will face major challenges in identifying, funding and implementing a set of initiatives to restructure their economy and community. National governments may have to provide new sources of revenue and additional authorities to local and regional governments for this transition to occur.

Economic restructuring, as some sectors decline while others grow, in conjunction with ongoing major employment changes due to e-commerce, has already made many careers obsolete and changed levels of demand for various goods and services. This, in conjunction with future reductions in the number of workers, suggests that the comparative advantage of many regions will be different in the future. More recently, the COVID pandemic has altered assumptions about the benefits of globalisation and high-density urban living. Collectively these changes may lead to new opportunities for rural economies, but taking advantage of them will require significant investments, in people, firms, public services and infrastructure.

Thus, for national governments in the OECD, the question of demographic decline in their regions and rural territories is a crucial question - because it has a number of important public policy dimensions. The next sections will discuss three key policy areas where a falling and ageing population has important impacts, notably:

- workforce impacts
- social impacts
- governance impacts

As always, how rural is defined will have a large influence on the magnitude of the problems associated with rural demographic decline.

Workforce impacts

National and regional economies in OECD countries face adjustment pressures from multiple sources in addition to demographic decline. These include: climate change mitigation; the increasing importance of the internet economy, which affects retail, communications, and the organisation of work; and a continuation of a shift to a more service-based economy. Most recently it is clear that COVID has had a large short-term impact on both employment rates and how work is organised, but it remains uncertain how long these effects will last. In combination these factors are changing the role and operating practices of virtually all industries, whether they are located in urban or rural regions.

Rural regions are exposed to these forces in different ways than are metropolitan areas. Historically, most rural regions have always experienced high rates of youth outmigration as many people entering the work force left for better jobs in urban areas. This is particularly the case for more educated youth, particularly young women (Leibert, 2016^[7]) (Sano et al., 2020^[8]) (Wiest, 2016^[9]). Rural areas have also experienced difficulty in attracting foreign immigrants to supplement low rates of natural population replacement. Businesses in rural areas are challenged by: capital market imperfections that limit access to debt and equity finance, less access to input suppliers that increases input costs, and higher transport costs to ship products to large urban markets. The low-density economy of rural areas has led to greater specialisation in tradable goods, such as natural resources and manufactured products, and a relatively high cost for providing both public and private services (OECD, 2016^[10]). While widespread access to broadband in rural areas may offset many of the rural challenges of: low density, distance and weak economies of scale; and may ultimately provide greater advantages to rural communities than to large urban ones, this is not the case today (Weber and Freshwater, 2016^[11]). Further, economies of rural regions are more directly connected to nature than are the “built environments” of urban areas. This makes rural regions more

exposed to both the effects of climate change - droughts, floods, frosts and excess heat, and to efforts to mitigate climate change - carbon taxes, higher cost energy, restrictions on water use, and environmental protection requirements. Finally, COVID has disproportionately affected rural areas in terms of: fewer opportunities to work at home, a greater share of workers who are considered essential, and less access to health care facilities (OECD, 2020^[1]).

National governments play an important role in labour markets by providing policies that can: enhance the supply of labour by increasing the number and skills of workers, influence the demand for workers by stimulating business starts and expansions, and facilitate the workings of labour markets to better match workers to employers. Historically these Active Labour Market Policies (ALMPs) have been mainly employed in times of high structural unemployment when long-term unemployment rates remained persistently high (Box 2.1). However, they can be an effective way to develop policies to address a different structural labour market problem – a reduced supply of labour. It is important that any such policies be spatially sensitive, because not only are the labour market problems different in urban and rural areas, but so will be the appropriate responses and mechanisms to resolve them. Multiple OECD countries already have some experience in addressing labour market imperfections in rural areas, and their experiences can provide a foundation for constructing policies to reduce the workforce impacts of more widespread demographic decline.

Box 2.1. Demographic decline and Active Labour Market Policies (ALMPs)

Demographic decline has broad impacts on the economies and social relations of nations in addition to requiring major adjustments in government policies. One way to organise thinking about these impacts and appropriate policy responses is to examine the effect on local/regional labour markets and frame policy responses in the context of active labour market policy (ALMP). Because ALMP has three dimensions, labour supply, labour demand and improving the workforce matching process in a context of structural change, it is capable of dealing with many of the effects of both demographic decline and the impacts of rapid technological change. While ALMP is often implemented as a national policy, it is more useful in a regional context where labour markets are both, better defined in terms of skills and quantities of workers, and more tractable in terms of identifying interventions to improve their performance. At the regional level ALMP is in many ways an alternative framework to understand the constraints and opportunities for local economic development.

Demographic decline affects the number of workers available for employment and the types of employment opportunities that will be available. This in turn affects the skills that workers will require to be employed and providing sufficient workers with these skills will determine, in part, whether the structure of the local/regional economy can adapt to the new situation. But other important factors are affecting labour markets at the same time – including technological change in the form of internet impacts, robotics and social media, the growing concern with moderating the effects of climate change, and adjustments to global trading patterns. While these changes are less directly influencing regional labour markets, they individually and collectively alter the future prospects for every region, albeit in different ways.

In rural areas, crucial change has already occurred. Several decades ago, in periods of higher fertility rates in rural areas, a common problem was a surplus of workers with traditional skills who were reluctant to relocate to other regions when work became scarce. This pool of surplus labour contributed to: lower incomes in rural regions, higher rates of unemployment and social malaise. The main labour market problem in this period was to find ways to improve employment prospects by a combination of: encouraging outmigration, providing skill development programs and stimulating new sources of employment by inward investment and encouraging local entrepreneurs.

After several decades of falling fertility rates, many rural regions no longer face a surplus labour problem, but instead face a labour shortage. In addition, in many rural areas levels of employment in agriculture or other natural resource-based industries have declined and the remaining workers now require higher levels of formal education and skills than in the past. Without training a considerable share of lower skilled workers remain unemployed, even where employers experience staff shortages. Moreover, demographic decline has increased the share of older people in rural regions and this has created a new demand for workers to serve their needs, but once again there are few people with appropriate skills. Consequently, the current problem is a shortage of workers, especially in fields that require technical skills. And, paradoxically, in some areas a surplus of lower-skilled workers who are too unproductive to meet employers' needs.

In the case of Korea one of the more pressing structural changes facing labour markets is rapid demographic ageing (OECD, 2020_[12]). While the problem is serious in urban areas, it is particularly significant in rural areas. Most rural regions start with a larger share of the population being older as a result of constant youth outmigration, particularly females. Even with the present level of lower fertility rates expectations are that there will still be a significant outmigration by rural youth, particularly those with higher levels of education. To date return flow from urban to rural areas have not been large enough

to offset outmigration. Moreover, to the extent that inflows are largely retired people this may exacerbate existing worker shortages.

Employment in rural areas is also more likely to be in smaller companies or self-employment. These jobs are often less than full-time and can provide few benefits, particularly pensions. As a result, employment opportunities in rural areas are more fragile and offer less compensation. This can lead to outmigration for those with higher skills and lower rates of labour force participation by the less skilled because the returns are low. Korea also has the largest share of over 55-year-olds still in employment in the OECD, and the highest share of elderly in relative poverty (OECD 2020, p. 71), and these shares are likely to be higher in rural areas. Efforts to increase the share of females participating in the labour force in rural areas of Korea may also be challenging. In rural areas there are fewer formal care facilities for either children or the elderly, which increases the burden on families, particularly women and may prevent them from seeking formal employment.

The core ALMP strategy of reducing skills mismatches between worker capabilities and employer needs may also be challenging in rural areas. Improving worker skills through either formal training or apprenticeship programs is more difficult. Small population rural regions may not be able to support a technical training institution and where there is one it may not be able to offer courses because the number of potential applicants or job opening is too small. Smaller SMEs may not be willing to use apprenticeship programs either because they cost too them much, or they fear that graduates will leave for a higher paying urban job. Similarly, employment matching services in rural areas face the challenge of at best a small pool of qualified people for any skill and a set of employers who may have limited need for additional workers. While rural employment matching services could encourage workers to seek jobs in an urban region this would contradict the objective of fostering local growth.

Source: Own elaboration.

Future economic growth will hinge to large extent on how two somewhat conflicting forces affect labour markets at the national and regional level.

Technological change has tended to lead to higher levels of capital replacing labour in new production approaches that are reshaping major sectors such as, retail, manufacturing and natural resource production. While technological change is having large impacts on some aspects of the service sectors, it has yet not reduced the role of labour for those services that are delivered directly to customers. In general, though, technology has led to a reduction in the need for workers with moderate skills who perform tasks that can be automated or eliminated by machines or completely new approaches.

Conversely, demographic decline leads to a reduction in the supply of labour as there are fewer new entrants to the labour force than the number of workers who leave for normal retirement or other reasons. Once again there are important nuances to the nature of the labour force. Workers may not leave at the usual retirement age if they have inadequate pension income, or employers provide sufficient inducements to work longer. New entrants to the labour force may commence work at a later age if they remain in school, or other forms of skill development. Women may increase their participation rate in the labour force if they are provided with higher pay and better childcare opportunities. But women may not enter the labour force if they face greater responsibilities of caring for multiple aged relatives, as has become increasingly common with smaller families and as older people live much longer.

How these two forces will interact will be important for labour market outcomes and productivity and economic growth at the national level, but particularly at the regional level where supply and demand mismatches and inefficiencies in the matching process can limit the well-being of households and communities. Addressing the specifics of workforce supply and demand conditions will require targeted approaches that are specific to a region, but it is possible to identify some general characteristics of the problems and opportunities that are emerging.

Changing supply of labour

The size of the local labour force in most regions will shrink, except in those regions with a high influx of migrants. In general, we also know that the average age of workers will increase over the next decade. This means the work force will be physically less capable, but have more experience, so the impact on productivity is ambiguous. Because the ageing transition is a slow process it can give firms and government a chance to ensure that incoming workers develop the necessary skills to replace those outgoing workers whose roles are most important. Fortunately, technological change in those sectors where it is most prevalent seems to be biased towards reducing the quantity of labour required. However, an ageing population means that a larger portion of the workforce will be employed in various forms of elder care, which is also unlikely to see large increases in worker productivity.

In rural regions, youth out-migration is likely to continue, but the effects could be mitigated by efforts to encourage younger workers, especially those who wish to attain post-secondary education elsewhere, to return to their place of birth. This will require finding ways to motivate those leaving to return after completing training and gaining some initial work experience. Key to success in triggering return flow will be ensuring that employment opportunities in rural places are available for higher skill individuals. Workers are also likely to need ongoing skills upgrades over their working life to keep up with advancing technology. Providing effective skill development has always been a challenge in rural areas because of small numbers in any cohort and uncertain future demand for specific skills in a small economy. Technology associated with e-learning schemes offers a possible way for rural areas to resolve the challenge of providing skill development opportunities.

One way to improve the supply of labour is to reduce outmigration and attract new workers by making rural communities more attractive. Two programs introduced by Korea focus on making rural places more desirable locations for people to live. The first is Creating Happy Living Zones.

Creating Happy Living Zones in Korea

A regional co-operative approach to enhance quality of life has been increasingly mainstreamed in the Korean regional policy and adopted at a larger spatial scale. A new spatial concept, Happy Living Zones, was introduced in 2013 as a basis for regional development policy. It aims to enhance peoples' happiness and quality of life by encouraging co-operation among local governments beyond jurisdiction. Three types of zones were formed according to the shared characteristics and conditions of local municipalities, such as geography, local industries and historical background. These include: Rural zones (with a population of approximately 100 000 inhabitants); Rural-urban zones (with small- and medium-sized cities of 100 000 to 500 000 inhabitants); Metropolitan zones (with a population of more than 500 000 inhabitants). The zonal development plan is designed and implemented by the association of local governments in the zone. It covers various inter-local co-operation projects such as economic revitalisation, education, culture, welfare and basic infrastructure, which then are fed into the provincial and national five-year regional development plans. To support the formation of the Happy living zones and implementation, the central government had provided a broad range of support schemes such as co-ordinating local governments with funding through a special account for regional development, consulting and technical assistance, and deregulation (OECD, 2021^[2]).

The second involves Revitalising Rural Hubs: networks among rural villages.

Revitalising Rural Hubs in Korea: networks among rural villages

Lower quality of life in rural areas, compared to urban areas is one of the key policy concern in Korea. In addition to the commitment to the national minimum for the basic service provision in rural villages, the government has adopted new approaches to improve the availability and accessibility to the services for rural residents. Focused investment to rural hub towns and networking surrounding smaller villages allow

village residents to access to broader services. The use of networks among rural villages is emerging as an effective and efficient policy to build sustainable living environment in rural communities. The rural hubs revitalisation project has been promoted since 2015 by MAFRA, reorganising predecessor projects focusing on infrastructure and property development. In response to the increase in depopulated villages, the new project aims to improve residents' livelihoods by linking with towns which can function as rural hubs and providing neighbouring villages with various services including educational, medical, cultural, welfare and business. Public supports are focused on improving basic living infrastructure in general village districts and, in contrast, larger investment is made in leading districts so that they can function as a region's business and service hub. Until 2016, 33 leading districts have completed basic planning and they are in the implementation stage (OECD, 2021^[2]).

Labour demand

The combination of technological change and shrinking work force will alter the pattern of demand for workers, as some types of job disappear and others grow. In any region the types and size of employers may change significantly further altering the local labour market. Also, in a dynamic economy incumbent firms may face major challenges from new entrants, making it important that each region try to foster entrepreneurial activity, especially in areas where it has a competitive advantage. In a time of turmoil local support for business retention and expansion can provide support for businesses that may otherwise contract or close. Efforts to recruit new residents could also try to target potential entrepreneurs or individuals who might consider relocating their business to a new location.

With a shortage of workers, a logical outcome is an increase in wages. However, higher wages may not lead to large increases in the supply of workers in many regions because of a general process of demographic decline. Instead, higher wages may encourage firms to alter production processes to reduce the amount of labour they require. In the recent past when rural regions experienced a worker surplus, the substitution of capital for labour was seen as having negative consequences for employment. Now, however, firms should be encouraged to make these adjustments where they are possible, and especially if they improve competitiveness by reducing production costs or improving product quality.

Rural areas typically have a relatively large number of temporary, seasonal or part-time jobs, many of which are in core industries like agriculture or tourism. Any extension of the season when this type of employment occurs would help make these jobs both more attractive for workers and increase the viability of firms by expanding opportunities to generate revenue. Since these industries are usually part of the core tradable sector, maintaining their viability is crucial for the local economy. Finally, with fewer workers in the region it may become more difficult for firms to find vital seasonal workers. Because seasonal work is both essential for the local economy but also leads to under-utilisation of workers, a potentially important local strategy is to identify complementary new seasonal work opportunities. Seasonal employment in two different sectors that operate at different points of the year can create the equivalent of full-time employment and more fully utilise local workers.

Improving employment opportunities can involve a number of approaches, such as strengthening core rural industries, typically agriculture and fishing and their associated first-stage processing activity. Or it can involve encouraging innovations in rural areas that can increase productivity and competitiveness. Korea has introduced a number of these programs. They include:

Korean's Basic Plan for Improving the Quality of Lives of Farmers and Fishermen

Complementing the economic development efforts spearheaded by the Presidential Committee on Balanced National Development, the Prime Minister's Committee on Quality of Life brings specific focus to the well-being of rural dwellers in farming and fishing communities. This committee oversees the execution of the Basic Plan for Improving the Quality of Lives of Farmers and Fishermen, a five-year plan to improve the quality of life in rural areas. In 2010, the government introduced rural services standards

(e.g. good access to medical and other basic public services) to guarantee a high quality of life for rural residents and narrow the gap between cities and rural areas. The scope of the policy has been expanding from basic services to cover more various sectors such as culture and leisure, environment and landscape, and safety of rural residents. The plan, including comprehensive policy measures, is developed through consultations with relevant ministries and rural stakeholders, and finalised through the review and deliberation of the Committee (OECD, 2021^[2]).

Korean's Agriculture and Rural Community and Food Industry Development Plan

The Ministry of Agriculture, Food and Rural Affairs (MAFRA) is a key ministry in regional rural development in Korea. The Framework Act on Agriculture, Rural Community and Food Industry mandates MAFRA to formulate the Agriculture and Rural Community and Food Industry Development Plan every five years. The plan provides the policy directions which covers not only the agricultural sector but also the broad policy measures on rural development. The most recent policy plan for 2018-22 sets four main policy targets: strengthening the income safety net; innovation for sustainable agriculture; enhancing food safety in the supply chain; and improving rural welfare. Strengthening competitiveness and growth of agriculture by enhancing agricultural productivity has been a core goal of agricultural policies in Korea. The most recent five-year policy plan diversifies the objective of agricultural policies to address more varieties of societal demands towards agriculture and rural areas. The new policy plan shifted the orientation of agricultural policies further to ensure income stability and quality of life of farmers as well as the balanced development between agricultural production and environmental conservation. It also foresees a strengthening of bottom-up participation in policy (OECD, 2021^[2]).

Korean's Basic Plan for the Development of the Sixth Industrialisation

As a part of an income diversification strategy, the so-called "6th industrialisation policy" has been implemented to promote the production of high-value-added agricultural products through the expansion of farm operations to processing, marketing and tourism. Since 2014, the government has installed 6th industrialisation support centres in 10 regions to investigate the development of 6th industrialisation activities and undertake business support projects. The government also established the 1st Basic Plan for the Development of the 6th Industrialisation (2016-20) and introduced the certification system of 6th industrialisation for business operators with a potential to lead the process and to foster outstanding enterprises. In 2016, 1 130 business operators received the certificate. The basic plan has a target to maintain the sales growth rate of certified business operators at 5% by 2020, to increase the number of 6th industrialisation start-ups from 1 600 in 2016 to 3 000 in 2020, and to increase the number of rural tourism visitors from 6 to 8 million during the same period (OECD, 2021^[2]).

Improving labour market matching functions

In a period of employment instability, it is important that the matching function of labour markets work well. In rural regions "word of mouth" and personal recommendations play a large role in matching workers with employers in the local labour market. This informal process should be supplemented by more formal mechanisms, either operated by private employment services or by government.

With demographic decline better co-ordination among various local labour markets will become more important if workers are to be matched with the best opportunities for their skill set, which may be outside their current labour market. Improving the ability of people to relocate, to a rural region, will be beneficial to the individuals, employers and the nation. Improvements in ICT technology has allowed far more workers to tele-work and this trend has increased rapidly during the COVID pandemic (Gallardo and Whitacre, 2018^[13]) (OECD, 2020^[14]). Similarly, decreases in travel costs and increases in the frequency of connection time has led to a rise in long-distance commuting (Markey, Ryser and Halseth, 2015^[15]). Both these trends have important implications for labour markets in rural regions (Box 2.2).

Box 2.2. Tele-Work and Long-Distance Commuting

Most workers live and work within a short commuting distance that allows a daily commute of about one hour or 100 km. While commuting times can be considerably longer in large metropolitan areas due to congestion, and considerably further in rural regions due to greater population dispersion local labour markets account for the majority of employment. However, there is an increasing number of workers whose employment lies outside this norm. The two most obvious examples involve either long-distance commuting where workers travel a long distance to their place of work and only return to their residence after an extended period of time, two or three weeks; and the other is tele-work where the work is carried out at home for a geographically distant employer. Most recently COVID has increased the number of tele-workers, as employers who once required the physical presence of employees at their business are now encouraging or requiring workers to work from home.

Both practices have offered employment opportunities for rural workers when local jobs are not available that match their skills.

Tele-Work

Tele-work depends on the ability to use electronic communications to link the worker to the employer or customer. Widespread access to high-speed internet has expanded both the demand for tele-work provided services and the capacity of more places, including most rural regions to host these workers. Tele-work should be distinguished for “call centres” where workers provide similar functions but are all physically located at the same company provided site.

Long Distance Commuting

An example is a decades long commuting flow of workers from Atlantic Canada, particularly Newfoundland, to northern Alberta to work on construction projects in the Alberta oil sands (ref). Workers stay in company dormitories for two to three weeks and then fly home for a similar length of time but are replaced by another shift of workers. This “fly-in, fly-out” cycle avoids having to build a new settlement and attract households for jobs that, while they have lasted for many years, would end when construction is finished and a much smaller labour force is required to operate the oil extraction process. The home communities benefit from the inflow of relatively high earnings that support local business and institutions.

Other examples of this type of long-distance commuting include:

Specialised crews of workers that install the turbines for wind farm or solar arrays. In both cases the installation process requires skills that are not required for operation, so it makes sense to bring workers to a site for several months to complete the task.

The traditional travelling sales, or product repair, representative of a company, who covers a large geographic area, where demand is too infrequent to justify a local provider but large enough to justify a semi-regular presence.

Long distance transport workers, including: truck drivers, airplane crews, and train operators. In these cases, people can live in a location that is largely unconnected from their workplace because their workplace is inherently mobile.

Active-duty military who are stationed far from their homes and often in places where family is not allowed to be in close proximity.

While workers in these jobs can reside in an urban or rural community, they may be more attractive to rural residents because of the more limited potential for a local job that offers a similar income. People

with these careers may be attracted to a rural lifestyle because it offers a more attractive location and lower cost of living. In some cases, only rural places that have reasonable proximity to a major airport to rail hub can expect to host these types of workers, but for truck drivers, military families or construction workers more places have potential.

Local labour markets are defined by the daily commuting patterns from place of residence to place of employment. The people within a given local labour market reflect the potential labour force both in terms of numbers, professions and skills. In metropolitan regions the local labour market consists of a large number of employers and workers with a broad range of skills both available and required. Consequently, both employers and workers find it relatively easy to find an acceptable match between worker and job. Demographic decline may make the matching process a bit more complicated as the workforce shrinks, but the adjustment should be manageable, particularly if in migration from rural areas continues. Rural labour markets on the other hand have a small number of workers and a relatively narrow set of skills, which can make it difficult to adapt to shifts in employer labour requirements.

Source: Own elaboration.

Clear opportunities exist in better co-ordination of part-time or seasonal work, but this requires a more sophisticated matching capability. If individuals can co-ordinate a number of part-time jobs, they can earn the equivalent of a full-time income. An important contribution to this type of solution will be better co-ordination of worker benefits, so workers with less than full-time work at a single employer have equivalent access to benefits. Better labour market co-ordination may help attract women who have home care responsibilities that do not allow full-time employment into accepting part-time work. In some cases, job-sharing may be an attractive option for both workers and employers if a mechanism is in place to co-ordinate the process. Similarly, older workers may be interested in part-time or seasonal work and "job sharing" as a transition to retirement. Matching services can ensure that employers have the equivalent of a full-time worker even as workers are engaged in less than full-time work.

In rural areas firms or governments may need a worker with a particular skill, but only on a part-time basis. However, without full-time employments there is little incentive for a person with those skills to accept a job in a rural area. Potential solutions to this may include several employers agreeing to jointly hire an individual on a full-time basis (Box 2.3), an employment service or consultancy hiring the person and contracting with local employers, or an entrepreneurial individual recognising the opportunity to co-ordinate multiple part-time positions into a full-time equivalent. While there are multiple possible solutions they all require some way to identify the existence of a latent demand by a sufficient number of employers to support a full-time equivalent position.

Box 2.3. Sharing Services Across Multiple Communities

Many rural places are too small to offer full-time employment to a skilled professional who provides a specific private or public service. But the absence of this service creates a major problem for households, businesses and local government institutions that affects both economic viability and the quality of life. Typically, the function played by the service provider is not so infrequent that the demand occurs sporadically, which might allow a consultant to be hired, but is not frequent enough that an individual could earn an adequate living by only working in the community.

Several creative ways to resolve this type of problem have been developed in rural areas across the OECD. In Newfoundland Labrador, Canada, five small communities on the Labrador coast jointly employ an individual to operate and maintain their individual water treatment facilities. While each community has its own water plant none is large enough to require a full-time person, but regulations require that a certified operator be employed. Sharing the cost of hiring the operator results in lower costs for the communities and a full-time equivalent income for the person. Individual skilled trades providers adopt a similar approach by providing regular services in a number of small communities that are relatively close together. An electrician or plumber will schedule multiple appointments in one place on a specific day and appointments in other places on different days. Emergency services are provided as needed, but typically with some time lag due to longer commutes.

Mobile services offer another option. For example, mobile libraries were once common in rural areas of North America with a central library bringing a large bus full of books on shelves to small settlements on a weekly basis. The same approach was used for diagnostic health care, by using a bus or trailer fitted out with medical equipment, to bring services to people, rather than forcing them to travel a long distance to a central location.

In Korea the Rural Hub program achieves a similar goal by concentrating services in a single village that is near a number of other villages that can then take advantage of the improved services. While those outside the hub village have to incur travel costs that are able to access multiple services in a single trip and if services are of higher quality and/or a greater variety of services are available with consolidation their living conditions are improved.

Source: Own elaboration.

Social Impacts

The social impacts of demographic decline are significant, particularly in rural areas where family ties remain stronger and people rely more on their immediate and extended family to provide services that are often either purchased or provided by government in cities. In this environment increasing female labour force participation rates will have the consequence of reducing the ability of women to continue to provide family or household-based services including, childcare, elderly care and voluntary work. While demographic decline leads to fewer children it also leads to more elderly who require different services, and unlike the case of children, whose service needs decrease as they age, with the elderly service needs increase with ageing.

In OECD countries, the role of services, provided by government or by investor-owned firms and non-profit entities, has become a major part of the economy. Many services that in poorer countries are provided within the household or do not exist are now widely available. As a result, the service economy provides the largest share of employment in rural areas of all OECD countries, but accessing many services is a particular challenge in most rural areas, particularly those far from an urban centre. Low levels of demand

prevent rural service providers from achieving economies of scale and lead to higher per capita costs than is the case in urban areas. Long distances between users and providers result in high transportation costs that are born by users either directly or through higher charges by the provider. Finally, low total demand for a specific service in a rural region often leads to a single or, at best, a few providers, and that in turn precludes both the price reducing effects of competition and limits choice.

Ready access to services is now a central part of a high quality of life in OECD countries, and the availability of services in a community or region is central to its ability to attract both migrants and business investment. While national governments may choose to subsidise public services in rural areas out of a concern for equitable access or social cohesion, entrepreneurs and corporations will only operate in a rural area if the profits from their investment are high enough to remain active. Because private services provided by for-profit firms are less viable in rural areas there is a greater role for governments, and especially for the voluntary or non-profit sector, in supporting both the level of well-being and in creating an environment that supports economic growth.

Public Services

Education

Historically, due to smaller enrolments and less funds, rural schools have provided a narrower set of opportunities for learning than have urban schools, with many schools providing only a weak base for future learning. Poor skills tend to lead to weak attachment to the labour force and low incomes, and this can reduce opportunities for marriage and contribute to social exclusion and other social problems. Moreover, in some rural areas children and their parents have not fully accepted the need for a strong education system, and consequently there are high rates of school dropout, particularly by boys. In part this reflected low returns to education in rural areas when an excess supply of labour held down wages and employment opportunities.

Now, as the number of children declines, the importance of a strong education system will increase, because it will be even more important that formal schooling provide a strong foundation for skill development and life-long learning. Existing trends of employment requiring higher levels of numeracy, critical thinking and analytical capacity are likely to be reinforced, as workplaces substitute for scarce labour with more technology and equipment. Traditional resource-based industries, such as, agriculture, forestry and fishing, point in this direction. For decades, in these industries the adoption of machinery and biological innovations have increased productivity and allowed large reductions in labour, even as output has increased. But much of the remaining work force in these industries now must have much higher levels of formal skills that are based on a foundation built during the years of formal schooling.

Health Care

With increased age people tend to make greater use of hospitals and other forms of health care. In addition, their health problems become more complex and require specialist providers. While many rural areas may have reasonable access to primary care services, they do not have local providers for complex surgery or the many health problems of older people. These tertiary care facilities and the specialists who work in them are only found in larger urban places. As the number of older people in rural areas increase this service gap will become more evident, but it will not be addressed by building rural tertiary care facilities. Instead, alternative means of provision will have to be developed, largely based on tele-health and specialised transport.

Social Services

Governments provide a range of social services, including: recreation and cultural opportunities, counselling, welfare support, housing and libraries, for example. As the demographic structure of a

community changes, the relative need for social services also changes. As local populations age the need for active recreation sites and job counselling will decrease and the need for assistance for the elderly and elderly housing will increase. Even in wealthy communities restructuring the mix of services will take considerable time to develop new programs and find appropriate facilities and staff to implement them. In poorer places the challenge is greater. And in poor rural places, where historically families have self-provided social services but may no longer be able to, due to increased formal work responsibility and fewer family members able to help, the challenge will be extreme.

In particular, a high and growing ratio of elderly in the population of a rural community can lead to social exclusion if social service cannot keep up with the increased demands. Similarly, if rural families are pressed into trying to provide elderly care that is beyond their capacity to do so because social services are not adequate, this will lead to increases in family stress and to lower rates of labour force participation.

Box 2.4. Service Provision

Services can be provided through three different mechanisms – private for-profit firms, governments, or private non-profit organisations and firms. Typically, economists focus on either governments or private firms as service providers and segment their roles on the bases of whether the activity is a mainly a private or a public good. Pure private goods or services are rival and excludable, whereas pure public goods/services are non-rival and non-excludable. However, many goods and services are mixed in nature having attributes of both. For example, vaccines protect both the individual but when large numbers of people are vaccinated all of society experiences a low rate of infection due to “herd immunity”. Similarly providing assistance to the poor clearly benefits them directly but for the rest of society it can provide a greater sense of social cohesion and a reduction in crime.

But in all OECD countries non-profit organisations provide a third way to provide goods and service. Non-profits do not have the ability to compel behaviour, as do governments when they raise taxes to fund the services they provide or when they require their use. Nor are non-profits motivated by the desire to at least some minimum level of profit from selling the service to customers. For non-profits, services are provided out of some combination of altruism or because those providing the service directly benefit from its provision. In many case one of the two motives is clearly paramount. Charitable organisation that provide aids to the poor do so out of a sense of altruism. Conversely, members of an input-supply farm co-operative join because they expect to directly benefit from pooling their purchasing power to obtain lower prices.

Unlike governments and for-profit firms, which have a strong incentive to control costs, in part by seeking economies of scale and standardising behaviour, there are more limited benefits for these actions by non-profits. For those motivated by altruism the larger the organisation the smaller the role for each individual, and the less likely each potential donor is to believe their actions make a difference or are needed. Similarly, for non-profits motivated by self-interest, such as a co-operative, as size increases there is a tendency for operating costs (employee expenses, facilities etc.) to grow disproportionately, which reduces the benefits from not buying from a for-profit competitor.

This suggests that non-profits may experience diseconomies of scale. One reason to believe this might be the case is that in OECD countries the non-profit sector plays a larger role in smaller towns and the rest of rural areas. In larger places services that are commonly provided through either individual volunteers or non-profit groups, are provided by government employees or private for-profit firms. Simple examples include: volunteer fire departments, unpaid part-time elected officials, local service clubs that support various activities that benefit community residents, credit unions and other non-profit financial intermediaries, and community-based health care organisations. In many cases these organisations exist because local governments and the population they serve are too small to generate

enough revenue to provide the service directly, in part because per capita costs are too high for serving small and dispersed population. Similarly, potential for-profit service providers that are found in cities are unwilling to operate in rural areas because the same factors limit returns on any investment.

This suggests that in rural regions one way to deal with demographic decline is to invest in stimulating various non-profit organisations that can supplement or replace, either government or for-profit firm provision of services. Shrinking and ageing populations will reduce the ability to deliver current services as they are now provided, while at the same time new services will be needed. However, bringing back a strong capacity for local service provision by community volunteers may not be easy, particularly when people are used to either government or private firms being providers. Further, a shrinking population means there are fewer potential volunteers, and an ageing population reduces both the number of potential volunteers while also expanding the demand for services. Finally, if labour force participation rates are to increase to offset a shrinking work force, it may be hard for people to find the time to volunteer.

Source: Own elaboration.

Third Sector

The third sector sits between government and investor-owned firms with profit objectives and consists of a variety of organisational forms. Some are more like a for-profit firm, such as, co-operatives or social enterprise, while other are more government-like in nature, such as, associations and community organisations. In rural areas they can be more common because either government or for-profit firms are not providing a service that people in the region want. As a result, the local population self-organises to provide the service itself. In rural areas the local government may not be able to provide fire-protection through paid fire-fighters. A local response is to form a volunteer fire brigade that is funded through donations by those who benefit from its services. Co-operatives, owned by member/customers can be formed to provide a grocery in a village where there is no other source of food. The co-operative can be viable because it relies on members for both capital and labour, and also because it does not have to generate a market rate of return for its investors. Members are willing to take on the task because they capture consumer surplus benefits from the enterprise as well as sales revenue. Several examples of such responses are provided in Box 2.5 and Box 2.6.

Box 2.5. Social enterprises

Social enterprise broadly refers to businesses that operate with a broader objective than profit maximisation. While these firms strive to cover their costs and retain enough earnings to make investments that allow them to replace and upgrade their production capacity, they are willing to accept a below market rate of return. In rural areas social enterprise is common when the community is too small to provide an acceptable rate of return to a conventional firm. Typically, residents of the community band together to create a business that they own collectively to provide a service that is of value to the investors and to the broader population. Because the owners of the business are also consumers of its output, they benefit directly from both the consumer surplus associated with access to the output and also any incremental revenue that exceeds the costs of production.

While in urban areas social enterprise often forms as a response to high charges by for-profit firms, in rural communities the driving force is an unwillingness by private enterprise to locate in the community because the potential return on investment is too low. Local co-operatives are a classic form of rural social enterprise but there are many other organisational structures that serve the same function. Social enterprises in rural areas includes: bakeries in rural France where a for-profit bakery closes and there is no source of fresh bread so residents jointly restart the bakery to meet their needs; convenience stores in rural Canada, where a small town loses its for profit gasoline station and small store, but local resident band together to reopen it as a social enterprise; or small villages on the island of Gotland, Sweden where households organised to jointly wire their homes for broadband when large private operators showed no interest.

In Korea the government created the Social Enterprise Promotion Agency (SEPA) in 2007 to promote and fund social enterprises (Doh, 2020). The aim of the agency is increase the number of enterprises providing social services to underserved populations and thereby stimulate both employment and an improved quality of life. By 2020 the program had supported 3125 new social enterprises (Doh 2017 p.2). Doh notes that those regions where more social enterprises were created tended to have higher rates of economic growth but was unable to establish a strong statistical relationship. The author suggests that weak statistical results may reflect a combination of, data limitations, omitted variables and a weak focus on regional economic growth in investments by SEPA.

Source: Own elaboration.

Box 2.6. Trangsviken Community Centre: Trangsviken, Jamtland (Sweden)

Trangsviken is a small community of less than 800 people located 43 km from Ostersund in central Sweden. One remarkable fact about the community is that it hosts about 80 distinct entrepreneurial ventures, including some that have a considerable number of employees. But earlier, in 1990, businesses were closing and the community hall had been condemned leaving no place for community meetings. A local group organised to build a new community facility and after a ten-year effort managed to build a new multi-purpose community centre that holds 17 different services, including: a chapel, meeting rooms, a day care centre, a performance auditorium, a pharmacy, a restaurant, a bank, and the community library. Because of its multiple functions it attracts hundreds of people every day and it has become the heart of the community and source of local pride.

The Trangsviken story shows that a small but committed group can have a large role in the fate of community, even though it may take time for success. The story also points out an increasingly common approach to service delivery in small rural communities. By combining both public and private services in a single facility they all became more affordable and co-locating them provides significant benefits to the local population because they can make one trip to accomplish multiple tasks. Finally, success in constructing the community centre contributed to a major change in popular opinion. People began to believe that the community had a future and this triggered and reinforced the great increase in local entrepreneurship.

Ultimately constructing the new centre changed the local perception of Trangsviken from a declining community to a place with opportunities. As a result, new entrepreneurial activities emerged as people looked for ways to build upon the new image. And, as the community prospered it began to attract visitors and small number of new families, which helps to ensure its long-term viability.

Source: Own elaboration.

Demographic decline increases the demand for third sector responses, even as it weakens the local capacity to provide it. As a community shrinks the profit opportunity for private service providers erodes and there will be a reduced supply of services. In some cases, the demand for specific services may also decline as well, such as entertainment and active sports venues. In other cases, the demand for private services of one type or variety may decline, but the demand for private services of a related type may increase. For example, fitness centres that focus on strenuous exercise may decline, but pools that focus on therapeutic water exercises may become popular. Whether the previous service provider will be able to adapt to the change in demand is not certain. Nor is it certain that a new firm will enter to satisfy the demand if the incumbent does not. If not, then an opportunity opens for a third sector solution.

Similarly, local governments may be forced to cut back some programs as demographic decline reduces their revenue and requires them to move funds to other functions more needed by seniors. Maintenance of public parks may become a lower priority for government, but parks provide a positive impression of a place that can help it attract visitors, migrants and new businesses. Ideally a volunteer group will be willing to take over much of the park maintenance activity, in part because they directly benefit from the park but also out of a sense of public responsibility. Once again as communities age and shrink the capacity of the local population to engage in activities that offset reductions in government funded or delivered services is reduced.

Governance Issues

While the provision of local public services will be a central issue facing local governments as they shift to providing more support to the elderly and reduce commitments to young people, there are other pressing issues (Douglas, 2007_[16]). Acting upon these needed changes will be difficult in many cases if demographic decline is associated with lower public sector revenue. If local economies cannot readily adapt to a reduction in the supply of labour then both employment and income will decrease and so too will tax revenue. Property tax revenues are also likely to fall if the demand for housing drops and businesses fail. To the extent that national conditions are similar to those at a local level, the scope for transfer payments from national governments will be reduced. And, if national governments do provide support, it may be more targeted to regions with greater political influence or to those with higher growth potential in an effort to facilitate a quicker national adjustment. This suggests that rural regions may have a lower priority for national support if they are seen as facing greater difficulty in responding to the effects of demographic decline.

Efforts to consolidate public services as population shrinks will be more difficult in rural regions because they typically only offer core public services and provide them at a small number of locations, which makes it more difficult to reduce services as a way to offset lower revenue. In particular, reducing the number of locations where services are delivered can increase travel costs significantly in regions with low population density. If governments pay the travel cost then total costs of consolidation may be higher than with more locations. If users pay the travel costs then utilisation rates may fall with adverse consequences for future health outcomes, public safety or levels of future worker skills. Once again, the internet and advances in tele-communications offer ways for governments to deliver services in new ways over large distances, but adopting these new methods requires up-front investments and also a reconfiguration of existing delivery mechanisms to align them with the new approaches.

Further, rural communities and regions tend to rely heavily on volunteers to: serve as elected officials, deliver public services and carry out functions that are normally be provided directly by urban governments. An ageing and shrinking population reduces the number of people who can be expected to take on these voluntary responsibilities. In addition, new services for the aged will become a priority and many of these may not fit the traditional capabilities of the local population. While volunteers may still be available, they will require training to make them more effective in these new roles. Where volunteers are not available, local governments may have to hire additional people to support programs for the elderly or accept the possibility of social exclusion and poor health outcomes.

Social exclusion among the elderly has been identified as a significant concern for public policy (Van Regenmortel et al., 2016_[17]) (Walsh, O'Shea and Scharf, 2019_[18]). Trends of living longer, but with major disabilities, caused by Alzheimer's disease or similar debilitating conditions are also seen as increasing (Goodhart and Pradhan, 2020_[6]). Even in more traditional societies, where family responsibility extends to looking after the elderly and family members live in relatively close proximity, it is increasingly difficult for families to provide the care that the elderly require. If a larger share of the population is to be engaged in full-time work as the labour force shrinks the need for formal mechanisms to provide support to the elderly will increase. In places where the elderly have little possibility of nearby family support, either because their children have moved away or they have no children, the need for public support in the form of: appropriate housing, meal delivery, transport, recreation opportunities and health support is clear.

Beyond the challenge of dealing with reduced local source revenue and demands for new public services, local governments must continue to help their local economies evolve in response to, changing labour market conditions, global competitive forces and new technologies. In some countries local governments have more of the resources and authority to engage in this work, while in other they have limited authority to move into new roles and lack the resources to carry out more than basic responsibilities. In rural regions these problems can be especially acute, because: metropolitan regions are given more authority than rural regions, metropolitan regions typically have far greater per capita revenues than do rural regions and

metropolitan regions have a large full-time professional staff that has the capacity to carry out new functions independently or with the support of consultants.

Quality of governance has been shown to play an important role in both economic development and the quality of life for nations and regions (Charron and Rothstein, 2018^[19]) (Filkins, Allen and Cordes, 1999^[20]) (McCann and Varga, 2018^[21]) (Nzaku and Bukenya, 2005^[22]). As national governments devolve responsibility to local and regional governments the quality of these governments may influence the returns from these policies. Evidence suggests that measures of the quality of governments is relatively stable over time, both at the region and national levels in the EU (Charron, Lapuente and Annoni, 2019^[23]). And, despite significant differences in the powers of government among nations, within EU countries there is a significant negative relationship between population size of a region and perceived quality of government (Charron, Dijkstra and Lapuente, 2013^[24]). Further, the same study found a positive relation between region size (hectares) and quality of governance. Together these results suggest that within a country, metropolitan regions (characterised by large populations and small size) can have lower quality of governance than more rural regions. This suggests that rural regions and communities may be able to effectively manage the required transition to the effects of demographic decline if they are provided with needed resources by national government.

Providing increased support for local governments has been recognised by Korea as a significant way to enhance regional and rural development. Several useful approaches' have been introduced in the country, including:

Promoting Combination of Community Infrastructure for Regions in Korea

In order to improve the quality of life of rural residents and promote balanced regional development, Korea is pushing to reinforce living infrastructure that provides health care, childcare, and welfare community services, based on the principle of local governments taking the initiative and the central government assuming a supportive role. In April 2019, the central government announced a three-year plan (2020-2022) to further develop community infrastructure nationwide and, in doing so, focused on resolving previous limitations such as uneven distribution of facilities among regions, traditional ministerial silos, municipal fiscal constraints, construction and operation cost burden, duplicated functions and programs, lack of synergies, and difficulties to secure proper sites. In particular, to bridge the regional gap in delivering public services, such as essential medical services, Korea is implementing a co-location project for community infrastructure by putting together multiple facilities and amenities in one site, such as gyms, libraries, and day-care centres, which were previously provided by individual ministries. The community infrastructure combination project aims to serve three key functions: 1) enhancing vitality based on sports and recreational centres, 2) making a healthier environment based on care-oriented facilities, and 3) improving safety for transportation means and outdoor sites (MOLIT, 2021^[25]).

Box 2.7. Korea's community infrastructure combination project

In August 2018, the current administration led by President Moon Jae-in put an emphasis on making an active investment in 'community infrastructure', which is also known as 'living SOC (social overhead capital) in Korea. The term SOC usually refers to infrastructure such as roads and railways that underpin a nation's economic activities. In comparison, 'living SOC' refers to infrastructure that is more related to people's everyday life, encompassing childcare, medical, welfare, educational, cultural, sports-related facilities and services. Based on this, Korea's focus on 'living SOC' (meaning 'community infrastructure') shows its strong commitment to delivering better quality of life, balanced regional development, and enhanced regional vitality, ultimately seeking an inclusive nation. To support the policy, the government increased budget allocation for the development of community infrastructure and established a policy consultative body. This consultative body is headed by the Minister of the Office for Government Policy Co-ordination and comprised of multi-ministerial officials, along with a supporting bureau, which also belongs to the Office for Government Policy Co-ordination. In December 2018, the Ministry of Land, Infrastructure and Transport (MOLIT) finalised the national minimum standards for 'basic living infrastructure' ('community infrastructure' in nature) to ensure anyone can live a decent life based on public service delivery, regardless of location. The national minimum standards should be established every 10 years or can be re-examined or renewed every five years, if necessary, under the Article 4 of the Special Act on Promotion of and Support for Urban Regeneration.

The combination of community infrastructure has been promoted by newly constructing (or remodelling) multiple facilities or amenities in one building or more in a connected form, which enables integrated service delivery. Through this combined approach, Korea aims to reinforce community services through a set of infrastructure that are essential for everyday activities to the level of matching or exceeding what are prescribed in its national minimum standards. Under the project, an integrated mix of spaces is provided to accommodate more than two out of 13 types of facilities.

Thanks to combination, it has become easier to secure sites for community infrastructure, less costly to construct and operate those facilities, and more convenient to link different functions and programs. This joint approach is incentivised with a higher percentage of government subsidies. For example, 50% of the total cost is subsidised by the central government for a single facility but the rate becomes higher to 60% for combined facilities. Under this community infrastructure combination approach, the central government plans to invest a total of KRW 30 trillion, or approximately EUR 22 billion, over the period of 2020-22. The entire project cost can be as large as KRW 48 trillion, or EUR 35.2 billion, if local governments expenditure is considered.

Source: Ministry of Land, Infrastructure and Transport (MOLIT), OECD RDPC Meeting, 5-6 May 2021

Developing Demand-Driven Customised Assistance in Korea

Introduced in 2015, the Demand-Driven Customised Assistance (DDCA) is an example of a bottom-up approach in regional development policy. In contrast to its predeceasing subsidy-based policy for underdeveloped areas, which had focused on large-scale infrastructure investment, the DDCA integrates hardware such as infrastructure and software such as cultural content, aiming at both enhancing quality of life and promoting economic growth. Each regional government formulates project proposals, based on the consultation with the local people, experts and interest groups so that the plan is tailored to satisfy the local demands, and MOLIT is in charge of selecting plans eligible for government supports (OECD, 2021^[2]).

Accompanying Devolution of competences and Decentralisation of finances in Korea

The institutional framework for the rural development in Korea is central government led and line ministry oriented. However, decentralisation of financial resources and authority is encouraged. Recent development of the contract system between the central and local governments is noteworthy as it aims to build local capacities as well as break policy silos through providing multi-ministerial and multi-year governmental supports. (OECD 2019, Rural study of Korea, <https://dx.doi.org/10.1787/50e33932-en>). Particularly, MOLIT assists subnational governments in strengthening their capacity to manage the growing number of policy jurisdictions that are under their leadership as a result of the ongoing devolution strategy. With each subnational government required to establish and implement its own ten-year development plan, MOLIT provides support where necessary in the forms of budget allocations, tax breaks and deregulatory measures. For those areas facing particular challenges in terms of income, population or financial capacity, “growth promotion areas” are designated and these areas then receive special support (OECD, 2021^[2]).

Managing Rural Demographic Decline

National governments should play a pivotal role in addressing the challenges from rural demographic decline. While the main impacts of decline are experienced at the community level, there are important consequences for the entire nation because of spill over effects into national measures of economic activity, social cohesion and citizen well-being. The broad strategy for rural development proposed by the OECD (OECD, 2020^[1]) provides a general framework for designing and implementing national responses. Most importantly, it is necessary for national policy to be able to discriminate between those consequences of demographic decline that are associated with a fundamental change in the role of rural places, and those changes that are in society’s collective interest to mitigate. In the first case public policy should compensate losing people and places for undergoing painful adjustments, but not block them. In the second case, it can be in both the collective and community interest to find ways alter outcomes in rural places to improve economic capacity, enhance quality of life and strengthen local governance systems.

Active Labour Market Policy with a Regional Focus

Demographic decline has broad impacts on the economies and social relations of nations in addition to requiring major adjustments in government policies. One way to organise thinking about these impacts and appropriate policy responses is to examine the effect on local/regional labour markets and frame policy responses in the context of active labour market policy (ALMP). Because ALMP has three dimensions, labour supply, labour demand and improving the workforce matching process in a context of structural change, it is capable of dealing with many of the effects of both demographic decline and the impacts of rapid technological change (Box 2.8). While ALMP is often implemented as a national policy, it is more useful in a regional context where labour markets are both, better defined in terms of skills and quantities of workers, and more tractable in terms of identifying interventions to improve their performance. At the regional level ALMP is in many ways an alternative framework to understand the constraints and opportunities for local economic development.

Demographic decline affects the number of workers available for employment and the types of employment opportunities that will be available. This in turn affects the skills that workers will require to be employed while providing sufficient workers with these skills will determine, in part, whether the structure of the local/regional economy can adapt to the new situation. But other important factors are affecting labour markets at the same time – including technological change in the form of internet impacts, robotics and social media, the growing concern with moderating the effects of climate change, and adjustments to global trading patterns. While these changes are less directly influencing regional labour markets, they individually and collectively alter the future prospects for every region, albeit in different ways.

In rural areas, crucial change has already occurred. Several decades ago, in periods of higher fertility rates in rural areas, a common problem was a surplus of workers with traditional skills who were reluctant to relocate to other regions when work became scarce. This pool of surplus labour contributed to lower incomes in rural regions, higher rates of unemployment and social malaise. The main labour market problem in this period was to find ways to improve employment prospects by a combination of encouraging outmigration, providing skill development programs and stimulating new sources of employment by inward investment and encouraging local entrepreneurs.

Box 2.8. OECD and Active Labour Market Policy

Standard income replacement programs that provide support to the unemployed are useful for dealing with short term unemployment where people are expected to regain their previous job in a relatively short period of time. The schemes most OECD countries introduced as a response to COVID-19 fall into this category. However, when the cause of unemployment is structural change, most of the unemployed will not return to their previous job and active labour market policy (ALMP) is a more appropriate response. ALMP operates across three dimensions of labour markets: improving attributes of the labour supply by enhancing workers skills. Improving the demand for workers by increasing incentives for employers to hire workers and improving the working of the labour market matching process that connects workers looking for jobs with employers needing the skills these workers possess.

The OECD has a long history of recommending active labour market policy as a useful policy approach to dealing with structural adjustments in labour markets. The initial Jobs Study (1994) was developed to deal with declining levels of productivity in member states. It recommended policies to develop new technologies increase the use of capital in production and foster entrepreneurial behaviour, but also to retrain workers so they were effective complements to the new investments in production technology and increase flexibility in labour markets. The Jobs Strategy was refreshed in 2006 to address increased income and wealth inequality and still low increases in productivity, despite low levels of unemployment and modest increases in wages (OECD, 2006^[26]). The refreshing exercise concluded that additional efforts were required to make the ALMP recommendations from 1994 more effective. Greater attention was needed to increase work incentives and to better tailor job training programs to meet actual work opportunities. In addition, it was seen as being important to create better job matching mechanisms and to reduce impediments to low wage work. In 2018 a completely new Jobs Strategy was released by the OECD reflecting the impact of the Great Recession and ongoing structural changes in labour markets due to rapid technological change, globalisation and imminent demographic changes (OECD, 2018^[27]).

Typically, ALMP is conceived as operating at the national level where monetary fiscal and other broad national macroeconomic policies can be used to alter the broad environment in which employment takes place. However, ALMP can also have a regional or local focus where instead of targeting broad sectors or industries it deals with employment prospects in the specific firms found in a region. The broad recommendations made by the OECD are the following: to promote an environment where high quality jobs can flourish, to prevent labour market exclusion and protect individuals against labour market risks, and to prepare for future opportunities and challenges in a rapidly changing labour market apply at the regional level. However, circumstances in individual labour markets, particularly rural labour markets, will alter specific policy choices.

Source: Own elaboration.

Rural areas face particular challenges. After several decades of falling fertility rates, many rural regions no longer face a surplus labour problem, but instead face a labour shortage (Sven Smit et al., 2020^[28]). In addition, in many rural areas levels of employment in agriculture or other natural resource-based industries have declined, and the remaining workers now require higher levels of formal education and skills than in the past. Without training a considerable share of lower skilled workers remain unemployed, even where employers experience staff shortages. Moreover, demographic decline has increased the share of older people in rural regions and this has created a new demand for workers to serve their needs, but once again there are few people with appropriate skills. Consequently, the current problem is a shortage of workers, especially in fields that require technical skills. And, paradoxically, in some areas a surplus of lower-skilled workers who are too unproductive to meet employers' needs.

Box 2.9. The Korean Situation

In the case of Korea one of the more pressing structural changes facing labour markets is rapid demographic ageing (OECD, 2020^[12]). While the problem is serious in urban areas, it is particularly significant in rural areas. Most rural regions start with a larger share of the population being older as a result of constant youth outmigration, particularly females. Even with the present level of lower fertility rates expectations are that there will still be a significant outmigration by rural youth, particularly those with higher levels of education. To date, return flow from urban to rural areas have not been large enough to offset outmigration. Moreover, to the extent that inflows are retired people this may exacerbate existing worker shortages.

Employment in rural areas is also more likely to be in smaller companies or self-employment. These jobs are often less than full-time and can provide few benefits, particularly pensions. As a result, employment opportunities in rural areas are often more fragile and offer less compensation. This can lead to outmigration for those with higher skills and lower rates of labour force participation by the less skilled because the returns from work are low. Korea also has the largest share of over 55-year-olds still in employment in the OECD, and the highest share of elderly in relative poverty (OECD, 2020^[12]), and these shares are likely to be higher in rural areas. Efforts to increase the share of females participating in the labour force in rural areas of Korea may also be challenging. In rural areas there are fewer formal care facilities for either children or the elderly, which increases the burden on families, particularly women and may prevent them from seeking formal employment.

Source: OECD Economic Surveys: Korea 2020 (OECD, 2020^[12])

The core ALMP strategy of reducing skills mismatches between worker capabilities and employer needs may also be challenging in rural areas. Improving worker skills through either formal training or apprenticeship programs is more difficult. Small population rural regions may not be able to support a technical training institution and where there is one it may not be able to offer courses because the number of potential applicants or job opening is too small. Smaller SMEs may not be willing to use apprenticeship programs either because they cost too them much, or they fear that graduates will leave for a higher paying urban job. Similarly, employment matching services in rural areas face the challenge of at best a small pool of qualified people for any skill and a set of employers who may have limited need for additional workers. While rural employment matching services could encourage workers to seek jobs in an urban region this would contradict the objective of fostering local growth.

Supporting Local Government Adaptation Efforts

While national and state/provincial governments play a major role in setting the framework for adaptation to demographic decline, and have the greatest resources for introducing change, local governments at the

regional or municipality level will lead the actual process of delivering support to individuals, communities and businesses as they adapt to the new environment. The size and nature of each region/municipality will determine both its specific situation and appropriate ways to deal with it. Co-ordination among regions and municipalities will be essential to limit actions by one place that adversely affect others. Most concerning will be efforts to block the movement of workers as a way to maintain population.

It is in the larger public interest that all regions adjust to change since this strengthens the nation and the region. Rural regions may need more assistance in constructing and implementing adaptation efforts than do larger more urban regions. Limited capacity of local governments, resulting from small budgets for technology, a greater reliance on volunteers and fewer specialists, can impede the ability to make use of development assistance funds. While it may be tempting for national governments to take approaches followed by urban regions and scale them down to fit smaller regions this will be ineffective. Similarly, national governments should resist the urge to construct a list of “best practice” solutions and present them as a menu for a rural region to choose from. The core of the OECD rural policy approach is a recognition that the local community has to embrace whatever strategy is followed if it is to be effective because only the firms, organisations and households in that community can undertake the actions that will bring about change and adaptation.

While every region, whether urban or rural, has to develop a locally specific approach to dealing with its future, it is possible to identify some broad elements of useful strategies for rural regions and communities. Four important elements that are applicable in most regions are: productivity, mobility, community, and collaboration. Some may be more important in certain regions than in others, but these four elements can be seen as a creating a framework for identifying and implementing a local response to the key forces of, demographic decline, technological change and climate adaptation.

Improving productivity is the starting place for constructing a viable economy that can adapt to changing conditions. Without increases in employment numbers the only way to increase output is by increasing output per worker – the simplest measure of productivity. Productivity is a key determinant of worker wages, as firms cannot pay workers any more than their labour contributes to the value of a unit of output. Thus, in regions with low worker incomes, increases in productivity are vital to reducing regional income inequality gaps. While demographic decline may lead to higher wages in those regions where in the past surplus workers suppressed wages, this change reflects a shift in the share of income going to labour and not an increase in output or productivity. As noted earlier the essence of S3 strategies is to identify products or services where a region has a competitive advantage and find ways to stimulate technological changes that enhance market share. This shifts the regional economy to a higher level of productivity. Another key element in improving productivity involves enhancing the workings of local labour markets, by fostering the creation and growth of dynamic local firms, by developing a work force with the skills to participate in these firms, and by ensuring that workers and firms make appropriate matches.

Mobility has several elements, but all involve movement of people, goods or information. A shrinking labour force increases the pressure to move employment to the places where it can be most productive, either by moving people or firms. Typically, people will move from one region to another, but some people will move from being out of the labour force to being in it, while others will move from less than full-time employment to full-time. Improving skills to better match employment opportunities will be crucial in accomplishing these changes as will removing impediments to working such as, difficulty in getting to a job because of lack of transport or being unable to work because of care responsibilities for children or elderly family members. Transport infrastructure is a key part of mobility because it reduces the cost of moving people or goods and increases market integration over space. The last dimension of mobility is improving the movement of information or data, which is increasingly important in a world of e-commerce. Ready access to broadband and to relevant information about jobs, the availability of inputs and potential markets improve opportunities for rural regions.

Community captures the idea that there is a particular geographic context to the strategy. Rural regions have specific capabilities and needs and are far from being self-contained economic or social units. It is their small size that makes the idea of S3 powerful because specialisation is essential for their survival. Because they are distant from larger markets, they also have to determine which services are essential for the community and find ways to deliver them effectively. This often involves relying to a greater extent on the voluntary sector instead of government or for-profit firms. Social cohesion at the community level is essential for identifying a shared vision of a future where all members of the community benefit. Studies of quality of government show a high correlation between strong levels of social trust within a population and quality of government (Charron, Dijkstra and Lapuente, 2013^[24]) (Charron and Rothstein, 2018^[19]).

Small regions improve their chances for a better future when they can collaborate with others.

Individually small regions can lack the capacity to deliver the full set of services their population desires even with the support of volunteers and non-profit firms. Unless a region or community is highly isolated it will be part of a larger market, meaning that some workers at firms in the region come from outside the region and that some workers in the region work at firms outside the region. In addition, people will shop and obtain services across the administrative boundaries of the region. With this high degree of interconnectedness collaboration among the linked local governments allows resources to be aggregated and used to achieve common benefits.

Collaboration is often difficult for small communities, even when they are in close geographic proximity because of longstanding social conflicts between communities or because of a fear they will be taken advantage of. Often an incentive has to be put in place to trigger some initial degree of collaboration (Lackey, Freshwater and Rupasingha, 2002^[29]). This can be a government grant that requires joint application. It can be a rational response to a new municipal obligation such as providing an enhanced solid waste disposal site that is too expensive for any single community to afford. Collaboration can take place around efforts to stimulate tourism. While no single community may have a compelling attraction, jointly marketing a number of tourism opportunities in close proximity may provide an attractive option for visitors.

National and state/provincial governments and the European Union have adopted a variety of approaches to create incentives for multi-community collaboration. The European Union LEADER programme provides incentives for multiple communities to jointly apply for funding for regional development. Another initiative in Canada, the Community Futures Network of Canada, supports small businesses in rural communities. In Quebec the provincial government introduced the Pact Rural as a way to provide an incentive for local governments to collaborate after it redrew regional boundaries to reduce the number of regions and moved some regions into new groups. Korea used the Comprehensive Rural Village Development Program to encourage clusters of villages to collaborate on their future development effort (Box 2.10).

Importantly, these programs provide an incentive to collaborate, but they do not try to force collaboration. Forced mergers of local governments to create regions defined by national governments can lead to counterproductive results, because they fail to capture how different communities relate to each other (Zimmerbauer and Paasi, 2013^[30]). And, while larger rural regions are seen as ways to reduce the cost of delivering services the cost savings often fail to materialise because distances are too large and densities are too low to reduce the number of service locations without incurring large increases in travel costs (Dollery and Crase, 2004^[31]).

Box 2.10. The Korean's Comprehensive Rural Village Development Program

While its predecessor, the Saemaul Undong program is more well-known, the Comprehensive Rural Village Development Program (CRVDP) introduced in Korea in 2004 is more aligned with current OECD recommendations for rural policy. Crucially, the program operated over a period of time, 2004-13, when demographic decline in the rural regions of Korea was already a significant issue. While Korea's development trajectory since the 1960s has been extremely rapid it largely followed an unbalanced growth model, emphasising heavy industry in urban locations. A result has been a steady out migration of younger individuals from rural areas that in conjunction with declines in female fertility rates has led to an ageing and shrinking of the rural population (Choi, Park and Lee, 2020^[32]).

The CRVDP adopts a spatially based development approach based on clusters of contiguous villages that are encouraged to adopt a shared development strategy that reflects their current situation and opportunities. By encouraging co-operation among three to five villages with strong cultural links it is possible to achieve some critical mass. Further, selecting one "hub village" to host investments in joint public service infrastructure may provide a small "growth pole" and stimulates interaction among all village residents. The Program is comprehensive, in that it includes economic, social, cultural, environmental and governance dimensions, making it similar in nature to the LEADER programme of the European Union. Importantly, the CRVDP recognised that while agriculture remains important in much of rural Korea and there is a strong national interest in maintaining food security, for rural areas of Korea to be revitalised major investments outside farming were required. Indeed, given the small size of most farms in Korea, the best way to enhance the economic well-being of farm households may be through expanding off-farm income opportunities (OECD, 2018^[33]).

While investment in enhancing agricultural production have been common, so too were efforts to stimulate tourism by enhancing the quality of the rural environment and preserving cultural heritage as ways to stimulate tourism and potentially attract migrants from urban areas (Heo and Kim, 2016^[34]). An important feature of the CRVDP was its bottom-up approach where a cluster of villages chose to enrol in the CRVDP. This required a first step by the villages to agree to participate, which ensured that there was an initial degree of collective interest. In the 2004-2009 period 290 community groups out of a total of 1388 eligible entities participated in the program (Hwang, Park and Lee, 2018^[35]). A recent evaluation of the program's impact found that on average participating villages had an increase in quality of living compared to nonparticipants (Hwang, Park and Lee, 2018^[35]).

Two aspects of this evaluation are particularly interesting when components of standards of living in participating villages are compared to nonparticipating villages. The first is that a larger share of elderly in the population resulted in a statistically significant decrease in the standard of living in nonparticipating villages, but not in participating villages (Hwang, Park and Lee, 2018^[35]). Conversely, a larger number of farmers and higher farm sales significantly increased living standards in non-participating villages, but not in participating villages (Hwang, Park and Lee, 2018^[35]). A parallel study of the impact of the CRVDP on farm income found that in participating areas farm income was significantly higher when compared to both non-participating villages, and when compared to expected farm income levels based on participating villages' conditions prior to them enrolling in CRVDP (Choi, Park and Lee, 2020^[32]). Collectively these results suggest that participating villages were able to beneficially reduce the role of farming in their local economy at the same time that farmers' income was increasing, and that the improvement in living standards was sufficient to overcome an increase in the share of elderly in the population.

This suggests that CRVDP was able to support a transition from a narrow agrarian economic base to a more diversified base. Although the CRVDP did not explicitly target business development, other than agriculture and tourism, significant investments in improving the living standards in communities

including: housing improvements, better public services and public amenities, and environmental quality enhancements seem to have created an environment where economic growth prospects improved.

Source: Choi, Eunji, Jonghoon Park and Seonghoon Lee (2020) The Effect of the Comprehensive Rural Village Development Program on Farm Income in South Korea. *Sustainability* 12, pp. 1-27. available January 21, 2021 at: <https://www.mdpi.com/2071-1050/12/17/6877/pdf>; Heo, Jang and Yunjung Kim 2016. Comprehensive Rural Development Strategies of Korea and Their Implications To Developing Countries. *Journal of Rural Development* 39: special Issue, pp. 1-34. available January 21, 2021 at: https://ageconsearch.umn.edu/record/251927/files/RE-39-5-01_HEO.pdf; Hwang, Jaehee, Jonghoon Park and Seongwoo Lee (2018) The Impact of the Comprehensive Rural Village Development Program on Rural Sustainability in Korea. *Sustainability* 10, pp. 1-21. available Jan. 21, 2021 at: <https://www.mdpi.com/2071-1050/10/7/2436/pdf>; OECD Korea Agriculture

Fostering Innovation in Rural Regions

The literature on innovation systems emphasises the role that co-ordinated effort on formal science and engineering research, conducted by research universities, large corporations and governments, has a major impact on technological progress and innovation (Camagni and Capello, 2013^[36]) (Foray, DAVID and HALL, 2011^[37]) (Morgan, 2007^[38]) (OECD, 2013^[39]) These efforts are seen as driving economic growth in the 21st century by providing the new technologies, products and processes that will increase productivity and help resolve crucial problems, such as, mitigation of climate change. While this is a credible and compelling story, it is a story only about the role of metropolitan regions, since only they host the research universities, corporate research centres and government laboratories that underpin innovation systems.

This has the implication that innovation does not take place outside urban centres, which if true, suggests a limited role for non-metropolitan regions. Yet there is considerable evidence that innovation is taking place beyond metropolitan regions (Doloreux and Dionne, 2008^[40]) (Naldi et al., 2015^[41]) (OECD, 2014^[42]). This innovation is important in several ways. The first is that it can provide a means to improve the competitiveness of firms in these regions, which in turn assures that local employment is maintained, or enhanced, and communities remain viable. The second is that in a period of demographic decline innovation provides a way to move the production of goods and services away from low capital to labour production technologies to ones that use less labour. Typically, this leads to higher wages for workers as their productivity increase, and releases labour for use in other sectors. Third, while the share of national output in OECD countries that comes from large metropolitan regions continues to increase over time, vital goods and services are only produced in nonmetropolitan regions. These include: food, energy, minerals, other raw material and environmental services.

This innovation comes from three distinct sources. The first is innovation developed in metropolitan regions specifically for use in nonmetropolitan regions. This research is part of the standard innovation system paradigm, but with a nonurban focus. For example, universities, governments, and corporations engaged in natural resource extraction and processing all create knowledge and innovations that are specifically oriented for uses in nonmetropolitan regions. Second, innovation conducted in a metropolitan region that is first employed in metropolitan regions can be reconfigured or adapted for use in nonmetropolitan regions. For example, most of the underlying technology used for tele-health or tele-education was first developed for use in an urban setting, but then adapted for use in more rural environments where it may be even more valuable because it relieves the problems of low density and long distance.

Third and finally, individuals and firms located outside metropolitan regions develop local innovations to address their specific needs and opportunities. These applications occur outside the formal innovation system process and are often not captured by patent data. While they may have limited application outside the region where they are developed, they can be extremely important in that region, and later for other similar regions. For example, the commercialisation of salmon aquaculture was first developed along the west coast of Norway by local entrepreneurs, with limited support from nearby small regional universities. Over time it has been adopted by regions around the world with similar environments, but using Norwegian technology and has grown to be a significant source of income, employment and exports for several

countries (Asche, 2008^[43]) (Liu, Olaf Olaussen and Skonhott, 2011^[44]) (Nilsen, 2010^[45]) (Tveteras, 2002^[46]).

While salmon aquaculture is an unusual example of a major innovation that developed outside the formal innovation process, it is not unique. Other major innovations that took place in rural regions that spread beyond the locality where they were first developed include such firms as, Walmart in the USA, Bombardier in Canada, Ikea in Sweden and Lego in Denmark. In Korea several of the chaebol that are now large multinational corporations had their origins as innovative family firms in rural areas. While most innovations in both urban and rural regions do not have such a direct global impact, their cumulative effect is important. These innovations improve the economic prospects of firms, and in doing so increase the level of well-being of individuals, and of the communities that host them.

Improving rural-urban linkages

The regional and rural development policy in Korea has significantly evolved over the past 60 years. The focus has diversified from solely economic and industrial development, which in fact enhanced the national income and living conditions across the country while widened the regional disparity, to include securing quality of life nationwide. The success of the country's development strategy in the latter half of the 20th century in building an advanced industrial economy has increased concentration in cities and particularly in and around Seoul, while rural communities have seen their populations age and fall. Consequently, the government has grown increasingly concerned about the inclusion of rural communities in the overall balanced development agenda. Correspondingly, rural policy has increasingly adopted functional and network-based approaches to deal with regional and rural issues such as basic service provision, along with traditional large-scale investments to build growth hubs (Garcilazo et al., 2019^[47]).

While policies that focus directly on improving economic conditions and the quality of life in rural regions should be the core of any rural policy framework the importance of strengthening rural and urban linkages should not be ignored, especially in a country like Korea where the main drivers of economic growth are likely to remain urban in nature. Spill overs from urban development can help strengthen rural areas if they are facilitated through appropriate policies that help improve connectivity between the two types of region. Several policies introduced in Korea can serve this function: including:

Developing regional hubs in Korea: Innovation Cities and Sejong

A primary policy under the regional development initiative led by the CNTP is the development of three types of new city across the country to relocate administrative functions and economic activities from Seoul to the provinces. The scope is to curb the excess concentration of people and economic activities in the capital region and build growth hubs relocating public and private functions to less developed regions in the provinces. Many government ministries and public organisations have been relocated to the new multifunctional administrative capital of Sejong and other public organisations, including research institutions, have transferred to ten newly constructed Innovation Cities to play leading roles in forming regional innovation systems. Additionally, Enterprise cities will contribute to revitalise regional economies through encouraging private investment, providing incentives on land use and tax. These initiatives go beyond the development of new communities: rather they are intended to improve the quality of life of local residents and support the development of the surrounding areas outside the new cities themselves, for example by enhancing residential environments, hiring local talent and procuring locally sourced goods among other things (OECD, 2021^[2]).

Reinvigorating Small and Medium-sized Cities around Regional Hubs in Korea

Korea is improving the residential environment of small and medium-sized cities surrounding regional hubs. Under the Urban Regeneration New Deal project launched in 2017, Korea is implementing pilot

projects that link housing units, community infrastructure, and job offering to promote the expansion of residential amenities and the improvement of low-rise housing units. With a goal of completion for a total of 500 sites by end-2022, progress has been made on 400 sites as of end-2020. In addition, Korea began pilot projects that provide a package of public rental homes, amenities, and jobs in farming and fishing villages that are experiencing a serious population decline. With these pilot projects, the intention is to support a renewed population inflow, along with the supply of jobs and infrastructure (MOLIT, 2021^[3]).

Reinforcing Regional Transportation Networks in Korea

Within the general scope to promote balanced development, Korean government is striving to expand metropolitan railway networks to cover regional areas with relatively poor railway conditions as well as disconnected spots. The government is also pushing projects to improve arterial road networks through new construction or upgrades by taking into account travel demand between different provinces and their overall balanced development (MOLIT, 2021^[3]).

Conclusion

Demographic decline is a crucial question which impacts several important public policy dimensions, three of which are key for regions and rural territories:

- *Workforce issues.* With demographic decline, the labour force steadily ages and shrinks. This leads to limits on the number of employees available for work and can lead to skills gaps if some ageing workers with specific skills cannot be readily replaced. As the population ages, both in particular places and across the nation, the demand for goods and services is affected, which leads to a change in the mix of outputs and from there to changes in the skills needed by employers. There are also important implications for maintaining current rates of economic growth, as large increases in productivity are needed to offset a smaller number of workers.
- *Social issues.* Shrinking local populations also alter social relationships within communities. Initially organizations that engage youth are challenged by falling numbers of participants and may cease to operate, which weakens opportunities for the remaining children. Somewhat later a similar effect is felt by organisations that are oriented to working age adults. The result is a community that loses its capacity to generate social capital and maintain the local quality of life. Ultimately, the community can lose its ability to provide care for the still relatively large number of older people, because there will be too few people to provide these services, either within the family or in a care facility. Problems of social exclusion can become more pervasive as the structure of communities change and social ties are weakened.
- *Governance issues.* With economic decline the local tax base falls and local governments become starved of revenue at a time when the demand for new social services may increase as the local demand shifts in response to an ageing population. With shrinking populations local governments can experience higher per capita service costs, as they lose economies of scale in service delivery. In some cases, the community may experience a reduced capacity to self-govern as the population shrinks and ages.

Demographic decline creates a demand for a new approach to regional and rural development. Importantly demographic decline in rural regions has important implication for urban centres because rural outmigration to cities remains an important source of urban population growth across OECD countries. OECD research has shown for decades that rural regions can be a source of economic growth under appropriate conditions, but with a shrinking workforce this will be an increasingly difficult prospect. For current levels of economic output to be maintained in future years there will have to be significant increases in worker productivity and in local labour force participation rates to offset absolute declines in the labour supply. Moreover, structural changes in rural economies will be required to reflect shifts in the types of

service that people desire and in response to ongoing technological change. A wide array of programs that can help facilitate such adjustments is available and appropriate combinations of programs can support various goals and needs. What is needed is an appropriate strategy at the local level and a supportive national framework.

The scope and complexity of these changes is more than rural communities can be expected to manage without significant national government support. However, the most appropriate way to provide support is by assisting communities or groups of communities to identify their particular needs and opportunities. This “bottom-up” approach to rural policy has been shown to be the most effective way to bring about sustainable rural development across the OECD. Rural regions will require significant investments in the broad areas of workforce development, appropriate service provision, and improved governance mechanism if they are to make a full contribution to national development objectives. Importantly if rural places can achieve these capabilities, they will also help satisfy broader national concerns with improved territorial integrity and the avoidance of desertification.

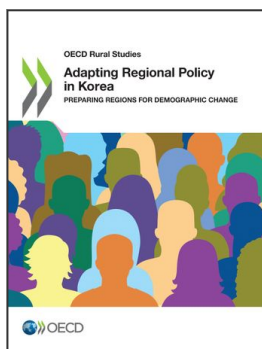
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