OECD Rural Studies

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BETTER POLICIES FOR BETTER LIVES

Please cite this publication as:
OECD (2025), *Reinforcing Rural Resilience*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/7cd485e3-en.

ISBN 978-92-64-42079-3 (print)
ISBN 978-92-64-53795-8 (PDF)
ISBN 978-92-64-72792-2 (HTML)

OECD Rural Studies
ISSN 2707-3416 (print)
ISSN 2707-3424 (online)

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Foreword

In an era marked by mounting geopolitical instability, deepening economic shocks, and widening inequalities, the resilience of rural regions has never been more critical to national and global stability. Rural communities are not only essential providers of food, energy, and raw materials, but also increasingly serve as sites of innovation, entrepreneurship, and strategic opportunity. Yet, their contributions are too often undervalued, and their development potential often remains under-leveraged in policy frameworks.

Reinforcing Rural Resilience, the latest iteration of the OECD's framework for rural development, offers a necessary corrective. It positions rural areas not as passive recipients of policy, but as active contributors to national progress and global resilience. Crucially, it recognises that rural regions are diverse in geography, economic structure, and opportunity, and that effective policy must reflect this diversity. For the first time, the report differentiates rural regions based on their proximity to cities, offering distinct insights into the challenges and opportunities facing rural areas close to functional urban areas (FUAs) versus those that are remote. This nuance enables more targeted and strategic policy responses that aligns with local realities, assets, and growth potential.

As global megatrends, including digitalisation, the green transition, demographic change, and the reconfiguration of global supply chains, accelerate and interact with economic and geo-political shocks, rural regions must be equipped to adapt and thrive. Their success and will be decisive in mitigating rural discontent and ability to weather future economic shocks.

Through robust analysis and policy recommendations, the report identifies critical drivers of rural growth and well-being, from tradeable specialisation, renewable energy potential, to rural-urban linkages and access to quality services. It also highlights the risks of inaction: growing discontent, democratic erosion, and missed opportunities for inclusive growth.

This publication breaks new ground by incorporating perception indicators, acknowledging that statistical performance is only part of the story. The well-being and satisfaction of rural residents that include their confidence in public services, connection to local economies, and sense of agency, are critical components of resilience. Understanding how rural people feel about their future is as important as understanding economic trends, particularly in a context of rising discontent and democratic fragility in many rural communities across the OECD.

Reinforcing rural resilience is a valuable resource for policy makers, civil society, and development actors committed to building fairer, more cohesive, and future-ready societies. Its insights invite us to rethink rural not as the periphery of progress, but as a core partner in a more resilient and equitable global future.

Acknowledgements

This report was produced in the OECD Centre for Entrepreneurship, SMEs, Regions and Cities (CFE), led by Lamia Kamal-Chaoui, Director, as part of the programme of work of the Regional Development Policy Committee (RDPC). The report was undertaken in close collaboration with country delegates to the OECD Working Party on Rural Policy (WPRUR).

The OECD team elaborating and drafting the report included Marc Bournisien de Valmont (Chapter 3), Betty-Ann Bryce (Chapter 4), Bridget Donovan (Chapters 1 and 3), Eduardo Rodriguez Montemayor (Chapters 1, 2 and 2), Fernando Riaza Fernández (Chapter 3), Sinead Teevan (Chapter 3) and Felix Winkelmayer (Chapter 2), with input from Stefano Barbieri, Loukas Gourgiotis, Michelle Marshallian, Tetsuharu Mori and Andres Sanabria under the supervision of Jose Enrique Garcilazo, Head of the Regional and Rural Policy Unit in the Regional Development and Multilevel-Governance Division, led by Dorothée Allain-Dupré.

Nadim Ahmad (OECD), David Freshwater and Peter Wostner (Vice-chair of RDPC), provided scientific guidance on the manuscript. Special thanks for conveying valuable comments on various drafts of the report to Daniel Baumgartner (Switzerland), Jane Frances (New Zealand), Antanas Karbauskas (European Commission), Eugéne Leblanc (Canada), Sabrina Lucatelli (Italy), Gareth Makim (Ireland), Silvia Nanni (European Commission), Olavi Petron (Estonia), Stephane Pronovost (Canada), Oh Seong-ik (Korea), Minori Tasaki (Japan) and Kazuhiro Watanabe (Japan).

The OECD is also grateful for comments and guidance received from the delegates to the OECD RDPC and the Working Party on Rural Policy throughout the project.

Jack Waters (OECD) co-ordinated the production process of the report. Jeanette Duboys and Elena Acrones Sanjuan (OECD) prepared the manuscript for publication.

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Abbreviations and acronyms

AGIS	Automated geographic information system
AI	Artificial intelligence
BTOP	Broadband Technology Opportunities Program
CAGR	Compound annual growth rate
CCTTs	College Centres for the Transfer of Technologies and Innovative Social Practices
CCUS	Carbon capture, utilisation and storage
CDC	Centers for Disease Control and Prevention
CENRED	Centre for Rural Economic Development
CERRA	Center for Educator Recruitment, Retention, and Advancement
CLLD	Community-led local development
COVID-19	Coronavirus disease of 2019
CSR	Corporate social responsibility
DCN	Dakota Carrier Network
DEGURBA	Degree of urbanisation
DRT	Demand-responsive transport
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
EMFF	European Maritime and Fisheries Fund
ERDF	European Regional Development Fund
ESF	European Social Fund
ESG	Environmental, social and governance
ESPON	European Spatial Planning Observation Network
EU	European Union
EU-LFS	EU Labour Force Survey
FDI	Foreign direct investment
FPIC	Free, prior and informed consent
FRA	Functional rural area
FUA	Functional urban area
GAK	Joint Task for the “Improvement of Agricultural Structures and Coastal Protection” (*Gemeinschaftsaufgabe "Verbesserung der Agrarstruktur und des Küstenschutzes”*)
GAP	Southeastern Anatolia Project
GDP	Gross domestic product
GHG	Greenhouse gas
GRW	Joint Task of Improving Regional Economic Structure (*Gemeinschaftsaufgabe*)
GVA	Gross value added
GVC	Global value chains
ICCA	Indigenous and community conserved area
ICT	Information and communication technology
IISD-ELA	International Institute for Sustainable Development-Experimental Lakes Area
LEADER	Links between actions for the development of rural economy (*Liaison entre actions de développement de l'économie rurale*)
LGFA	Local government financing agency

LPG	Liquefied petroleum gas
MFA	Mobility functional areas
MLG	Multi-level governance
MR	Metropolitan TL3 region
MUNIFI	Municipal government finance database
NACE	Statistical classification of economic activities in the European Community
NIEPS	Nicholas Institute for Environmental Policy Solutions
NMR	Non-metropolitan TL3 region
OADR	Old-age dependency ratio
OECD	Organisation for Economic Co-operation and Development
PBIP	Place-based industrial policies
PFM	Public financial management
PGF	Provincial Growth Fund
PISA	Programme for International Student Assessment
PPP	Public-private partnership
RACA	Rural Agenda for Climate Action
RDA	Regional Development Australia
RDPC	OECD Regional Development Policy Committee
RE	Renewable energy
SME	Small and medium-sized enterprises
STAR	Specific assets of rural places, tradeable specialization, access to urban markets and rural-urban linkages, and resources (natural resources)
TFP	Total factor productivity
TL	Territorial level
TL2	Territorial level 2
TL3	Territorial level 3
TIA	Territorial impact assessment
TSA	Towns and semi-dense areas
UNDRIP	United Nations Declaration on the Rights of Indigenous Peoples
UNESCO	United Nations Educational, Scientific and Cultural Organization
WPRUR	Working Party on Rural Policy
WPTI	Working Party on Territorial Indicators
WPURB	Working Party on Urban Policy

Executive summary

Rural economies can be powerful engines of national growth. In an era marked by intensifying global challenges such as climate shocks, economic disruptions, and social unrest, rural development policy must evolve to address these challenges. This report, *Reinforcing Rural Resilience*, draws on three decades of insight from the OECD Working Party on Rural Policy, a unique international forum that has analysed rural trends and rural development policy since 1994.

Building on the *OECD Rural Well-being Framework* (2019) and the *OECD Principles on Rural Policy* (2019), it offers governments practical guidance for navigating long-term transitions while addressing immediate vulnerabilities. It applies a spatial lens to resilience, recognising that rural regions are not monolithic. Their assets differ, their challenges vary, and so too must policy responses. A key theme of this report is resilience. By embracing a place-based, people-centred approach, policy can help unlock the full potential of rural regions to break cycles of decline and inequality that can fuel geographic discontent. Rural regions can leverage opportunities across renewable energy, digital innovation, and advanced manufacturing, ensuring that no community is left behind.

The report highlights emerging opportunities, alongside persistent challenges that require urgent attention:

- The green transition and rural natural assets present unique economic opportunities.
- Rural regions are shrinking and ageing faster than metro regions.
- Rural manufacturing and other specialisations remain a key driver of rural growth and employment.
- Demographic decline, service gaps, and perceived neglect can create rural discontent.

It identifies four **STAR** drivers of rural growth, where policy action should be focused:

- **S**pecific assets of rural places
- **T**radeable specialisation
- **A**ccess to urban markets and rural-urban linkages
- **R**esources (natural resources)

It emphasises that enabling competitiveness also requires prioritising a focus on:

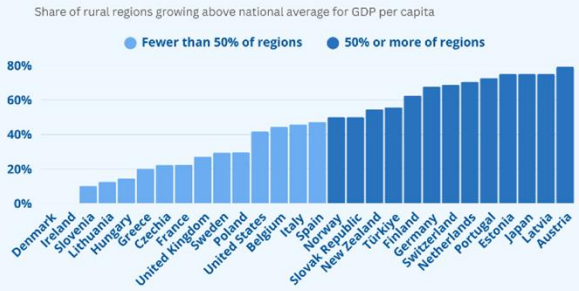
- Fostering skills
- Enhancing innovation/entrepreneurship
- Improving digital connectivity

Finally, in a period where distrust in governments is increasing, it calls for greater focus on ensuring successful policy implementation by:

- Strengthening policy coherence and integrated cross-government action
- Working at functional scale and encouraging collaboration
- Improving the collection and use of rural evidence to inform policy decisions
- Taking action to galvanise the rural voice
- Creating more effective rural communication channels.

Infographic 1. Key facts and messages

Pockets of rural growth are appearing in many OECD countries



In 13 countries, rural regions are converging in GDP per capita over 2001-21, showing pockets of rural growth. Overall, rural areas near cities are more resilient to economic downturns than remote regions.

The green transition presents key economic opportunities for rural regions

of renewable energy is produced in rural regions

of jobs in rural regions are green jobs

Renewable energy capacity in rural areas and expected growth in green jobs offer opportunities for rural regions, where the bioeconomy, circular economy, natural resources and renewable energy investments will largely occur.

But rural regions face unique economic, social and environmental hurdles

Since the global financial crisis, the GDP gap on average between urban and rural areas more than tripled, widening by 17 percentage points in 2021 relative to 2001.

Between 2001 and 2021, metro saw higher population growth than rural regions in most OECD countries. The old-age dependency ratio also rose, from 24 to 33.3 per 100 working-age people.

Average emissions per capita are three times higher in remote rural regions (26.3 tonnes of CO^2) compared to large metropolitan regions (9.3 tonnes of CO^2).

The type of rural region matters

Proximity to cities shapes the challenges, opportunities and policies needed in rural regions.

Rural regions close to cities typically experience

- manufacturing opportunities that drive innovation and employment
- higher population growth than remote regions
- land-use pressures from urban-sprawl

Remote rural regions typically experience

- unique natural assets
- strong community networks
- relatively higher population decline and ageing than rural regions close to cities

STAR drivers of rural growth

STAR drivers can be mobilised through smart rural policy approaches

- **S** SPECIFIC ASSETS
- **T** TRADEABLE SPECIALISATION
- **A** ACCESS TO URBAN
- **R** RESOURCES (*NATURAL RESOURCES*)

Five mechanisms of effective rural policy implementation

1. Policy coherence and integrated cross-government action
2. Functional scale and collaboration
3. Improved rural evidence to inform policy decisions
4. Actions to galvanise rural voices
5. More effective communication

1 Assessment and recommendations

1.1. Introduction

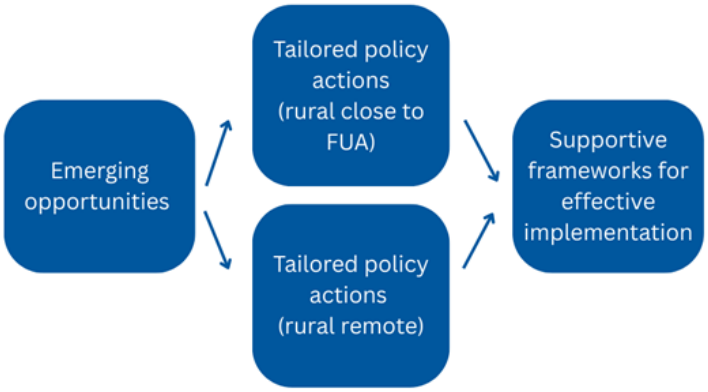
As global transformations accelerate, from digitalisation and the green transition to shifts in global trade, rural regions are emerging as under-tapped sources of growth and resilience. In many areas, signs of entrepreneurial vitality, economic renewal, and industrial reinvention are already taking shape. Yet the full potential of rural economies to contribute to and shape these transitions remains largely unrealised. Leveraging this capacity requires a shift in policy approach to fully embrace a place-based approach to policymaking, enabling strategies that unlock the potential in rural regions and allow them to contribute more meaningfully to national growth.

This report is timely in encouraging governments across OECD member countries to strengthen rural policy as a means of responding to today's global transformations. It offers evidence not only of the challenges rural regions face, but also of emerging strengths, ranging from entrepreneurial growth to sectoral renewal, that are too often overlooked. A key contribution of the report is its differentiated analysis of rural areas based on their proximity to functional urban areas (FUAs), distinguishing between those that are close to urban centres and those that are more remote. This approach reinforces the case for more place-sensitive policies that recognise the diversity of rural contexts and support more tailored, effective policy responses.

To be effective, rural development policy must place rural people at the centre, prioritising all dimensions of well-being while investing in skills, infrastructure, and strategic opportunities. This means not only responding to local needs, but also actively steering rural economies towards high-potential sectors aligned with broader megatrends such as decarbonisation, digitalisation, and shifting global trade**.** Policy should also focus on the four STAR drivers that underpin rural economic growth, each offering distinct opportunities. They include: i) **S**pecific assets only available in rural places, ii) **T**radeable specialisation, iii) **A**ccess to urban markets and rural-urban linkages, and iv) **R**esources such as critical minerals or renewable energy.

The policy approach advanced in this report centres on enabling rural opportunity and resilience. Rural regions must be recognised not as areas in decline, but as strategic contributors to national innovation, resilience, and growth. This requires forward-looking, place-based strategies that support economic specialisation and long-term development. Rather than relying on traditional approaches that emphasise structural weaknesses, the report calls for policies that build on rural regions' distinctive assets, whether in manufacturing, natural resources, or emerging sectors. The roadmap for the discussion in the report, reflected in the figure below, reveals the emerging trends and opportunities in rural places followed by analysis of relevant policy actions across different types of rural regions. The report closes with a discussion of the factors that could hinder successful implementation if neglected, particularly in today's climate of rising rural discontent and institutional distrust Figure 1.1.

Figure 1.1. A differentiated policy framework for different types of rural regions



Source: Author's elaboration

1.2. Trends and opportunities across rural types

Although demographic pressures are intensifying, particularly through ageing and population decline, emerging trends in automation, digitalisation and the green economy offer new avenues for rural renewal. Declining workforce availability threatens the long-term sustainability of rural labour markets, both in remote areas and those close to functional urban areas. Rural regions near cities are well-positioned to integrate into innovation and advanced manufacturing networks, while more remote regions can capitalise on resource-based sectors such as renewable energy, sustainable tourism, and bio-based industries and in niche markets. These trends such as automation, digitalisation, and the green transition, create timely opportunities for policies to strengthen the growth potential of rural economies.

1.2.1. Demographic and economic trends

Rural regions are growing more slowly than metropolitan areas, with many experiencing population decline, especially those far from cities. Between 2001 and 2021, rural regions across OECD countries grew by just 3%, compared to over 13% in metropolitan areas, based on country-level averages. Moreover, 47% of rural regions near small FUA's and 40% of remote rural are already shrinking – compared to just 22% of metropolitan regions. The most remote rural places face the steepest declines, with some losing more than one-fifth of their population over two decades. However, growth patterns vary. Rural regions near large FUAs are more likely to grow, with 15 OECD countries showing positive trends in these areas, largely due to urban spillovers and improved connectivity.

Rural workforces are ageing faster than urban areas, transforming labour markets. Over the last 20 years, the old-age dependency ratio increased at a higher rate in rural regions than in metro regions in all but five countries. In 2001, for each 100 working-age people (20–64), there were 3 more people aged 65+ in rural than in metro areas across the OECD; by 2021, this difference had doubled. The old-age dependency ratio in rural remote regions (38% in 2021) is the highest across rural types and is projected to rise further. Overall, workers over 50 are now the largest age group in rural workforces, creating new labour market and employment challenges.

While metro regions lead overall in GDP growth, there are pockets of growth across rural places. Metro regions have on average outpaced rural in GDP growth (2.2% vs. 1.7% annually, 2001-21), and the GDP gap between urban and rural has widened since the 2008 global financial crisis. However, performance is diverse across countries and types of regions, and some rural regions are outperforming. In Germany, Portugal and Switzerland, rural regions grew at a faster pace, creating pockets of growth.

Among the different types of rural regions, those near FUA's, especially small FUAs, show stronger economic performance, highlighting the importance of rural-urban linkages and intermediate cities.

Rural performance looks more resilient in GDP per capita growth, which suggests that capital-labour substitution is leading to some efficiency and productivity gains. In 16 OECD countries, the rate of growth in GDP per capita in rural regions was higher than in metro regions over 2001-21. In 11 OECD countries, rural regions converged to the national average. Amongst types of rural, it is rural near small FUAs that recorded stronger GDP per capita growth across the OECD (1.8% annually). Still, productivity gaps remain, and productivity growth slowed in rural regions after the 2008 financial crisis – disrupting a pre-crisis process of rural-urban productivity convergence, mainly driven by remote rural regions.

Economic specialisation varies significantly across rural places, so they are likely to pursue different opportunities. Rural near midsize/large FUAs tend to specialise in manufacturing and tradeable sectors. Rural near small FUAs have mixed economic structures, but manufacturing also plays a key role. In 15 countries, rural near a FUA featured the highest share of employment in manufacturing in 2001. Rural remote regions are more reliant raw materials and primary activities such as agriculture, forestry, fisheries, natural and public administration. These specialisations mean that rural regions near cities can benefit from urban spillovers, supporting high-value sectors like digital services, advanced manufacturing, and innovation hubs. Remote rural can build competitive advantages in raw materials, primary activities (e.g. sustainable agriculture, forestry etc.), renewable energy, and nature-based tourism.

Advanced rural manufacturing remains a key driver of rural growth and employment. The sector matters for rural: one out of five rural jobs are in manufacturing. This share is expected to increase with digital-driven decentralised manufacturing models and more integrated regional supply networks. The employment share of manufacturing is higher in rural regions near a FUA. And rural regions matter for the sector: almost half of OECD manufacturing jobs are in rural places. Automation is an advantage in this context, not a risk. Automation and land advantages make rural regions cost effective, efficient and sustainable. Automation and the subsequent labour-capital substitution make talent shortages less pressing, while increasing overall productivity.

1.2.2. Four STAR drivers of rural economic growth

Four core drivers underpin rural economic growth, each offering distinct opportunities and policy implications.

Figure 1.2. STAR drivers of rural growth

Source: Author's elaboration

- ***S**pecific assets of rural places:* Rural regions possess distinctive characteristics – such as remoteness, land availability, and strong community ties – that, when strategically mobilised, can become powerful drivers of economic growth and innovation. Examples include large-scale renewable energy installations, eco- and outdoor tourism ventures, and military or technology testing sites. Renewable energy generation in particular, is a rapidly expanding sector, with rural regions producing 63% of renewable electricity across the OECD. Yet without deliberate policy frameworks, the economic benefits often bypass local communities, accruing instead to external investors or urban centres. Unlocking the potential of these assets requires strategic investment and governance mechanisms that ensure value is retained and reinvested within rural economies.
- ***T**radeable specialisation*: Tradeable sectors are essential for rural regions to achieve scale, improve productivity, and integrate into global value chains**.** They represent the most significant source of future economic opportunity for many rural regions, particularly in an increasingly interconnected and technology-driven global economy. Rural regions have traditionally anchored their economies in tradeable goods, such as agriculture, resources sectors such as mining or forestry, tourism and specialised manufacturing. The tradeable sector is an important source of competitiveness for rural regions. OECD evidence shows that employment growth in the tradeable sector is positively correlated with productivity gains at the TL3 level. Moreover, regions that shift employment towards tradeable industries tend to experience stronger economic performance over time. Moving forward, an essential element for the rural growth model with a focus on tradables will be for trade barriers to remain low or inexistent.
- ***A**ccess to urban markets and rural-urban linkages***:** Rural places located near cities benefit from spillovers in demand, productivity, and resilience, as urban economies enjoy economies of agglomeration. These connections support access to markets, services, and infrastructure, while also positioning rural regions as attractive alternatives in the face of urban pressures, such as high housing costs, inequality and environmental stress. Cities enjoy productivity and income advantages driven by agglomeration, and their resilience to shocks is markedly higher: only 4% of metropolitan regions experienced economic contractions over the past two decades, compared to 13.8% of rural regions (based on TL3 data). Urban pressures such as high land and housing costs, rising inequality, and environmental constraints also drive people and firms to consider rural locations close to cities, particularly when infrastructure and services are accessible. Releasing negative externalities in agglomerations can also help boost national growth.
- ***R**esources (natural resources):* Minerals, forests, and energy reserves when managed strategically, can drive long-term prosperity in rural and remote rural regions, generate high-wage employment, and support national productivity goals. Mining and forestry-intensive regions frequently outperform national averages in GDP and productivity. On average, mining regions across the OECD exhibit GDP per capita levels 18% higher than their national economies – with some, like Antofagasta in Chile, reaching up to three times the national average. However, these regions are also vulnerable to global commodity cycles, resource depletion, and environmental degradation. Industry diversification is typically low – 15% below national benchmarks – and patenting activity is nearly 50% lower, constraining adaptive capacity and innovation. Reinvesting resource revenues in infrastructure, education, and economic diversification is essential and governance mechanisms should ensure local benefit capture while promoting resilience.

1.2.3. Key enabling factors for rural resilience

Although there is a range of enabling factors to support rural competitiveness and resilience, this report suggests three areas of prioritisation: fostering skills, enhancing entrepreneurship and innovation and improving digital connectivity. Other critical enablers and foundational conditions include quality infrastructure, access to finance and effective local governance.

- ***Addressing rural skills gaps**:* Rural regions face persistent skills gaps and labour shortages, worsened by ageing populations and youth outmigration to cities for education and career opportunities. This weakens local labour markets and limits growth. Rural students often struggle with developing relevant skills, with PISA results showing competence gaps between urban and rural areas— – also primarily by socio-economic factors more than education quality. Interestingly, rural residents report similar satisfaction with education services as urban dwellers, suggesting that brain drain, rather than service quality, is the greater challenge. Digital skills in particular, are essential for rural regions to fully benefit from digitalisation and close the gap in technology adoption. A 7.7 percentage point divide in internet use between leading and lagging regions – and over 20 points in countries like Ireland, Türkiye, and Japan – highlights persistent digital inequality. Rural workers are also far less likely to access remote work, with uptake at nearly half that of urban areas, reflecting the need for stronger digital capabilities across rural labour markets.
- ***Strengthening entrepreneurship and innovation**:* Rural innovation and entrepreneurship lag significantly behind metro areas. Though advancement in innovation measurement, along with the fact that rural regions engage less in science and technology and more in incremental innovations, suggest that the gap is not as large as typically reported, insufficient entrepreneurship is still a big challenge. Youth start-ups are lagging in rural areas; in the EU, there were proportionately 25% fewer young start-up entrepreneurs in rural areas as compared to cities in 2019. Lower youth start-up rates are also driven by the higher outward migration rate of youth to cities as well as the age structure composition of the rural workforce that includes a smaller share of youth to the overall workforce. But in any case, young rural entrepreneurs are 8.6% less likely to start a company than urban ones. Most of the rural-urban entrepreneurship gap is explained by socio-economic characteristics such as education, sector of activity, household characteristics and living conditions.
- ***Expanding digital connectivity**:* Digital infrastructure is increasingly vital for economic and social development in rural areas, but gaps remain. Despite advancements in broadband coverage, there are still important gaps in connectivity and download speeds between rural and urban regions in OECD countries. On average one-third of rural households do not have access to high-speed broadband and only 7 out of 26 OECD countries have secured access to a high-speed connection for at least 80% of rural households. Broadband speeds can enable or hinder access to opportunities such as education, healthcare, and teleworking – all of which directly influence quality of life and development in rural areas. To seize the benefits of digitalisation, access to communication infrastructure needs to be complemented by the widespread adoption of digital technologies and by digital skills. Recent evidence from OECD countries shows that there is still a clear regional divide in the take-up of digital technologies.

1.2.4. From growth to well-being and the importance of perception

Economic competitiveness is a crucial determinant of rural wellbeing, but not the only one – the environment and access to services also matter. Access to quality services is a key driver of well-being, but significant disparities persist between rural and urban areas in OECD countries. Rural inhabitants have lower access to service facilities, including for education, healthcare, banking and digital infrastructure. Service delivery costs tend to be higher in less densely-populated areas due to sparsity, lower economies of scale, and higher transportation costs This in part contributes to poorer social outcomes in rural regions. Data trends show rural-urban disparities that extend to health outcomes, including life expectancy and health prevalence. Life expectancy at birth remains lower in rural areas, with a 2.4-year gap between remote and metropolitan regions.

Perceptions of rural residents on their local economy and services matter for life satisfaction. Data from sentiment surveys shows that rural residents are more attached and engaged in their communities than metro populations, but less confident about their local economies and often less satisfied with local

services, all of which reduces their well-being. Opportunities need to reach local communities, since discontent across rural places is emerging across different countries. Recent social tensions across the OECD signal a degree of dissatisfaction with current policies in some rural places.

1.3. Trends and analysis highlight important implications for rural policy

Policies must be tailored to the diverse realities of rural regions, reflecting their economic and demographic differences. Rural regions near midsize or large cities tend to perform better in demographic indicators due to stronger rural-urban linkages, while remote regions face greater risks of economic decline and population loss. This highlights the need for targeted strategies, diversifying economies and investing in high-value sectors to build resilience. For regions facing gradual decline, adaptation policies can help manage change while preserving quality of life. In areas with rapid demographic contraction, more decisive interventions may be needed to avoid downward spirals and maintain long-term viability.

Policies need co-ordination towards place-specific goals, with local economic strategies and place-based industrial policies to proactively steer rural transformation efforts. Rural regions require more than generic support – they need targeted, proactive strategies that identify and develop high-potential sectors based on local strengths and assets. Smart specialisation offers a framework to guide public and private investment towards areas with comparative advantage, turning local competencies into globally competitive sectors. Industrial policy can catalyse this by promoting tailored interventions in sectors such as advanced manufacturing, renewable energy or the bio-economy, especially when aligned with national priorities. Multi-level governance is critical to deliver this, combining national strategic direction with local implementation and entrepreneurial discovery processes that are responsive to fast-evolving global trends.

Policy makers must adopt a forward-looking approach to make rural areas resilient. A new competitive role for rural regions can be enabled by how well they adapt to global megatrends. Local communities need to reimagine the possible. Automation offers productivity opportunities, particularly in capital-intensive sectors like agriculture and manufacturing. Rural regions are uniquely positioned to lead in renewable energy, carbon sequestration, and sustainable agriculture. Also, prosperous rural regions need to plan long-term. Resource extraction needs to be balanced with investment in innovation, human capital, and industry diversification to remain resilient to global shocks. The experiences of both high- and low-performing mining regions underscore the need for strategic policy interventions to ensure that resource wealth translates into broad-based, sustainable development.

Policies beyond growth, including for service delivery, are essential in rural regions not only for well-being but also for economic competitiveness and trust in public policy. Access to quality services such as healthcare, education, digital infrastructure, and banking is a key driver of rural well-being, yet significant disparities with urban persist across OECD countries. These gaps not only contribute to poorer social outcomes, but also undermine the attractiveness of rural regions for residents and businesses, weakening their economic potential and shape rural perceptions reporting less confidence in local economies and public services. This underscores the need for innovative, cost-effective service delivery models, alongside clear communication and engagement strategies to strengthen local confidence, ensure policy buy-in, and address dissatisfaction emerging in some rural regions.

Policies need to bring and communicate benefits to the communities and regions to gain local buy-in. In the green economy, for instance, rural regions face the paradox of being significant producers of green energy while having higher per capita emissions. Rural regions must ensure that green energy initiatives taking place also benefit local communities to avoid backlash and resistance. In the quest for new sources of growth, rural regions seem particularly exposed to economic and environmental trade-offs. Similarly to energy projects, the exploitation of natural resources, such as mining and forestry, brings economic opportunities, but also leads to environmental degradation, raising concerns about sustainability

and the true cost of these developments. This growing divide where rural communities are bearing much of the environmental burden without fully reaping the rewards has also contributed to rising discontent.

1.4. Rural regions can benefit from tailored policy actions

To take advantage of emerging opportunities in rural regions requires policy actions targeted to specific types of rural places. Rural regions close to functional urban areas (FUAs) require specific and varied action to capitalise on and address assets and challenges. It also requires attention to whether the policy is distinctly rural development policy or policy across other departments or ministries that impact rural regions. This will influence who is responsible for the policy action and the potential cross-ministry or department co-ordination needed. This report outlines three key areas shaping well-being standards for rural dwellers tailored to varied levels of policy makers across the two main types of rural places (rural close to FUA and rural remote): i) economic competitiveness, ii) provision of services, and iii) the green transition. These three dimensions are necessary but not sufficient on their own to raise well-being standards in rural regions. Policies need to integrate across all three according the different contexts and priorities.

1.4.1. Policy actions for rural places close to functional urban areas

Economic competitiveness

Rural regions located near functional urban areas (FUAs) benefit from better access to markets and can tap into the advantages of agglomeration, such as shared services, infrastructure, and knowledge exchange. These areas are well-positioned to attract a skilled labour force and retain talent, increasing opportunities for economic growth. Manufacturing plays a crucial role in the economic base of rural regions close to cities, and its continued development is essential for long-term competitiveness. Proximity to FUAs can enable rural manufacturing to better integrate into broader supply chains and respond more rapidly to market demands.

To unlock this potential, policies must focus on enabling future manufacturing growth through investment in infrastructure, skills, and innovation. Innovation in these rural regions must align with the specific opportunities presented by agglomeration, including collaboration with nearby urban centres and research institutions. This can foster the development of niche industries and high-value products that benefit from both rural assets and urban linkages. Strengthening these rural-urban connections supports inclusive regional development and resilience. It also enhances the ability of rural places to diversify their economies while preserving local identities.

Service delivery

Rural regions located near cities have a unique opportunity to leverage their proximity to deliver high-quality public services that fulfil cost, accessibility, and quality. This closeness can support shared infrastructure, better access to healthcare and education, and stronger service networks. However, this advantage also comes with a proximity paradox where rural regions near urban centres may struggle to maintain or finance local services due to being overshadowed by nearby cities. It is essential to ensure that these regions are not left behind in planning and investment decisions.

Addressing housing demand is another growing challenge, as people are increasingly moving to rural places close to cities for affordability or lifestyle reasons. This rising demand can drive up housing costs, strain local infrastructure and worsen urban sprawl. Strategic planning is needed to ensure housing remains accessible while preserving the character of rural communities. Strengthening co-ordination between rural and urban governments can help balance growth and protect rural quality of life. Ultimately,

turning proximity into an advantage requires targeted policies that recognise both the opportunities and pressures facing rural regions near cities.

Environmental policies and leveraging the green transition

Rural regions close to FUAs face unique pressures and opportunities that require tailored climate and land use policies. As these regions experience growing urbanisation pressures, land use planning becomes critical to balancing the competing needs of housing, agriculture, industry, and environmental protection. Smart land use strategies can help manage these tensions, guiding sustainable development while preserving the natural assets that rural communities depend on.

Circular economy models offer powerful tools to address rural challenges by promoting resource efficiency, reducing waste, and creating new economic opportunities. These models can support local industries such as agriculture, forestry, and manufacturing while regenerating ecosystems and reinforcing climate goals. By designing policies that reflect the specific dynamics of rural areas close to cities, governments can create synergies between environmental sustainability and regional economic growth. Integrating circular approaches into regional planning also helps future-proof these areas against climate risks and integrate them into value chains.

1.4.2. Policy actions for rural remote places

Economic competitiveness

Rural remote regions hold significant potential for growth by taking advantage of numerous unique characteristics and ensuring tailored approaches to leverage these assets. By reducing their distance to markets through improved infrastructure and connectivity, rural regions can create linkages where possible. Capitalising on remote-specific assets such as natural resources can drive local economic development, especially when paired with sustainable management practices. A key factor in this process is the meaningful inclusion of local community members, including rights holders such as Indigenous peoples, in the development of projects, ensuring that benefits are shared and cultural knowledge is respected.

Rural remote areas can also unlock tourism opportunities, offering a powerful way to diversify remote economies, drawing on unique landscapes, heritage, and community experiences. Innovation can play a crucial role in enabling these regions to overcome geographic challenges and develop context-specific solutions, especially in niche areas (mining, bioeconomy, tourism etc.). Support for digital connectivity, entrepreneurship, and education are essential to help remote areas take advantage of these opportunities.

Service delivery

Remote rural places face significant challenges in delivering public services, particularly as demographic shifts such as ageing populations and youth outmigration reshape community needs and workforce capabilities. Adapting public service delivery to these changes requires flexible, place-based approaches that make the most of limited resources. In education, supporting remote schools through digital tools and stronger community involvement can help ensure quality learning despite low student numbers. In some cases, the restructuring of school networks may be necessary to address rising per capita costs in remote regions, provided that accessibility to educational institutions is maintained through appropriate transport solutions. Healthcare access can be improved by embracing innovative solutions such as telemedicine, mobile clinics, and localised care models.

Investing in broadband connectivity is fundamental not just to increase access and the quality of services, but also to build digital skills that enable essential activities like communication, entrepreneurship and innovation. Revitalising housing through adaptive re-use and renovation can help attract and retain residents, while preserving community heritage. These strategies can collectively improve quality of life and build resilience in remote rural regions. Integrated planning and strong local partnerships are key to

making these solutions work on the ground. Ultimately, tailored public service models can ensure that remote rural communities remain vibrant, inclusive, and well-connected.

Environmental policies and leveraging the green transition

Rural regions have a leading role in the clean energy transition, particularly with renewable energy production offering a powerful lever for both local economic development and meeting global climate goals. By strategically investing in and managing renewables capacity, rural regions can generate local jobs, attract investment, and become drivers of national climate targets. To fully unlock this potential, targeted policies and investments are needed to ensure remote areas have the appropriate ecosystem to support projects such as liveability, skills, services, and infrastructure.

Policy strategies related to renewables should integrate energy, land use, infrastructure, and social inclusion goals to ensure long-term impact. Indigenous peoples, often living in rural or remote regions, are particularly vulnerable to the effects of climate change but also possess deep knowledge and practices that can contribute to climate resilience. Recognising their rights, leadership, and expertise is essential in developing effective and just climate strategies. Inclusive approaches that centre Indigenous voices can lead to more holistic and equitable outcomes. Rural climate policy must be tailored, collaborative, and grounded in place-based strengths to ensure local communities not only participate but benefit from these developments.

1.5. Effective implementation of policy actions requires a transformative approach

Targeted rural policy is essential, but without attention to implementation factors, its impact will be limited. Key challenges include low policy coherence, fragmented co-ordination across government agencies, and insufficient efforts to address issues at appropriate geographic scales or to promote collaboration between municipalities. To strengthen implementation, a more comprehensive and nuanced evidence base for rural places must be developed. This involves investing in both qualitative and quantitative data to assess policy impacts, monitor the evolving state of rural communities, and better understand the lived experiences of rural residents – particularly in relation to quality of life. In addition, empowering rural communities is essential. Targeted actions that amplify the rural voice – through meaningful consultation and clear communication of policy intentions – can foster trust, accountability, and sustained engagement. Without this, even well-designed strategies risk falling short of their potential. This framework is essential to explore the connection between discontent and rural well-being address the growing expectations of rural citizens for co-ordinated, long-term solutions that extend beyond electoral cycles and bureaucratic divisions.

1.6. 16 Recommendations to Reinforce Rural Resilience

Table 1.1. Recommendations

Recommendation		Actions (Rural close to FUA)	Actions (Rural Remote)
Enabling competitiveness			
1	Bridge the digital divide by expanding broadband networks and digital literacy programmes in rural places.	• Launch “last-mile” broadband subsidy schemes to extend fibre coverage in growing peri-urban areas. • Partner with nearby tech hubs and universities to provide short-term digital bootcamps for rural residents. • Integrate digital infrastructure planning into regional development strategies to ensure alignment with new housing and industrial developments.	• Deploy satellite-based internet solutions and mobile broadband towers to reach geographically isolated communities. • Establish digital community centres that double as learning hubs and connectivity anchors in small remote towns. • Provide subsidies or tax incentives for private providers to deliver broadband to low-density areas with low commercial returns
2	Address labour shortages by implementing apprenticeship programmes and vocational training aligned with local industry needs.	• Expand partnerships between rural schools and nearby urban employers to co-design vocational training pathways. • Offer dual-location apprenticeships combining rural practical placements with urban classroom-based instruction. • Incentivise manufacturing firms to host apprentices by offering wage subsidies and mentorship support	• Deploy mobile training labs to deliver hands-on skills programmes in remote communities with limited infrastructure. • Partner with local Indigenous organisations to co-create culturally appropriate vocational programmes in tourism, land management, and trades. • Provide relocation and housing stipends for trainers and apprentices to overcome distance barriers and ensure retention.
3	Encourage rural entrepreneurship and business innovation through financial incentives and incubator programmes.	• Provide micro-grants for rural start-ups in high-growth sectors like agri-tech, clean manufacturing, and digital services. • Set up rural innovation incubators in shared co-working spaces with fibre broadband and mentorship access, connecting rural entrepreneurs with experienced business leaders and investors through online and in-person mentorship programmes. • Create local procurement incentives for public services to contract with nearby rural entrepreneurs. • Connect rural SMEs to research institutions and funding schemes in urban areas.	• Launch "start local" schemes offering seed funding and business coaching tailored to small-scale, community-driven enterprises (e.g. eco-tourism, artisanal food, or land stewardship services) and for digital innovation. • Establish mobile business support teams that visit remote communities to assist with business planning, licensing, and grant applications. • Support co-operative business models and community-owned enterprises that build collective capacity in places with limited individual capital.

Mobilising rural assets			
4	Develop smart specialisation and local industrial strategies to guide long-term rural transformation via key sectors.	• Identify strategic sectors: conduct regional growth diagnostics and facilitate stakeholder engagement to identify sectors with strong rural-urban market potential. • Map rural-urban economic linkages to analyse commuting patterns, supply chains, and service flows • Engage both urban and rural stakeholders to assess policy overlap and co-ordination gaps. Facilitate multi-stakeholder smart specialisation workshops, identifying key collaboration opportunities with urban areas.	• Identify strategic sectors: use participatory mapping and community-led diagnostics to uncover niche opportunities (e.g. circular economy, renewable energy, cultural tourism) tied to natural or heritage-based assets. • Benchmark against peer regions that have developed specialised value chains in remote contexts (e.g. forest-based bioeconomy in Finland), adapting models to local conditions. • Map local capacities and gaps in skills, services and infrastructure to identify needed investments.
5	Direct place based industrial policy tools—investment, incentives, infrastructure—towards locally selected sectors	• Provide targeted support to first movers, pioneering entrepreneurs and SMEs aligned with local comparative advantage. Offer incentives (e.g. subsidised credit, skills training, regulatory fast-tracking) to SMEs serving urban-linked sectors like logistics, green tech, or digital services. • Invest in agro-industrial parks or innovation hubs near transport corridors to foster economies of scale and integrate with urban markets • Channel industrial policy support into peri-urban manufacturing zones, tech-enabled clusters, and supply chain integration with metropolitan economies. • To strengthen resilience, promote and invest in Invest in service linkages (e.g. logistics, packaging, R&D) around existing industrial clusters to build diversified supply chains and SME ecosystems.	• Support small-scale, decentralised infrastructure (e.g. digital hubs, artisan workshops, energy microgrids) and offer targeted incentives for firms investing in locally strategic sectors. • Tailor support to businesses in strategic rural sectors (e.g. renewable energy, sustainable agriculture, cultural industries), prioritising basic infrastructure and access to markets. • Invest in specialised artisan hubs, agri-food processing zones, or renewable energy platforms focused on clustering local producers and reducing transaction costs. • To strengthen resilience, promote complementary activities around flagship sectors-e.g. eco-tourism tied to local food, crafts, or energy-through support for microenterprises and community co-operatives.
6	Strengthen co-ordination among local governments, businesses, and community organisations to align rural development strategies	• Establish regional co-ordination bodies to connect local governments, chambers of commerce, and civil society groups to co-develop and monitor rural development strategies • Align incentives and funding mechanisms in rural and urban places through collaboration	• Create and resource platforms for co-ordination between various remote rural actors. • Facilitate capacity building among local government and community actors (including Indigenous and civil society organisations) to ensure adequate resources in engaging in consultation.
Improving rural services			
7	Ensure essential services are available in a timely and affordable manner	• Foster service integration and co-ordination through rural-urban partnerships • Invest in staffing of key services to meet demand from those travelling from rural places	• Invest in incentives to attract and retain service workers • Strengthen community-based service capacity through training and employment of local workers • Address cost barriers through subsidies or fee-wavier programmes • Support mobile solutions to deliver services to remote

			communities
8	Enhance transportation options	• Improve regional public transport links through improved co-ordination and inter-modal systems • Pilot innovative and flexible transport solutions such as on-demand transport in low-density areas	• Partner with local NGOs or community groups to scale up community-run transport • Integrate on-demand systems for transport to key service areas
9	Support affordable housing and flexible housing policies	• Promote medium-density housing near transport links and flexible housing models such as tiny homes, and multi-generational housing • Implement inclusionary zoning and land use reforms	• Prioritise housing for local and essential workers through housing schemes • Allow temporary or seasonal housing permits for areas with fluctuating workforce needs
Leveraging the green transition			
10	Ensure strong land-use plans that protect the environment, address tensions, and capitalise on unique opportunities	• Incorporate urban expansions into spatial planning, safeguarding agricultural land, green spaces, and biodiversity corridors • Invest in green infrastructure and integrate into rural-urban spaces to reduce environmental pressures from urbanisation	• Strengthen environmental governance through promoting sustainable extraction practices, enforcing regulatory frameworks, and empowering local communities. • Embed climate resilience in land use plans through adopting ecosystem-based adaptation strategies, resilient infrastructure investments, and community-based planning (including Indigenous or community-led conservation and monitoring).
11	Ensure inclusive engagement in the green transition opportunities	• Strengthen local participation in renewable energy initiatives to improve social acceptance and ensure long-term viability of investments. • Enhance community-led energy projects, such as co-operatives and benefit-sharing models. • Provide education and training on the importance of the green transition and sustainability	• Engage with local communities to allow rural populations to take ownership of local energy assets. • Through energy projects, support workforce retraining and economic development strategies. • Provide education and training on the importance of the green transition and sustainability
	Ensuring effective policy implementation		
12	Policy Coherence and cross government Integrated action	• Leverage governance tools (e.g. co-financing, consultation processes, intergovernmental committees) to align investment and enhance cross-sectoral co-ordination.	
		• Develop indicators to track inter-sectoral collaboration (e.g. number of committees, budget allocations, stakeholder engagement metrics).	
		• Introduce a rural proofing process tailored to national and regional contexts to integrate rural considerations into policy development.	
13	Building Scale and Promoting Co-operation	• Base policies on Functional Rural Areas (FRAs) to reflect functional economic and spatial dynamics of rural regions.	
		• Enhance rural-urban linkages through incentives, governance capacity-building, and improved interconnection metrics.	

		• Promote public private partnerships to mobilise investment and innovation for sustainable rural development.
14	Improving Rural Evidence	• Improve data collection on rural well-being by identifying the key domains that matter most to rural communities. This requires a blend of empirical research and participatory engagement to ensure that indicators reflect lived realities.
		• Develop and maintain rural proofing intelligence comprised of: o State of rural data to establish a clear understanding of rural conditions. o Potential impact data to evaluate how specific policy proposals may affect rural communities—particularly in ways that may be unintended, disproportionate, or overlooked—thus supporting necessary policy adjustments. o Value-added data to demonstrate how working with rural communities—rather than overlooking or bypassing them—can help non-rural ministries (e.g. environment, health, education, energy) more effectively achieve their policy goals.
15	Actions to galvanise and value the rural voice	• Support rural local governments in adopting a broader range of financing tools, such as municipal bonds, land value capture, and public–private partnerships. • Establish or strengthen institutions (e.g. local government financing agencies) to facilitate access to affordable capital and reduce reliance on national transfers.
		• Effective engagement should be inclusive of diverse stakeholders; ensure two-way dialogue; provide prior access to relevant information; and, include transparent feedback mechanisms to show how input influences decisions
		• Invest in spatially disaggregated data to strengthen rural foresight intelligence and track the impacts of megatrends and change drivers.
16	Effective Communication	• Transition from one-way communication to a participatory model. Adopt a three-tiered communication approach—inform, consult, partner—to actively involve rural communities in the design, delivery, and evaluation of policies. • Co-develop and tailor messages with rural communities. Work collaboratively with rural residents and local organisations to co-create messages that reflect community values and priorities. • Use trusted local messengers and appropriate communication channels. Leverage existing local communication networks, including community leaders, organisations, and influencers, to deliver policy messages and select channels that match rural realities. • Develop inclusive and accessible communication strategies - Ensure communications are inclusive by integrating visual aids, local languages, and non-digital formats. • Institutionalise strategic communication planning across all policy reforms impacting rural areas and incorporate communication planning into all stages of policy design—particularly for changes with rural implications.

2 Trends, opportunities and challenges for rural regions

Demographic decline and ageing challenge rural viability, especially in remote areas, but economic transformation is underway. There are pockets of rural growth: data shows rural regions near cities are best positioned to capitalise on manufacturing, innovation, and urban spillovers, while remote areas require targeted support to harness resource-based and green economy opportunities. Unlocking this potential hinges on strategic investment in digital infrastructure, skills, and entrepreneurship aligned with place-specific strengths and global transitions. This chapter examines trends across different types of rural regions in population growth, ageing, economic output and specialisation, productivity, innovation, environmental performance, social outcomes, and public sentiment. It then identifies the main drivers and enabling factors of rural performance and competitiveness as well as opportunities and challenges across the green economy and service delivery that are relevant for shaping rural quality of life and satisfaction.

2.2. Introduction

Rural communities present special challenges, but also unique features and resources that can be leveraged for untapped opportunities. Some trends and challenges are accentuated in rural regions, like more profound demographic change, more limited financial capacity, and constraints in labour supply, education, and service provision. There are also challenges that are specific to rural regions like lack of market density, and it is well known that they tend to underperform vis-à-vis their urban counterparts across several economic outcomes, including on productivity and innovation. Often, the more remote the region, the greater the challenge. But recognising also their unique features like natural and cultural resources, governments seek to identify areas of opportunity and integrate specific, tailored policies.

The objective of this chapter is to assess how rural regions can become more competitive in the modern economy and resilient to global megatrends. To do so, it draws on the latest OECD-wide data and analysis to present a comprehensive evaluation of economic, demographic, social, and environmental trends across different types of rural regions, identifying areas where rural regions have performed well as well as challenges and opportunities. This then allows to identify success factors for the transformation of rural economies and to capitalise on opportunities for economic growth and improved well-being standards.

A key contribution of the analysis is its disaggregated approach, distinguishing between rural areas close to functional urban areas (FUAs) and those that are more remote. This distinction recognises their distinct economic trajectories and policy needs. This granular perspective is crucial: while broad rural-urban comparisons offer valuable insights, they often mask significant variations within rural regions themselves. By leveraging detailed OECD regional data and applying a functional approach to rural economies, this chapter (and the publication) helps fill a critical gap in rural development research and has a more solid data foundation to identify how policy responses can be tailored (covered in further chapters). This more granular approach can better tailor policy responses to different types of rural regions undergoing profound transformations. Another contribution is to analyse how rural trends translate into public sentiment. New data on rural perceptions complements the observed socioeconomic data to show new insight. High-level trends across relevant economic, social and environmental indicators are presented in the main sections of the chapter, whereas more detailed analysis is presented in the Statistical Annex 2.A.

The analysis highlights several key trends shaping rural regions today. Following the introduction, section 2.3 explores demographic and economic trends over the last two decades across different types or rural places – and what those trends mean for rural places and people. Section 2.4 examines economic performance and competitiveness, analysing the sources of growth across rural regions and the conditions that enable innovation and capitalising on rural assets. Section 2.5 identifies specific opportunities in the green economy, in the context of unique environmental challenges in rural regions. Section 2.6 assesses social well-being and access to services, integrating perception data to understand community strengths and vulnerabilities. Section 2.7 concludes with some policy implications.

Box 2.1. Overview of the data for the trends analysis

The unit of analysis focuses on OECD TL3 regions using primarily the OECD extended typology sub-defining rural regions into three non-metropolitan regional categories that recognise the diversity of rural regions (Table 2.1). For the purposes of this paper, the term *non-metro* and *rural* are used interchangeably. More details on the data and definition sources are included in the Statistical Annex 2.A.

Table 2.1. Classification of small regions (TL3) by access to metropolitan areas

Main group	Main group description	Subgroup	Subgroup description	Reduced grouping
Metropolitan TL3 region (**MR**)	50% or more of the regional population lives in a FUA of at least 250k inhabitants	Large metropolitan region (**MR-L**)	50% or more of the regional population lives in a FUA of at least 1.5 million inhabitants	**Metro**
		Metropolitan region (**MR-M**)	50% or more of the regional population lives in a FUA between 250k and 1.5 million inhabitants	
Non-metropolitan TL3 region (**NMR**)	Less than 50% of the regional population lives in a FUA	Region near a FUA larger than 250k (**NMR-M**)	50% or more of the regional population lives within a 60-minute car drive from a FUA with at least 250k inhabitants	**Rural close to FUA** (near a FUA > 50k inhabitants)
		Region near a FUA smaller than 250k (**NMR-S**)	50% or more of the regional population lives within a 60-minute car drive from a FUA between 50k and 250k inhabitants	
		Remote region (**NMR-R**)	50% or more of the regional population lives further than a 60-minute car drive from a FUA of at least 50k inhabitants	**Rural remote** (far from a FUA > 50k inhabitants)

Country coverage and data harmonisation

To ensure a harmonised and comparable basis for analysing demographic and economic trends at the regional level, this report focuses on 29 of the 38 OECD Members. These countries provide consistent and comprehensive subnational data for both economic and demographic indicators, which is essential for producing robust OECD-wide averages. The remaining countries – Australia, Canada, Chile, Colombia, Iceland, Korea, and Mexico – are excluded from most comparative analyses due to missing or incomplete economic data at the TL3 level. In addition, Israel and Costa Rica are not yet classified under the OECD regional rural typology. These exclusions help maintain consistency in the composition of rural and urban regions across countries and ensure the reliability of OECD-level comparisons. Using a different country sample (for example, when assessing the share of rural regions experiencing economic growth alongside population decline), can lead to misleading conclusions due to shifts in the rural-urban composition. For this reason, the restricted sample is used for most cross-country analyses. However, all countries with available data are included in country-level figures, and for demographic indicators, an OECD average based on the full set of countries is presented where possible.

Table 2.2. Summary statistics

Levels for 2021 and growth from 2001 to 2021 measured in % (CAGR)

	OECD	MR-L	MR-M	NMR-M	NMR-S	NMR-R
Population growth, 2001-21 (CAGR, %)	0.39%	0.67%	0.51%	0.33%	0.11%	-0.02%
Old-age dependency ratio, 2021	33.21	30.23	32.32	35.17	37.24	38.08
Old-age dependency ratio, 20021	1.60%	1.52%	1.61%	1.77%	1.72%	1.66%
GDP growth, 2001-2021 (CAGR, %)	2.10%	2.03%	2.21%	1.69%	1.92%	1.49%
GDP per capita, 2021	47,079	58,948	51,097	38,115	35,925	32,444
GDP per capita growth, 2001-21 (CAGR, %)	1.70%	1.34%	1.68%	1.35%	1.80%	1.51%
Labour productivity, 2021	75,985	88,435	76,992	70,344	64,118	60,054
Labour productivity, 2001-21 (CAGR, %)	1.32%	0.83%	1.21%	1.13%	1.62%	1.32%

Note: In order to overcome biases on the number of rural TL3 regions, the OECD averages through this chapter are country-weighted, meaning that CAGRs are first calculated at the country level before taking a simple average. Population growth, the old-age dependency ratio, and GDP values are based on the restricted OECD sample without Korea, covering 29 OECD countries, while labour productivity figures are based on 20 OECD countries. Source: Author's elaboration based on the OECD Regional Database

2.3. The Rural Predicament

This section analyses how rural regions have been evolving over the last two decades, particularly with respect to urban metro regions, and what their unique trends and challenges mean for the future. The analysis is based on granular socioeconomic data that distinguishes between the different types of rural regions facing different trends, and thus will need to pursue different opportunities and development paths. The section also explores how public sentiment in rural places compares to their urban counterparts amid these trends.

2.3.1. Rural demographic shifts at different paces

The evolution of rural economies is largely shaped by demographic change. Many are certainly facing deep challenges. Over two out of five of the more remote rural regions and those close to small FUAs are already experiencing depopulation and shrinking, and with ageing accelerating in most.[1] Nevertheless, the data also suggest that opportunities exist across all types of rural regions. For a start, shrinking does not necessarily mean economic decline; rural GDP per capita has looked resilient overtime, even among regions shrinking. Furthermore, many rural regions continue to grow,[2] with some outpacing metro areas, particularly those near midsize and large cities, suggesting opportunities to leverage rural-urban linkages. There are also pockets of growth among the more remote regions.

Population growth

Rural (i.e. non-metro) regions are experiencing slower population growth that metro regions and are shrinking in some countries. Over 2001-21, the overall population across the 29 OECD countries we focus on in this report increased from approximately 945 million to nearly 1 043 million. In 17 OECD countries, population has been increasing in both rural and in urban regions (with the highest rates in Ireland, New Zealand and Türkiye). But population growth is uneven: in all OECD countries, apart from

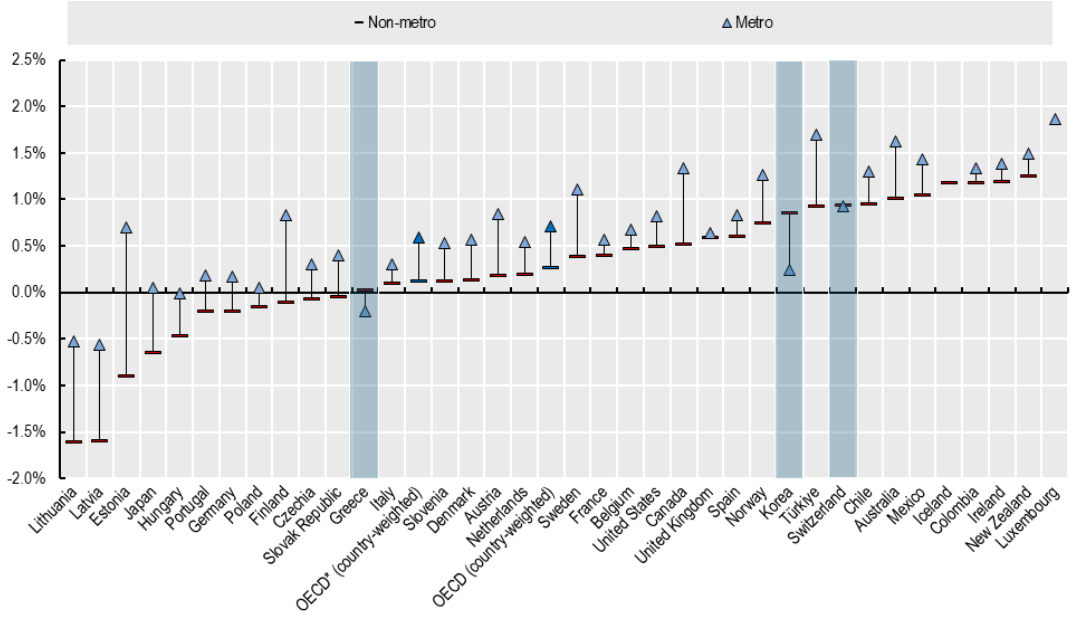
Greece and Switzerland (and Korea, when considering the full set of OECD countries), population growth has been higher in metro than in non-metro regions (Figure 2.1), thus increasing the population share of metro relative to rural. Nine OECD countries are already shrinking in population, mainly driven by rural populations (while both metro and non-metro populations declined in Lithuania and Latvia).[3]

Among rural regions, those close to midsize/large FUA are more likely to continue growing. Rural regions represent a higher share of the shrinking regions in all countries with the exception of Japan. Already close to half (47.3%) of rural near a small FUA and 40% of remote rural are shrinking in population – thus many OECD countries are experiencing declines in these types of rural populations.[4] This contrasts with a lower share (25.1%) of rural near cities (midsize/large FUA) shrinking in population. Rural places near large FUAs tend to show faster population growth and in 15 OECD countries their populations increased (Figure 2.2).[5] With these trends, in countries like Austria, Finland, Italy and Portugal, the population of rural remote regions declined, while rural regions close to cities continued to grow.

Rural remote regions are experiencing the highest share of significant demographic decline. The rate of population decline is important for policy design. If population rates are gradually declining, an adaptive approach can be effective. In contrast when population declines are severe it can drive regions into negative downward spirals, warranting more urgent policy responses. The share of rural remote regions whose decline was larger than 1% annually (which means the population shrinking by more than one-fifth over a 20-year period) was 5.5%, and the share climbs to 15.2% for those experiencing annual declines of at least 0.5% (one-tenth over 20 years) (Annex Table 2.A.1). As a reference point, amongst all the regions that lost population (rural and urban), 40% of them experienced an average decline no higher than 0.25%.

Figure 2.1. Population change across metro and non-metro regions, 2001-21

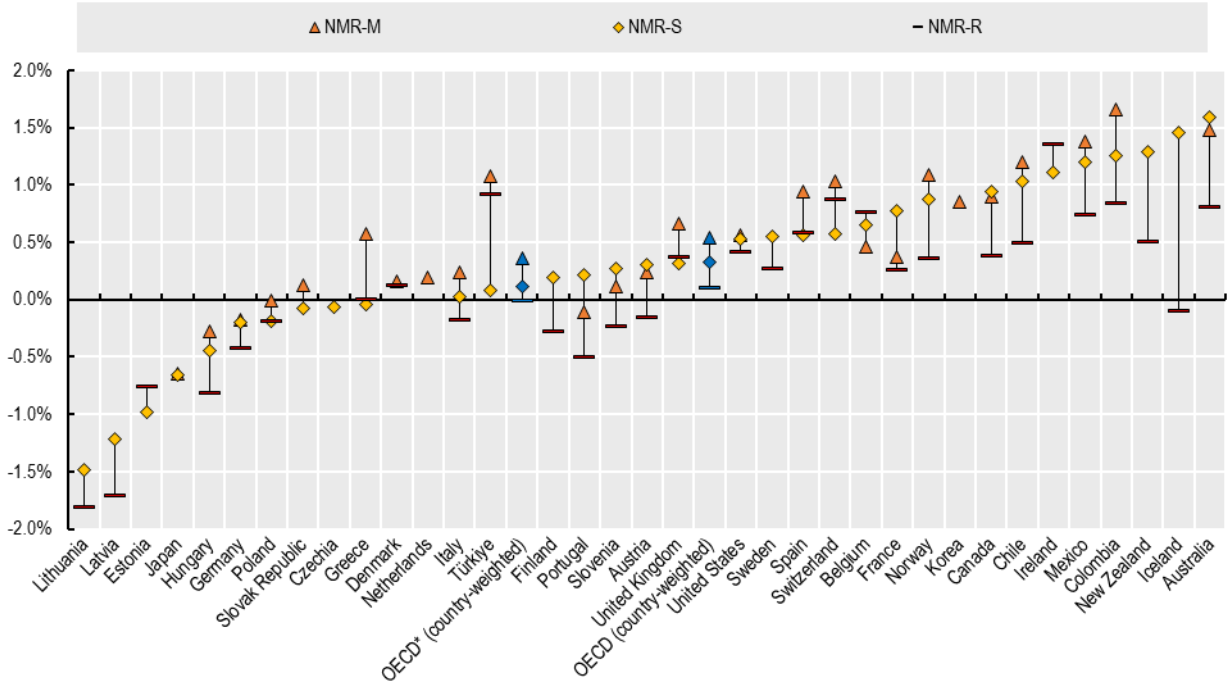
Population change, in %



Note: Population changes are expressed as the compound annual growth rate (CAGR). Changes were calculated by summing population of TL3 regions within each country and distinguishing between metropolitan and non-metropolitan regions. Data covers 36 OECD countries and measures growth from 2001 to 2021, with Korea included from 2012 onward due to data availability. The OECD average is an unweighted country average. The asterisk (*) indicates a restricted OECD average, excluding countries without available GDP data: Australia, Canada, Chile, Colombia, Iceland, and Mexico.
Source: Author's calculations based on the OECD Regional Database.

Figure 2.2. Population change across types of rural regions, 2001-21

Population change by OECD country and average for the whole OECD, in %



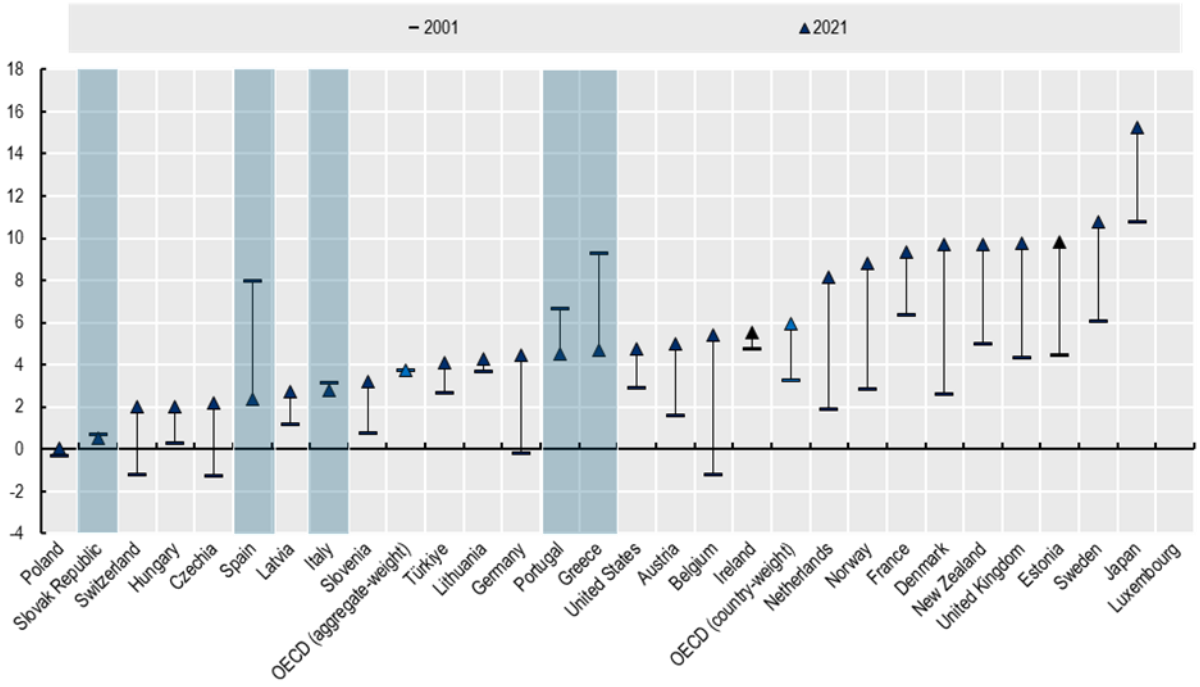
Note: Population changes are expressed as the compound annual growth rate (CAGR). Changes were calculated by summing population of TL3 regions within each country and distinguishing between NMR-M, NMR-S, and NMR-R. Data covers 36 OECD countries and measures growth from 2001 to 2021, with Korea included from 2012 onward due to data availability. The OECD average is an unweighted country average. The asterisk (*) indicates a restricted OECD average, excluding countries without available GDP data: Australia, Canada, Chile, Colombia, Iceland, and Mexico.
Source: Author's calculations based on the OECD Regional Database

Ageing population

Rural regions face a growing elderly dependency challenge. The old-age dependency ratio (OADR, defined as the share of 65+ population relative to the local working-age population) has steadily increased across the OECD in general. Overall, there were 24 elderly individuals for every 100 working-age people in 2001, rising to 33.3 by 2021.[6] In this context of ageing populations, the OADR is today higher in rural over metro regions in all OECD countries except Poland.[7] Figure 2.3 shows how the difference between the OADR of rural regions against metro regions (generally larger in rural already in 2001) has increased over time. Over the last 20 years, it increased at a higher rate in rural regions than in metro regions in all but 5 countries (Greece, Italy, Poland, Portugal Slovak Republic and Spain). Even in countries like Belgium, Czechia or Switzerland where old-age dependency was lower in rural than in metro regions in 2001, the situation had reversed by 2021 and rural regions now have larger shares of older people.

Figure 2.3. Gap in old-age dependency ratio across OECD countries, 2001-21

Gap in absolute values between non-metro and metro regions, by OECD country and average for the whole OECD



Note: This gap is calculated by subtracting the metropolitan ratio from the non-metropolitan ratio. The old-age dependency ratio is defined as the number of people aged 65 or older per 100 people of working age (20–64). Values were calculated using a population-weighted approach by summing the population by age across TL3 regions within each country. The data corresponds to the restricted OECD sample without Korea, covering 29 OECD countries.
Source: Author's elaboration based on the OECD Regional Database

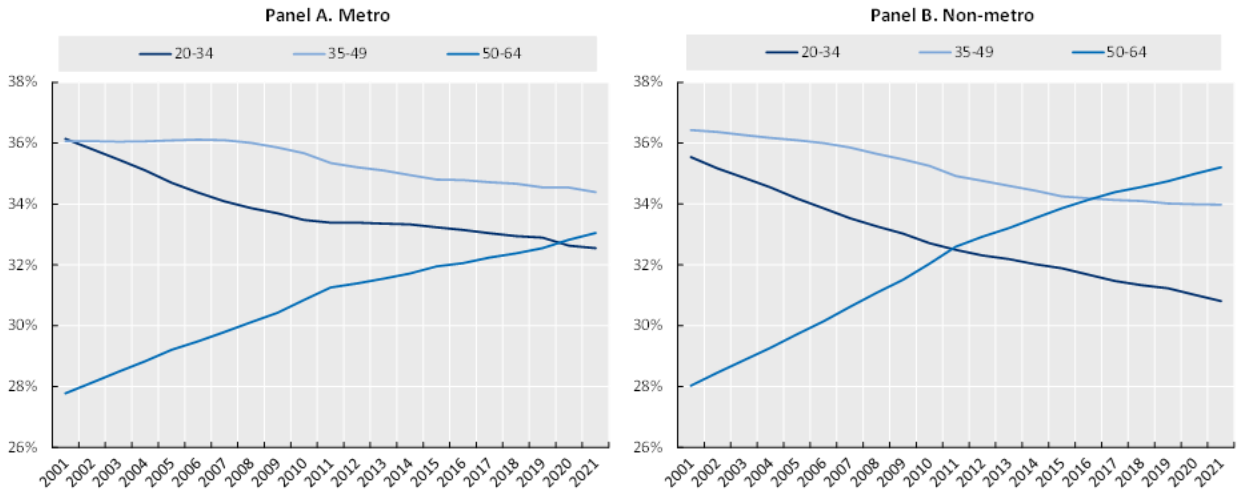
Among rural regions, it is in the remote rural that the OADR tends to be highest, and projections show that they will continue facing higher pressures of elderly population in the future. In several countries, the differences across region types are currently insignificant (see Annex Figure 2.A.3). But in those countries that showed marked differences across rural types in OADR (a total of 13 countries), it was highest in remote regions in 9 countries (Austria, Denmark, Finland, Hungary, France, Latvia, Norway, Portugal and Sweden,), highest in rural near a small FUA in three countries (Japan, Slovenia and Switzerland) and only in Belgium was it highest in rural near a midsize/large FUA. Population projections reveal that rural remote regions will face the highest pressures of elderly population in the future. By 2040, 16 countries will have the highest elderly dependency ratios in their rural remote regions (Annex Figure 2.A.2). The average value across all countries estimates that in rural regions near a small FUA the elderly share will stand at 30% followed by 29% in non-metro regions near a midsize/large FUA, against 25% in metro regions.

The increasingly skewed concentration of rural populations in older age groups is transforming the workforce at rapid rates. With respect to urban (metro) populations, rural regions show a deficit in people aged below 50 and a surplus over 55. This translates into lower labour force participation rates and thus smaller workforces. Given the larger share of people aged 65+ in remote regions, the workforce challenges are expected to be greater in these places in particular. Other rural regions are ageing faster than metro regions and are expected to face workforce pressures. In rural near large FUAs, this may be the result of larger growth in older populations (the numerator), perhaps driven by older people moving out of cities into suburbs – while the number of working age people is not increasing as fast (the denominator),

perhaps because young people move to city centres. Rural regions have also experienced important transformations in the age structure of their workforce.[8] Workers aged 50-64, much less prevalent in 2001 than those aged 20-34 and 35-49, have now become the highest share of the workforce in 2021 (Figure 2.4) – which has not happened just yet in metro areas.

Figure 2.4. Age group as a share of total 20-64 year olds, 2001-21

Distribution of working age population in metro (left graph) and non-metro (right graph) regions, in %



Note: The graph illustrates the trends in the share of people aged 20–34, 35–49, and 50–64 relative to the total working-age population (20–64) in metropolitan (Panel A) and non-metropolitan (Panel B) regions from 2001 to 2021. The data is population-weighted, meaning each region is assigned equal weight regardless of which country it belongs to. The data corresponds to the restricted OECD sample without Korea, covering 29 OECD countries.
Source: Author's elaboration based on the OECD Regional Database

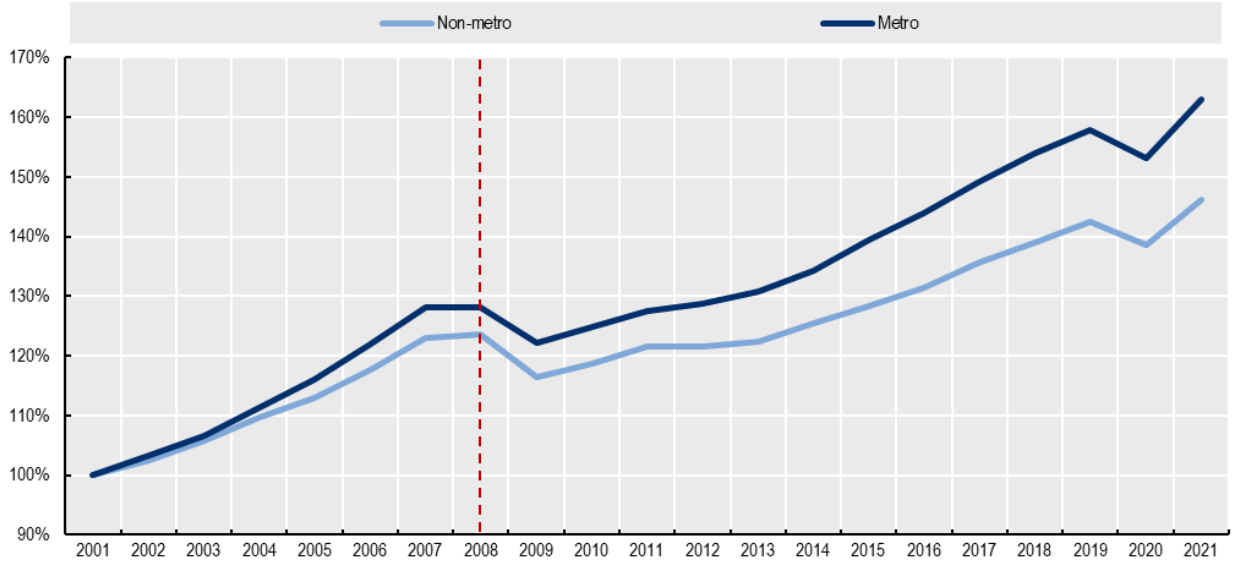
These transformations require action and adaptation, tailored to the circumstances of specific rural places, including for those shrinking and the many other still growing. Trends vary across types of rural region. Given population decline in more remote regions and the accelerated demographic shift, there is urgency for targeted policies to manage shrinking while retaining quality of life. For regions shrinking at steady rates, adaptation policies can be effective to prepare regions for future population scenarios. For rapidly regions shrinking, more drastic measures might be warranted to manage downward spiral effects driven by accelerated demographic declines. By contrast, despite slower population growth and an inexorable process of ageing, there are many rural areas still growing, particularly those close to urban centres. Rural regions near large metro areas (i.e. midsize/large FUAs) are growing three times faster in population than rural near a small FUA. These regions need policies to strengthen their workforces, as well as relevant skills to cater to the growing economic activity. For remote rural regions and those near FUA, it is important to differentiate policy responses between those shrinking at a gradual and slow pace against those depopulating more rapidly.

2.3.2. Economic convergence and rural pockets of growth

Metro regions generally outperform rural regions in GDP growth. For the entirety of OECD countries, GDP grew by 1.7% annually on average over the 20-years span between 2001 and 2021 – the growth rate when weighted by countries is 2.1%. The growth rate of 2.3% (weighted) for metro regions was superior to the rural rate of 1.8%.

The GDP gap between urban and rural has widened since the 2008 global financial crisis. When compared to 2001, the gap in 2008 widened by 5 percentage points. Since the global financial crisis, the gap more than tripled, widening by 17 percentage points in 2021 relative to 2001 (Figure 2.5). The larger economic activity and GDP growth in metro areas also reflects in larger employment growth in the same period (Annex Figure 2.A.4).

Figure 2.5. GDP trend for metro and non-metro regions, 2001-21



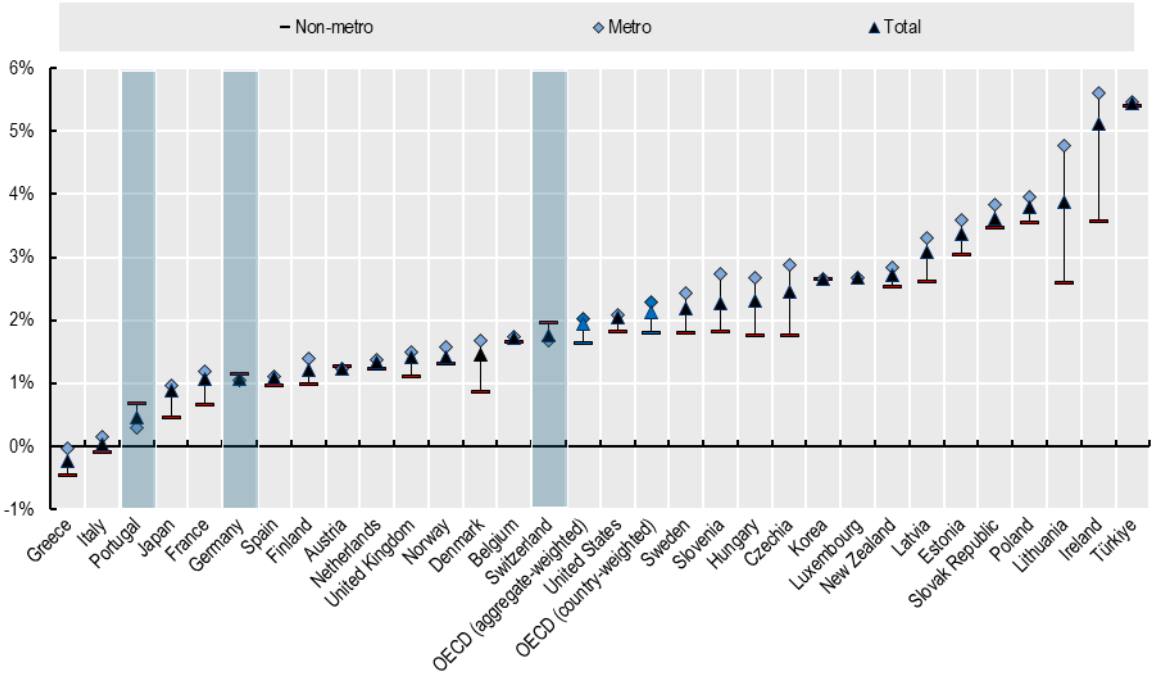
Note: OECD average for metro and non-metro regions is calculated by giving every country the same weight. The data corresponds to the restricted OECD sample without Korea, covering 29 OECD countries.
Source: Author's elaboration based on the OECD Regional Database

Amid this general trend, the performance of rural areas is diverse across countries, on occasions outperforming metro areas. Though in many countries there are no substantial differences in average GDP growth between rural and metro, in those where gaps exist, metro areas do indeed tend to outperform – which is the case of 17 countries over the last two decades (Figure 2.6). Yet. in three countries (Germany, Portugal and Switzerland) rural regions grew at a faster pace than metro regions between 2001 and 2021, which confirms the presence of *pockets of growth* in rural regions across several countries. Within countries, rural performance is also diverse with some high performers, and in fact the data suggests that many rural areas are doing well and above national average performance. This may suggest that the general average underperformance of rural regions may actually be severely decelerated by a few left-behind places:

- in 11 OECD countries (out of 28), more than half of rural regions outperformed the national average in GDP per capita growth over the 20-year span between 2001-21 (Switzerland and Germany included),
- in 6 countries (Portugal included, in addition to Austria, Estonia, Japan and Latvia), over 70% of rural regions outperformed the national average in GDP per capita growth (see Annex Figure 2.A.5).

Figure 2.6. GDP growth in metro and non-metro regions, 2001-21

GDP change, in % (CAGR)

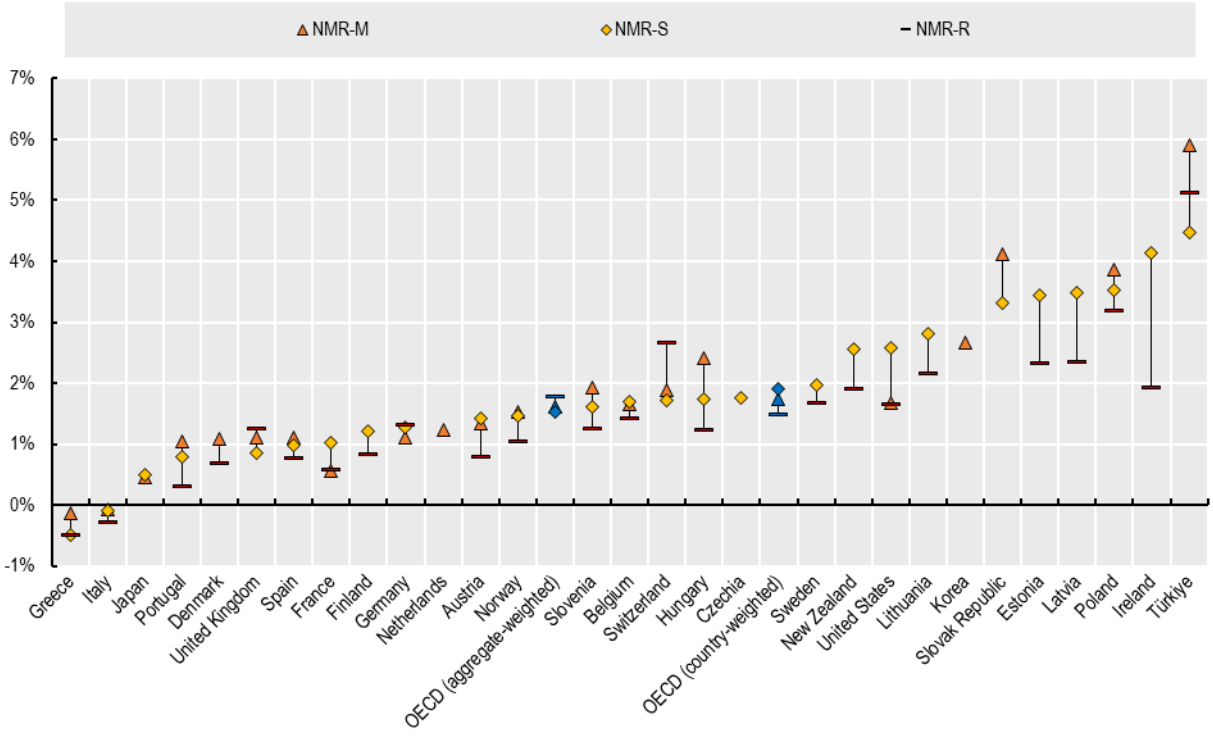


Note: GDP changes are expressed as the compound annual growth rate (CAGR). Changes were calculated by summing GDP of TL3 regions within each country and distinguishing between metropolitan and non-metropolitan regions. For Korea, GDP growth is measured from 2012 onward due to data availability. GDP is measured in constant prices and PPP with base year 2015.
Source: Author's elaboration based on the OECD Regional Database

Among the different types of rural regions, those near FUAs, especially small FUAs, show stronger economic performance, highlighting the importance of rural-urban linkages and also the role of intermediate cities. On average across OECD countries, GDP increased annually by 1.92% in rural near a small FUA, followed by 1.69% in rural near a midsize/large FUA and 1.49% in rural remote regions.[9] Over the last two decades, only in two countries (Switzerland and the United Kingdom) was the growth rate higher in remote regions than in the other two types of rural places closer to urban areas (Figure 2.7). Overall, rural regions closer to cities are more resilient to economic downturns, while remote areas face a higher risk of contraction. Across OECD countries, rural regions near small FUAs and remote rural regions show the highest shares of economic contraction – 19% and 16%, respectively, compared to just 8.5% for rural areas near midsize or large FUAs. However, when excluding Greece and Italy – where national economic conditions affected many rural communities near small FUAs – remote rural regions emerge as the most vulnerable to economic decline (5.6% contracting), compared to 3.9% of rural areas near midsize/large FUAs and just 2.1% of those near small FUAs. These trends highlight that proximity to urban centres, large and intermediate, provides a buffer against economic fluctuations and structural shifts, as rural areas closer to cities benefit from spillover effects, stronger labour markets, and greater economic diversification.

Figure 2.7. GDP growth within non-metro regions, 2001-21

GDP change, in % (CAGR)



Note: The average figures inside countries are weighted by the respective regions' GDP. For Korea, GDP growth is measured from 2012 onward due to data availability. GDP is measured in constant prices and PPP with base year 2015
Source: Author's elaboration based on the OECD Regional Database

Box 2.2. In focus: Pockets of Rural Growth and Drivers

Pockets of rural growth are concentrated in countries where proximity to Functional Urban Areas (FUAs) and strong manufacturing bases create favourable conditions. The rural regions outperforming national and metropolitan averages are not randomly distributed. They are disproportionately located in countries like Austria, Germany, Switzerland, and to some extent Finland and Portugal. What these countries have in common – particularly the first three – is a high concentration of rural areas close to small or midsize FUAs, where local economies are deeply embedded in high-value manufacturing and tradeable sectors. These areas benefit from access to skilled labour, infrastructure, and knowledge flows associated with agglomeration, without the diseconomies of major metropolitan centres. According to OECD data, rural areas near small FUAs have had the highest GDP growth rates across rural typologies (1.92% annually), highlighting the importance of rural–urban linkages and intermediate city spillovers.

Austria, Germany, and Switzerland have sustained rural manufacturing through long-term policy frameworks and industry linkages. In these countries, rural competitiveness is closely tied to advanced and decentralised manufacturing systems. In Germany, the success of rural regions such as parts of Bavaria or Baden-Württemberg can be linked to the "Mittelstand" (SME-based manufacturing) ecosystem and the country's Energiewende, which has supported a green industrial base even in rural

settings.[10] Austria has actively invested in decentralised industrial development, supporting regional innovation hubs and vocational training systems that align rural skills with industrial needs.[11] Switzerland benefits from strong integration of rural firms into global value chains, often supported by clustering around small cities with R&D capacity. In all three, the role of polycentric development, co-ordinated spatial planning, and manufacturing specialisation appear to be key drivers of rural resilience and sustained economic growth.

In Finland and Portugal rural growth is driven by sectoral and structural factors beyond manufacturing – such as trade-related services in Portugal and remoteness-based innovation in Finland. As in Austria and Germany, manufacturing productivity plays an important role in Portugal's rural performance, contributing to over 32% of GVA in NMR-M regions in 2021. This is further supported by a dynamic services sector, which accounted for around 29% of GVA in NMR-S regions in the same year – particularly in logistics and tourism. Agricultural modernisation and EU investment in rural infrastructure have also played a key role, with productivity increasing significantly across all rural types between 2001 and 2021 – as measured by agriculture's contribution to GVA relative to its share of employment. In NMR-R regions, productivity rose by 52%, in NMR-M regions by 67%, and in NMR-S regions by 78%. Improvements in irrigation, high-value crop exports, and agri-food logistics in regions like Alentejo have supported job creation and GVA in rural areas close to FUAs like Évora and Beja (OECD, 2024[1]). In Finland, where most rural regions are remote, growth appears to be tied to niche high-tech industries (e.g. forest-based bioeconomy, digital health, and electronics) operating in small towns and benefiting from research linkages and strong public services. Finnish policy has long supported innovation and connectivity even in remote places, helping them overcome the typical disadvantages of distance (OECD, 2017[2]). These examples show that while proximity to urban centres remains a powerful driver, remote rural growth is possible when supported by strategic investments and targeted sectoral strengths.

The experience of growing rural regions provides key policy lessons for other OECD countries. First, investing in manufacturing and tradeable sectors – especially in rural regions near cities – remains a high-return strategy for rural development. But success also depends on aligning these sectors with infrastructure, skills development, and innovation systems. Second, rural resilience can emerge in remote areas when economic strategies are tailored to local strengths, such as agriculture or specialised technologies, and reinforced by strong public service delivery and connectivity. Third, OECD countries must consider polycentric regional strategies, supporting both intermediate cities and their rural hinterlands as integrated economic systems. This means fostering not just rural development, but rural–urban interdependence, backed by spatial planning and cross-jurisdictional governance. Above all, the diversity of successful rural trajectories across countries underscores that place-based policies – rather than one-size-fits-all solutions – are essential to unlocking rural growth potential.

GDP per capita

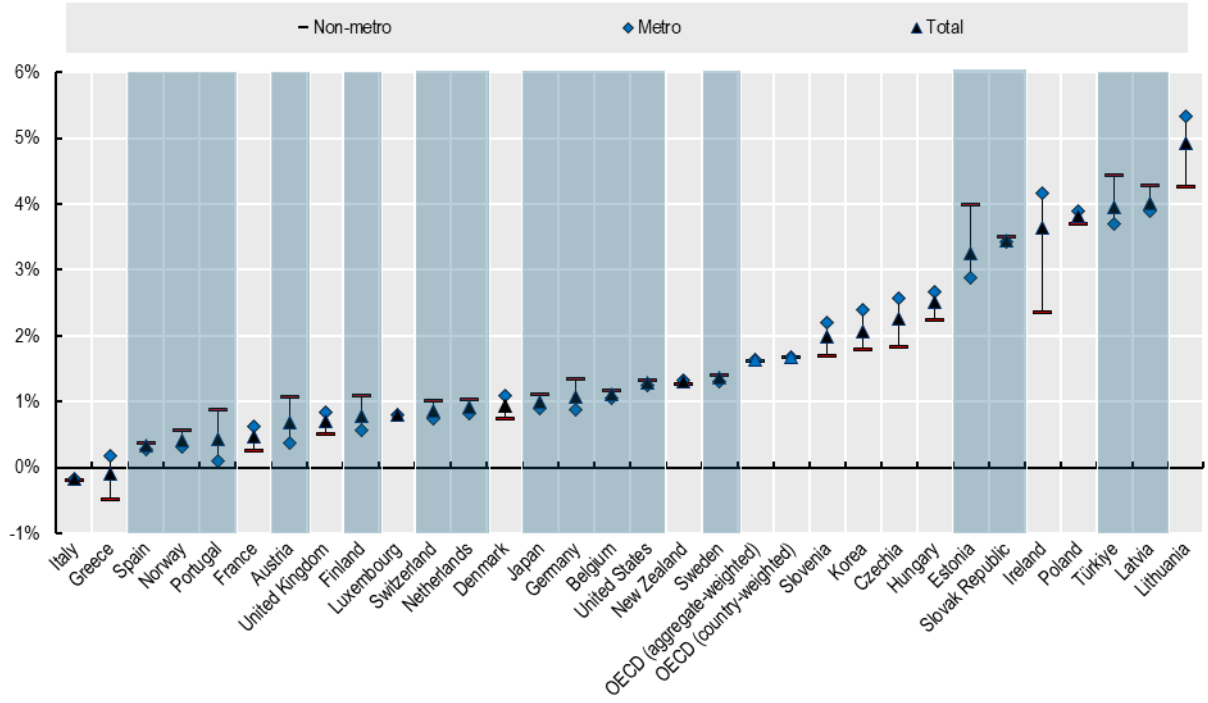
The rural performance looks more dynamic in GDP per capita growth, which may suggest that capital-labour substitution is leading to some efficiency and productivity gains. In 16 OECD countries,[12] the rate of growth in GDP per capita in rural regions was higher than in metro regions over the period covered (Figure 2.8).[13] Thus, despite the growing gap between metro and non-metro regions in *overall GDP growth*, gaps in *GDP per capita* have been converging in rural regions in 14 countries (see Annex Figure 2.A.6).[14] Overall, it is rural near small FUAs that are showing stronger GDP per capita growth across the OECD (1.8% in country weighted average).[15]

There is substantial variation in rural GDP per capita growth across countries, with a skewed presence of a few countries that stand out over all the others with considerably larger rural growth. The evolution of GDP per capita in rural regions shows higher disparities when compared to metro regions.

This may suggest that rural average performance is driven by a strong performance in six countries (see Annex Figure 2.A.7), while rural regions in other countries lag behind. One observation from Figure 2.8 is that rural outperformance is more likely to be seen in rich countries now experiencing low GDP per capita growth overall – suggesting that rural regions are escaping stagnation more effectively (by contrast, in Eastern European countries catching up in GDP per capita, this is still driven by metro areas). But there may also be structural reasons for specific countries like Austria, Finland, Germany, Portugal or Switzerland, or to experience a stronger performance in rural.

Figure 2.8. GDP per capita growth in metro and non-metro regions, 2001-21

GDP per capita change, in % (CAGR)

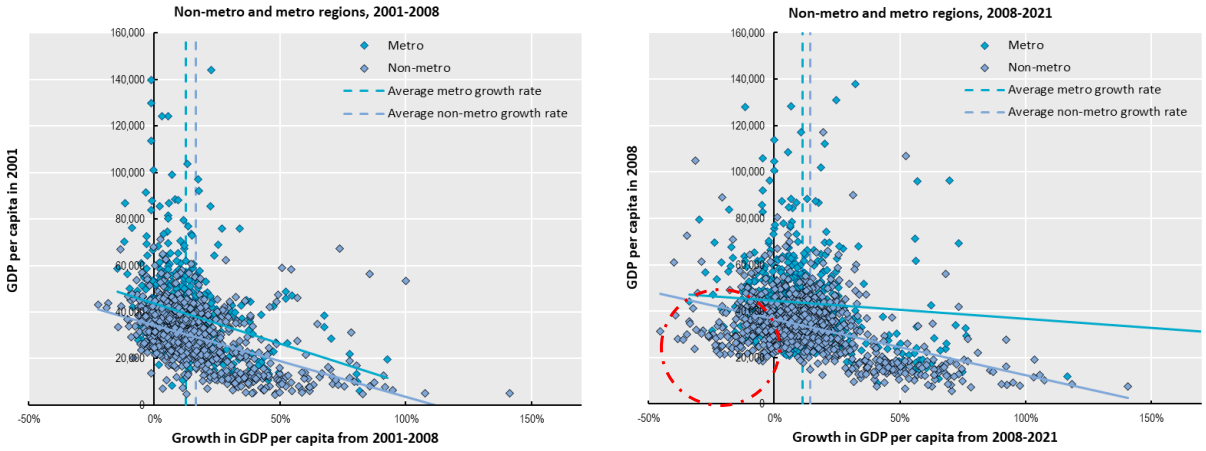


Note: GDP per capita changes are expressed as the compound annual growth rate (CAGR). Changes were calculated by summing GDP and population of TL3 regions within each country and distinguishing between metropolitan and non-metropolitan regions. GDP per capita is measured in constant prices and PPP with base year 2015.
Source: Author's elaboration based on the OECD Regional Database

Despite the resilience in GDP per capita of rural regions over 2001-21, metro regions regained the momentum in both absolute and per capita growth after the 2008 financial crisis. The average metro region had higher GDP per capita in 2001 than the average non-metro region, but growth rates were slightly lower between 2001-08 than for non-metro regions (thus rural regions were catching up). Things changed after the 2008 financial crisis, with more metro regions experiencing higher GDP per capita growth over the years that followed (see the gentler slope for metro regions in Figure 2.9). Remote and rural regions near small FUAs were overrepresented among the top 25% performers in GDP per capita between 2001-08, but the picture changed after the 2008 financial crisis, where metro and rural regions near cities started appearing more often among the top performers (Figure 2.9).

Figure 2.9. Initial level of GDP per capita and growth rates in TL3 regions, 2001-21

GDP per capita change, in %



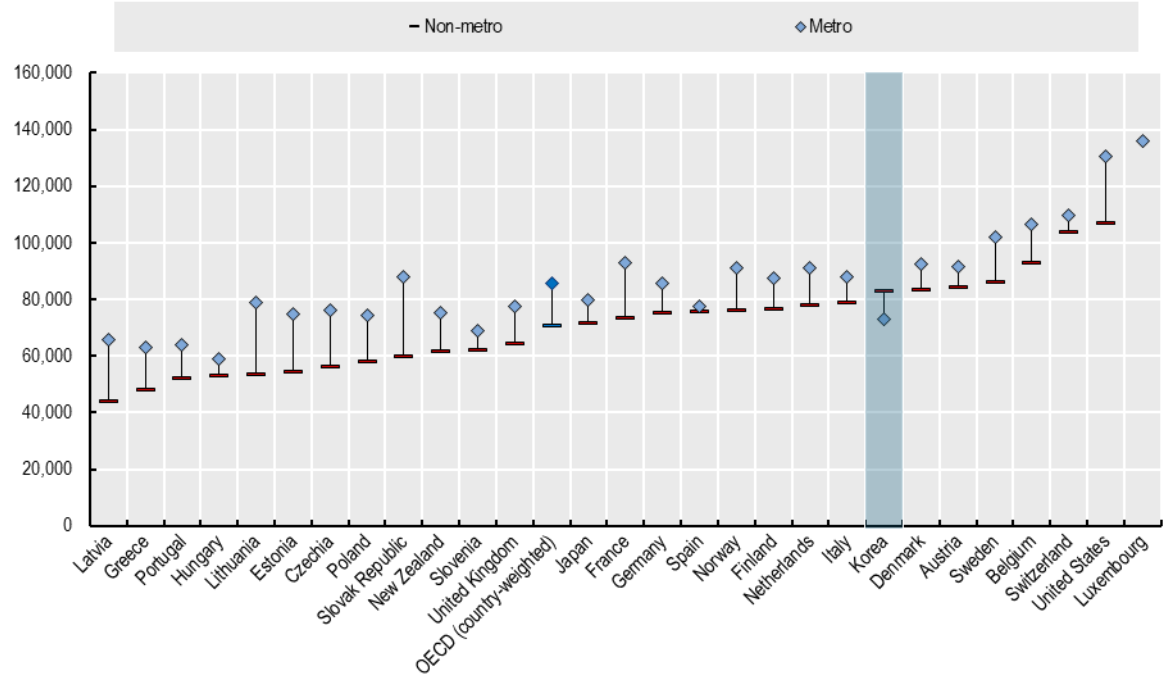
Note: Cropped graph such that UK31 and UK32 are not depicted.
Source: Author's elaboration based on the OECD Regional Database.

Productivity

Regional trends confirm that metro regions display higher levels of labour productivity (Figure 2.10). In most OECD countries, rural regions lag behind, with productivity levels around 17% lower than those in metropolitan areas in 2021. However, the size of the gap varies. In Hungary, Korea, Slovenia, Spain, and Switzerland, differences between rural and metropolitan regions were relatively small. Notably, Korea is the only country where labour productivity in rural regions exceeds that of metropolitan areas.

Figure 2.10. Labour productivity by type of region (TL3), 2021 or latest year

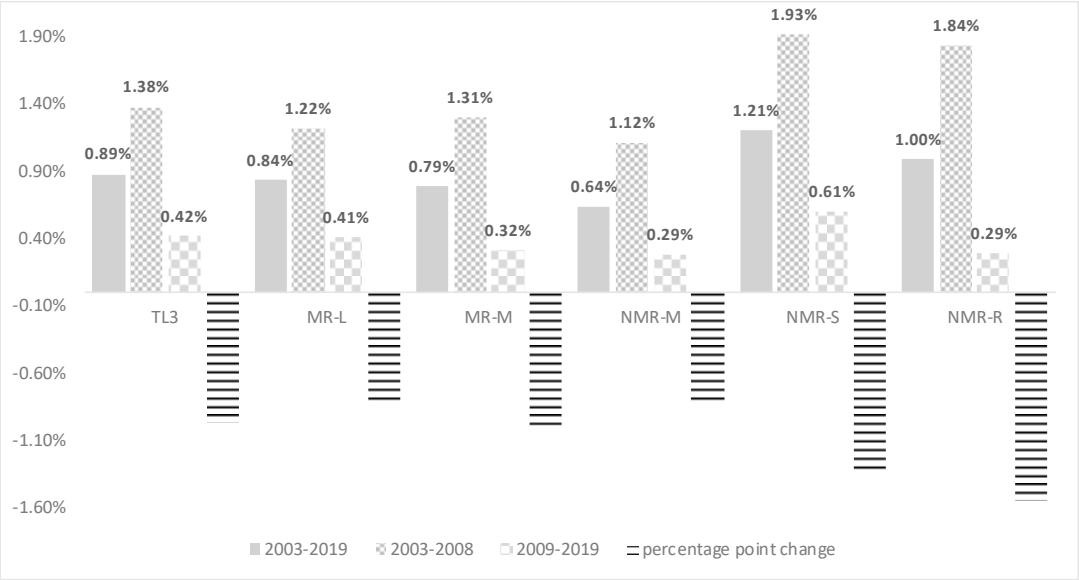
GVA per person employed



Note: 2021 or latest available year: 2020 data for UK; 2019 data for US. Labour productivity is calculated by summing GVA and employment across metro and non-metro regions of each country. GVA is measured in constant prices and PPP with base year 2015. Ireland is not included in the analysis because it has the starkest productivity differences across regions, reflecting in large part the relatively high share of multinational companies with significant intellectual property assets with headquarters in (including those that have redomiciled to) Ireland, and Dublin in particular (Central Statistics Office of Ireland).
Source Author's elaboration based on the OECD Regional Database.

The high rates of productivity before the global financial crisis were mainly driven by more remote rural regions. Rural regions near small cities and remote rural regions recorded the highest rates of productivity growth, 1.93% and 1.84% respectively, across all types of regions (Figure 2.11). In a sense, there was a process of convergence in these two types of regions before the global financial crisis given their lowest and second lowest productivity levels in 2003 standing respectively at 73% and 81% of the average productivity across all TL3 regions. This process of convergence reverted after the crisis years. These two types of regions experienced the largest drop in productivity growth after the global financial crisis, falling by a full 1.54 percentage points for non-metro close the small cities and 1.32 percentage points in non-metro remote regions.

Figure 2.11. Labour productivity growth across TL3 regions, 2003-19



Note: Productivity measures use equal weights for each TL3 region.
Source: Author's elaboration based on the OECD Regional Database.

Technological adoption, including automation, has helped maintain rural productivity amidst demographic decline. Rural GDP per capita has remained stable – or even grown—even as overall economic output and population have declined. This is largely due to labour-capital substitution. As emphasised by the OECD Regional Outlook 2023: "*While in urban areas productivity and job growth have typically gone hand-in-hand, in non-metropolitan regions a combination of automation and competitive pressures from lower-income economies, have resulted in a lower share of regions generating jobs growth as productivity has grown.*" (OECD, 2023[3]). As populations decline and age, rural economies have increasingly adopted capital-intensive production models, which reduce dependency on labour inputs while boosting efficiency. Sectors such as manufacturing and agriculture have embraced precision technologies and digital supply chains, allowing firms to maintain or increase output with fewer workers. Automation is a key enabler, but there are risks. Technology adoption varies by firm size and region; in manufacturing, it is mainly large rural manufacturers that have an innovation edge (OECD, 2023[4]). Furthermore, automation risks displacing lower-skilled workers without corresponding upskilling efforts or reinvestment in local capabilities, thus reinforcing inequalities.

Labour productivity in rural manufacturing has increased, but often through contraction rather than expansion. Over the past two decades, rural regions across OECD countries have generally seen rising labour productivity in manufacturing, despite experiencing a net decline in employment. Between 2000 and 2019, around 92% of rural regions recorded productivity gains. Technology is one potential driver. Though manufacturing shows lower technological intensity in rural areas, it is increasing. The share of manufacturing employees in high technology is twice as high in large metropolitan regions compared to non-metropolitan ones. Yet, from 2008 to 2019, the average share of rural manufacturing employment in high and medium-high technology industries increased from 5.7% to 6.4%. Overall, manufacturing is becoming less labour intensive in both rural and urban settings. But in rural regions this trend adds to a broader process of jobless growth that is also fueled by agriculture – whereas in metro regions agglomeration economies have sustained both employment and productivity growth via other sectors (OECD, 2023[4]). This dynamic reflects a broader trend of "productivity through shrinkage" in rural economies – where output remains stable or increases moderately, but labour inputs fall, particularly as younger and more skilled workers leave for cities (Rodríguez-Pose, 2018[5]).

There are also large disparities in performance, with a smaller set of highly productive farms and businesses driving the overall productivity number. As in manufacturing, also in agriculture, total Factor Productivity (TFP) growth – the efficiency with which producers combine inputs to make outputs – has driven most of the increase in agricultural production growth over the last two decades. However, there continues to be significant productivity gaps across farms, and improving the productivity of farms that lag behind will be a challenge, even in high-performing countries. Moreover, while productivity growth has resulted in less land being converted to farming, progress in the overall environmental performance of agriculture has been uneven across countries.[16]

Looking ahead, rural productivity will depend on further uptake of smart technologies, targeted investment in digital skills, and integration into innovation networks (OECD, 2022[6]). Without these, the risk of divergence and decline remains significant, particularly in remote and low-density areas. The reality is that technology adoption is still lagging behind urban areas. Sustaining and enhancing productivity in rural regions will require more than technological catch-up. As discussed in Chapter 3, it demands co-ordinated industrial and place-based policies that improve digital and physical infrastructure, enable skill development aligned with green and digital transitions, and support innovation ecosystems adapted to rural contexts. The current trend of *productivity through shrinkage* may hollow out rural economies if these opportunities are not seized, reinforcing spatial inequality rather than reducing it.

2.3.3. What all this means for rural regions and people

The pockets of rural growth demonstrate strong economic potential, highlighting opportunities for place-based investment. Although metro regions are indeed growing faster in most countries over the last two decades (17 countries in terms of GDP and 18 countries in GDP per capita), there are pockets of growth in rural regions. For example, in three countries (Germany, Switzerland and Portugal), GDP growth was higher in rural than in metro regions and in in 9 countries (Austria, Estonia, Finland, Germany, Japan, Netherlands, Portugal, Switzerland, and Türkiye,) *GDP per capita* growth was also higher in rural regions. Productivity growth in rural near small FUA is even higher than in metro areas, which might have been pulled upwards by a few high-performing places.[17]

This all means that rather than treating rural areas as structurally disadvantaged, their distinct and evolving strengths can be capitalised on. By increasing the competitiveness and attractiveness of diverse regions, the whole country becomes more competitive and prosperous. The actions will depend on the type of rural region. Remote ones are more vulnerable to economic contraction, reinforcing the need for diversification and investment in high-value sectors. Rural regions near midsize/large cities generally perform better economically than those near small cities or remote areas, highlighting the advantages of rural-urban linkages.

Opportunities exists across all types of rural regions, and shrinking does not necessarily mean economic decline. There are many instances of regions with high GDP per capita growth that saw a decline in population. This is more likely experienced in remote regions, which suggest that they appear to be facing stronger transformations in market shredding, more capital intensity, automation, or adapting innovations. Furthermore, the ratio of disposable income per capita relative to GDP per capita tends to be higher in rural regions compared to metro – where a higher GDP per capita does not always lead to a one-to-one correspondence with higher disposable income per capita (see Annex Figure 2.A.9). This may suggest the presence of labour-intensive industries where workers benefit more directly from the fruits of their labour.

Opportunities need to reach local communities, since discontent across rural places seems to be mounting. Recent social tensions in several European countries (e.g. Belgium, France, Germany, the Netherlands, and Spain) signal a degree of dissatisfaction with current policies in some rural places (see results of the perception survey in the Statistical Annex 2.A). However, understanding what drives happiness or discontent in rural regions is an area that requires further exploration.

Well-being includes various dimensions, and perceptions of well-being can differ significantly. In many instances, this dissatisfaction arises from a combination of factors, including a lack of opportunity, declining services, and demographic shifts. Well-being also brings into focus two different types of ways to measure the quality of life in rural areas.

- One is more objective and is the more typical approach relying on indicators that focus on resources and opportunities. Specifically, how well the needs of individuals in a society are being met across several spectrums, such as physical, economic, social, environmental, and emotional aspects.
- The other is more subjective and places the focus on the individual perceptions and assessments of their own life within society and how individuals perceive their benefit from societal decisions or policies. Data shows that rural communities can show higher community attachment and higher civic engagement.

The following sections examine trends in economic competitiveness as well as in social outcomes, and what they mean for growth and quality of life.

2.4. Renewed rural economic competitiveness

This section examines rural economic activities and what drives competitiveness, including the areas of specialisation across types of rural regions, access to urban linkages, unique resources and the competitive foundations for innovation. It also identifies areas of opportunity amid megatrends.

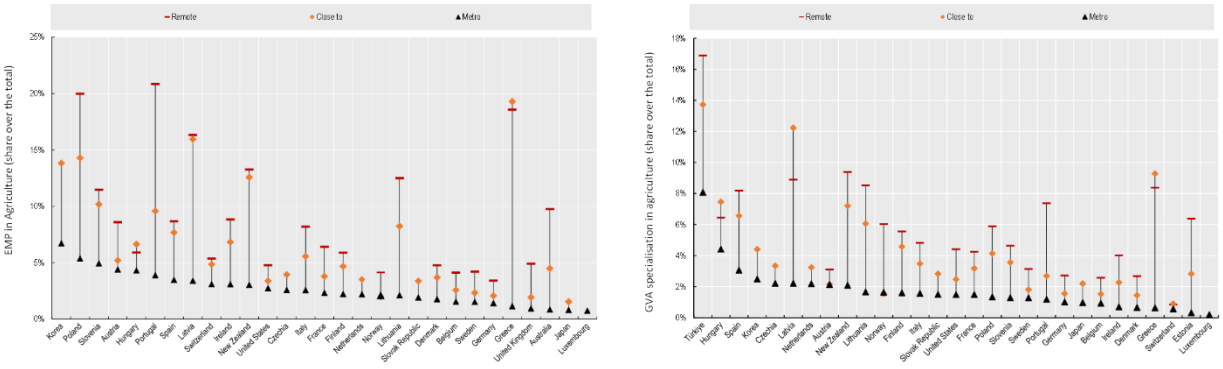
2.4.1. Rural economic structures and specialisation

Rural regions have traditionally anchored their economies in tradeable goods, such as agriculture, resources sectors such as mining or forestry, tourism and specialised manufacturing (OECD, 2020[7]). This focus on tradeable sectors is essential for rural areas to achieve scale and integration into global supply chains, and they will be the main sources of new economic opportunities.

The share of agriculture, forestry and fisheries in employment[18] is the highest in rural remote regions across all countries. Only in New Zealand and Greece was the employment share of these sectors in rural regions close to FUAs close to those observed in remote regions (Figure 2.12). These sectors also had the highest GVA share in remote regions of most OECD countries, except in Hungary, Latvia, and Greece - in these three countries the GVA share was highest in non-metro near a midsize/large FUA. The country-weighted average of the employment contribution of agriculture, forestry, and fisheries to total regional employment across OECD countries is 2.7% in metro regions, 6.6% in non-metro regions near a FUA, and 9.2% in non-metro remote regions. The GVA contribution for each of the three regions is smaller, 1.7%, 4.2% and 5.9, respectively, which is compatible with the lower productivity of these sectors as compared to others – but still more relevant for remote regions.

Figure 2.12. Share of Agriculture, forestry and fishing employment and GVA, 2021

The left-hand side shows the employment share and the right-hand side the GVA share

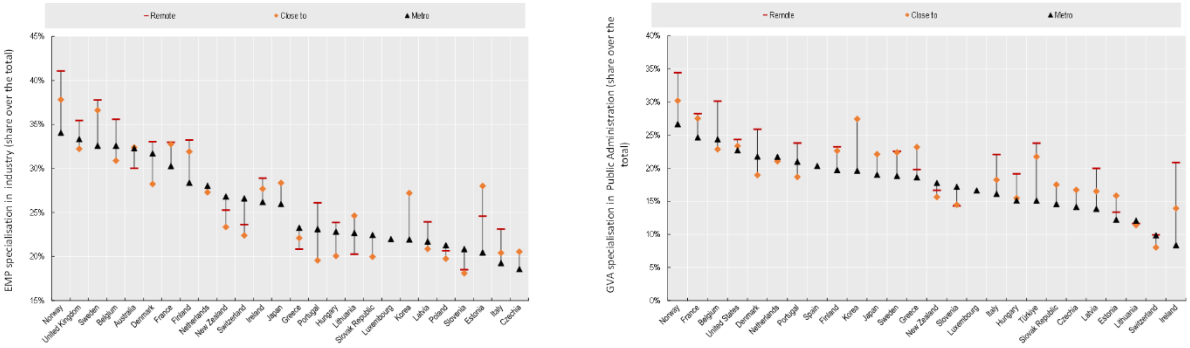


Note: The average figure inside countries are population weighted averages.
Source: Author's elaboration based on the OECD Regional Database

Public administration activities also take an important share of the economy of non-metro regions. These activities take larger shares of employment and of GVA in remote regions, in particular, when compared to non-metro close to a FUA and metro regions (Figure 2.13). The country-weighted average of the employment contribution of public administration to total regional employment across OECD countries is 25.7% in metro regions, 26.1% in non-metro near a FUA, and 27.9% in rural remote regions. In the case of GVA, the country-weighted average contribution was 17.8% in metro regions, 19.4% in non-metro near a FUA, and 21.3% for rural remote regions. Remote regions display the highest share in employment in public administration in 11 countries and the highest share in GVA in 12 countries.[19]

Figure 2.13. Share of public administration employment and GVA, 2021

The left-hand side shows the employment share and the right-hand side the GVA share



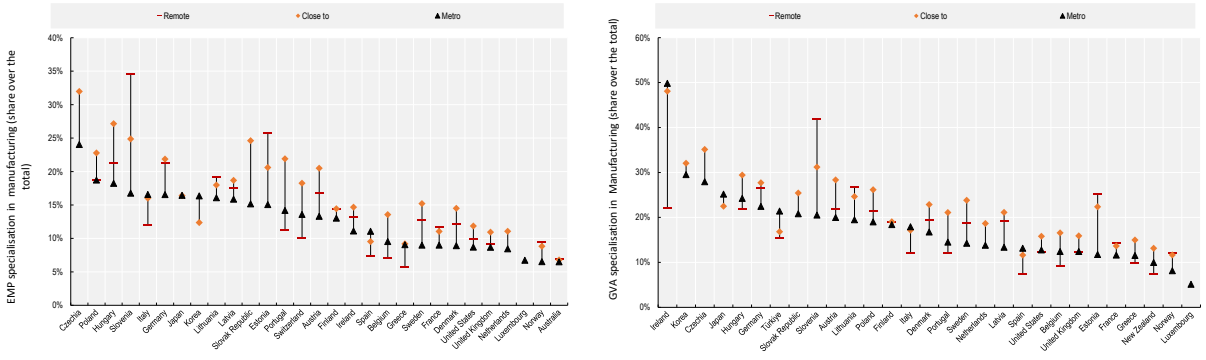
Note: The average figure inside countries are population weighted averages.
Source: Author's elaboration based on the OECD Regional Database

Non-metro regions near a FUA appear to be more specialised in manufacturing activities. This is visible in the data for both the relative employment and GVA shares of manufacturing. In 15 countries, non-metro regions near a FUA featured the highest share of employment in manufacturing – while they featured the larger GVA share of manufacturing in 17 countries.[20] By contrast, it was the metro regions the more specialised in manufacturing employment – relative to other sectors – in Spain and Italy and in GVA only in Ireland and Spain (Figure 2.14. The country-weighted average of the employment contribution of manufacturing to total regional employment across OECD countries is 12.9% in metro regions, 16.7% in

non-metro near a FUA, and 14.3%% in rural remote regions. For GVA, the average contribution was 17.9% in metro regions, 22.4% in non-metro near a FUA, and 17.7% for rural remote regions.

Figure 2.14. Share of manufacturing employment and GVA, 2021

The left-hand side shows the employment share and the right-hand side the GVA share



Note: The average figure inside countries are population weighted averages.
Source: Author's elaboration based on the OECD Regional Database

There are, therefore, important differences in economic specialisation amongst types of rural regions, which will drive the opportunities each can pursue. Rural regions near cities can benefit from urban spillovers, supporting high-value sectors like digital services, advanced manufacturing, and innovation hubs. Remote rural areas can build competitive advantages in renewable energy, sustainable agriculture, and nature-based tourism.

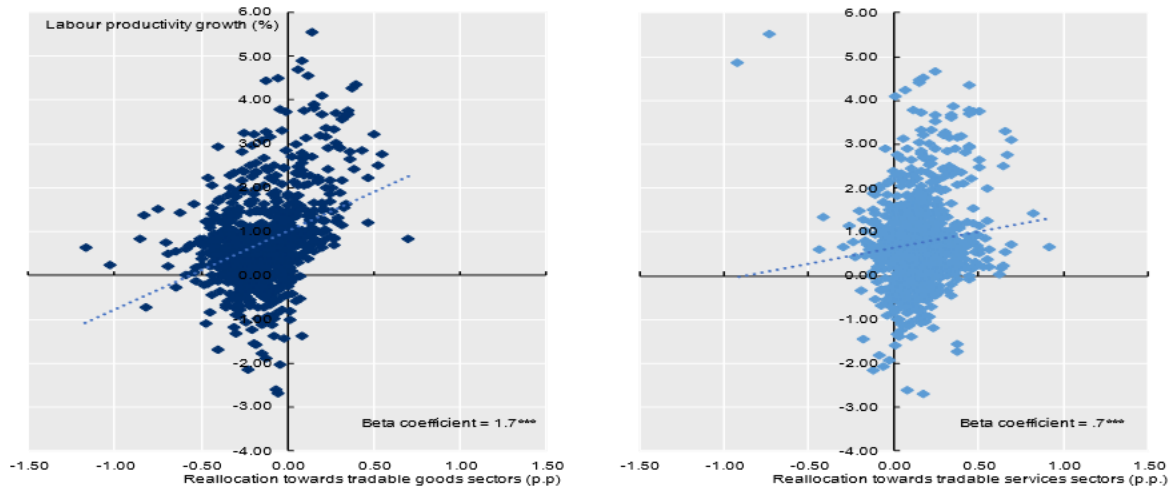
2.4.2. Potential drivers of economic performance

The importance of the tradeable sector

The tradeable sector is an important source of competitiveness for rural regions. Evidence shows that employment gains in the tradeable goods and services are positively correlated with productivity gains in OECD TL3 regions. Reallocation towards (away from) tradeable sectors in a region is captured by an increase (decrease) in the share of regional employment in these sectors. Using information on 973 TL3 regions, an annual average increase of 0.1 percentage points in the employment share in the tradeable goods sector over 2001-19 is associated with 0.17 percentage points higher annual average productivity growth in the region. The correlation is weaker for the tradeable services sector but still positive and statistically significant, and equal to 0.07 (Figure 2.15).

Figure 2.15. Productivity growth is higher in regions reallocating jobs towards tradeable sectors

TL3-level yearly change in the employment share of tradeable sectors and productivity growth, 2001-19



Note: The 2001 values are obtained as an average between 2001 and 2002; the 2019 values are obtained as an average between 2018 and 2019. The industrial sector includes NACE group B-E, while tradeable services include NACE groups J, K, L, M-N. For Austria, Germany, Poland, Spain and the United Kingdom, tradeable services include G-J, K, L, M-N. Data for the United Kingdom start in 2004 (Northern Ireland missing due to boundary changes). Data for the United States are not included due to the low quality of employment data by sector/TL3 region.
Source: Based on data from OECD (2022[7]), *OECD Regional Statistics (database)*, https://www.oecd.org/regional/regional-statistics/.

Proximity to FUA and rural-urban linkages

Rural regions with linkages to urban areas can capitalise on the strengths, and also the shortcomings, of the these. Cities enjoy from the benefits of economies of agglomeration, leading to productivity and income gains (documented in last section) that can spillover to close regions, particularly by giving access to steady demand (Merenkova, Agibalov and Lubkov, 2019[8]). Agglomerations are also more resilient to economic shocks – more rural regions have faced economic contractions over the past two decades than metro regions (13.8% vs. 4%, based on TL3 data).[21] But success can also lead to congestion and other challenges (e.g. higher land and housing prices, rising inequality, and environmental pressures) that makes of rural areas attractive alternatives for economic linkages – particularly those close by. These challenges can generate opportunities for lower density areas close to cities. For example, lower housing prices can be traded-off by higher transportation costs.

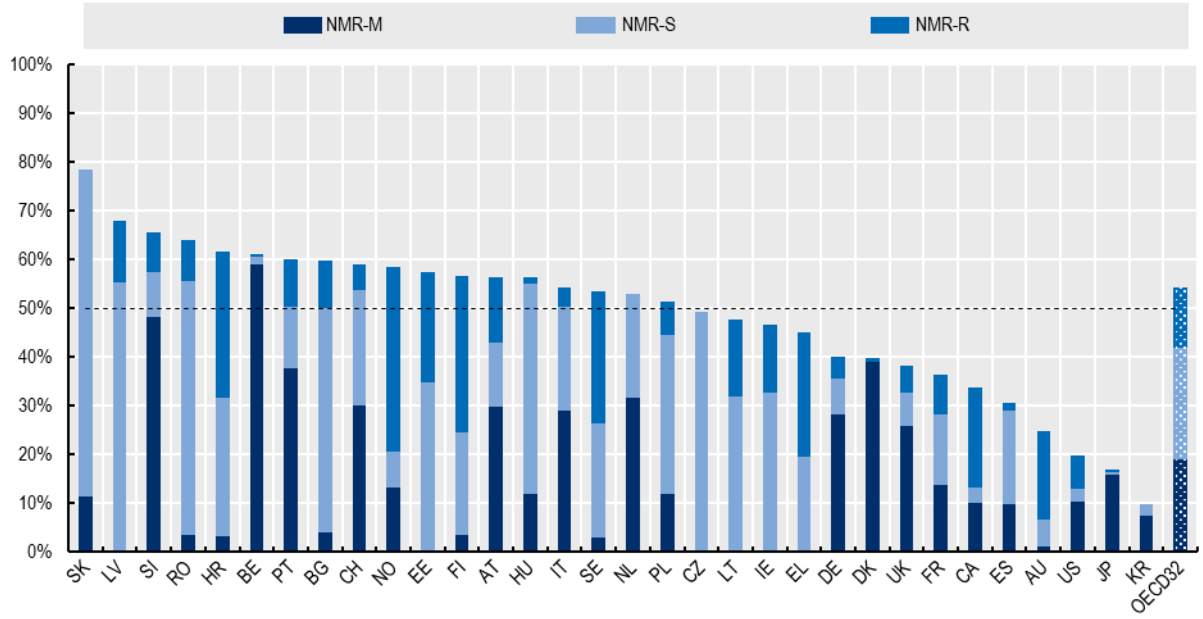
In rural areas near FUA's, the urban and rural spaces can be highly interlinked across economic, social, and environmental dimensions, thus expanding the benefits of agglomeration (OECD, 2013[9]). Rural areas near cities have much stronger linkages in commercial activities, transportation networks, commuting flows, spatial planning, and the provision of goods and services. Stronger linkages and the associated benefits are also often referred to as "borrowed" agglomeration effects from neighbouring cities. It is estimated that for a doubling of the population living – at a given distance – in urban areas within a 300 km radius, the productivity of the city in the centre increases by between 1% and 1.5% (OECD, 2015[10]). This implies that rural near FUA's can benefit from the borrowed agglomeration effects, but also attract skilled labour via lower housing costs and higher environmental amenities.

The Manufacturing Opportunity

Manufacturing remains an important driver of employment in rural economies, particularly in areas near intermediate cities in the context of rural-urban linkages. There are diverse range of actors in

the rural manufacturing ecosystem, ranging from processing firms of agri-food products to medium-sized family businesses and large-scale multinationals. Manufacturing contributes around one out of five rural jobs**.** Despite rural regions making up less than a third of the OECD population, they accounted for nearly half of manufacturing jobs.[22]In the average OECD country, 55% of manufacturing workers were working in rural regions in 2019 (Figure 2.16), significantly higher than the share of the OECD population living in rural regions. The contribution is higher in Nordic countries and vast countries such as Australia and Canada. The share of manufacturing employment was 19% in rural near a midsize/large FUA, 23% in rural near a small FUA, and 13% in rural remote.

Figure 2.16. Regional manufacturing employment as a share of total national manufacturing employment by type of rural region, 2019 or latest year



Note: The OECD average includes only countries for which regional typology or employment data are available at the TL3 level and is calculated as a simple (unweighted) country average. Geographical typology refers to OECD TL3 typology defining metropolitan (large MR-L and medium MR-M) and non-metropolitan regions (near a large city NMR-M, near a small city NMR-S and rural region NMR-R), for further details see Box 2.1. The year for which information is available is 2017 for most of the countries, except Canada, France, Japan, Poland and Switzerland (2016), Belgium, Estonia, Denmark, Hungary, Slovenia, the United Kingdom and the United States (2018), Australia and South Korea (2019).
Source: OECD (2023), The Future of Rural Manufacturing, https://doi.org/10.1787/e065530c-en.

Rural near FUAs have better access to markets and can benefit from borrow agglomerations and also attracting skilled labour force and talent. Rural areas near a FUA already have a higher share of manufacturing activities than in remote regions and are well-positioned to specialise in high-value manufacturing and tradeable goods sectors due to their access to urban labour markets, innovation centres, supply chains and logistic hubs, while often offering cheaper land and rental prices. Rural manufacturing complements metropolitan industry by providing essential goods, diversifying supply chains, and ensuring national economic resilience. These regions can support satellite facilities for urban-based firms, and rural manufacturers can provide crucial inputs for urban industries, particularly in automotive, construction, and consumer goods sectors. They are particularly suited to advanced manufacturing, custom production, and the development of circular economy practices.

Manufacturing looks positioned to continue to be an area of prosperity in rural areas in the future. Manufacturing jobs often pay higher wages compared to other rural industries and reduce outmigration. Rural regions offer in addition distinct advantages for manufacturing:

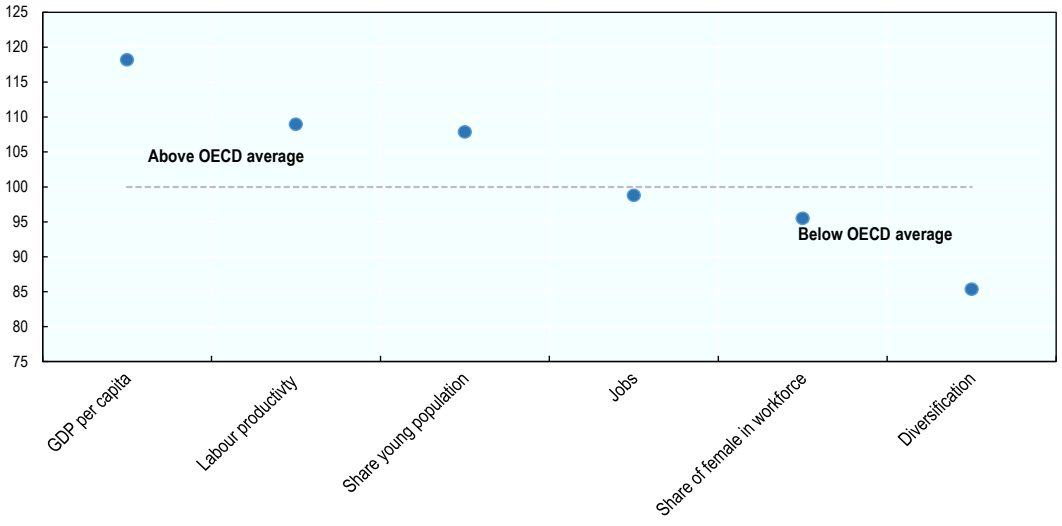
- Lower land and operating costs make large-scale, space-intensive production more viable than in densely populated urban areas, allowing for greater flexibility in facility expansion and automation.
- Proximity to key natural resources (such as timber, minerals, and agricultural products) reduces supply chain costs and enhances sustainability.
- Fewer zoning restrictions and land-use conflicts – unlike urban centres – enabling manufacturers to develop large, integrated production sites with greater efficiency.

Natural resources advantage

Mining regions, particularly those in remote places, play a critical role in national and local economies, often outperforming national averages in GDP and productivity performance. On average, mining-intensive regions exhibit GDP per capita levels 18% higher than their broader national economies, with labour productivity exceeding national averages by 9% (see Figure 2.17 (OECD, 2023[11]). These figures underscore the economic potential of well-managed resource wealth. High-performing mining regions demonstrate that when resource revenues are effectively reinvested, they can sustain long-term economic prosperity by attracting investment, generating high-wage employment, and strengthening infrastructure development.

Figure 2.17. Performance of Mining Regions across various socioeconomic indicators

Selected TL3 Mining Regions with Corresponding TL2 Regions and Country-Level GDP per capita, 2022

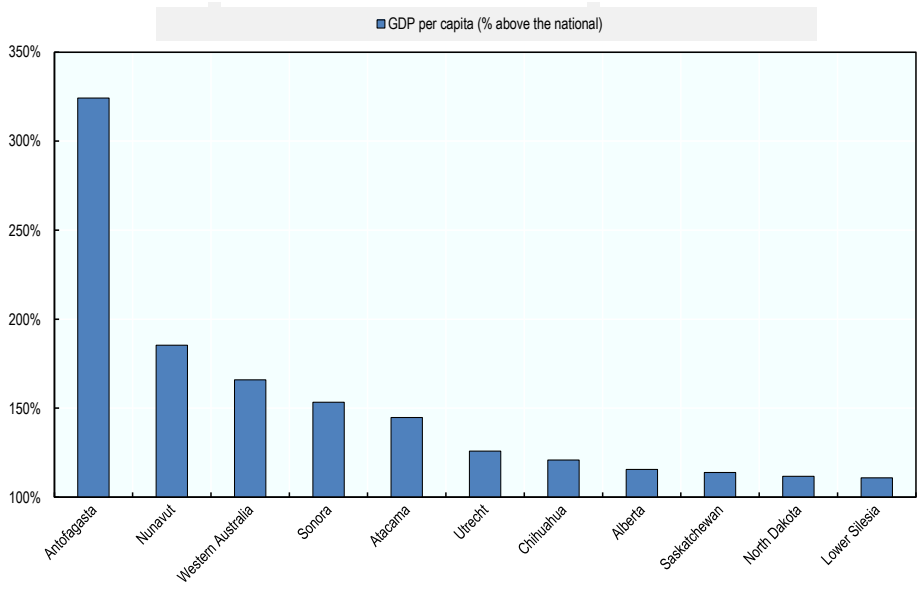


Note: The benchmark is calculated using the location quotient of mining employment at the TL3 level relative to the TL2 region and the country. This ensures that the selected regions have the highest mining specialisation within their respective countries, provided that mining activity is present. The regions included belong to the OECD Mining Regions Benchmark (OECD, 2023[12]).
Source: Author's elaboration based on the OECD Regional Database

Mining based economy can create jobs, attract investment, and often outperform national averages in GDP and productivity. High-performing mining regions thus lead to higher income levels and contributions to national growth.[23] In Chile, Antofagasta records and income that is 3.7% higher than national level in 2022 and contributes to 13.6% of national GDP (against its population share of 3.6%) (OECD, 2023[12]). GDP per capita is three times higher than the national average. Similarly, Nunavut in

Canada surpasses the national GDP per capita by 185%, largely due to mining, and the Pilbara region in Western Australia exceeded the national GDP per capita by 166%.

Figure 2.18. Key mining regions GDP per capita above the national level, 2022



Note: The selection is based on the OECD Mining Benchmark (OECD, 2023[12])
Source: Author's elaboration based on the OECD Regional Database

The strong economic performances of mining regions, however come with unique challenges including high fluctuations to changes in external prices, high levels of inequality, especially in the housing sector, high use of energy and exposure to pollution**.** Mining economies are inherently cyclical, subject to fluctuations in global commodity markets, and vulnerable to resource depletion. Data shows that mining regions often have industry diversification levels 15% below their national benchmarks and patenting rates nearly 50% lower, limiting their ability to pivot towards innovation-driven industries. Without proactive economic planning, mining wealth alone does not guarantee sustained prosperity.

The case of Norrbotten in Sweden, or Antofagasta in Chile demonstrates how mining wealth can drive economic success while also increasing vulnerability to price shocks. Mining contributes approximately 20% of Norrbotten's regional GDP and 72% of Antofagasta's GDP, providing stable employment and high incomes, making them some of country's most prosperous regions (OECD, 2021[13]). However, its heavy reliance on iron ore exports makes it highly sensitive to global commodity price fluctuations, posing risks to long-term economic stability. For instance, Antofagasta in Chile, despite achieving the highest GDP per capita in the country - and nearly double the average of OECD mining regions (OECD, 2023[14]), remains narrowly dependent on copper mining, with limited success in diversifying into alternative high-value sectors.

The experiences of both high- and low-performing mining regions underscore the need for strategic policy interventions to ensure resource wealth translates into broad-based, sustainable development. Successful mining regions benefit from strong governance frameworks, reinvestment in skills and infrastructure, and policies that foster economic diversification beyond extractive industries. Without these conditions, mining-dependent regions face the dual threats of economic instability and long-term stagnation. Policy makers must therefore adopt a forward-looking approach that balances resource extraction with investment in innovation, human capital, and industry diversification to ensure mining regions remain competitive in a rapidly evolving global economy.

A similar trend can be observed for forestry since forests are generally concentrated in very few locations in a country. Sweden, despite being a relatively small country, is the fourth largest exporter of sawn softwood, pulp, paper, and board in the world (Royal Swedish Academy of Agriculture and Forestry, 2024[15]). Forests in Sweden are predominantly located in the central and northern parts of the country, contributing significantly to both the local and national economy. This sector employs annually 140 000 people (2% of the total), around nine to twelve percent of the country's total jobs (Swedish Forest Industries, 2024[16]). This sector is also important in Finland, where forests cover over 75% of land and forest industries account for 18% of exports revenue (MMM.FI, 2024[17]). In Canada, the forestry sector supports over 200 000 direct jobs (Stat Can, 2018[18]) and generates more than CAD 33.4 billion in GDP (Natural Resources Canada, 2025[19]), with strong regional concentrations in the provinces of British Columbia and Quebec.

Publicly owned forests have a potential to play a vital role in local economy. In Ontario, Canada, the dependence on forestry in remote areas on the northern region is relatively high. More importantly, 90% of the province's forests are located on public lands, which provided USD 5.5 billion to Ontario's overall GDP in 2022 with total revenues of USD 22.8 billion (Ministry of Natural Resources, Government of Ontario, 2025[20]). The state government grants licenses for commercial purposes to manage forests in compliance with laws and regulations, with the emphasis on communities and Indigenous partnerships. Part of the licenses is given to indigenous-led enterprises for empowering local communities with decision-making, providing a large range of economic and social benefits, while maintaining the unique ecological identity.

Rural specific assets

Rural regions are increasingly driving new sources of economic dynamisms by leveraging their unique assets. In addition to the drivers of growth described – proximity to cities, specialistion in tradeable goods and services and natural resources – rural regions show successful performance when activating their unique assets in strategic and effective ways, whether by joint community initiatives, embracing innovation, turning remoteness into testing facilities or deployment renewable energy project. Traditionally, rural economies were perceived as structurally disadvantaged, overly dependent on agriculture and extractive industries. However, global megatrends (e.g. climate change, digitalisation) are reshaping rural development pathways. The OECD's *Rural Well-being: A Geography of Opportunities* (OECD, 2019[21]) highlights that rural areas are not homogenous; some face economic stagnation while others are thriving due to proactive investment in high-value sectors. From large-scale renewable energy projects to military testing and sustainable tourism, rural regions are turning structural challenges – such as remoteness and land availability – into competitive advantages. There are more and more examples of rural places translating specific assets into new sources of economic activity. Specific rural turnaround stories exemplify these opportunities in the Case Study Annex.

Renewable energy is emerging as a game-changer for rural economies, but strategic planning is essential to maximise local benefits. Large-scale renewable projects often require vast, underutilised land, making rural regions ideal locations for wind, solar, and battery storage infrastructure. The Hornsdale Power Reserve in South Australia, developed by Neoen in partnership with Tesla, demonstrates how remote locations can be leveraged for grid stability and clean energy leadership. By addressing energy storage challenges, the project improved electricity affordability and positioned South Australia as a model for large-scale battery storage integration. Meanwhile, the Hornsea 2 offshore wind farm in the UK illustrates how coastal rural regions can benefit from renewable energy through job creation, local infrastructure investment, and community funding mechanisms. However, proactive governance is needed to ensure that profits from energy projects benefit rural communities rather than bypassing them. Policies supporting local workforce development, revenue-sharing mechanisms, and infrastructure reinvestment can make renewable energy a long-term economic driver for rural regions.

Strategic industries that require space, security, or controlled environments are unlocking new opportunities for rural regions, but inclusivity must be prioritised. High-tech and defence-related sectors are increasingly looking to rural locations for research and testing facilities, creating specialised employment and attracting private investment. Sweden's Vidsel Test Range transformed a remote, economically stagnant area into Europe's largest overland aerospace testing site, attracting international defence firms and fostering high-tech job creation. An historical reference is the White Sands Missile Range in New Mexico, which leveraged its vast desert landscape to establish a leading military testing facility, generating spillover benefits for local businesses. However, such projects must balance economic benefits with environmental and social considerations, particularly when indigenous land rights or ecological conservation are at stake. Inclusive planning processes and long-term regional reinvestment strategies can ensure that rural communities remain beneficiaries rather than bystanders.

Nature-based tourism is proving that conservation and economic development are not mutually exclusive, but success depends on strong local governance. As global demand for experiential and sustainable travel rises, rural regions with rich natural and cultural assets are capitalising on this shift. The Bracken Bat Cave in Texas and Great Bear Rainforest in British Columbia demonstrate how wildlife conservation can generate significant economic returns while protecting fragile ecosystems. Well-managed wildlife tourism not only creates local jobs and business opportunities but also provides a compelling alternative to environmentally destructive industries such as logging or trophy hunting. Similarly, heritage-based rural tourism, as seen in Linares de la Sierra, Spain, can help counteract depopulation by rebranding remote villages as cultural tourism destinations. However, to sustain these benefits, local governance must ensure that tourism revenues are reinvested in community development, infrastructure, and conservation efforts rather than creating seasonal, low-wage economies that fail to provide long-term resilience.

2.4.3. Rural Innovation as an underlying force for competitiveness

Incremental innovations are key for capitalising on rural assets and for rural prosperity. Pursuing untapped sources of economic value and new rural specialisations requires innovation Rural remote regions which have lower access to markets, higher costs of transportation and are less diversified in their economy can benefit from innovations that can help overcome the distance penalty, access to markets, substitute a declining and ageing labour input and revigorated isolated communities. Incremental forms of innovation can be effective especially in primary activities such as forestry, agriculture, fishing, or mining activities. Innovations to deploy decentralised energy grids can also help rural communities become energy sufficient and less reliant on centralised utilities.

Rural regions do engage in "traditional" innovation linked to science and technology, and disparities with respect to metro areas may not be as large as normally thought. With the right measurement (see Box 2.3), some positive examples emerge**.** Rural regions that are better positioned for these endeavors are particularly those with linkages to universities and manufacturing sectors. Regions with the highest level of patents per application are often large metropolitan cities, with strong links with research universities, and strong information technology and manufacturing sectors. However, when adjusting for the occupational structure of economies, the innovation performance in rural regions improves substantially. This point is illustrated for the case of the United States. There is a 16-fold decrease in the disparity between non-metropolitan regions and metropolitan regions when adjusting the patent intensity to account for occupational distributions**.** Grouping metropolitan and non-metropolitan classifications together, regions in large and medium metropolitan regions (MR-L and MR-M) in the United States have approximately 13 times more patents than non-metropolitan regions (NMR-M, NMR-S and NMR-R in Figure 2.19). When we adjust for the occupations prominent in territories, the disparity falls starkly to close to 0.8.

Box 2.3. Measuring innovation in rural regions

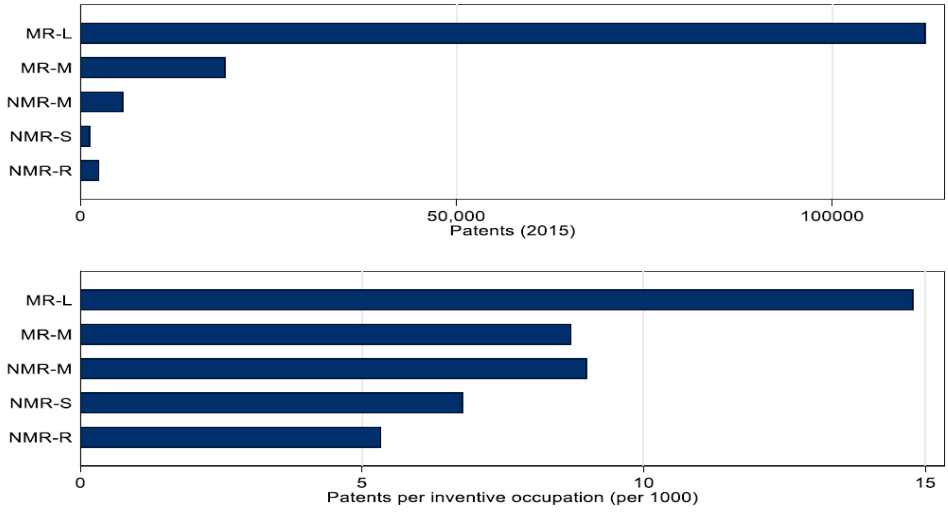
Standard measures of innovation such as patents and R&D statistics are often better at measuring innovation in highly concentrated, urbanised areas. Science and technology indicators, however, are not well-equipped to adequately understand and measure innovation in rural regions due to:

- **Composition bias**: Bias due to the structure or composition of the economy, including the size and sector of rural firms and the occupational structure of rural labour supply. For example, patents and R&D credits are more often filed in larger firms and those in the manufacturing sector than in smaller firms and most firms in the services and agricultural sectors. Small- and medium-sized enterprises (SMEs) are more likely to participate in incremental innovation.
- **Territorial endowment**: Bias due to pre-existing conditions and opportunities in rural regions that are different from those in denser regions.
- **Headquarter bias**: Bias due to the statistical method of gathering information that often centralizes responses from multiple branches to firm headquarters. In most business statistics, data are collected on the enterprise level, associated with the location where business activities are officially declared (headquarters). Often this results in a downward bias for reported activities that is in fact occurring more frequently in less dense areas. Likewise, this includes the location of patents that are often filed at headquarters.

Source: (OECD, 2022[22]) (OECD, 2022[22])

Figure 2.19. Patents and inventive occupations in the US, by typology!

Patents filed, 2015, versus the ratio of patents filed per 1 000 individuals with inventive occupations



Note: Inventive occupations as defined by Dotzel and Wojan (2021[28]).
Source: Dotzel, K. and T. Wojan (2021[28]), "An occupational approach for analyzing regional invention", https://ncses.nsf.gov/pubs/ncses22202/assets/ncses22202.pdf

While rural enterprises are less likely to participate in high tech innovation, rural context often require other types of innovations. To succeed, rural innovation strategies must go beyond the

conventional focus on science and technology, instead aligning with the specific demographics, industries, and community strengths of rural areas. Innovation to address challenges in public service delivery, social or community-based innovation, incremental innovation and innovation in more efficient processes are critical for rural areas. The lack or limited access to public services, challenges in labour and skills shortages and difficulties in linking to other places and firms, accessing finance and general entrepreneurial support suggests that to address rural innovation, a rural lens on *direct* and *indirect* innovation policies are critical for rural entrepreneurs.

Innovations that improve access to public services enhance both the competitive foundations of rural places as well as the well-being of residents. Limited access to services is a well-documented challenge for remote rural regions. In addition to digital services, access to education and technical training resources (OECD, 2023[23]; OECD, 2021[24]), access to health services (OECD, 2021[24]) and amenities at large, remain less accessible, and only assured through community or social innovation initiatives (OECD, 2023[25]). Managing the quality of life of rural communities, particularly when shrinking or undergoing demographic disruptions, is a key element of rural prosperity and further examined in Section 5.

Rural innovation needs the right enablers, one being the development of scarce entrepreneurs. Youth start-ups are lagging in rural areas. In 2019, there were proportionately 25% fewer young start-up entrepreneurs in rural areas as compared to cities, according to the analysis from the European Union Labour Force Survey (EU-LFS) on 26 European OECD countries (2011 and 2019).[24] In 2011-19, a relative and absolute fall in the number of young founders in rural areas has outpaced peers in cities, suburbs and towns. Lower youth start-up rates are driven the higher outward migration rate of youth to the cities and the age structure composition of the rural workforce that includes a smaller share of youth to the overall workforce. In European OECD countries, young rural entrepreneurs are 8.6% less likely to start a company than those in cities. There is also less dynamism in firms in rural areas, with lower birth and death rates: there are 13% more firms created per 1 000 workers in urban regions as compared to rural regions, and a 9% lower rate of firm closure (OECD, 2022[22]).

In contrast start-up entrepreneurs in rural, although declining at higher rates than in cities, towns and suburbs, they still represent a higher share of the workforce. From 2011 to 2019, the share of start-up entrepreneurs per employed, decreased from than 6 full percentage points in rural areas from 37.7% to 31.4%. This decrease was higher than the decrease recorded in cities (29.1% to 28%) and in towns and suburbs (28.5%to 25.2%) but still remains higher. This higher rate can be driven by necessity, or lack of job alternatives in many rural regions that a less diversified economy.

Most of the rural-urban entrepreneurship gap is explained by socio-economic characteristics such as education, sector of activity, household characteristics and living conditions. There are specific differences in the conditions in which young prospective entrepreneurs operate. In particular, young women in rural areas as well as towns and suburbs are 7.5% less likely to start a firm than young male in rural areas. Young entrepreneurs in cities have a 57% likelihood of having received training the year prior to starting a firm, while those in rural areas, towns and suburbs were only 26% to have received training in the year prior to starting a firm.

2.4.4. State of the competitive foundations

For rural economies to fully capitalise on these emerging opportunities, policies must their enabling foundations right such as skills gaps, lagging entrepreneurship and infrastructure. It is common wisdom that all places, including rural, need the right competitiveness foundations to prosper, including infrastructure, skills, business creation, and mature institutions. Infrastructure investment, particularly in transport and digital connectivity, is essential to link rural economies with larger markets. Skills development programmes must anticipate future industry needs, ensuring that local populations can access high-value, sustainable employment rather than being bypassed by external labour inflows.

Building such foundations or enabling factors is often needed before targeting the growth of specific industries like manufacturing or those based on rural specific assets. Rural places need policies that cater their specific needs and address their competitiveness gaps. Skills development strategies in rural areas, for instance, often focus on building a flexible, multi-skilled workforce to respond to both local and urban industry demands. Productivity and innovation policies may involve closer partnerships between regional businesses and urban research institutions to transfer knowledge and technological know-how.

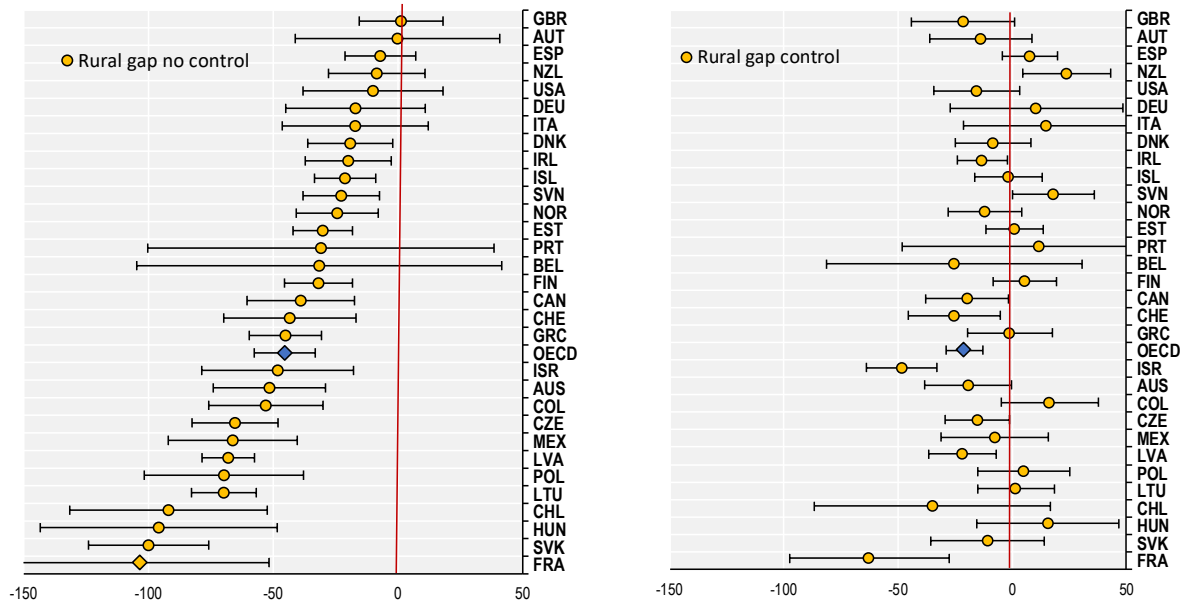
Skills and human capital

Rural regions continue facing skills gaps and labour shortages. Section 2.3 shows that OECD countries continue ageing, and rural remote regions can be particularly affected, given outmigration of youth to seek educational and professional opportunities in cities. This tends to weaken local labour markets and limit economic growth potential. Rural students can also face more challenges in getting relevant skills.

There are observable disparities in competence between urban and rural regions. PISA scores, which measure students' competences, show differences between rural and urban areas.[25] Scores are reported for both reading and math literacy. Educational performance varies between urban and rural regions, with urban students generally scoring higher, though socio-economic factors play a major role in this gap. PISA data across 31 OECD countries shows that, before adjusting for socio-economic background, urban students outperform rural students in reading by an average of 45 points—equivalent to more than a full year of schooling (Figure 2.20). After accounting for factors such as parental education, household wealth, and school composition,[26] the gap shrinks to 21 points, or roughly half a year of schooling. In 12 OECD countries, including Colombia, Hungary, New Zealand and Slovenia, rural students actually outperform urban students once socio-economic differences are considered.

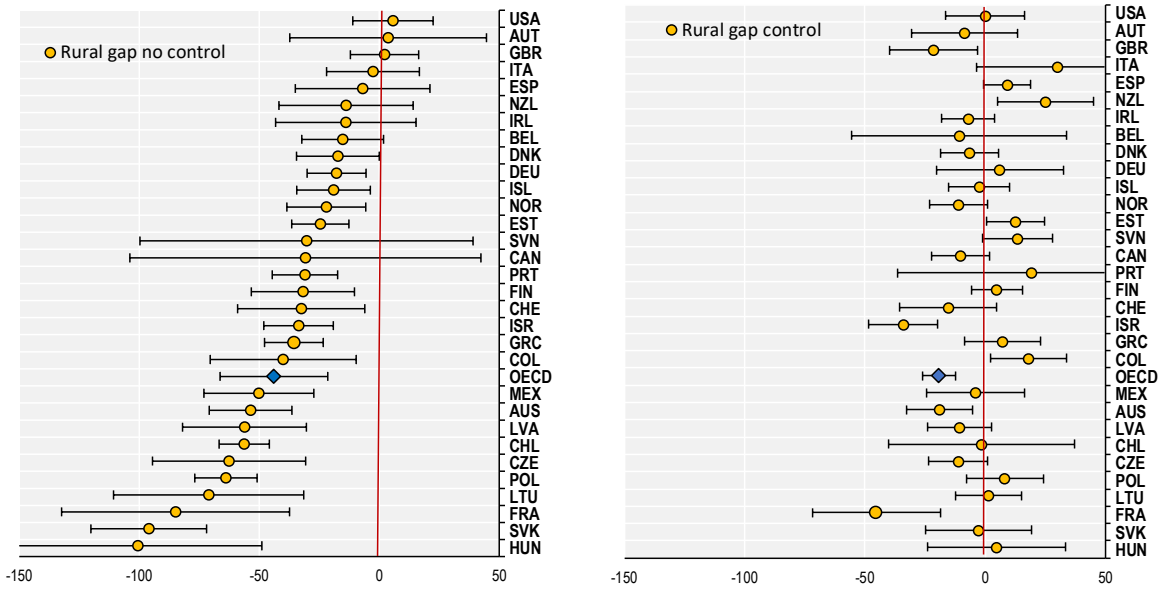
Similar trends emerge in mathematics, where urban students initially score 44 points higher on average, but the gap narrows to 19 points after adjusting for socio-economic background. In 13 OECD countries, including Colombia, Italy, New Zealand and Portugal, rural students exceed urban performance in mathematics when socio-economic factors are accounted for (Figure 2.21). These findings highlight that rural education gaps are largely driven by socio-economic conditions rather than necessarily inherent differences in education quality, suggesting that targeted policies addressing resource allocation, school funding, and student support could help reduce disparities (the performance of service delivery is further examined in Section 2.6).

Figure 2.20. PISA reading scores gaps between rural and urban areas, 2022



Source: Author's elaboration based on the OECD PISA Database (OECD, 2022[26])

Figure 2.21. PISA math scores gaps between rural and urban areas, 2022



Source: Author's elaboration based on the OECD PISA Database (OECD, 2022[26])

Digital broadband

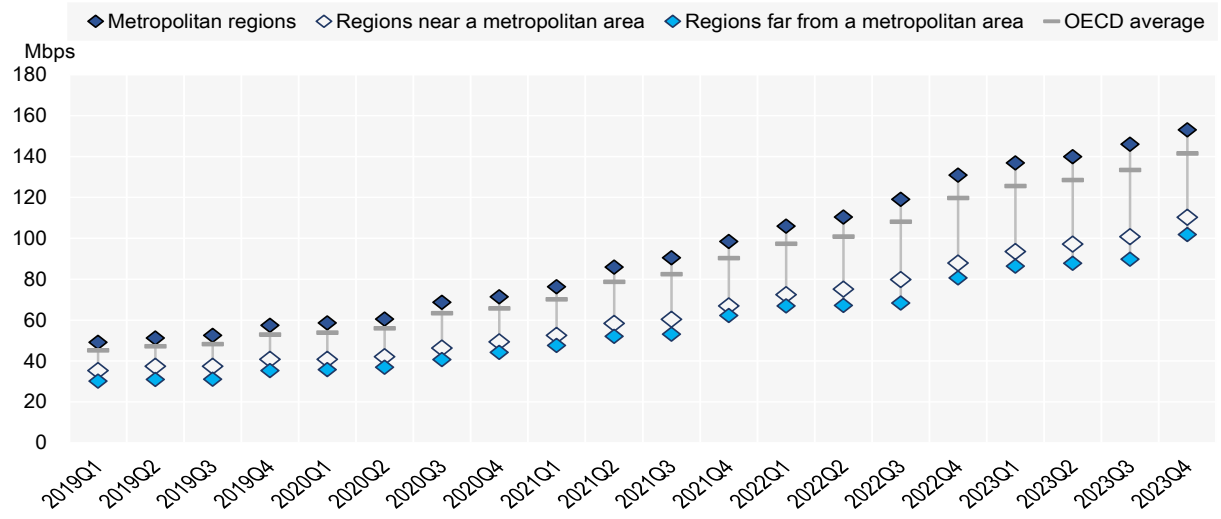
Digital infrastructure is increasingly vital for economic and social development in rural areas, but gaps remain. Despite advancements in broadband coverage, there are still important gaps in connectivity and download speeds between rural and urban regions in OECD countries. On average one-third of rural

households do not have access to high-speed broadband and only 7 out of 26 OECD countries have secured access to a high-speed connection for at least 80% of rural households (OECD, 2023[27]). In addition, rural remote regions have the lowest median download speeds (OECD, 2024[28]).

Broadband speeds can enable or hinder access to opportunities such as education, healthcare, and teleworking – all of which directly influence quality of life and development in rural areas. Figure 2.22 illustrates this trend, showing the median fixed broadband download speeds across OECD countries from Q1 2019 to Q4 2023. Across all regions, there has been an increase in download speeds over time. While metropolitan regions show the highest median download speeds, regions far from metropolitan areas have the lowest speeds, though they have also experienced growth over time.

Figure 2.22. Median fixed broadband download speeds in the OECD

Q1 2019 to Q4 2023, small regions (TL3) classification by type of region, small regions (TL3), 2022



Source: Going Digital Phase IV, pillar on "Digital Divides, Improving Connectivity" (OECD, 2024[28]). For fixed broadband speed: Calculations based on Speedtest® by Ookla® Global Fixed and Mobile Network Performance Maps. Based on analysis by Ookla of Speedtest Intelligence® data for 2019Q1-2023Q4. Ookla trademarks are used under license and reprinted with permission.

Without direct access to high-speed internet, rural communities face challenges in acquiring knowledge and skills, accessing e-services (like telehealth initiatives), participating in democracy, communicating digitally, working remotely, and creating, or indeed, offering their skills to digitally intensive firms. The digital divide also stifles innovation, business development and the potential for existing firms to grow. Bridging digital divides in access to broadband and in digital skills will be paramount for rural regions to fully leverage the benefits of digitalisation. Investment in digital infrastructure and skills will also help rural areas exploit the benefits of the digitalisation of work and social interactions and in particular, remote working.

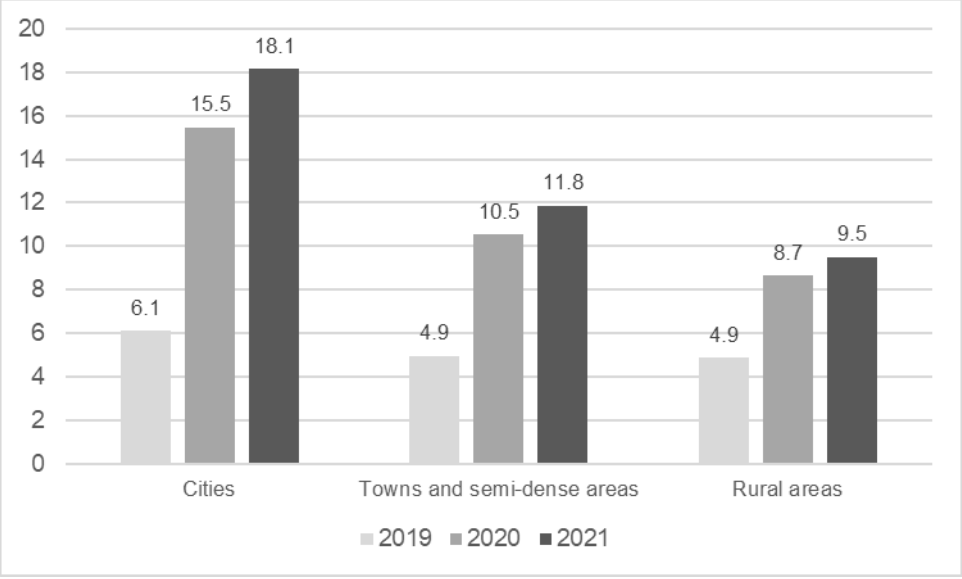
Technology digitalisation and remote working

To seize the benefits of digitalisation, access to communication infrastructure needs to be complemented by the widespread adoption of digital technologies and by a minimum level of digital skills. Recent evidence from OECD countries shows that there is still a clear regional divide in the take-up of digital technologies. On average, there is a 7.7 percentage point gap in the share of people using the Internet between the regions with the highest and lowest use. In countries like Ireland, Japan and Türkiye, the gap can be greater than 20 percentage points (OECD, 2021[25]).

The uptake of remote working has been lower in rural regions. The suitability of jobs to remote working depends on the type of skills required to carry out occupational tasks. A large share of workers in essential jobs (agriculture, food processing, etc.), which are the predominant form of employment in rural areas, have a limited capability to work remotely. The share of employees working remotely in 2021, at the height of the first COVID wave, was almost twice as large in urban areas (15.7%) than in rural (8.7%). Indeed, the share of remote workers tripled in capital regions. In contrast in towns and semi-dense areas it doubled and in rural areas it only increased by 70% between 2019 and 2020 (Figure 2.23).

Although rural regions have doubled the adoption of remote working the adoption rate is lower than in other types of regions. Data for remote working are primarily available for European countries at the degree of urbanisation allowing to measure the uptake in remote working across cities, towns and semi-dense areas, and rural areas for 2019-21. Over the three-year period the uptake in remote working doubled – from 4.9% in 2019 to 9.5% in 2021. This increase however was lower than in towns and semi dense areas (from 4.9% to 11.8%) and in cities (from 6.1% to 18.1%) over the same time period.

Figure 2.23. Remote working by the degree of urbanisation, 2019-21



Source: Özgüzel, C., D. Luca and Z. Wei (2023), "The new geography of remote jobs? Evidence from Europe", *OECD Regional Development Papers*, No. 57, OECD Publishing, Paris, https://doi.org/10.1787/29f94cd0-en.

2.4.5. Looking ahead: megatrends and future opportunities

A new competitive role for rural regions can be enabled by how well they adapt to global megatrends. In particular, advances in digital connectivity, automation, and the global shift towards sustainability present a *new lens for viewing rural competitiveness*. Rural economies are no longer defined solely by agriculture or extractive industries; they are increasingly diverse, with growing roles in digital services, advanced manufacturing, and the green economy. Opportunities exist within the main two game-changing megatrends: digital technology and sustainability.

All rural regions can benefit from technology and digitalisation. With diverse sectoral applications, from the use of "smart agriculture" to addresses labour shortages in ageing rural areas to advances in technology in mining[27] to improve extraction processes, work conditions, and productivity, widespread use of technology is improving rural economies. Automation offers productivity opportunities, particularly in capital-intensive sectors like agriculture and manufacturing (Box 2.4). The potential is significant in

manufacturing in particular. The adoption of automation, digital platforms, and advanced manufacturing can help rural manufacturers remain competitive despite smaller labour pools. Rural regions can adopt cutting-edge technologies such as robotics, AI, and 3D printing to specialise in high-value and customised production.

Box 2.4. Automation: Overcoming challenges to capitalise on opportunities

Automation can become an important development force if some barriers for their proper use (e.g. high logistical costs or access to skills by small businesses) are overcome.

Despite fears of routinised industries and jobs potential being lost, automation can be and opportunity in rural regions. It can enhance rural productivity in both remote rural regions and those close to cities. For example, Canada's adoption of precision agriculture in the Prairies has boosted productivity, supporting rural competitiveness in global markets.[28] Finland, for instance, has integrated automation in its forestry sector, improving productivity and workforce efficiency.[29] For rural areas near cities, automation can facilitate high-value manufacturing activities and integration into larger supply chains. Italy's Veneto region illustrates this through its development of advanced manufacturing clusters that benefit from access to urban labour markets and export channels.[30]

Source: Author's elaboration.

***A*ll types of regions can benefit from the green economy, including from renewable energy generation.** Rural areas lead in renewable energy and are well-positioned to lead in sustainable manufacturing by integrating renewable energy, circular economy models, and low-carbon production techniques. Regions with strong emissions-intensive industries are reconfiguring to meet green standards, offering opportunities in clean technology and energy-efficient production. Germany's investment in wind energy illustrates how rural areas can become central to national energy strategies while creating local jobs. Rural areas are uniquely positioned to lead in renewable energy, carbon sequestration, and sustainable agriculture. The green economy and its opportunities for different types of rural regions is examined in more detail in Section 2.5.

Rural economies can play a central role in the "twin transitions" of digital and green not just adapting to change but as leaders of transition. Technologies such as automation and digital connectivity offer opportunities to overcome barriers associated with distance and workforce scarcity, enabling rural businesses to compete globally. By fostering local innovation, empowering SMEs, and leveraging natural assets, rural regions can redefine their role in national and global economies (OECD, 2018[29]). What that future would be, and the transformations required accordingly, depend on existing legacy industries, resources and development trajectories. The macro and sectoral trends examined in this section, along with the evolution of megatrends, allow visualising potential futures for rural economies (Table 2.3).

Table 2.3. Potential futures of rural competitiveness

The Rural Manufacturing Network	The Renewable Energy Hub
Rural regions act as critical nodes in decentralised manufacturing networks, driven by advancements in automation and additive manufacturing. By specialising in high-value production processes and niche markets, these areas reduce reliance on urban industrial clusters.	Rural regions become global leaders in renewable energy production, leveraging their land, wind, and solar resources to drive the green transition. These areas house solar farms, wind turbine production, and hydrogen storage facilities, contributing to national energy security and decarbonisation goals.

The agri-tech innovator	The Sustainable Tourism and Culture Place
With rising global food demand and climate-related challenges, rural areas emerge as centres of agri-tech innovation. Advanced technologies such as precision farming, AI-driven crop management, and vertical agriculture enable these regions to enhance productivity and sustainability.	Rural regions capitalise on their cultural heritage, natural beauty, and biodiversity to attract global tourists and sustain local economies. This future envisions a focus on eco-tourism, digital marketing of local crafts, and immersive cultural experiences.

Source: Author's elaboration

As discussed in Chapter 3, the effective transformation of rural places requires long-term goals, re-imagining the possible in new economic areas. Innovation and the deliberate mobilisation of local resources can make industries emerge and grow where untapped unique assets exist. Manufacturing is a case in point. While rural manufacturing shows the greatest growth and innovation potential in regions close to cities, it also holds strategic value for remote rural areas. Although the concentration of manufacturing activity is typically higher in rural areas near FUAs, some remote rural regions have carved out specialised roles in national and global value chains. For example:

- The Orkney Islands in Scotland have become known for renewable energy equipment manufacturing and testing, particularly in marine energy technology.
- Similarly, regions of Finland, Canada or Sweden have developed capabilities in wood processing and advanced timber construction, supported by strong regional institutions and alignment with green industrial strategies.
- In Finland, the North Karelia Forest Bioeconomy Cluster integrates over 500 companies and research bodies to advance sustainable wood-based solutions (ELMOENF, 2020[30]).
- In Canada, organisations such as FPInnovations and the Canadian Wood Fibre Centre foster innovation in engineered timber and low-carbon construction (FPInnovations, 2025[31]).
- In Sweden, regional initiatives like The Paper Province and municipal strategies in Växjö promote multi-storey wood buildings using prefabricated components (Växjö, 2013[32]).

These examples illustrate that while scale and proximity to urban markets matter, remote rural areas can still contribute meaningfully to manufacturing through niche positioning and targeted innovation.

2.5. Environmental trends and the rural green opportunity

This section examines the evolution of the unique environmental challenges in rural regions and identifies areas of opportunity to play a central role in the green transition. These areas, with their lower population densities and greater distance from urban markets, are often seen as both key players in the green transition and as regions in need of proofed policies to adapt to their unique challenges.

2.5.1. The rural green paradox

Rural regions face the following paradox: on the one hand they are significant producers of green energy, and on the other higher per capita emitters. Rural regions contribute over half of the renewable energy produced in OECD countries (OECD, 2021[33]). At the same time, they are also larger emitters largely due to structural inefficiencies in energy systems, a heavy reliance on private transport and an outdated infrastructure (OECD, 2022[34]).

Rural regions must ensure that green energy initiatives taking place in rural regions also benefit local communities to avoid backlash and resistance. In contrast to urban centres, rural areas must overcome the challenge of providing reliable and energy-efficient services over vast, less densely populated spaces. While renewable energy projects, including wind and solar installations, are increasingly

located in rural regions (OECD, 2021[33]), benefits of these initiatives do not always reach the local communities hosting them. Instead, benefits often leapfrog rural communities towards external investors or urban areas (OECD, 2024[35]).

In the quest for new sources of growth, rural regions seem particularly exposed to economic and environmental trade-offs. Similarly to energy projects, the exploitation of natural resources, such as mining and forestry, brings economic opportunities, but also leads to environmental degradation, raising concerns about sustainability and the true cost of these developments.

This growing divide – where rural communities are bearing much of the environmental burden without fully reaping the rewards—has resulted in a sense of disconnection and discontent. Key drivers of this issue include:

- *Rural emissions*: While rural areas contribute significantly to renewable energy generation, they still face higher per capita emissions (OECD, 2021[33]), due to factors like energy production accountability, energy inefficiency and car dependency (Partnership, 2024[36]).
- *Energy and transport challenges*: Energy costs and transport emissions are major factors limiting the competitiveness of rural areas, especially as the energy transition accelerates.
- *AI and technological change*. The rise of artificial intelligence (AI) and digital technologies is transforming industries, but it is also creating a divide between rural and urban areas (OpenGlobalRights, 2024[37]). While cities and urban regions benefit from the technological advancements driven by AI (Hsu et al., 2022[38]), rural areas often lack the infrastructure, resources, and skills to fully participate in the digital economy.
- *Land use and renewable energy*: The expansion of renewable energy projects in rural areas often creates land-use conflicts with agriculture and housing, leading to tensions about the distribution of benefits (Kiesecker et al., 2024[39]).
- *Natural resource exploitation*: Mining and forestry in rural regions contribute to economic growth but also cause environmental degradation, including deforestation and habitat loss, which further fuels discontent (OECD, 2023[12]).

These intertwined issues underline the need for policies that consider the unique circumstances of rural areas—policies that not only promote environmental sustainability but also ensure that rural communities directly benefit from these transitions (see Chapter 3).

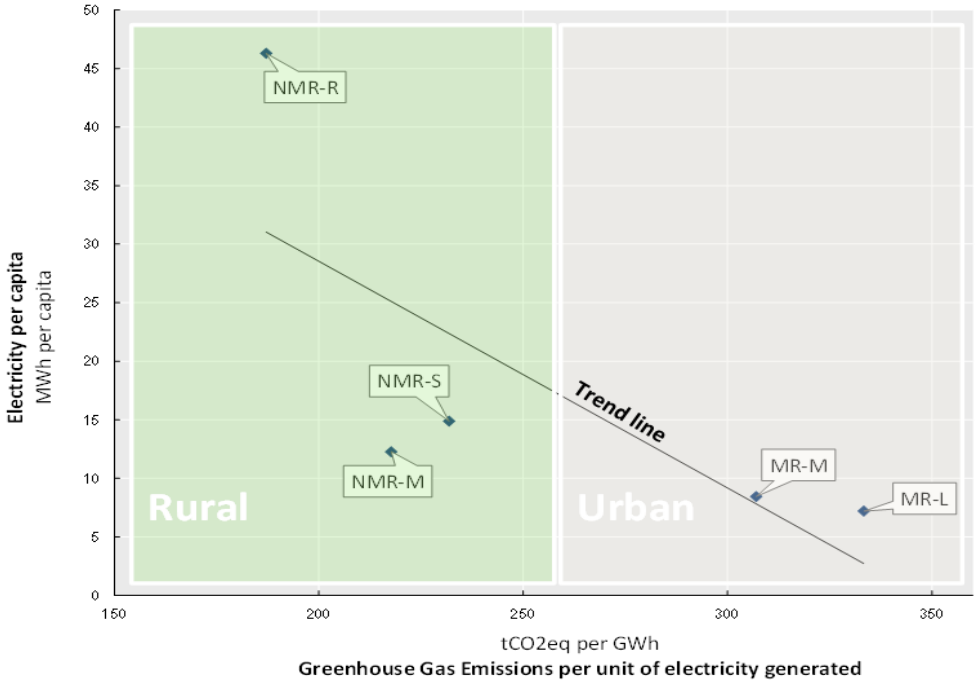
Higher per capita emissions in rural areas

While metropolitan and urban regions are responsible for the majority of absolute GHG emissions due to higher energy demand and population concentration, rural areas exhibit higher emissions on a per capita basis. In absolute terms, metropolitan areas generate higher total emissions, primarily driven by residential, industrial, and transportation sectors. However, emission intensity – defined as the amount of CO_2 emitted per gigawatt-hour (GWh) of electricity – varies significantly across regions. Rural regions emit notably less CO_2 per unit of electricity produced compared to metropolitan areas. Specifically, rural regions emit 30–42% less CO_2 per GWh than metropolitan areas, with remote rural regions (NMR-R) having the lowest emissions intensity at 187 tCO_2 per GWh, compared to 333 tCO_2 per GWh in large metropolitan areas (MR-L). Despite these efficiencies, rural regions face higher per capita emissions.

Rural regions have significantly higher per capita emissions due to structural economic factors, particularly the dominance of agriculture, energy production, and transportation. Agriculture alone accounts for a substantial portion of emissions in rural areas, particularly remote ones. Consequently, although remote rural regions (NMR-R) produce electricity at 46.3 MWh per capita—more than six times that of large metropolitan regions (7.2 MWh per capita – this electricity is often exported to urban centres, limiting local benefits. Several structural factors underpin higher per capita emissions in rural areas:

i) Lower energy efficiency in buildings, attributed to older housing stock and greater heating/cooling needs; ii) longer travel distances and dependency on private vehicles, resulting in higher transportation emissions per capita; iii) smaller-scale economies that increase the cost per capita of energy solutions.

Figure 2.24. Energy production and emissions per capita by type of region, 2019



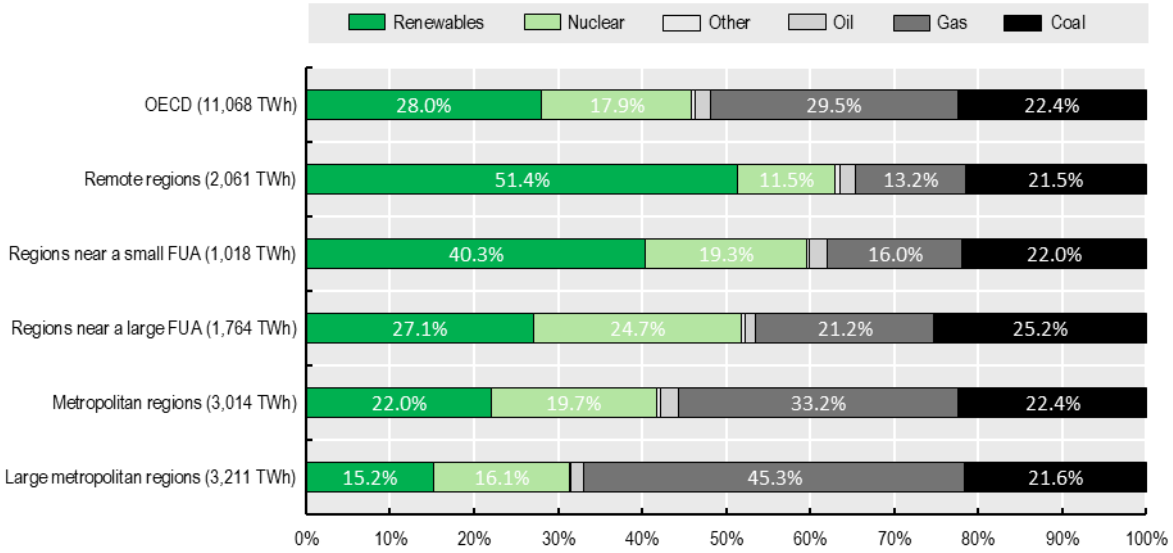
Source: Author's elaboration based on data from OECD Regional Database.

Nationally, the emissions profile varies considerably. In 7 out of 30 OECD countries, rural regions emit more GHG per capita than the national average, notably in countries such as Switzerland, New Zealand, and Sweden. For example, New Zealand's rural emissions (49.86 tCO_2 per capita) far exceed its urban counterparts (17.5 tCO_2 per capita). Conversely, urban emissions surpass the national average in 23 OECD countries. Poland exemplifies this trend, with metropolitan emissions reaching 644.75 tCO_2 per capita, nearly double those of remote rural areas (329.28 tCO_2 per capita).

2.5.2. Opportunity in renewable electricity production

Rural regions, particularly remote ones, are the backbone of OECD renewable electricity generation. The produce 63% of all renewable energy, with 36% of it coming from the most remote areas (see Figure 2.25). Given that these areas cover 80% of OECD territory and host the majority of land, water, and other natural resources, they are naturally positioned to lead the transition to cleaner energy systems. Hydropower remains the most widely used renewable source, but wind and solar are expanding rapidly due to their scalability and declining costs.

Figure 2.25. Source of electricity production, 2019



Note: The data cover 36 OECD countries, excluding only Israel and Costa Rica, as these two are not yet classified in the OECD regional rural typology. Renewables include geothermal, hydro, solar, and wind energy sources.
Source: Author's elaboration based on the OECD Regional Database.

Rural regions play a crucial role in decarbonising OECD economies, as they provide cleaner electricity while cities remain more fossil-fuel dependent. The energy mix in rural and urban regions highlights this divide. Remote regions generate 51.4% of their electricity from renewables, followed by 40.3% in regions near a small FUA and 27.1% in those near to a large FUA. In metropolitan areas, the share was just 22%, and with 15.2% even less in large metropolitan regions. In contrast, large metropolitan areas depend on fossil fuels for 66.9% of their electricity, with 45.3% coming from gas alone.

Energy is a key component for competitive regions and an opportunity for rural regions. Rural areas account for 62.8% of OECD renewable electricity generation, with 34.2% coming from remote areas. Wind, solar, and hydropower are key contributors to this production, offering rural economies a strategic advantage. Access to affordable and reliable energy is essential for economic growth, as it supports industries, attracts investment, and fosters innovation. To capitalise on this opportunity, rural regions need to overcome weak infrastructure, high transmission costs, and regulatory barriers.

Though rural regions often face structural challenges that limit their ability to fully capitalise on this potential, the sharp decline in renewable energy costs is transforming what was once a constraint into an opportunity. Diverse costs reductions, driven by technological advancements and economies of scale, have made renewable energy more competitive than fossil fuels, reinforcing the economic viability of rural regions as energy hubs. Examples of dropping costs include (IRENA, 2024[40]):

- *Solar photovoltaic* costs declined by 80% since 2010 (WEF, 2021[41]).
- *Onshore wind* costs dropped from USD 86 per MWh to USD 53 over the same period (IRENA, 2024[40]).
- *Battery storage* project costs dropped by 89% between 2010 and 2023.

2.5.3. Challenges for new rural economic activities

Existing energy poverty in rural regions

The challenge now lies in ensuring that these cost reductions translate into local benefits for rural communities, **strengthening their long-term economic resilience and energy security.** Many rural areas face high energy costs and vulnerability to energy poverty (OECD, 2023[27]). Weak infrastructure, outdated grids, and limited market access lead to higher per-unit energy prices than in urban centres. In 91 regions across the Czech Republic, Portugal, and Spain, 38% of non-metropolitan areas experience energy poverty, with another 27% at risk. Rural populations, often older and on lower incomes, struggle to absorb rising energy costs. Many depend on agriculture, forestry, and small industries, making them vulnerable to price fluctuations. Weak grid infrastructure and high transmission costs further drive-up energy prices, particularly in remote areas. Addressing rural energy poverty requires investments in infrastructure, efficiency improvements, and policies that expand affordable access to ensure these regions benefit from the energy transition.

Land-use challenges

While rural areas are at the forefront of the green transition, land is increasingly exposed to competing interests between agricultural, energy, and residential demands – with the environmental impacts they convey. Table 2.4 provides an overview of the current land use dynamics in rural regions. The demand for land for various purposes—such as agriculture, energy infrastructure, housing, and natural resource extraction – has created significant land-use challenges. As renewable energy projects expand and housing demands increase, these regions face growing pressure to balance development with environmental preservation.

OECD regions have lost a tenth of their forests in the last 2 decades. OECD regions have seen a significant loss of forests, with approximately 10% of their forest cover disappearing between 2000 and 2020 (Tesnière, Maes and Haščič, 2024[42]) (see Table 2.4). This decline is driven by a combination of factors, including land conversion for agriculture, urban expansion, and the increasing demand for natural resources. Some countries and regions have experienced even more severe losses, particularly in areas where deforestation and forest fires have been widespread. This loss of forest cover has profound implications for biodiversity, carbon sequestration, and the overall health of ecosystems highlights the changes in forest cover across different OECD countries and regions, providing a snapshot of the environmental challenges faced by rural areas.

Table 2.4. Land-use overview dynamics

Agriculture	**Renewable energy projects**
Over 30% of rural regions in OECD countries have experienced competition for land related to agriculture: • **Agricultural land loss**: In OECD countries, agriculture has seen a decline in land use, particularly in rural areas where land has been repurposed for other economic activities. • **Intensification of farming:** Rural regions with higher farming intensity report increased soil erosion and land degradation, affecting long-term sustainability.	The increasing need for renewable energy sources has led to land competition between energy production and other sectors (e.g. agri). • **Land use competition**: In rural regions, renewable energy projects, including wind and solar installations, often compete with agriculture. About 40% of rural areas have seen land used for renewable energy, reducing land availability for farming.

	• **Ecosystem fragmentation**: Land allocated for renewable energy infrastructure is growing at 12% annually in rural regions, leading to potential impacts on local ecosystems.
Housing The rapid expansion of housing in rural areas has been driven by population shifts and urban sprawl. • **Housing expansion:** 50% of rural areas have seen housing developments impact on agricultural and protected areas, disrupting wildlife corridors. • **Impact on protected areas:** Built-up areas in protected natural regions have grown 18% faster than in non-protected areas, heightening concerns about urbanisation affecting biodiversity.	**Natural Resource Exploitation** Mining, forestry and other forms of natural resource extraction have significantly impacted land use in rural areas. • **Deforestation:** OECD regions have lost 10% of their forests between 2000 and 2022, primarily driven by land used for the primary sector, energy production and urbanisation. • **Resource extraction and mining activities**: Natural resource related activities that require careful land management to balance the economic benefits with the need to preserve local ecosystems.

Source: Author's elaboration

2.6. Beyond growth: social outcomes and quality of life

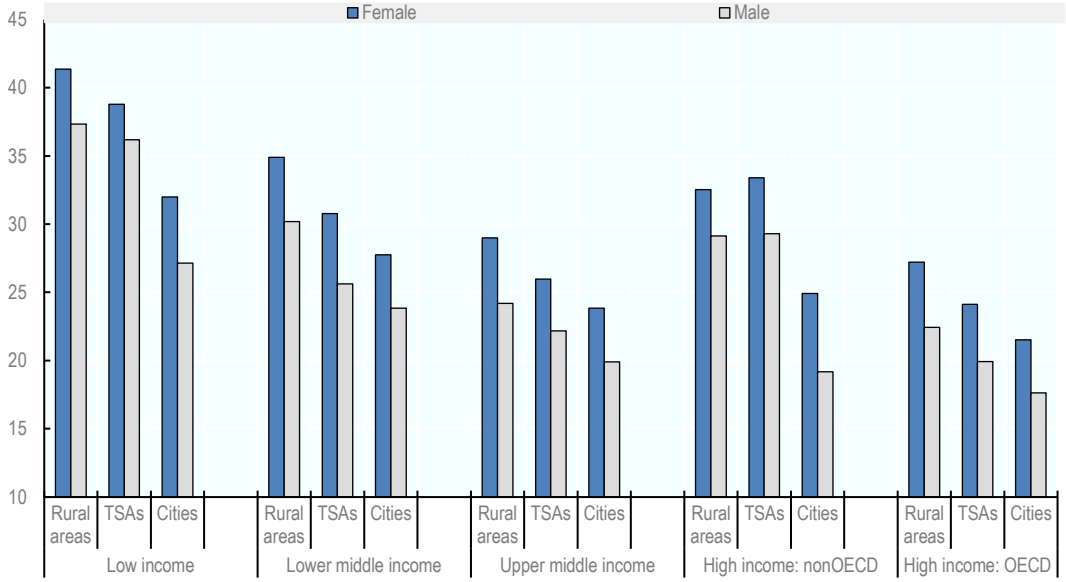
This section assesses social well-being and access to services, integrating perception data to understand community strengths and vulnerabilities. Rural areas often face unique challenges in terms of quality, cost, and access to essential services. Limited infrastructure, labour shortages and geographical isolation can hamper the availability and cost of quality healthcare, education, and other essential services, which affects quality of life in the local community.

2.6.1. Social outcomes

Beyond education, rural-urban disparities extend to health outcomes, including life expectancy and health prevalence. Life expectancy at birth remains lower in rural areas, with a 2.4-year gap between remote and metropolitan regions in 2023 (OECD, 2024[43]). In 2022, cardiovascular mortality in remote areas of OECD countries was 19% higher than the national average. Finland had the greatest relative disparity between metropolitan and remote areas, with a difference of 67% (263 versus 440 deaths per 100 000 population), while Hungary had the largest absolute gap (604 versus 813 deaths per 100 000 population) (OECD, 2024[43]). Rural populations also report a greater propensity for health problems, with notable gender disparities. Across different income levels, women in rural areas tend to report worse health outcomes than men, particularly in Europe, Central Asia, and the United States (Figure 2.26). The gap is especially pronounced in the United States and Sub-Saharan Africa, where rural residents are 15 and 11 percentage points, respectively, more likely to report health problems than those in urban areas.

Figure 2.26. Health problems by gender by degree of urbanisation, countries from all over the world regions and income groups

Share of people reporting suffering significantly from health problems, 2016-17



Note: TSA stands for towns and semi-dense areas according to the degree of urbanisation.
Source: (OECD/European Commission, 2020[44])

2.6.2. Service delivery as element of rural well-being

Access to quality services is a key driver of well-being, but significant disparities persist between rural and urban areas in OECD countries. People living in rural areas often experience lower quality public services or worse outcomes than their urban peers – in education, healthcare, or other essential services – due to factors such as geographical isolation, low population density and poor infrastructure.

Effective service delivery underpins regional well-being and national productivity. Cities, towns and villages form a settlement network that can unlock economic opportunities and enhance access to key services, but demographic shifts like ageing and population decline in remote areas create pressing challenges (OECD, 2024[45]). Factors such as improved transport connectivity, co-location and regional co-ordination play critical roles in making services more available and affordable. In practice, larger urban areas benefit from economies of scale, whereas remote or sparsely populated regions may need innovative approaches – such as blended digital-physical service delivery and targeted funding. By recognising how density, travel times and resource allocation intersect, policy makers can better balance cost, access, and quality considerations to ensure that rural areas remain viable and attractive places to live (OECD, 2024[45]).

Costs of services

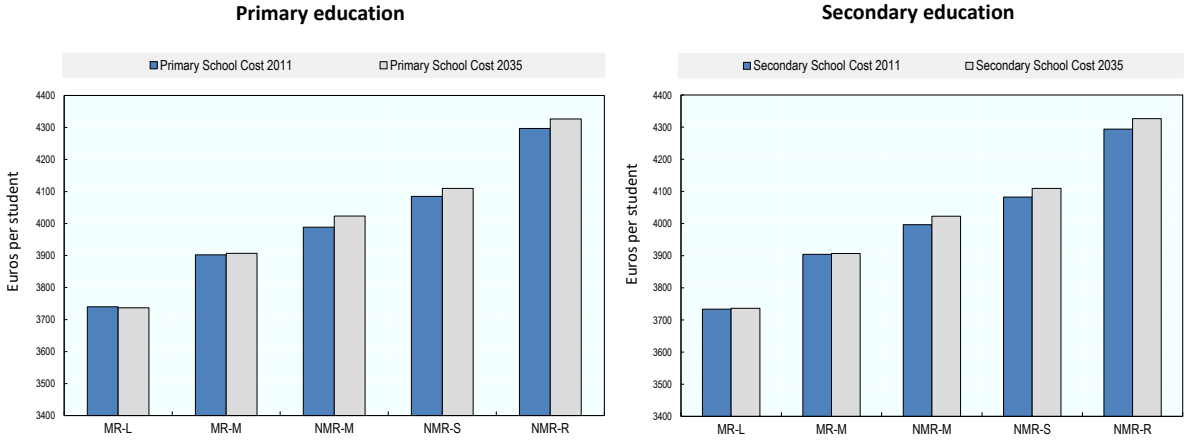
The provision of public services in rural areas presents unique challenges due to low population density, remoteness, and limited economies of scale. In contrast to urban areas, where high population concentrations result in cost savings, rural areas often face higher per capita costs to provide education, healthcare, and other essential services. These cost disparities result from a combination of factors, including sparsity, the need for more extensive and therefore more expensive transport networks, or fixed

costs that are more difficult to reduce. Understanding these cost dynamics is essential to designing policies that ensure cost-efficiency in rural areas while guaranteeing equitable access to quality services.

Costs to deliver services tend to be higher in less densely population areas due to sparsity, lower economies of scale, and higher transportation costs. Analysis of cost estimates[31] to deliver primary and secondary education at the school level across TL3 regions reveals two key insights. First, the costs to deliver primary education are higher than for secondary education across the five regional classifications, with slight variations by region. Second, costs are inversely correlated with population density, as expected. The differences in costs between urban and rural regions (e.g. metro and non-metro) for primary and secondary education are estimated at around 7% on average, while the cost difference between the most urban type of region (large metro) and the most rural (remote rural) is twice that figure (15%). For instance, the cost per student in large metro regions is EUR 3 739 per student for primary education, rising to EUR 4 297 in remote rural regions (Figure 2.27).

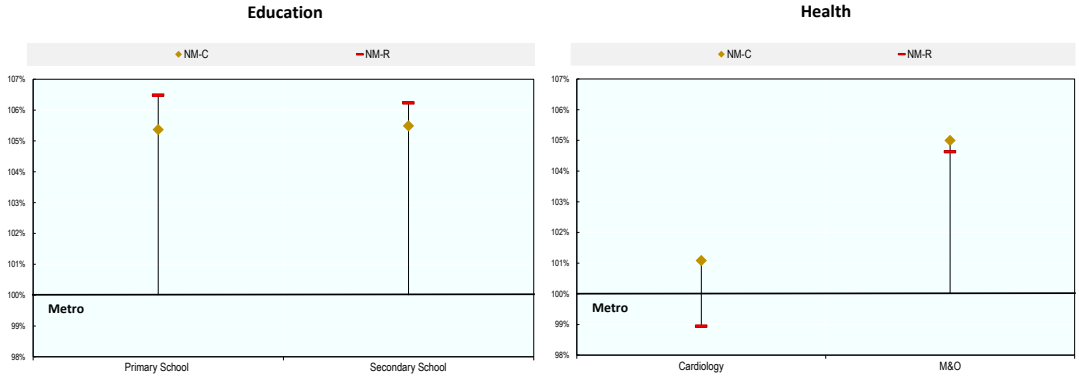
Non-metropolitan regions tend to face higher costs for a range of services, including education (primary and secondary) and healthcare (see Figure 2.28). Remote rural regions often struggle with fixed infrastructure costs and longer travel distances, although exceptions exist: cardiology costs, for instance, can be lower where older populations create steady demand.

Figure 2.27. Costs to deliver primary and secondary education services, 2011-35, TL3 regions



Source: Author's elaboration, data taken from (OECD/EC-JRC, 2021[46])

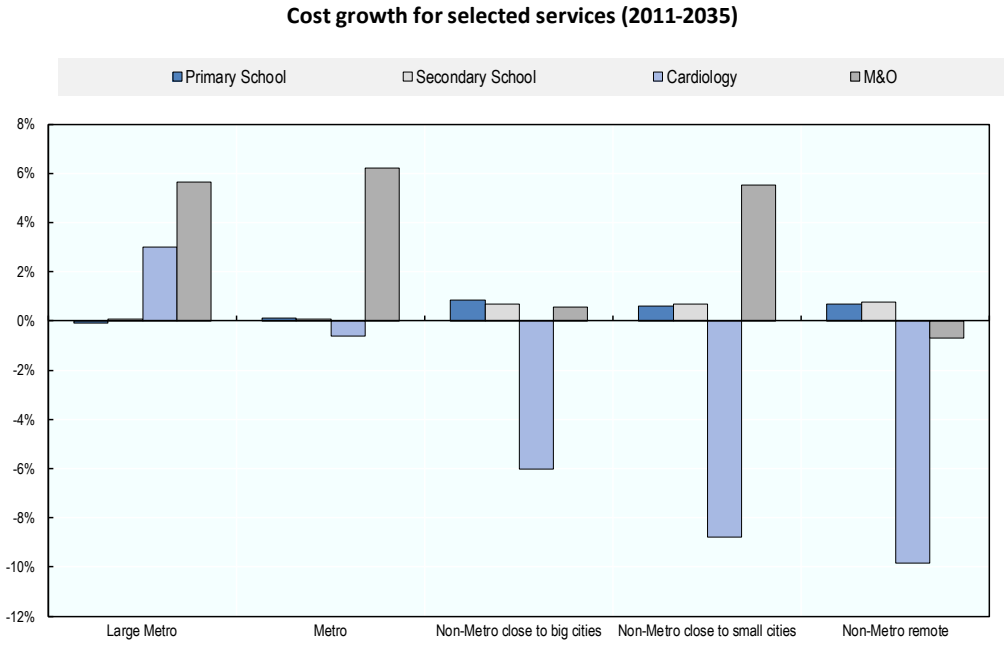
Figure 2.28. Cost difference between Metro and Non-Metro (% in 2011)



Note: MR-C corresponds to NMR-S and NMR-M combined.
Source: Author's elaboration, data taken from (OECD/EC-JRC, 2021[46])

Projections to 2035 also reveal that primary and secondary education costs in rural areas are expected to rise by about 1%, while maternity and obstetrics could increase by 6% and cardiology could decline by up to 10% (Figure 2.29). These trends underscore the importance of tailored policies, including collaborations across settlements and flexible facility placement. Pursuing economies of scale without compromising service quality can improve cost-efficiency, but complementary measures—such as co-locating services and investing in better transport—are essential for ensuring equity of access.

Figure 2.29. Cost growth for selected services (201135)



Source: Author's elaboration, data taken from (OECD/EC-JRC, 2021[46])

Accessibility to services

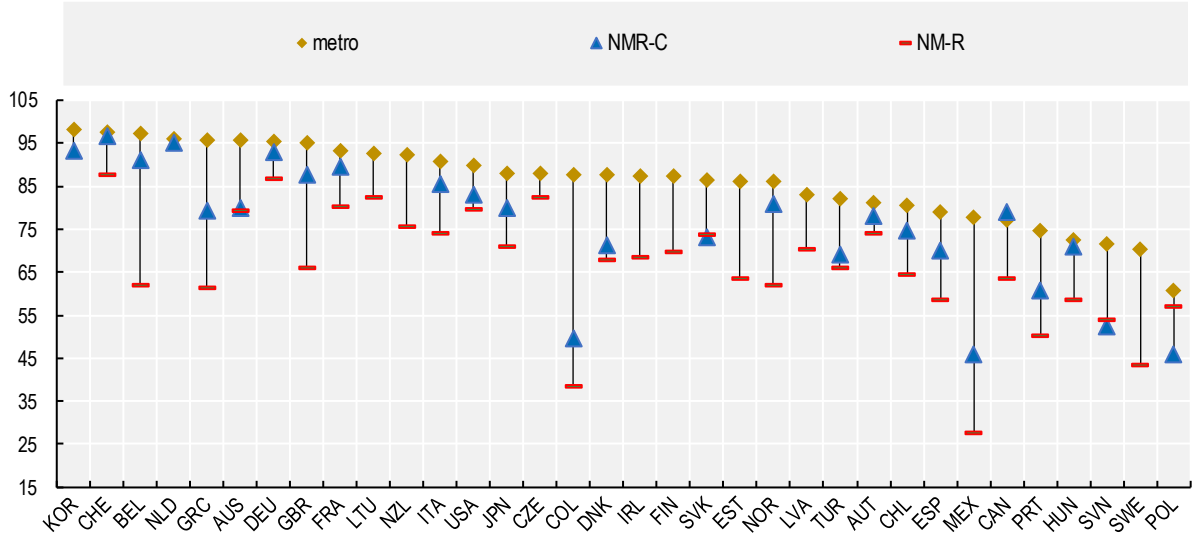
In many OECD countries, rural inhabitants face greater difficulties than their urban counterparts in accessing key services such as education, healthcare, banking and digital infrastructure. These disparities can have significant social and economic consequences, reinforcing regional inequalities and limiting opportunities for rural populations. OECD analysis shows that settlements close to cities often have fewer services than settlements of a similar size further from cities (OECD, 2024[47]). For example, settlements with no access to a city generally have almost one more school than those with access to the city. Similarly, healthcare services tend to be more prevalent in remote rural areas compared to those near cities. Only 35% of towns less than 30 minutes' drive from a city have a hospital, compared with 78% of regional center towns and 47% of other remote towns. In addition, rural towns close to cities tend to have fewer banks or pharmacies, as residents often travel to neighbouring towns to obtain these services.

Education levels are another area where rural-urban disparities are significant. Individuals with tertiary education, i.e. higher education qualifications, are increasingly concentrated in urban areas. In 2020, the proportion of adults with tertiary education was higher in cities than in rural areas in 25 out of 26 OECD countries for which data is available (OECD, 2023[27]). The disparity ranged from 30 percentage points in Hungary to just 2 percentage points in Belgium. Over time, this gap has widened. Between 2012 and 2020, the difference in tertiary education attainment between urban and rural areas increased in 19 of the 25 countries for which data is available.

Healthcare access is another major challenge for rural communities, particularly in remote regions far from large cities. In OECD countries, more than half of the regions where the number of doctors, nurses and hospital beds per inhabitant is below the national average are far from a midsize/large FUA (67/124 regions). Regions far from a midsize/large FUA have 12% fewer doctors per inhabitant than the national average, while metropolitan regions have 4% more doctors (OECD, 2024[43]).

Residents of metro regions have more health facilities close by. This includes access to healthcare by the percentage of population within a 20-minute drive from a hospital across three types of TL3 regions (Figure 2.30). The data show significant differences in access to healthcare according to regional classification. Across all countries where data are available, metro regions had a higher share of the population with a 20-minute drive from a hospital, followed by non-metro near a FUA and finally rural remote. In all countries, the share of population with better access to a hospital was higher in metro regions except in Canada, where non-metro near a FUA had a higher share. On average across the 34 countries where data are available, 86% of the population had access in metro regions, close to 10 full percentage points (pp) higher than the share in non-metro near a FUA (76%) and 20 full pp than rural regions remote (far from a FUA) (66%) in 2022.

Figure 2.30. Percentage of population within a 20-minute drive from a hospital, by type of region, small regions (TL3), 2022



Note: "M" refers to metropolitan regions (MR). "NMR-C" includes only regions near a FUA larger than 250k (NMR-M), and "NM-R" includes both regions near a FUA smaller than 250k (NMR-S) and remote regions (NMR-R).
Source: Regions and Cities at a Glance (OECD, 2022[48])

2.6.3. Public sentiment and rural satisfaction

The well-being of rural residents is influenced by how they feel about their current strengths and challenges. Part of well-being is certainly driven by how well the needs of individuals in a society are being met across several spectrums, such as physical, economic, social, environmental, and emotional aspects. Furthermore, individual perceptions and assessments of their own life within society and how individuals perceive their benefit from societal decisions or policies are determinants of their satisfaction.

Despite unique challenges, rural populations remain attached to their communities. According to the Gallup indicators, the analysis finds evidence of higher community attachment and higher civic

engagement in rural and semi-dense areas. In this instance, community attachment refers to the emotional connection residents feel toward their community including pride for where they live, optimism about the future, and their sense of belonging. Civic engagement is the level of individual involvement in activities that contribute to community well-being including voting participation, volunteering, and local political activity. Assessment of the 38 OECD countries highlights that across 14 countries rural regions recorded the highest values in the community attachment index, against 10 countries in towns and semi-dense areas and 14 countries in cities, and in 13 countries rural areas recorded the highest values in the civic engagement index against 10 countries in towns and semi-dense areas, and 15 countries in cities (Figure 2.31).

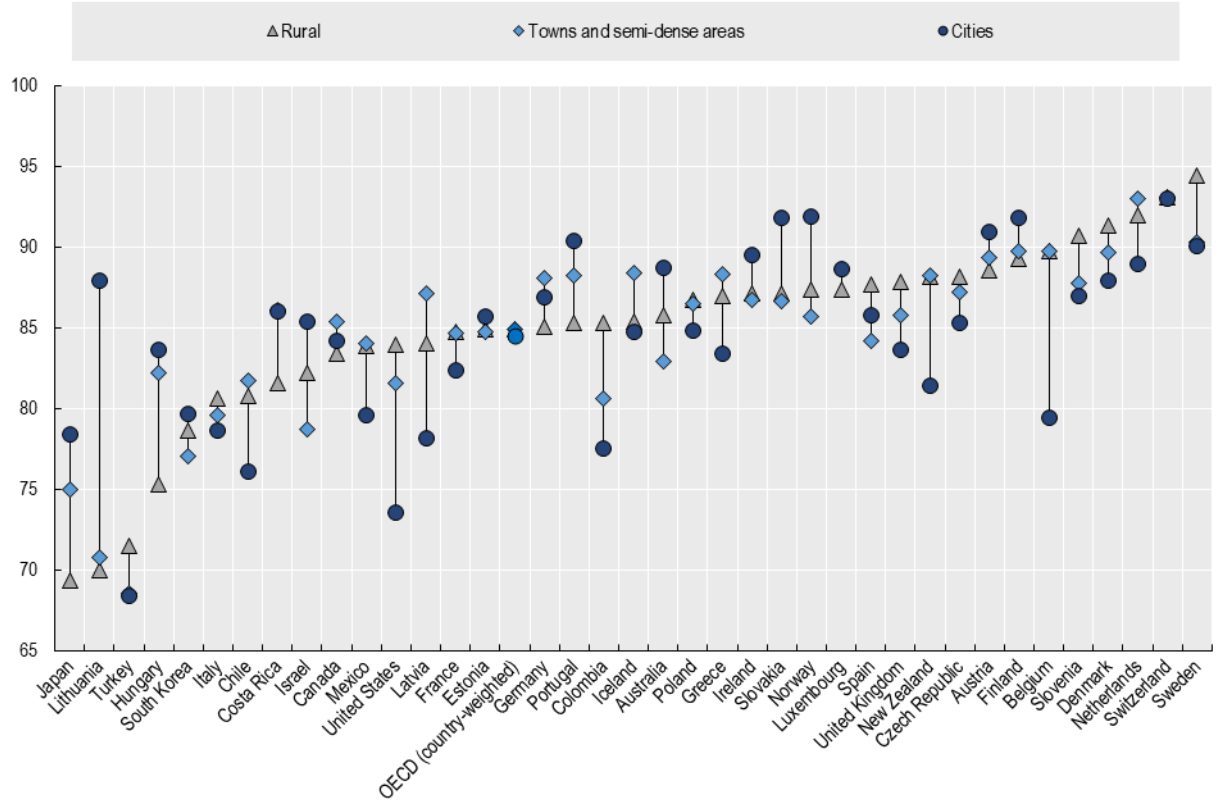
Box 2.5. Description of Gallup perceptions survey

Perceptions surveys are important analytical tools for understanding attitudes beliefs and options of individuals living in different regions. They can provide valuable qualitative insights that can supplement quantitative analysis. This section presents indicators from perceptions-based surveys like the Gallup World Poll and a trust survey undertaken by the OECD's Public Governance Directorate. Data are only available cross sectionally, for 2022/23 for the Gallup and 2023 for the trust survey. For Gallup, we present indicators at the degree of urbanisation (DEGURBA) for community attachment, civic engagement, local economic confidence, and corruption. For the trust survey we present indicators across TL3 regions classified by the OECD regional typology that defines predominantly urban regions, intermediate and predominantly rural regions. The indicators presented include trust in national government, satisfaction with health care system and satisfaction with education system.

Source: Author's elaboration

Figure 2.31. Community Attachment Index, 2022

Community Attachment Index, as an index score from 0-100



Note: The Community Attachment Index measures respondents' satisfaction with the city or area where they live and their likelihood to move away or recommend that city or area to a friend. Index scores are calculated at the individual record level. The average figures inside countries are weighted by design weights calibrated to age, gender and education or socio-economic status at national level.
Source: Author's elaboration based on Gallup data and interim result from the project *Regional development along the settlement network*.

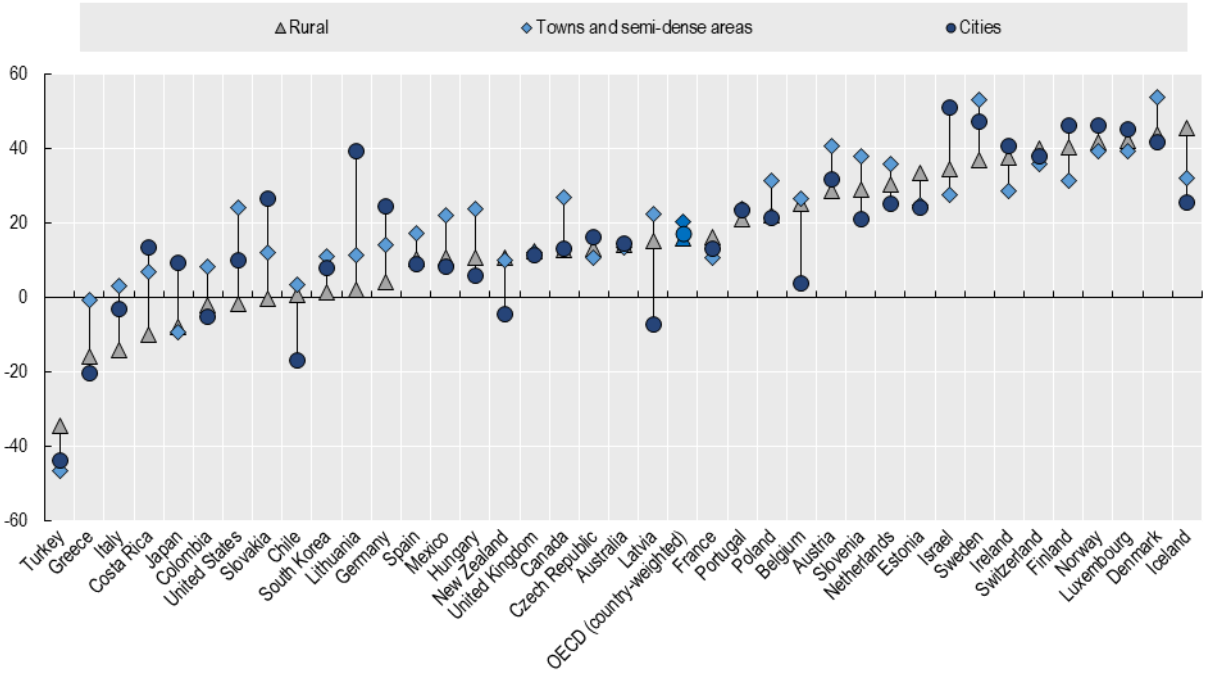
Given strong sense of belonging to rural places, improving services and the competitiveness of these places is crucial for well-being. Studies suggest a variety of reasons why rural and semi-dense areas may experience higher levels of community attachment. These include more distinct boundaries in rural areas that encourage residents to form a stronger sense of belonging, more frequent social interaction with community members that increases networks and social capital, and less transience in rural areas with people staying for extended periods of time (Whitham, 2019[49]). This can lead to increased civic engagement as people feel a sense of pride in contributing to improving well-being in their community. There may also be a correlation between age demographics in rural regions and civic engagement with older adults having more time to engage in these activities (Kafkova, Vidovicova and Wija, 2018[50]); (Stoecker and Witkovsky, 2022[51]).

Yet, rural communities are not optimistic about the future, which hurts their well-being. The local economic confidence index measures perceptions of the economic conditions where a respondent lives and captures people's thoughts on current economic conditions and outlooks for the future of the economy. Towns and semi-dense areas reached the highest perception of their local economy 19 OECD countries, followed by cities recording the highest value in 12 against 7 countries in rural Figure 2.32). Thus, having some density appears to be correlated with higher confidence in the economy, but the highest confidence

is not in the highest-density regions. This suggests that further analysis is needed of the links between the size of towns, community engagement levels and how that is contributing to economic confidence.

Figure 2.32. Local economic confidence index, 2022

Local Economic Confidence Index, as an index score from -100 to 100



Note: Gallup's Local Economic Confidence Index is based on the combined responses to two questions asking respondents, first, to rate economic conditions in their city today, and second, whether they think economic conditions in their city as a whole are getting better or getting worse. The average figures inside countries are weighted by design weights calibrated to age, gender and education or socio-economic status at national level

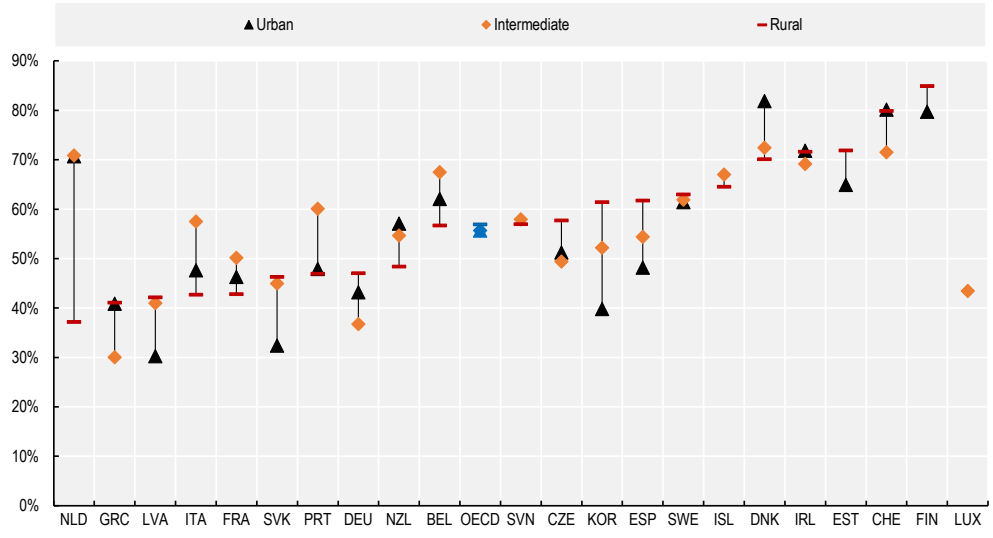
Source: Author's elaboration based on Gallup data and interim result from the project *Regional development along the settlement network*

Rural residents' satisfaction with services is mixed. Satisfaction with services show interesting results. Predominantly rural regions appear to record the highest satisfaction with the educational system across more countries than in intermediate areas and cities (9 countries with the highest scores in rural areas, 8 countries with the highest in intermediate areas and 5 with the highest in cities across 22 countries). In countries with higher rural satisfaction in the education system, a number of factors might explain this relationship such as smaller class sizes and rural schools having stronger ties to their communities than those in cities, fostering a greater sense of belonging and an emphasis on practical and community oriented education (Schafft, 2016[52]). Alternatively, limited educational alternatives in rural areas might lead to lower expectations for school choices and higher satisfaction than in an urban context (Tine and Tine, 2017[53]).

On the other hand, rural areas are less satisfied with the healthcare system, with 4 countries showing the highest satisfaction in rural areas (across 21 countries), compared with 10 countries that have the highest satisfaction in cities and 7 countries with the highest satisfaction in intermediate areas. Rural areas often experience unique challenges in access to quality healthcare including a lack of proximity to clinics and availability of skilled physicians (Weinhold and Gurtner, 2014[54]). The COVID-19 pandemic may have contributed to this satisfaction, by exposing longstanding gaps in rural healthcare systems, especially staff

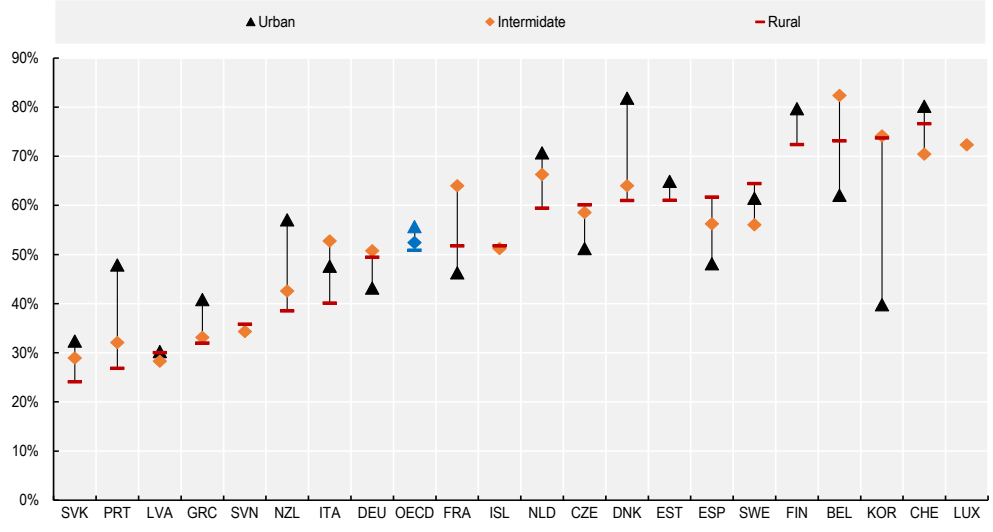
shortages, leading to a lack of preparedness, rushed interactions, and reduced availability (Hoerold et al., 2021[55]).

Figure 2.33. Satisfied with education system, 2023



Note: The OECD average is not weighted by the number of respondents. The question asked is: "On a scale of 0 to 10, where 0 is not at all and 10 is completely, how much do you trust each of the following? The national, regional, local government" (0-4=Lower trust, 5=Neutral trust, 6-10=Higher trust)".
Source: Author's elaboration based on the 2023 OECD Trust Survey

Figure 2.34. Satisfied with health care system, 2023



Note: The OECD average is not weighted by the number of respondents. The question asked is: "On a scale of 0 to 10, where 0 is not at all and 10 is completely, how much do you trust each of the following? The national, regional, local government" (0-4=Lower trust, 5=Neutral trust, 6-10=Higher trust)".
Source: Author's elaboration based on the 2023 OECD Trust Survey

2.7. Conclusion and policy implications

Key trends outlined in this Chapter highlight both persistent challenges and new opportunities that rural policy must address. Demographic pressures – such as declining and ageing populations – pose a threat to workforce sustainability, particularly in remote areas. However, new economic trends, including automation, reshoring, and the green transition, create opportunities for rural regions to reimagine their economic roles. Rural areas near cities are well-positioned to integrate into manufacturing and innovation networks, while remote regions can benefit from resource-based industries, including renewable energy and sustainable tourism. The key to unlocking these opportunities lies in strategic investment in skills, digital infrastructure, and business ecosystems— – of which are essential to fostering rural entrepreneurship and connecting rural regions to global markets.

Rural regions are in general facing stronger transformations. Furthermore, the three types of rural regions show different trends in socio-economic indicators. This means that each type of region faces have different opportunities and challenges. The analyses across the different sections of this Chapter break down the following high-level trends:

- **Demographic shifts are driving economic transformation.** Population decline is widespread, with 47.3% of rural regions near small cities and 40% of remote regions experiencing depopulation over the past two decades. At the same time, ageing is accelerating, particularly in remote areas where elderly dependency ratios are highest. However, rural areas near midsize and large cities have shown stronger population retention, suggesting opportunities to leverage rural-urban linkages.
- **Economic performance is highly differentiated across rural regions.** While rural GDP per capita generally lags behind metropolitan areas, some rural regions – particularly those near cities – have seen growth in tradeable sectors, including manufacturing and knowledge-based industries. In contrast, remote rural regions remain more reliant on agriculture, public administration, and resource extraction, making them vulnerable to structural economic shifts. There are ‘pockets of growth’ that the data tries to throw light on.
- **Social and environmental factors play a critical role in rural resilience.** Rural communities report high levels of social cohesion and community engagement, yet face challenges in service provision, digital connectivity, and employment opportunities. Environmentally, rural regions are both vulnerable to climate risks and well-positioned to drive the green transition, with significant potential in renewable energy, sustainable tourism, and circular economy initiatives.

Ongoing trends present clear economic opportunities for different types of rural regions. Currently, rural near a small FUA is more specialised in manufacturing activities, rural remote in agriculture, forestry and fisheries and in public administration. Rural areas near cities can benefit from urban spillovers, supporting high-value sectors like digital services, advanced manufacturing, and innovation hubs. Remote rural areas have competitive advantages in renewable energy, sustainable agriculture, and nature-based tourism, but require targeted policies to address labour shortages and service gaps. Across all rural regions, investments in digital infrastructure, skills development, and green technologies will be key to unlocking long-term growth.

The future of rural development depends on harnessing global transitions. These include towards green energy, digitalisation, and sustainable industries, in a way that delivers lasting economic and social benefits. Rural regions are not inherently disadvantaged; rather, they require strategic investment, governance innovation, and adaptive policies to realise their full potential. By aligning policies with local strengths, ensuring inclusive benefits, and addressing structural barriers, rural economies can thrive as competitive and resilient places.

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Notes

[1] With 47.3% of rural regions near small cities and 40% of remote regions experiencing depopulation over the past two decades.

[2] Rural populations are growing positively in 14 OECD countries.

[3] Metropolitan areas are not immune to these transformations with 20% of them already shrinking.

[4] A total of 12 countries experience shrinking in rural remote, against 9 in rural near small FUA and only 3 in rural near midsize/large FUAs.

[5] By contrast, rural remote increased in population size in 12 countries

[6] Japan records by far the highest old-age dependency ratio, exceeding one elderly person for every two working-age individuals in 2021.

[7] Except for Türkiye, Slovakia, Ireland, and Japan, the old-age dependency ratio in non-metro regions generally falls within a range between 30% and 50%.

[8] Though rural regions near FUA's have more favourable demographics, with larger population growth and lower elderly dependency ratios, it is also here where dependency ratios are growing the fastest – thus converging in this aspect with other rural regions.

[9] There are disparities within these averages, though; rural near a small FUA are also more likely to observe cases of economic contraction in the data, which suggest that the average outperformance of these regions is influenced (pull upwards) by some high performers. This highlights the importance for policy to understand what kind of intermediate cities make rural regions more successful, and under which conditions.

[10] See https://www.bmwk-energiewende.de/EWD/Redaktion/EN/Newsletter/2024/09/Meldung/topthema.html

[11] See https://ec.europa.eu/enrd/enrd-static/fms/pdf/D49A24C5-A85F-BF7E-A810-4F02BD575422.pdf

[12] That include Türkiye, Estonia, Latvia, Germany, Japan, Netherlands, Finland, Switzerland, Austria, Portugal Spain, Norway, Belgium, the United States, Sweden and Slovak Republic,

[13] A country-weighted average shows that the country-weighted GDP per capita increased by 1.66%, in non-metro regions by 1.67%.

[14] Relative to the national average rural regions grew faster than the national average in 14 countries, thus converging to the national average. In 11 countries there was divergence with lower rates by rural regions GDP per capita relative to the national average and no changes in 3 countries (Figure X in Statistical Annex).

[15] This is followed by rural remote regions (1.51%) and rural near a midsize/large FUA. In six countries the rate of growth in GDP per capita was highest in rural metro near a small FUA and in rural near close to a FUA. In 5 the highest rated occurred in remote regions.

[16] Source: https://www.oecd.org/en/topics/policy-issues/agricultural-productivity-and-innovation.html . Innovation in the agricultural sector can take many forms. “Process innovations” improve agricultural production techniques, while “product innovations” can lead to the development of healthier foods in downstream industries. "Marketing and organisational innovations” improve performance throughout the supply chain. Lastly, innovations can also occur in institutions and policy design.

[17] In terms of labour productivity in remote regions, 86% of them increased productivity over the last two decades, similar to rural near a midsize/large FUA (88%) and rural near are a small FUA (78%), however rural remote decreased employment in 45% of regions, a much larger share the other two (around 28%).

[18] There may be some biases in employment figures due to the measurement of employment as headcount rather than actual working hours. A reduction of employment in rural areas might reflect a shift toward longer working hours, given the difficulty of farmers to find workers. Furthermore, labour force surveys may suffer from low sample sizes in rural areas and could overrepresent agricultural workers vis-a-vis business surveys since they typically include self and informal employment. More analytical work will be conducted to better understand the scope of these biases.

[19] This is followed by metro recording the highest share in employment in 3 countries (Slovenia, Greece and Netherlands) and the highest share in GVA In 2 (Slovenia and New Zealand). Non-metro regions near a FUA, have the highest share in employment in public administration in Lithuania and Estonia and the highest GVA share in in Estonia and Greece.

[20] In 5 countries (Norway, Spain, Lithuania, Estonia, and Slovenia) the manufacturing employment share was the highest and in 3 countries (Estonia, Lithuania, Slovenia) the GVA share was the highest.

[21] Urban economies have a more diversified economic base and thus tend to be more resilient against economic shocks than rural regions. Regions with knowledge across various overlapping industries are more likely to develop new technologies and are less subject to resource dependence and can assist a region in transitioning to industries with steady market demand (Merenkova et al., 2019). Across all TL3 regions, the share of non-metro regions (13.8%) that have faced a GDP contraction over the past two decades, is higher than the average share of OECD TL3 regions (10%) and much above the share in metro regions (4%).

[22] The manufacturing sector’s direct contribution to rural GVA increased in OECD rural regions from 18.5% to 21.1% from 2000 to 2019 and the sector also supports a significant proportion of upstream service sector jobs, including in metropolitan regions. Source: OECD (2023), The Future of Rural Manufacturing.

[23] By contrast, lower-performing mining regions struggle to translate resource wealth into sustained economic prosperity, often remaining below national economic benchmarks. In Czechia, Karlovy Vary’s GDP per capita is only 65% of the national average, despite its historical reliance on coal mining. Low wages and limited economic spillovers have hindered local development. Similarly, Huelva in Spain,

despite producing nearly 70% of Andalusia's metallic minerals, suffers from persistent economic difficulties, with unemployment rates exceeding 20%—one of the highest in the country (OECD, 2021[57]). These examples reveal the risks of failing to reinvest resource revenues into economic diversification, infrastructure, and human capital development, which are essential for long-term regional resilience.

[24] OECD (2022), Unlocking Rural Innovation, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/9044a961-en.

[25] The analysis makes use of the degree of urbanisation (DEGURBA) and the gap captures the differences in scores between rural and urban areas as defined in DEGURBA.

[26] All the factors controlled for include: parental education, parental occupation, economic resources, cultural and social capital, household wealth, immigration status and school socio-economic composition.

[27] Source: OECD (2020) Mining Regions and Cities Case of Andalusia, Spain, OECD Publishing, Paris, https://doi.org/10.1787/47062327-en.

[28] Source: OECD (2024), Enhancing Rural Innovation in Canada. Also see: Government invests in precision agriculture to enhance competiveness and efficiency - Canada.ca

[29] Source: Improving digital planning and management of forest resources in Lapland, Finland | Rural Pact Community Platform

[30] Rural regions display a lower intensity of technology in manufacturing activities. Source: OECD, The Future of Rural Manufacturing, 2023

[31] Costs to deliver primary and secondary education at the school level have been estimated (OECD/EC-JRC, 2021[46]) across different geographies using a two-step method: (1) The first step involves simulating school locations using a thresholds-based, bottom-up algorithm that relies on road networks and fine spatial resolution population grids and assigning student to each school based on a spatial interaction model (2011). (2) The second step estimates school costs based on the estimated number of students per school, broken down by costs on teaching staff, non-teaching staff, and other costs (2035).

Annex 2.A. Statistical Annex

Method of analysis

Rural regions and their underlying economic structures are simply different than in urban places, and nationally. Thus, effective rural policy responses must take into account these characteristics and tailor effective solutions to rural economies and rural places. Rural regions however are also quite diverse between themselves. For example, rural regions that are close to cities and functional urban areas are different to rural remote regions. This differentiation amongst rural regions is also crucial for understanding the different opportunities and challenges that can also lead to more effective policy responses.

Taking these considerations into account, the benchmark and analysis in this chapter provides preliminary analysis using the latest available data. The unit of analysis focuses on OECD TL3 regions using primarily the OECD extended typology sub-defining rural regions into three categories recognising the diversity of rural regions. Thus, rural regions are primarily defined as non-metropolitan regions near FUA larger than 250K (**non-metro near a midsize/large FUA**), non-metropolitan regions near FUA smaller than 250K (**non-metro near a small FUA**) and the third **remote regions**. For the purposes of this paper, the term *non-metro* and *rural* are used interchangeable.

Some benchmarks combine non-metro close to metro and non-metro close to a medium/small city into one category: non-metro close to cities, when data are not disaggregated across the three types of rural regions. The final version of the publication will aim at undertaking the analysis as disaggregated as possible. Some indicators also employ the OECD TL3 typology defining TL3 regions as predominantly urban, intermediate and predominantly rural regions. Finally, when data are not available for TL3 regions the analysis also includes indicators based on the degree of urbanisation (DEGURBA) that define smaller areas as cities, towns and semi-dense, and rural areas.

The averages reported throughout the analysis do not use regional weighted average (size effects) but are rather country-weighted.

Annex Table 2.A.1. Classification of small regions (TL3) by access to metropolitan areas

Main group	Main group description	Subgroup	Subgroup description	Reduced grouping
Metropolitan TL3 region (**MR**)	50% or more of the regional population lives in a FUA of at least 250k inhabitants	Large metropolitan region (**MR-L**)	50% or more of the regional population lives in a FUA of at least 1.5 million inhabitants	**Metro**
		Metropolitan region (**MR-M**)	50% or more of the regional population lives in a FUA between 250k and 1.5 million inhabitants	
Non-metropolitan TL3 region (**NMR**)	Less than 50% of the regional population lives in a FUA	Region near a FUA larger than 250k (**NMR-M**)	50% or more of the regional population lives within a 60-minute car drive from a FUA with at least 250k inhabitants	**Rural close to FUA** (near a FUA > 50k inhabitants)
		Region near a FUA smaller than 250k (**NMR-S**)	50% or more of the regional population lives within a 60-minute car drive from a FUA between 50k and 250k inhabitants	
		Remote region (**NMR-R**)	50% or more of the regional population lives further than a 60-minute car drive from a FUA of at least 50k inhabitants	**Rural remote** (far from a FUA > 50k inhabitants)

Source: Adapted from: Fadic, M., et al. (2019), "Classifying small (TL3) regions based on metropolitan population, low density and remoteness", OECD Regional Development Working Papers, No. 2019/06, OECD Publishing, Paris, https://doi.org/10.1787/b902cc00-en.

Definitions

Annex Box 2.A.1. Definition of a functional urban area (FUA)

A functional urban area (FUA) is defined through a systematic, four-step approach that combines densely populated urban centres with surrounding areas linked by commuting patterns:

- An **urban centre** is identified as a contiguous cluster of grid cells with a high population density of at least 1 500 residents per square kilometre. This cluster must include a minimum of 50 000 residents across these contiguous cells.
- A **city** is defined as one or more local administrative units (e.g. municipalities) where at least 50% of the population lives within the boundaries of an identified urban centre.
- A **commuting zone** includes contiguous local units surrounding the city, where at least 15% of employed residents commute to the city for work. This establishes the economic and functional connection between the urban centre and its surroundings.
- The **FUA** is created by combining the city with its commuting zone, representing an integrated region that reflects both residential concentration and commuting patterns, indicating a shared socio-economic space.

Source: Adapted from: Dijkstra, L., H. Poelman and P. Veneri (2019), "The EU-OECD definition of a functional urban area", OECD Regional Development Working Papers, No. 2019/11, OECD Publishing, Paris, https://doi.org/10.1787/d58cb34d-en.

Annex Box 2.A.2. Definition of the degree of urbanisation (DEGURBA)

The DEGURBA definition identifies settlements from clusters of adjacent 1 square kilometre (km^2) grid cells with medium or high population density. Such clusters meet the criteria for settlements if their total population is also above a certain threshold (see below). The DEGURBA definition also incorporates built-up areas, in addition to population, to avoid the identification of multiple urban centres for a single city. However, with DEGURBA, settlements such as cities are defined by their population density, not including the surrounding commuting areas.

The table below shows the mapping of Level 1 definitions for local area units and Level 2 definitions for grid-based DEGURBA classifications. The Level 2 definition of DEGURBA distinguishes towns and villages, which are settlements, from suburbs and dispersed rural areas, which are not. The minimum population thresholds are shown in the right-most column: villages have at least 500 residents while cities start at 50 000 residents. This report uses the original DEGURBA definition, which defines towns as having at least 5 000 residents.

Annex Table 2.A.2. Degree of urbanisation

DEGURBA Level 1	DEGURBA Level 2	Settlement	Minimum population density in grid cells (per km^2)	Minimum population in the cluster
City	City	Yes – Dense urban centre	1 500	50 000
Town or semi-dense area	Town (dense or semi-dense)	Yes – Urban cluster	1 500 (dense) 300 (semi-dense)	5000
Town or semi-dense area	Town (dense or semi-dense)	Yes – Urban cluster	1 500 (dense) 300 (semi-dense)	5000

Rural area	Village	Yes – Rural cluster	300	500
Rural area	Dispersed rural area	No	50	x
Rural area	Mostly uninhabited area	No	x	x

Source: UNSD (2020), "A recommendation on the method to delineate cities, urban and rural areas", https://unstats.un.org/unsd/statcom/51st-session/documents/BG-Item3j-Recommendation-E.pdf

Tables and figures cited in the main sections

Annex Table 2.A.3. Population developments by regional typology, 2001-21

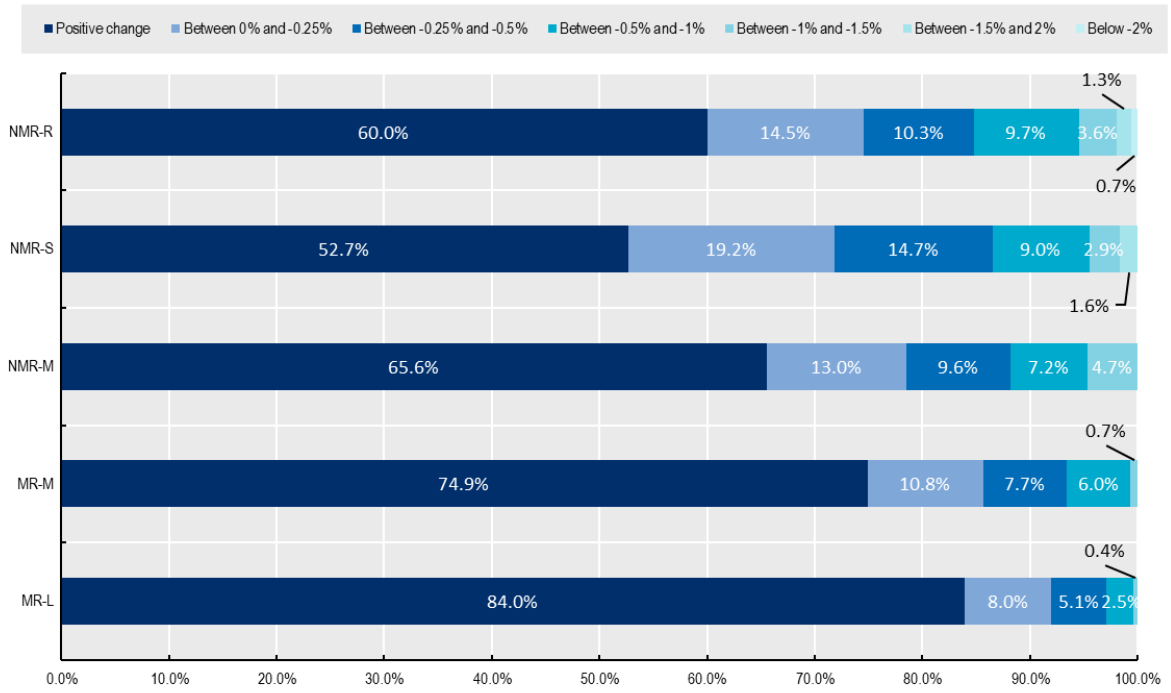
Population change, in % (CAGR)

	Total number of regions	Number of regions with annual population decline (CAGR, %)					
		CAGR < -2%	CAGR < -1.5%	CAGR < -1%	CAGR < -0.5%	CAGR < -0.25%	CAGR < 0%
Total	1609	2 *(0.1%)*	10 *(0.6%)*	49 *(3.0%)*	160 *(9.9%)*	310 *(19.3%)*	517 *(32.1%)*
MR-L	237	0 *(0%)*	0 *(0%)*	1 *(0.4%)*	7 *(3.0%)*	19 *(8.0%)*	38 *(16.0%)*
MR-M	454	0 *(0%)*	0 *(0%)*	3 *(0.7%)*	30 *(6.6%)*	65 *(14.3%)*	114 *(25.1%)*
NMR-M	363	0 *(0%)*	0 *(0%)*	17 *(4.7%)*	43 *(11.8%)*	78 *(21.5%)*	125 *(34.4%)*
NMR-S	245	0 *(0%)*	4 *(1.6%)*	11 *(4.5%)*	33 *(13.5%)*	69 *(28.2%)*	116 *(47.3%)*
NMR-R	310	2 *(0.6%)*	6 *(1.9%)*	17 *(5.5%)*	47 *(15.2%)*	79 *(24.8%)*	124 *(40.0%)*

Note: This table shows the number of regions across 29 OECD countries that experienced population decline at different thresholds: any decline (CAGR < 0%), a slight decline (CAGR < -0.25%), a strong decline (CAGR < -0.5%), and a very substantial decline (CAGR < -1%). The numbers in brackets represent the share of regions at each threshold. Source: OECD Regional Indicators.

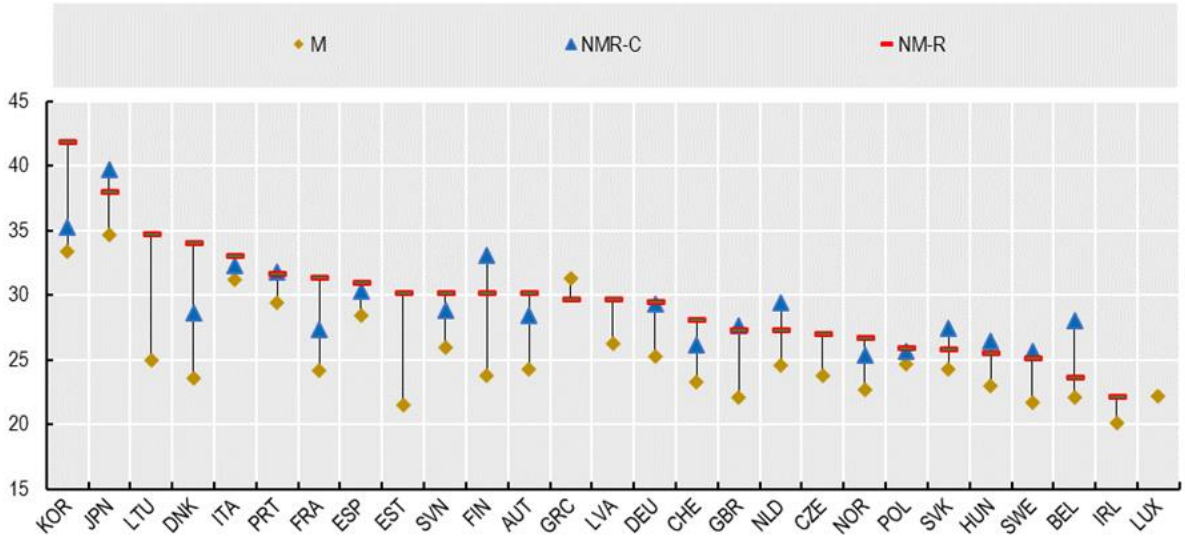
Annex Figure 2.A.1. Shrinking regions, 2001-21

Population change, in % (CAGR)



Source: OECD Regional Indicators.

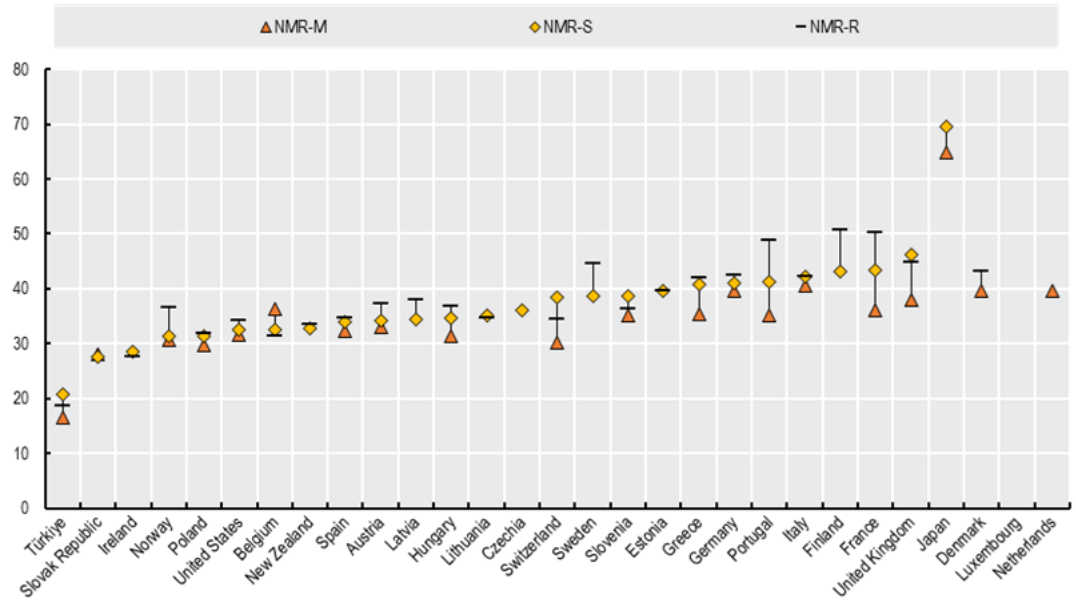
Annex Figure 2.A.2. Share of elderly population by TL3 region, 2040 projection



Note: "M" refers to metropolitan regions (MR). "NMR-C" includes only regions near a FUA larger than 250k (NMR-M), and "NM-R" includes both regions near a FUA smaller than 250k (NMR-S) and remote regions (NMR-R).
Source: OECD Regions and Cities at a Glance, 2022

Annex Figure 2.A.3. Old-age dependency ratio across non-metro regions, 2021

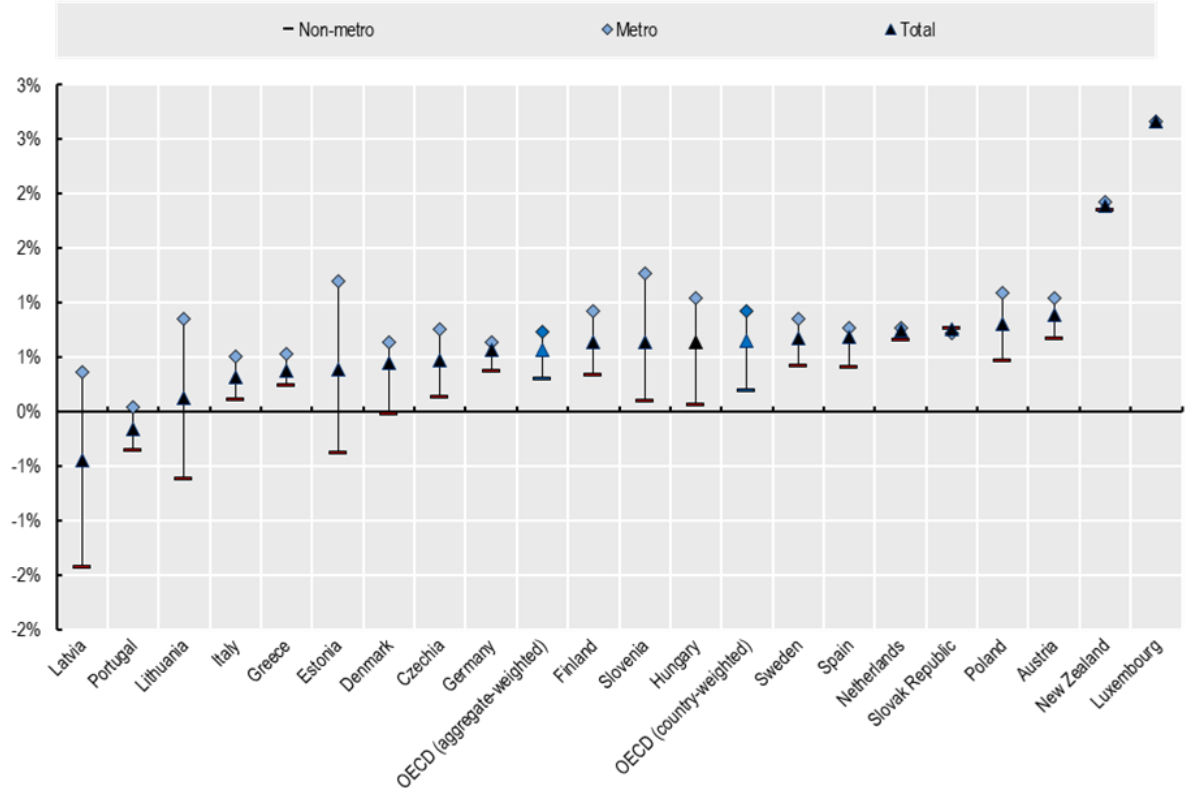
Old-age dependency ratio in non-metro regions, in absolute values



Note: The graph illustrates the old-age dependency ratio in non-metropolitan regions (NMR-M, NMR-S, and NMR-R) in 2021 across 29 OECD countries. The old-age dependency ratio is defined as the number of people aged 65 or older per 100 people of working age (20–64). Values were calculated using a population-weighted approach by summing the population by age across TL3 regions within each country.
Source: OECD Regional Indicators.

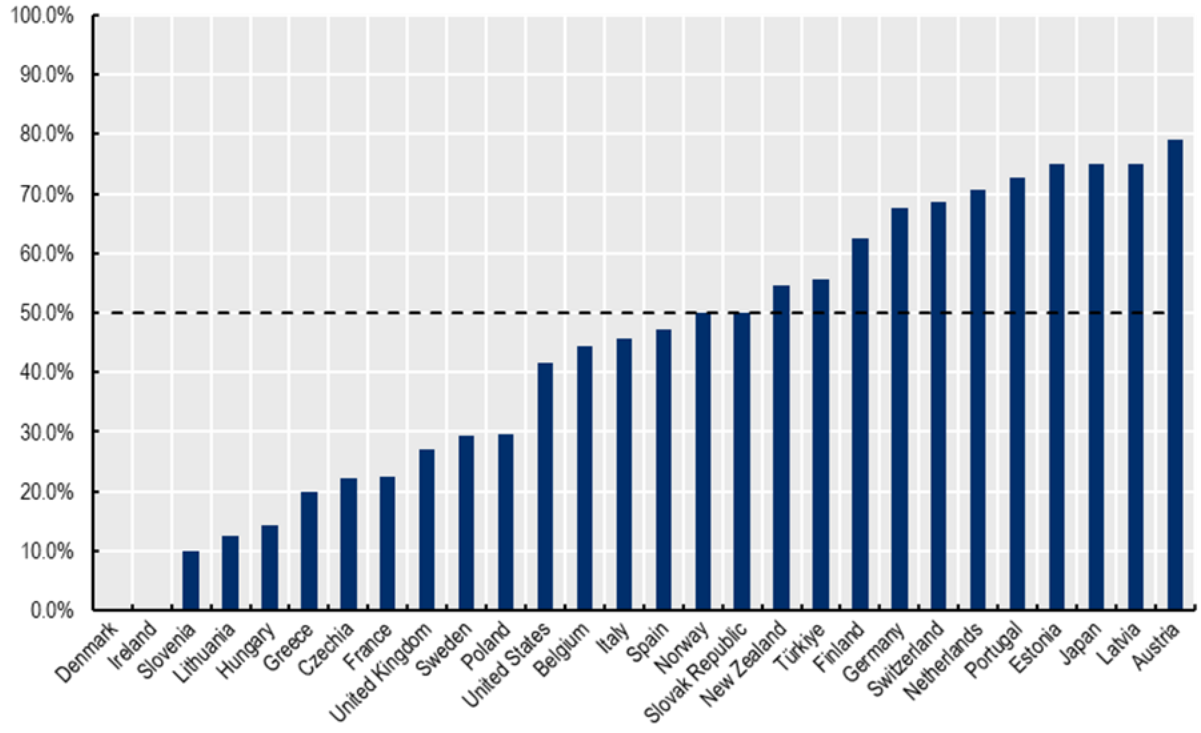
Annex Figure 2.A.4. Employment changes, 2001-21

Employment change, in % (CAGR)



Note: The graph presents employment changes in metropolitan and non-metropolitan regions across 20 OECD countries from 2001 to 2021, expressed as the compound annual growth rate (CAGR). Changes were calculated by summing employment of TL3 regions within each country and distinguishing between metropolitan and non-metropolitan regions. The graph includes two OECD averages: an aggregate-weighted average, where the OECD is treated as a single entity with total employment summed across all countries, and a country-weighted average, where each country is given equal weight when calculating the CAGR. Employment is measured at place of work.
Source: OECD Regional Indicators.

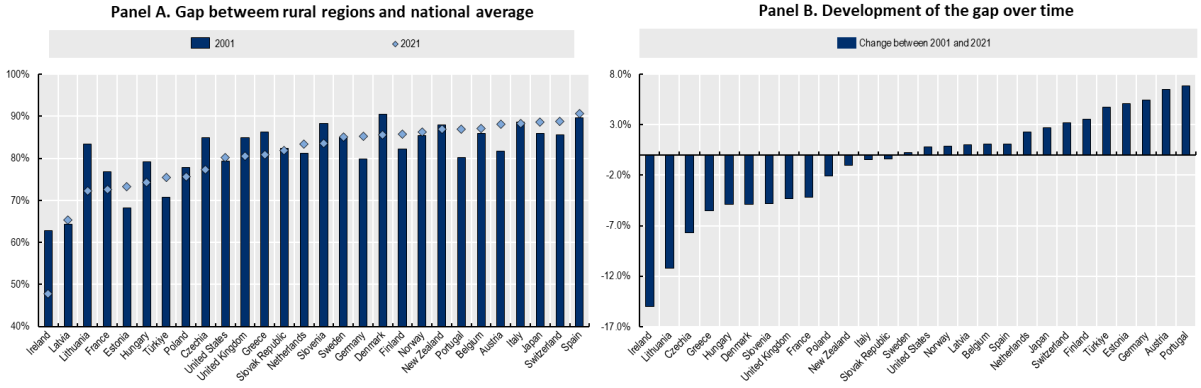
Annex Figure 2.A.5. Share of rural regions growing above national average for GDP per capita



Note: This graph shows the share of rural regions out of all rural regions in a country that grew at a higher level (i.e. GDP per capita CAGR between 2001-21) than the national average.
Source: OECD Regional Indicators.

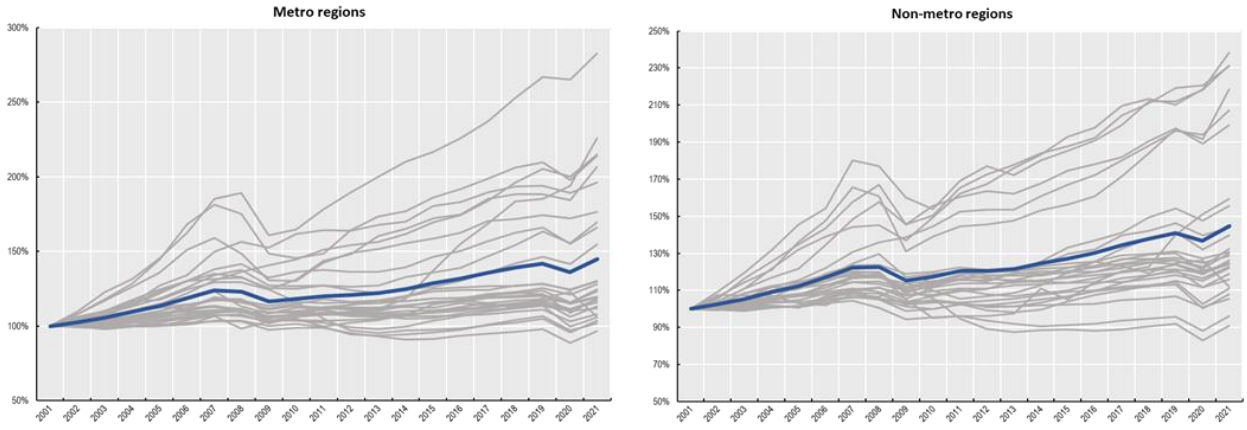
Annex Figure 2.A.6. Convergence of rural areas relative to the national average for GDP per capita

Gap between rural and national GDP per capita in % (Panel A) and change of gap in percentage points (Panel B)



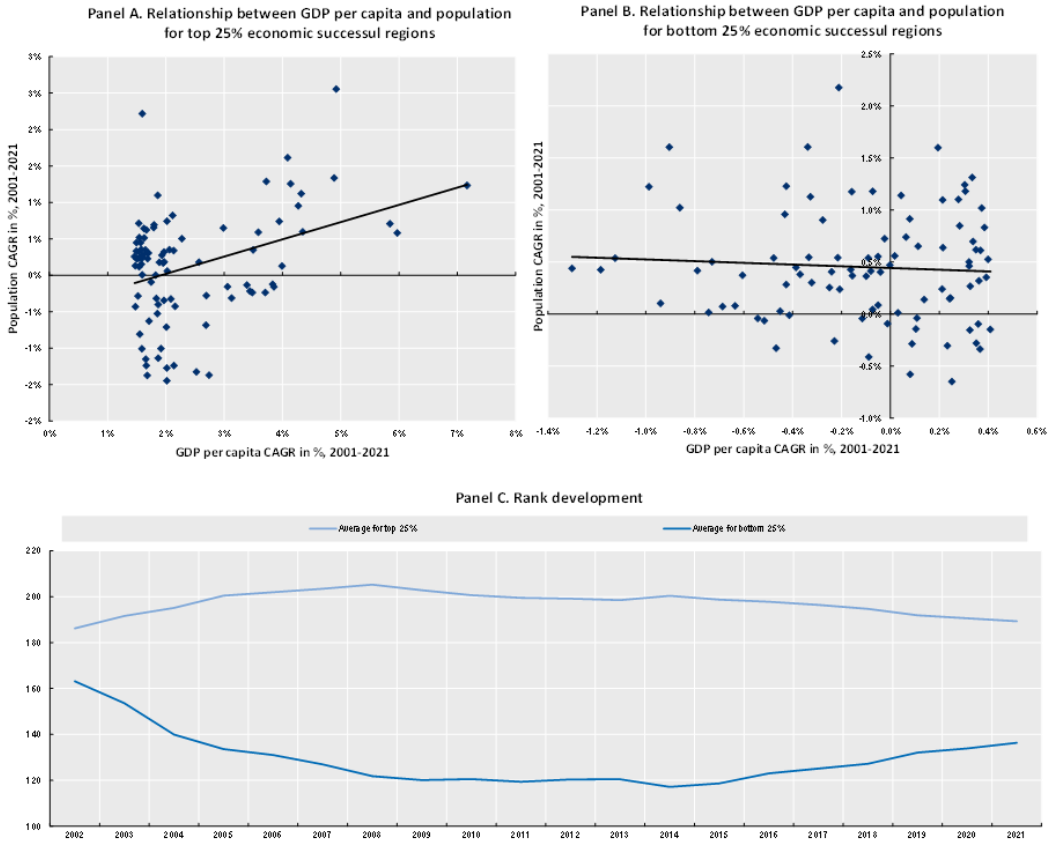
Note: The rural and national GDP per capita are calculated using a population-weighted approach for every individual country. The gap between those is compared in 2001 and 2021 in Panel A. The change in this gap is shown in Panel
Source: OECD Regional Indicators.

Annex Figure 2.A.7. GDP per capita growth in metro and non-metro regions, 2001-21



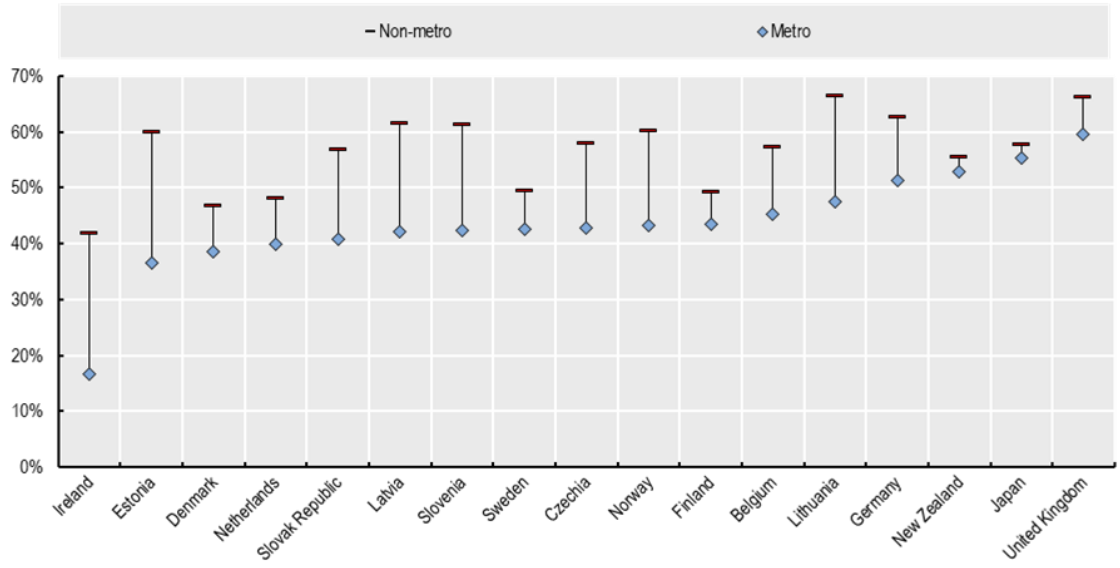
Note: OECD average for metro and non-metro regions is calculated by giving every country the same weight. The grey lines correspond to the individual countries.
Source: OECD Regional Indicators

Annex Figure 2.A.8. Top and bottom 25% performing rural regions near midsize/large FUA



Note: All panels only cover NMR-M. Panel A and B are showing the CAGR for GDP per capita and population from 2001-21 for the top 25% regions with the highest increases in GDP per capita, as well as for the bottom 25%. Panel C shows, for the top and bottom 25% of regions (91 regions) with the highest, or respectively lowest, GDP per capita growth rate, the average population. The average population rank is calculated by ranking for every year the population growth rate of the selected regions and seeing how this changes over time.
Source: Author's elaboration based on the OECD Regional Database

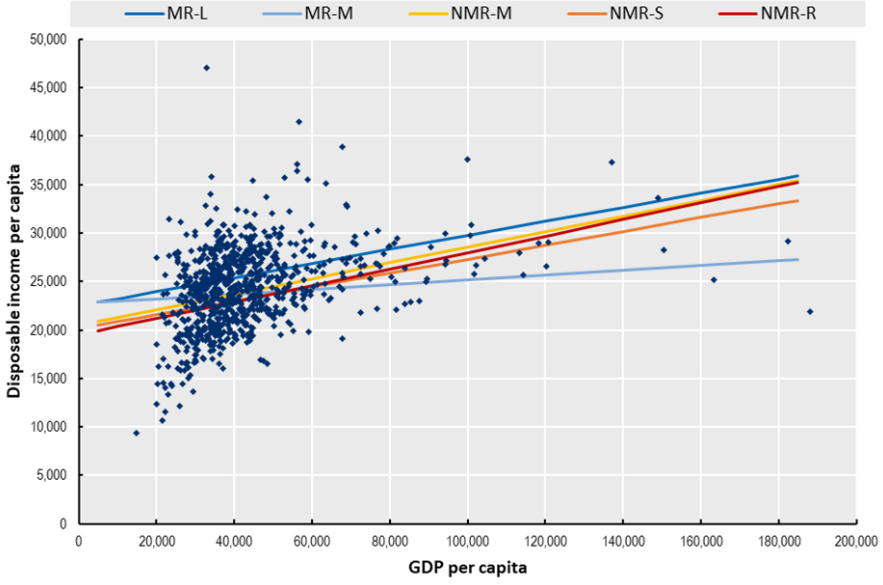
Annex Figure 2.A.9. Ratio of disposable income per capita relative to GDP per capita, 2021



Note: The graph displays the ratio of disposable income per capita to GDP per capita for metropolitan and non-metropolitan regions in 17 OECD countries for 2021 or the latest available year. GDP per capita and disposable income per capita are measured in constant prices and PPP with base year 2015.
Source: Author's elaboration based on the OECD Regional Database

Annex Figure 2.A.10. Disposable income per capita relative to GDP per capita, 2021 or latest year

Disposable income per capita and GDP per capita, in absolute values



Note: The scatter plot illustrates the relationship between disposable income per capita and GDP per capita, highlighting the linear trend by regional typology (MR-L, MR-M, NMR-M, NMR-S, and NMR-R). The data covers 17 OECD countries for 2021 or the latest available year. Slopes were estimated using a regression with country-fixed effects, a typology-GDP per capita interaction, and robust standard errors. GDP per capita and disposable income per capita are measured in constant prices and PPP with base year 2015
Source: OECD Regional Indicators.

3 Policy solutions for rural regions

This chapter covers policy actions to capitalise on opportunities and address challenges across different types of rural regions, those near Functional Urban Areas (FUAs) and those that are remote. It first examines strategic policy approaches to renewed rural competitiveness. This requires place-specific smart specialisation with proactive steering of investment into sectors that leverage their resources like advanced manufacturing, renewables, and the bioeconomy. Targeted rural strategies also seek to align their diverse strengths with national growth sectors and with global trade patterns. Multilevel governance can empower local actors to identify priorities while being backed by national frameworks to strengthen rural-urban linkages, scale innovation, and integrate rural regions into global value chains. The chapter then identifies policy solutions for the environment and adaptive service delivery across types of rural regions. Rural competitiveness also depends on equitable access to healthcare, education, and digital infrastructure – essential not only for well-being but for place attractiveness and trust in public institutions. Only by aligning strategy, communication, and accountability can governments unlock rural potential while maintaining social cohesion.

3.1. Introduction

Rural regions are vital drivers of opportunity, uniquely positioned to contribute to national prosperity, environmental sustainability, and societal well-being. Rural economies are no longer defined solely by agriculture or extractive industries; they often also host half of manufacturing and are increasingly diverse, with growing roles in digital services and the green economy. They possess distinctive assets such as land, biodiversity, natural resources, and cultural heritage that offer immense potential in emerging sectors, including renewable energy, advanced manufacturing and high-value tourism.

At the same time, rural regions face persistent and emerging challenges that need tailored action. Chapter 2 identified genuine opportunities for rural regions, but also acknowledged their accentuated challenges, including population decline and ageing, labour shortages, and heightened exposure to climate risks. Realising rural potential while mitigating these challenges calls for proactive and forward-looking policy action. In an era marked by global megatrends such as climate change, digital transformation, and demographic shifts, rural places can position themselves at the forefront of innovation and resilience. Technologies such as automation and digital connectivity offer opportunities to overcome barriers associated with distance and workforce scarcity, enabling rural businesses to compete globally. Designing effective policy across selected areas (competitiveness, service delivery, and climate) requires tailored action to the different types of rural places (close to FUA and rural remote).

This chapter covers policy solutions to enhance competitiveness and promote inclusive growth across all rural areas, unlocking local potential while ensuring long-term sustainability. Section 3.2 puts forward a strategic policy approach for renewed rural competitiveness. The approach builds on the OECD's longstanding work on rural development and place-based policies to provide policy makers with strategies that support rural transformation. The emphasis is on smart specialisation, innovation, and more adaptive governance. Based on this approach, Section 3.3 focuses on policies for economic competitiveness in rural near FUAs, with emphasis on manufacturing and rural-urban linkages, while Section 3.4 focuses on rural remote for capitalising on natural resources and reducing distance to markets. Sections 3.5 to 3.7 address service delivery – including education, healthcare, housing – as foundations of rural vitality and well-being. Sections 3.8 to 3.10 cover environmental strategies to embed rural areas in the green transition through the circular economy, bioeconomy, and renewable energy. Throughout, policy responses are tailored to the distinct opportunities and challenges faced by different types of rural region.

The policy approaches are relevant for both local (rural) and national policy makers. Designing and delivering these strategies requires strong co-ordination between national and local actors. Local initiatives are often best placed to identify viable specialisations, while national governments play a critical enabling role – providing financial support, strategic direction, and cross-sectoral co-ordination.

3.2. Strategic policy approach for renewed rural competitiveness

Renewing rural competitiveness demands a shift in how rural economies are understood and supported. Today's rural regions are increasingly diverse. While traditional sectors like agriculture, mining and manufacturing (a large rural employer) remain important, emerging sectors like digital services, and high-value tourism are gaining ground. As discussed in Chapter 2, megatrends – including technology and climate change – are further redefining rural opportunities. The OECD Rural 3.0 (2018) emphasised the need to integrate rural economies into global value chains and leverage digital tools to reduce the constraints of distance and open new global market opportunities for remote businesses (OECD, 2018[1]).

Improving core enablers like skills and infrastructure remains necessary but not enough – strategic direction is also essential. While policies must address enduring challenges such as demographic decline, labour shortages, limited entrepreneurship, and high transport costs, they also need to move

beyond "'reparative" measures to proactively steer a long-term rural transformation: selecting sectors to prioritise with clear missions (Mazzucato, Doyle and Von Burgsdorff, 2024[2]), aligning other policies (e.g. skills, infrastructure) to those chosen missions, and reshaping economic, institutional, and social structures accordingly. It also means aligning rural competitiveness strategies with global megatrends such as climate change, digitalisation, and evolving trade networks. Rural regions possess diverse and valuable assets that, when supported by the right conditions, can become powerful drivers of competitiveness. Structural policies aim to redefine the development paths of diverse rural regions by leveraging rural-urban linkages, strengthening tradable sectors and manufacturing, and activating natural resource potential.

The policy responses outlined in this chapter build upon established place-based approaches by advocating for forward-looking rural policies that actively steer rural specialisation. The concept of smart specialisation (originated in the EU, but of global relevance) serves to frame policy responses for the strategic identification and promotion of key economic activities compatible with local strengths and aligning policies for those ends. It encapsulates the use of place-based industrial and innovation strategies that aim to harness untapped potential rooted in history, geography, and the distinct economic fabric of each rural region – while aligned to national goals. Place-based policies acknowledge the varying needs and capabilities of rural regions near metropolitan areas compared to those in more remote locations.

Place-based policies anchored in local assets and led by proactive local efforts are essential for resilience and transformation. Rural economic strategies and the proactive entrepreneurial pursuit of new economic opportunities normally needs to be driven by residents and local entrepreneurs and institutions. Still, regional and national support to pursue and scale new economic activities is also needed since many rural regions are not yet equipped for industrial transformation. Labour shortages persist, younger populations are still drawn to cities, and many local actors lack the capacity or tools to drive innovation. Regions that have succeeded often had pre-existing industrial assets and networks that helped them transition into new, specialised markets ((Duranton and Venables, 2018[3]).

To unlock their potential, rural communities must convert local assets – skills, infrastructure, and resources – into innovation that creates new value. Specialisation and diversification require strengthening rural integration into global value chains and enhancing local innovation capacities. Innovation in rural regions involves more than new products; it includes adapting institutional practices and business models to changing conditions, such as through digitalisation or more flexible service delivery. The place-based process of "local entrepreneurial discovery" required by proactive efforts to find new economic specialisations requires the joint mobilisation capacity by private and public actors. Entrepreneurial capacity must be nurtured, especially as economic and technological conditions are in constant flux. For rural firms, success often depends on quality, branding, and niche markets rather than competing on cost. Supporting rural innovation requires tailored approaches that account for demographic realities and structural challenges distinct from urban environments.

In summary, at the heart of this policy approach are **three strategic pillars**:

1. Economic specialisation strategies and industrial policy
2. Rural innovation policy
3. Policies to harness technology and digitalisation

Below outlines high-level policy approaches to help rural regions apply these three pillars. Further sections will then delve further into how to tailor policies to capitalise on the unique opportunities of both rural regions near FUAs and rural remote regions.

3.2.1. Economic specialisation strategies and rural industrial policy

Rural regions often need to reinvent themselves to regain their competitiveness in a fast-changing economy, and industrial strategies and policies can be effective tools. Many places have struggled

to adapt to global megatrends in technology, sustainability and trade, in part because regional policies have largely failed to restructure regional economies, thus making isolated attempts to attract investment or create local productivity gains futile (OECD, 2009[4]) (OECD, 2019[5]) (OECD, forthcoming[6]). Rural renewal requires long-term economic goals and strategies, with policies that redirect their economic activities towards competitive sectors (Felipe, 2021[7]). Industrial policies, consisting of strategic guidance and diverse government assistance to promote specific industries, can operate place-based to steer business development in sectors that capitalise on the specific strengths of diverse places. Manufacturing is a key target of industrial policy, particularly given the important role of rural in this sector (as analysed in Chapter 2), but it can target any sector deemed strategic for local development.

Industrial policy can support rural transformation either by integrating rural goals to national programmes or by empowering local communities to run their own place-based interventions. Though industrial policy largely continues to be a top-down policy for supporting national strategic sectors, the contemporary conception and practice of place-based industrial policy is moving in the direction of locally-driven collaborations between the public and private sectors to pursue key sectors, often with bottom-up initiatives grounded in specific places and communities. This increasingly involves local or regional authorities, and relevant stakeholders, in driving the strategy, industry selection, and implementation of business assistance, incentives and investments from the bottom up, even if the funding comes from central sources. Place-based policies have been gaining ground to enhance economic performance and reduce social exclusion in specific places, using targeted interventions to address their unique challenges and opportunities (OECD, 2025[8]). The focus is increasingly on competitiveness and the support of businesses in selected sectors (Box 3.1).

Box 3.1. Place Based Industrial Policy as a process of joint public-private pursuit of new economic opportunities

Industrial policy refers to government assistance, usually to businesses, to boost or reshape specific economic activities. Its use is driven by two premises: i) production in some industries is more desirable than in others, typically in pursuit of productivity and growth; ii) governments should make an active effort to nudge the production structure in that direction if markets alone do not.

Place-Based Industrial Policies (PBIP) leverage a place's distinct assets to capitalise on untapped opportunities, rooted in its history and geography. The premise is that sectors that grow upon local strengths are more desirable—since more likely to succeed—whereas they have not reached their full potential due to market failures or insufficient local capacity to mobilise resources. PBIPs normally involve local or regional stakeholders in driving the local sectoral strategy and implementation of relevant policy interventions:

- Financial and incentive-based tools like grants and tax incentives for business development and attraction
- Public investment in infrastructure, technology and R&D for strategic industries,
- Public procurement to stimulate demand in specific sectors
- Beyond public expenditure, the spectrum covers several types of assistance: training, capacity building of local businesses and entrepreneurs and more

With PBIP, these interventions align with the needs and characteristics of the places, building new economic activities bottom up. The EU's smart specialisation strategy reflects modern industrial policy: an overarching framework promoting collaborations between businesses and authorities to organically uncover opportunities and co-ordinate strategies to support local industries (Rodrik, 2004[9]) (Rodrik,

2008[10]) (Hausmann and Rodrik, 2002[11]). The domains for future specialisation are based on a dialogue with regional governments.

To effectively transform rural places and adapt to megatrends, strategies and programmes need to be guided by place-specific strategic goals for economic specialisation. Regional and local strategies, including rural, are often underpinned by a central or national framework to align local strengths to wider (national and regional) goals. The concept of 'smart specialisation' is one of the most recent manifestations of place-based industrial policy, aiming at identifying opportunities based on the competencies of regions to build competitive advantage (Foray, David and Hall, 2009[12]). While the concept originated from the EU Smart Specialisation Strategy (S3, which is driving its regional innovation efforts in the last decade), it is relevant as a guiding framework for other OECD countries. This concept is a framework for regional economies that can support industrial and innovation policies, combining public policies, framework conditions, and especially R&D and innovation investment policies to influence the industrial specialisations of a region and consequently its productivity, competitiveness and economic growth path (Foray, Eichler and Keller, 2021[13]). A locally driven process of self-discovery for new economic opportunities, where industrial and other policies are embedded in the contexts of places,[1] helps becoming more reactive to megatrends. This is supported by strategic collaboration between the private and public local stakeholders to identify opportunities and bottlenecks, and periodic evaluation of policy outcomes and mistakes[2]. Many regions have upgraded their role in global value chains, or identify niche, high-value segments, by moving to higher value-added production. For example, Arezzo in Italy has modernised its traditional textile industry with computer-aided design to reach wider markets, supported by its proximity to Milan[3].

A strategy that jointly pursues specialisaion and diversification can strengthen competitiveness and resilience in rural economies by being both focused and adaptable. Specialisation and diversification are not opposing strategies but can mutually reinforce each other. While specialisation allows rural regions to build comparative advantages in high-value niche markets—such as wine in New Zealand—it often serves as a catalyst for broader economic diversification. Specialised sectors generate demand for a range of related services—logistics, marketing, certification—that stimulate horizontal linkages and expand the local economic base (Becattini, Bellandi and De Propris, 2009[14]). The Emilia-Romagna region exemplifies this dynamic, where tightly knit production clusters are embedded within diversified ecosystems of SMEs. At the same time, diversification enhances specialisation by increasing resilience to shocks—whether from climate events or global market volatility—and providing a platform for branching into related activities, such as how Marlborough's wine industry in New Zealand has fostered complementary growth in tourism, gourmet food, and education. This aligns with theories of evolutionary economic geography, which suggest that regions evolve through related diversification, leveraging existing capabilities into adjacent sectors (Boschma and Frenken, 2011[15]). In this sense, diversification sustains specialisation over time, while specialisation creates the foundation for productive diversification.

Aligning rural strategies with national economic priorities amplifies their impact. Whether industrial strategies are developed locally or as part of broader industrial programmes, they are most effective when integrated into national economic planning. While national industrial policies often focus on urban clusters, it is essential to include rural areas—particularly those near cities—in strategic frameworks. These regions can evolve into innovation-linked clusters, attract foreign direct investment spillovers, and serve as testing grounds for green and high-tech manufacturing. For instance, Oregon's decision to expand urban growth boundaries to incorporate rural land for semiconductor production demonstrates how spatial planning can support rural–urban industrial integration. France's *Territoires d'Industrie* programme fosters rural industrial development through co-ordinated national–local action, aligning rural manufacturing capacity with national goals and urban demand. Strategic alignment is not limited to manufacturing: in Denmark,

sustainable timber and bio-based plastic initiatives link rural production to urban green markets, reinforcing the potential of rural areas in national green transitions.

In general, industrial policy can direct support to sectors like renewable energy, advanced manufacturing, and climate technologies that align national goals with rural strengths. Germany's *Energiewende* (energy transition) demonstrates a place-based industrial policy balancing national goals (climate and competitiveness) and regional development, particularly benefitting rural regions. This includes regions like North Rhine-Westphalia (a former coal and steel hub, in transitioning to green industries), and local rural communities are at the forefront of the clean energy transition.[4] Policy levers include public R&D investment, subsidies, and tax incentives in renewable sectors like solar and wind. Its effectiveness lies in aligning sectoral innovation support with regional restructuring, with industrial restructuring funds and retraining programmes preparing places to host the new investments.

Designing and delivering these strategies requires strong co-ordination between national and local actors. Multilevel governance is increasingly prevalent in place-based industrial policies and smart specialisation strategies (Wibisono, 2022[16]). Local initiatives are often best placed to identify viable specialisations, while national governments play a critical enabling role—providing financial support, strategic direction, and cross-sectoral co-ordination. A hybrid governance approach is needed: national governments must steer priority sectors and funding, while local actors shape implementation through land use planning, community engagement, and partnerships with industry. Ultimately, better integrating rural regions into national production systems is not only about balanced development—it is a smart economic strategy that enhances resilience, productivity, and competitiveness.

Policy experimentation can help policy makers test innovative approaches to the industrial transition and learn from and build on successes and failures.[5] For example, in France's *Grand Est*, the lessons from the Industrial Parks of the Future project not only fed and improved the region's smart specialisation strategy but also strengthened the systems for the sustainable management of natural resources and energy systems. Experimentation also helps build local institutional capacities when more decision-making power is transferred to regions. Rural places need economic and institutional 'dynamic capabilities' to adapt along preferred development paths, with the capacity to continuously innovate.[6]

Box 3.2. Policy Action for rural economic strategies and industrial specialisation

Rural transformation requires aligning policies with comparative advantage, with attention to the endowments, constraints, and opportunities unique to rural areas. Relevant policy actions for developing local specialisation and industrial strategies:

- **Identify industries where rural areas possess a latent or emerging comparative advantage**. Drawing on both data analysis and local knowledge, policy makers should assess which sectors show potential for growth, employment generation, and competitiveness at regional or international levels.
- **Benchmark against other successful rural regions.** Identify countries with similar factor endowments but higher levels of income or industrial development. This can help identify industries that are mature or beginning to relocate, offering space for rural economies to enter and compete effectively.
- **Supporting existing rural entrepreneurs and "first movers"**. These pioneers often face specific barriers—ranging from infrastructure deficits and limited access to finance, to regulatory burdens and skills shortages. Governments should aim to remove these constraints through targeted, sector-specific interventions that are informed by local diagnostics and value chain analysis.

- **Focus scarce public resources on the development of rural industrial clusters or zones tailored to the needs of targeted industries.** Infrastructure investment plays a critical enabling role. These zones can include agro-industrial parks or artisan hubs, which can foster economies of scale, improve co-ordination across actors, and lower transaction costs.
- **Provide smart, time-bound incentives to pioneering firms operating in line with the area's comparative advantage.** These may include tax relief, access to subsidised credit, or support for training and certification. Crucially, such incentives should avoid distorting markets or creating long-term dependencies; rather, they should support the diffusion of innovation.

National agencies can support the above efforts with widespread growth diagnostics and piloting:

- **Pilot industrialisation initiatives in select rural areas:** To select appropriate pilot locations, choose regions with a significant, modernising agricultural base, competent local governance with effective implementation capabilities, a labour force possessing foundational education and technical skills, adequate infrastructure to support industrial activities. Upon success, scale up operations.
- **Co-ordinate with existing programmes and stakeholders**: align new industrial policies with current initiatives, learning from past successes and failures. Engage key stakeholders, including foreign companies, NGOs, educational institutions, to ensure comprehensive support and resource sharing.

3.2.2. Rural innovation policy as engine of rural prosperity

Rural innovation is a cornerstone of rural transformation, enabling regions to identify and develop their unique competitive advantages. The smart specialisation approach is an example that relies on a process of 'entrepreneurial discovery', where public and private stakeholders collaboratively identify priority sectors based on local strengths and innovation potential (Foray, David and Hall, 2009[12]). In rural areas, this process depends on harnessing locally embedded knowledge, encouraging experimentation, and supporting the scaling of grassroots initiatives. Innovation provides the mechanism through which rural communities can transform existing capabilities—such as agricultural expertise, natural resource management, or cultural assets—into high-value economic activities. This requires strong local institutions, investment in human capital, and access to knowledge networks that connect rural actors to research institutions and urban markets. Evidence from EU smart specialisation strategies shows that innovation ecosystems—comprising SMEs, public agencies, universities, and civil society—are essential to support this transition, even in low-density regions (McCann and Ortega-Argilés, 2016[17]). Therefore, fostering innovation is not only a developmental goal in itself but a necessary condition for rural regions to chart their own transformation paths through smart specialisation.

A narrow focus on high-tech innovation can overlook the forms of innovation that matter for rural regions, the ones that address their unique challenges and improve well-being. Innovation is often measured through indicators such as patents or R&D intensity, which tend to concentrate in urban, high-tech clusters. For instance, between 2016 and 2020, remote regions in OECD countries registered an average of 24 patents per million people, compared to 153 in metropolitan regions (OECD, 2024[18]). These figures reinforce the perception that rural areas are less innovative. However, this view is shaped by a limited understanding of what constitutes innovation. Traditional metrics often fail to capture how rural regions adopt, adapt, and apply innovations—especially those not originated locally. These bias risks overlooking the diverse and practical forms of innovation in rural places, such as improvements in processes, service delivery, and community-based solutions that respond directly to rural challenges.

A rural lens to innovation helps capitalise on opportunities and address the unique challenges. Social, managerial, product and operational innovation can be particularly helpful for micro- and small

firms. Innovation in the public sector is another form, which could create greater inclusiveness; support larger societal goals (e.g. addressing climate change); and generate greater citizen satisfaction with public and administrative services.[7]This lens also addresses the unique barriers of rural businesses, such as limited access to skilled labour, finance, public services, and entrepreneurial support.

A rural-specific approach to innovation policy is needed to unlock the full potential of rural entrepreneurs and communities. The OECD's project on Enhancing Rural Innovation, drawing on case studies from Switzerland, Scotland (UK), the United States, Canada, and Japan, identifies four strategic policy areas to support innovation in rural contexts. These include: i) broadening the definition of innovation beyond science and technology; ii) tailoring programmes to the unique demographics, firm profiles, and community assets in rural areas; iii) improving co-ordination and simplification of existing public services; and iv) fostering networks and linkages to strengthen rural innovation ecosystems. These areas are not one-size-fits-all—Table 3.1 provides examples on the four policy areas and shows how these four policy areas are differentiated amongst rural regions close the cities and remote ones.

Table 3.1. Four types of policy areas to support rural innovation

Policy action	Examples	Accessible versus Remote
	i. Going Beyond Science and Technology	
Supporting Social Innovation	Highlands and Islands Enterprise Agency, Scotland, UK	Services and support vary by degree of remoteness
Creating opportunities through public-private partnerships for innovation and public service delivery	Community-based access to digital infrastructure, Scotland, UK International Institute for Sustainable Development Experimental Lakes Area (IISD-ELA), Ontario, Canada Kamo Aquarium, Yamagata, Japan	Joint development for rural remote, but can be more viable in accessible rural
Building a culture for experimentation	Innovation Boosters, Innosuisse, Switzerland; Regulatory Sandboxes: Fintech in Australia; Digital in UK	Different rural remote and accessible opportunities for experimentation.
	ii. Policies Fit for Rural Demographics and Firms	
Improving access to information in Rural Areas	National Statistical Services, Scotland Rural Data Portal, Canada Rural Observatory, EC Regular rural impact evaluations in monitoring and evaluation practices.	Over-sampling is often needed in more sparsely populated and remote areas.
Targeting policies for rural firms	Innovation programmes for small and rural, Regional Innovation System, Switzerland Old Firms, Succession Planning, Scottish Enterprise, Scotland	Remote areas have a larger share of smaller and older firms, or firms with strong family ties.
Targeting rural demographics	Women's entrepreneurship programmes in US, Canada, Switzerland Black Entrepreneurship programmes in US and Canada Indigenous entrepreneurship programmes in Canada Youth entrepreneurship programmes	Remote places may offer different levels of services that may challenge entrepreneurship and innovation for demographics differently. Alternatively, the lack of relevant job opportunities in remote areas may incentivize low growth firms more than in accessible rural areas.
	iii. Co-ordination and Simplification	
Simplification and facilitating access	**One-stop shops** : Find Business Support, Scotland; Business Pathfinder Tool (Federal, Provincial and local), Canada; Business Promotion Guide (Federal), Switzerland **Bottom-up initiatives:** EC Leader programme	Facilitating access to national resources is often more challenging for rural areas. Bottom-up initiatives can bring a more tailored approach
Horizontal co-ordination	Access to skills: RIS, Switzerland ; Community Colleges system (CCTT), Quebec, Canada; Rural visa, Canada Access to finance: Finance roundtables, Quebec, Canada; Community Reinvestment Act, USA Access to foreign market: Regional Trade promotion, Scotland	Systems for service delivery are more expensive and require more collaboration in remote rural areas. Furthermore, skilled individuals and migrants in remote areas where there are less community services may find it more difficult to retain foreign or mobile talent. Rural remote have different financial risk and opportunity profiles that need consideration.

		Remote areas have more difficult access to trade and foreign linkages, than accessible, but both need support in reaching trade centres.
	iv. Networks and Linkages for Rural Innovation	
Development of entrepreneurial eco-system	Go Forward Pine Bluff, Arkansas, USA; Shorefast foundation, Fogo Island, Canada; Brainport Eindhoven, South Holland	Collaboration and multi-usage facilities as a means to deliver services in RR
Building networks with innovation partners	Interface, Scotland Community College Technology Transfer institutes; Quebec, Canada Nuclear Innovation Institute, Ontario, Canada	Remote areas do not have easy access to universities or large research conglomerates and need to work with either spin offs, industry research labs, or make linkages to resources further away.
Functional area approaches for building scale	1 Billion Build Back Better Regional Challenge, USA; Regional Innovation System, Switzerland; Community Futures Programme, Canada/EC LEADER; Fogo Island Process; Inner Areas strategy, Italy	Remote areas are more dependent on building links, and as such, programmes should facilitate joint applications

Note: The list above is not exhaustive, and several examples may jointly be included in different categories.
Source: Author's own elaboration based on country case study reports.

Policy actions to boost rural innovation (Box 3.3) revolve around two main considerations:

- **Rural regions need the appropriate framework conditions to unlock innovation**, which include labour, physical and digital markets, access to finance and government services. Building a level playing field for entrepreneurs in rural regions means reflecting on place-based challenges. It involves improving government capacity, reducing costs of services or local regulations that may hinder effective implementation of policies in rural regions.
- **Rural regions can add value by specialising in niche markets and product differentiation.** Whereas more concentrated urban economies may be able to use vertical integration to control multiple activities in a GVC, rural economies generally rely on specialisations that focus on one, or very few, parts value chains (Mudambi, 2008[19]). Increased competition from emerging economies calls for a shift to policies that promote differentiation and niche markets instead of low-cost manufacturing.

Box 3.3. Policy Action: unlocking opportunities through innovation

There is significant potential to boost productivity growth, by creating place-based policies to encourage broader entrepreneurial innovations in rural regions:

- **Strengthen place-based smart specialisation by supporting diversification within and across related rural sectors.** Encourage rural regions to identify and build on their local strengths through smart specialisation strategies that promote innovation across interlinked sectors—such as agri-food, renewable energy, or tourism—aligned with regional potential and global value chains.
- **Build rural innovation ecosystems by enhancing rural-urban linkages and clustering firms, entrepreneurs, and research actors.** Facilitate collaboration between SMEs, large firms, universities, and innovation hubs through co-ordinated policies that connect rural regions to metropolitan centres and international markets, boosting knowledge exchange and scaling capacity.
- **Improve the business environment and address barriers to entrepreneurship for under-represented groups.** Simplify administrative procedures, support SME co-operation with larger firms, and expand access to tailored entrepreneurship training, especially for women, youth, and disadvantaged groups in rural areas.

- **Mobilise social and technological innovation to address rural challenges and service gaps.** Support social entrepreneurs in delivering essential services and community-based solutions, while investing in digital infrastructure, emerging technologies (e.g. AI, IoT, decentralised energy), and digital literacy to enable innovation in traditional sectors.
- **Expand rural innovation metrics and access to finance to better support local innovators.** Develop rural-specific innovation indicators beyond traditional R&D metrics, and remove legal and financial barriers that hinder SMEs and social innovators from accessing funding, participating in networks, and scaling impact.

3.2.3. Policies to enable the digital technology opportunity

Persistent digital connectivity gaps in rural regions demand targeted infrastructure investment and policy action. While broadband coverage in rural OECD regions has improved—with the average rural household connectivity rate reaching 82%, close to 89% in urban areas—significant disparities in speed and quality remain. In 2019, only 59% of rural households in Europe, 67% in Canada, and 77% in the United States had access to fixed broadband with speeds of at least 30 Mbps, compared to 86%, 93%, and 94.4% in the wider population (OECD, 2019[20]). These gaps limit rural access to essential services and economic opportunities. Policy efforts must continue to prioritise rural broadband deployment, especially in remote regions where market incentives are weak, and ensure minimum service standards.

Digital infrastructure alone is not sufficient—rural digital inclusion also requires skills development and support for technology adoption. Limited access to high-speed internet constrains the ability of rural populations to engage in remote work, access e-services like telehealth, or develop digital businesses. More fundamentally, it restricts their participation in the digital economy. Bridging these gaps requires co-ordinated policies that pair infrastructure investment with initiatives to boost digital skills and promote technology uptake among rural businesses, workers, and institutions. These efforts are critical not only for inclusion, but also for rural economic resilience and competitiveness.

Regional disparities in digital adoption point to the need for place-sensitive policies that promote both access and usage. On average across OECD countries, there is a 7.7 percentage point gap in internet use between the most and least connected regions, with gaps exceeding 20 points in countries like Ireland, Türkiye, and Japan (OECD, 2021[21]). These trends highlight the importance of demand-side measures—such as training, awareness-raising, and SME digitalisation programmes—to ensure that rural communities can make effective use of digital tools. National digital strategies should include specific rural components that address both connectivity and capability.

Closing the rural digital divide opens up new pathways for growth, inclusion, and sustainability—if supported by active, integrated policy. Enhanced digital access enables rural regions to improve public service delivery, diversify their economies, and attract talent through remote work opportunities. It can also reduce emissions through lower commuting needs and support participation in global markets. However, these benefits will only materialise if digital infrastructure and skills are developed in tandem. Policy makers must adopt a holistic approach—integrating broadband planning, education and training, rural entrepreneurship, and service delivery—to ensure digitalisation translates into tangible development gains for rural communities.

Box 3.4. Policy action to make the most of digitalisation

Closing the digital divide requires complementing policies to increase nationwide competition, promoting investment and reducing deployment costs, with policies that embody provision and access to regions often left behind. This includes, for example, supporting:

- demand aggregation models to ensure financial viability of projects,
- public private partnership (PPP) initiatives,
- public funding to expand connectivity in rural/remote areas, including through the use of market mechanisms, such as reverse auctions, to provide funding to market players to deploy their networks in rural and remote areas,
- bottom-up approaches: open access municipal and community-led networks, addressing, in particular, “the last mile” challenges in rural and remote areas, and coverage obligations in spectrum auctions (for wireless networks).

3.3. Tailored policies for economic competitiveness in rural areas near FUAs

Rural areas located near functional urban areas (FUAs) benefit from better access to markets and can tap into the advantages of agglomeration. Such advantages include shared services, infrastructure, and knowledge exchange. Furthermore, these regions are well-positioned to attract a skilled labour force and retain talent, making them fertile ground for economic growth. To unlock this potential, policies need to pay special attention to two areas of opportunity:

Area 1: Manufacturing. This sector plays a crucial role in the economic base of rural regions close to cities, and its continued development is essential for long-term competitiveness. Manufacturing also occurs - though to a lesser extent - in rural remote areas and can also grow with the proper use of new technologies. But proximity to FUAs can enable rural manufacturing to better integrate into broader supply chains and respond more rapidly to market demands.

Area 2: strengthening rural-urban linkages. Collaboration with nearby urban centres and research institutions and foster the development of niche industries and high-value products that benefit from both rural assets and urban linkages. Strengthening these rural-urban connections supports inclusive regional development and resilience. It also enhances the ability of rural areas to diversify their economies while preserving local identities.

3.3.1. Enabling rural industrial development and manufacturing

Rural regions near FUAs are well-placed to lead in high-value manufacturing and tradable sectors, and industrial policy can help them realise this potential. Thanks to their proximity and rural-urban linkages, these rural areas benefit from access to labour markets, innovation centres, logistics hubs, and supply chains—while often offering lower costs for land and operations. As analysed in Chapter 2, they are already major contributors to national manufacturing employment, despite rural regions making up less than a third of the OECD population[8]. Rural manufacturing complements metropolitan production by supporting supply chains, hosting satellite facilities, and contributing to national economic resilience. These areas are particularly suited for advanced, custom, and circular economy manufacturing, and with the right support, they can play a strategic role in meeting national and global industrial goals.

Industrial policy must align foundational investments in rural competitiveness with sector-specific interventions. To be effective, industrial development strategies should link broader efforts to enhance

infrastructure, skills, and services in rural areas with targeted support for key sectors such as manufacturing. Industrial policy can serve as the overarching framework that co-ordinates rural investment (see Table 3.2), guiding infrastructure and workforce development toward high-impact industries. This strategic alignment enables more purposeful action, including the strengthening of rural–urban linkages. Rural areas near cities are particularly well-positioned to benefit from cluster-based industrial policies that connect local manufacturers with metropolitan supply chains, boosting productivity and innovation through access to urban knowledge hubs. These areas can also attract foreign direct investment (FDI) spillovers from nearby innovation districts, which strengthen local supply chains and facilitate technology transfer. With the right support, such regions can cultivate specialised industrial clusters in advanced manufacturing, green production, and agri-food sectors, leveraging proximity to skilled labour, research institutions, and consumer markets. Examples like medical devices in Tuttlingen, Germany, and high-value textiles in Arezzo, Italy, illustrate how rural manufacturing can flourish when embedded in wider urban innovation ecosystems.

Table 3.2. Policy areas for rural industrial development

	Area	What to do	How it helps
Targeted	**Industrial policies**	Provide incentives, technical assistance, and capacity-building to modernise rural enterprises,	Integrates rural producers into higher value-added activities.
	Enhance value chain linkages	Facilitate collaboration among actors within specific value chains through roundtables, diagnostics, and strategic planning.	Builds stronger, more cohesive local economies by adding value to rural products and improving co-ordination.
Enabling policies	**Improve access to innovation & technology**	Promote rural technology centres, mobile training units, and innovation funds targeted at rural SMEs.	Boosts competitiveness and helps rural firms transition into knowledge-based production.
	Expand rural infrastructure for industry	Invest in logistics, energy, digital connectivity, and processing infrastructure tailored to rural production.	Reduces production and transaction costs, improves market access, and attracts investment.
	Strengthen institutions and governance for rural industry	Establish rural economic councils or platforms for co-ordination between public, private, and civil society actors.	Facilitates participatory governance and ensures policies are adapted to local realities.
	Adapt environmental and climate policies for rural industries	Integrate climate resilience and sustainability standards into rural industrial development plans.	Ensures long-term viability of rural production in the face of climate risks while opening markets for green products.

Source: Author's elaboration

Rural places can proactively use diverse place based industrial policies to boost manufacturing, Table 3.3 summarises specific *policy levers*, which can be deployed with the support of other levels of government but not necessarily relying on top-down measures. The most appropriate interventions depend on the specific rural context and goals, including distance to markets. The more remote the regions, the more the policy approach would need to emphasise co-operative business models, public-private partnerships, and decentralised SME support structures to compensate for limited market access and labour shortages. To attract investment despite geographic challenges, governments need to implement financial de-risking measures, such as state-backed loans, rural venture funds, and tax incentives to encourage sustainable industrial development.

Table 3.3. Place based industrial policy levers for boosting rural manufacturing

Intervention type	Policy actions
Targeted financial incentives	• Provide tax credits for manufacturers adopting green and digital technologies. • Establish dedicated rural manufacturing funds to de-risk private investments. • Support export-oriented manufacturing through subsidies and international trade facilitation.
Support specific rural-urban linkages	• Broker collaboration between local businesses and industry clusters to drive technological adoption and meet urban demand. • Public-private partnerships (PPPs) and targeted infrastructure investments can support industrial parks and co-location incentives that strengthen rural-urban production networks.
Specialised infrastructure investments	• Establish industrial parks or innovation clusters focused on key manufacturing niches. • Develop multi-modal transport links to integrate rural production with urban distribution networks. • Expand renewable energy infrastructure to power sustainable manufacturing processes.
Technology adoption promotion	• Invest in digital training and Industry 4.0 readiness for rural SMEs. • Create partnerships with technology providers to implement automation and digitalisation solutions. • Promote digital platforms that connect rural manufacturers to global supply chains.
Tailored workforce development	• Expand vocational and technical education programmes tailored to (advanced) manufacturing needs. • Foster partnerships between rural colleges and industries to align skills with demand. • Support lifelong learning (at distance) initiatives to help workers adapt to automation and technological shifts.

Source: Author's elaboration

Looking ahead, manufacturing opportunities will evolve, and so must do policy approaches. Supporting rural manufacturing will evolve to be more customised, technology-driven, and resilient, reflecting the structural transformations reshaping global trade, technology, and sustainability.

- *Policy Trend 1*: rather than applying blanket incentives, governments are likely to continue adopting place-based industrial strategies that leverage the unique comparative advantages of each rural region, such as resource availability, workforce skills, or sectoral (smart strategy) specialisation.
- *Policy Trend 2*: The rise of digitalisation and remote work will enable more decentralised manufacturing models, necessitating policies that support automation, AI-driven production monitoring, and digital upskilling to ensure rural workforces remain competitive.
- *Policy Trend 3*: supply chain resilience will take precedence, with governments shifting from simply attracting firms to fostering integrated regional supply networks, particularly as geopolitical shifts and climate risks disrupt global trade.
- Amid these trends, rural policies will focus on land-intensive, resource-based, and decentralised production - while urban areas will continue to prioritise high-density innovation and service-driven economies.

With a clear direction, tackling rural challenges like limited skills pools, slower technology adoption, and fragmented ecosystems become also more tailored to the needs of each place (Table 3.4).

Table 3.4. Areas of opportunity in rural manufacturing and relevant policies

Manufacturing area of opportunity	Why Rural?	Example	Policies for the future (non-exhaustive)
Advanced and specialised manufacturing	Lower land costs, space for specialised facilities, and proximity to regional supply chains.	Tuttlingen, Germany, has evolved from traditional manufacturing to a world-leading hub for medical devices, benefiting from a strong regional ecosystem.	Incentives for R&D decentralisation, export facilitation for niche high-tech products.
Agri-food processing and bio-based manufacturing	Direct access to primary agricultural products reduces transportation costs, and rural areas can integrate vertically with farming and forestry industries	The Biella region in Italy remains a textile hub, leveraging local wool production and sustainable processing methods.	Strengthening farm-to-factory linkages, sustainability regulations for food processing, AI-driven supply chain optimisation.

Green and circular economy manufacturing	Large land availability enables the development of wind turbines, solar panel production, and biomass industries, while proximity to natural resources supports sustainable material production.	Rural regions with high emissions-intensive industries are transitioning into sustainable manufacturing, leveraging cleaner production techniques. *(examples of products: renewable energy components, sustainable construction materials, recycling technologies).*	Dedicated green investment funds, incentives for low-carbon manufacturing, circular economy tax breaks.
Automotive and aerospace component manufacturing	Many automotive and aerospace suppliers require large production facilities, which are more cost-effective in rural areas, and benefit from proximity to industrial hubs.	Central and Eastern European rural regions have attracted automotive supply chain investments due to competitive costs and skilled labour.	Supply chain relocation incentives, cross-border logistics integration, worker reskilling in automation.

Source: Author's elaboration. The examples were drawn from OECD (2023), The Future of Rural Manufacturing (OECD, 2023[22])

Box 3.5. Policy actions to strengthen competitiveness in rural near FUAs

Strengthen the foundational enabling factors for competitiveness:

- improve digital & transport infrastructure to facilitate industrial symbiosis with urban industries, including high-speed internet and smart logistics systems.
- Policies to facilitate access to finance for rural SMEs (access to affordable credit and equity investments) to modernise operations.

Develop a specialisation strategy:

- Develop regional industrial strategies that clearly define their niche, identifying industries and product innovations suited to a region's resources and development level.
- Define operational criteria, such as appropriate policy levers and eligibility of local businesses.

Deploy the right local policy process:

- Engagement local stakeholders to foster a sense of ownership and ensure policies address on-the-ground realities, shaping development visions through clear territorial and multilevel governance structures.
- Promote collaborations between local governments, private sector, and communities to share the responsibility of development projects such as building infrastructure, housing, and business zones in rural-urban interfaces
- Align different policy actions toward measurable goals, setting up monitoring and evaluation mechanisms embedded in PBIP to ensure accountability and adaptability
- Define safeguards to mitigate risks and unintended consequences.

Risks to avoid	Policy Countermeasure
1. Overlook local priorities, leading to policy ineffectiveness	Regional consultations, feedback mechanisms for policy design and adjustments.
2. Resistance to change with policies imposed from the top	Engage local stakeholders early in the process, communicate long-term benefits to ease transitions
3. Overlook places' readiness (e.g. inadequate infrastructure, skills, market integration)	Conduct thorough local assessments and offer capacity-building before industrial programmes. Pair smaller regions with more developed areas in cluster-building efforts.
4. Regional displacement where some gain at the expense of others	Promote wider regional co-operation, integrate neighbouring regions into broader development strategies

5. Focus too much on a single industry, leaving regions vulnerable to sector-specific downturns	Diversify policy focus across multiple sectors, promote cross-sectoral innovation and adaptability.
6. Underestimate the financial requirements of large-scale transformation projects	Encourage co-funding mechanisms where local, regional, and national governments collaborate.
7. Fund activities that large businesses would have undertaken anyway	Use stricter eligibility criteria and allocate funds to innovation or riskier ventures
8. Large firms take subsidies without significantly changing their behaviour, leading to inefficiencies	Use performance-based subsidies tied to specific outcomes, e.g. local job creation or technology transfer.
9. Local elites or specific interest groups benefit disproportionately, sidelining community needs	Set clear accountability standards, involve a wider set of stakeholders and external evaluators.
10. Unfair value capture by multinationals who relocate production elsewhere after local support	Attach conditions to subsidies or investments, such as local production or job retention commitments

3.3.2. Rural-urban links: innovating to make the most of the proximity to cities

Strong rural–urban linkages are essential to regional resilience and competitiveness. Rural and urban areas are not separate systems—they are interdependent across economic, social, and environmental dimensions. Particularly in regions close to Functional Urban Areas (FUAs), rural economies benefit from 'borrowed' agglomeration effects such as access to skilled labour, services, and innovation networks (OECD, 2013[23]). Effective policies must capitalise on these complementarities to support inclusive and balanced territorial development (Table 3.5).

Cities offer productivity gains, but also pressures that create opportunities for nearby rural areas. Urban centres benefit from economies of agglomeration, with denser populations associated with higher productivity—an estimated 1–1.5% increase in central city productivity for each doubling of surrounding urban population within 300 km (OECD, 2015[24]). Yet, urban areas also face diseconomies: congestion, high land prices, inequality, and environmental degradation. These externalities make proximate rural areas attractive alternatives for housing, business relocation, and investment, provided infrastructure and services are adequate.

Table 3.5. Foundations of competitiveness: distinctive needs of rural places (urban vs rural)

Policy Area	Urban Priorities	Rural Priorities
Infrastructure & Land	Focuses on maximising land use efficiency, integrating smart logistics, and ensuring last-mile supply chain connectivity. Implements zoning restrictions and circular economy strategies to optimise land use.	Prioritises expanding transport networks, digital infrastructure, and energy access to overcome geographic isolation. Balances manufacturing expansion with environmental conservation, enabling large-scale sustainable industry projects.
Workforce & skills development	Leverages existing educational institutions, attracts global talent, and supports rapid workforce upskilling through urban innovation hubs.	Requires tailored vocational training, workforce retention strategies, and targeted upskilling in emerging rural industries.
Innovation and industrial clusters	Fosters innovation districts, R&D-intensive clusters, and university-business partnerships.	Strengthens linkages between SMEs, rural-based multinational suppliers, and applied research institutes, often through decentralised innovation hubs.
Business support and finance	Provides direct funding for high-growth tech start-ups and facilitates venture capital investment.	Focuses on de-risking investment in SMEs, offering tax incentives, and improving access to capital and co-operative financing models.

Source: Author's elaboration

Rural areas near cities can attract people and firms by leveraging quality of life and affordability. Lower housing costs, environmental amenities, and improved connectivity make rural places close to cities increasingly attractive for residents and businesses. These areas can draw in skilled workers, particularly

through remote and hybrid working models, and support enterprise development by providing access to space and infrastructure at lower cost.

Innovation in peri-urban rural regions is crucial to harness agglomeration spillovers. Innovation tends to cluster spatially, benefitting from proximity to knowledge, skilled labour, and infrastructure (Breschi, 2008, pg. 168). Rural areas near cities must therefore not only adopt urban innovations, but also adapt them to local needs. Their ability to do so hinges on access to digital infrastructure, skilled workers, and active participation in regional innovation networks.

Remote working can reconfigure settlement patterns and unlock rural labour markets—but requires investment. Although remote working surged during the COVID-19 pandemic, uptake was lower in rural regions due to limited connectivity and job structures unsuited to remote tasks. In 2020, remote working rates were nearly double in urban areas (15.7%) compared to rural (8.7%). Still, remote work presents a structural opportunity to diversify rural labour markets and support inclusivity—particularly for women, carers, and people with disabilities. Policy support is needed to address digital skills, connectivity, and service provision.

Strengthened rural–urban co-ordination is vital for effective spatial planning and service delivery. Planning systems must address shared challenges and manage interdependencies in housing, transport, and environment across rural–urban boundaries. Co-ordinated infrastructure investment, joint governance platforms, and integrated land-use policies can help manage urban spillovers and ensure rural areas benefit from growth, rather than being marginalised.

Rural–urban linkages must be made central to circular economy and green transition strategies. Proximity to markets gives rural areas near cities an advantage in circular bioeconomy sectors such as food, energy, and waste processing. Policies should target these synergies through joint rural-urban strategies, including shared logistics, resource recovery networks, and green infrastructure investments that span functional regions.

Box 3.6. Policy actions to leverage rural-urban linkages

1. **Maximise the benefits of remote and hybrid working models**
   - Expand broadband and mobile infrastructure in rural areas to enable remote work uptake.
   - Develop rural co-working hubs, drawing from successful models in Ireland and Japan.
   - Provide training in digital tools for workers and SMEs, particularly in underserved regions.
   - Support work–life balance infrastructure (e.g. childcare) to make remote work inclusive.
2. **Integrate rural–urban strategies in spatial planning and service delivery**
   - Align land-use policies to manage growth pressures and avoid urban sprawl.
   - Foster inter-municipal co-operation to co-ordinate housing, mobility, and service delivery.
   - Prioritise regional transport investment that links rural areas to urban job and service markets.
3. **Strengthen innovation linkages and knowledge flows**
   - Support collaboration between rural SMEs and urban universities or research centres.
   - Develop decentralised innovation hubs to embed R&D capacity in rural areas.
   - Promote digital platforms to link rural entrepreneurs with urban markets and support services.
4. **Embed rural–urban linkages in green transition and circular economy efforts**
   - Incentivise rural participation in bio-based value chains and waste recycling networks.

- Invest in shared infrastructure for renewable energy, sustainable logistics, and water management.
- Encourage cross-jurisdictional climate resilience planning, integrating rural perspectives.

3.4. Tailored policies for economic competitiveness in remote rural

3.4.1. Reducing distance to markets

Remote rural regions are vital to national economies, supplying raw materials, preserving cultural and environmental assets, and attracting tourism. However, their distance to large markets and low population density presents challenges, including high infrastructure and service delivery costs and limited economies of scale, which impact innovation. There are two ways to reduce the distance to markets by physical proximity and by digital connectivity.

Reducing digital distance ICT work on digital divides

Without direct access to high-speed internet, rural communities face challenges in acquiring knowledge and skills, accessing e-services (like telehealth initiatives), participating in democracy, communicating digitally, working remotely, and creating, or indeed, offering their skills to digitally intensive firms. The digital divide also stifles innovation, business development and the potential for existing firms to grow. Bridging digital divides in access to broadband and in digital skills will be paramount for rural regions to fully leverage the benefits of digitalisation. Investment in digital infrastructure and skills will also help rural areas exploit the benefits of the digitalisation of work and social interactions and in particular, remote working.

Improving digital infrastructures and digital accessibility can bring about opportunities for rural regions. Access to quality broadband is crucial for accessing essential services, boosting well-being, driving entrepreneurship, innovation, growth and productivity. In addition, it can help leverage on the opportunities presented by remote working, including reduced transport-related emissions, greater flexibility of working, improved attractiveness for skilled workers and entrepreneurs to move to rural areas. Digitalisation can reduce trade times and costs, enhance the exchange of new types of products and services, and allow new ways to work and join the labour market. Without active policies to close the digital divide, it can lead to greater territorial inequalities, especially in terms of digital skills, productivity, or access to public services. For example, low-speed networks (less than 20 Mbps) are a barrier in the adoption of many technologies, including advanced telemedicine and cloud computing.

Box 3.7. Policy action reducing distance to markets

Improving infrastructures

Closing digital divides requires complementing policies to increase nationwide competition, promoting investment and reducing deployment costs, with policies that embody provision and access to regions often left behind. This includes, for example, supporting:

- demand aggregation models to ensure financial viability of projects,
- public private partnership (PPP) initiatives,

- public funding to expand connectivity in rural/remote areas, including through the use of market mechanisms, such as reverse auctions, to provide funding to market players to deploy their networks in rural and remote areas,
- bottom-up approaches: open access municipal and community-led networks,
- addressing, in particular, “the last mile” challenges in rural and remote areas, and
- coverage obligations in spectrum auctions (for wireless networks).

3.4.2. Capitalising on natural resources

Natural resources have been important drivers of national and regional growth across OECD. For example, in Chile mining activities accounted for 58% of the country’s total exports (International Trade Administration, 2023[25]) and in Australia, mining exports accounted for 66% of the country’s total export revenue in 2022-2023 (Minerals Council of Australia, 2023[26]). Rural regions, particularly remote ones, are the primary suppliers of raw materials, food, water, and energy that countries produce and consume. For example, among the 50 OECD mining regions, 40 are classified as rural remote or close to small cities.

In the context of increasing strategic importance of national self-sufficiency in raw materials, demand for domestic mineral, energy, and forestry supply is rising. This creates both opportunities and challenges for resource-rich communities to leverage their natural assets to increase community well-being and unlock business opportunities.

Regions specialized in natural resources, such as mining and forestry, have a lower share of unemployment and higher GDP per capita outcomes. Amongst the benchmark of 40 regions that specialize on mining activities their GDP per capita is on average 19% higher than of rural regions (OECD, 2023[27]).

However, regions specialized in resource sectors face various socio-economic and environmental challenges associated to the international scope of these activities, the small markets of the host rural economies and the capacity of local governments and communities to reach beneficial agreements with companies and plan with a forward-looking approach.

Stemming from these structural characteristics, main negative externalities for rural remote regions relying on natural resource sector include:

- **Lack of economic diversification and volatile economies.** A high local specialisation on resources can lead to “Dutch disease effects”, exemplified in the decline of other economic activities locally and entrepreneurship along with increasing production costs for new businesses. Given that resource sectors are reliant to international markets, high specialized local economies are vulnerable to market volatility due to ‘boom-bust’ cycles (Papyrakis and Raveh, 2014[28]; Muhammad Shafiullah et al., 2018[29]); (Mateo-Peinado, 2022[30]).
- **Economic inequalities and low value for local economies.** Resource sectors in rural regions often offer higher wages than other industries, yet economic benefits are unevenly distributed. Those outside mining frequently face higher living costs without wage advantages, deepening inequalities between workers and non-workers in the resource sector, fly-in fly-out employees and local communities, and Indigenous and non-Indigenous populations. In some traditional resource communities, disparity man-women persist given working cultures or less incentives for women to work. Small local markets further strain public services, exacerbating challenges in education and healthcare access.
- **Lock-in effects for local companies.** The high income and the size of the resource business in a remote community tend to create dependency relationships with local business, who ended up being providers to that single company. Given that local companies in small rural economies are

mostly family own or SMEs, staff and technical capacity is limited to open markets in other business or benefit from the international structure of the resource company to find international opportunities.

- **Impacts to local environmental assets**. All resource activities are intensive in the use of natural resources, including land and other inputs such as water, they modify landscapes and environmental ecosystems. Some of these industries produce hazardous waste and air pollution that require special care.

On top if this, these sectors are also becoming highly capital and digitally-intensive given their competition in global markets The technological innovation in resource sectors can bring various benefits, including new job opportunities in high value-added tasks, help mitigate the shortages of workers in remote regions mining operations, and more efficient use of resources and reduction of the environmental impacts of mining. However, if these communities are not prepared in advance, technological change in these industries can hamper participation of local workforce in these activities and limit the involvement of local business.

Therefore, main policy priorities to capitalise on natural resources for greater well-being and competitiveness of rural remote communities include: i) leveraging resource project to add value to local economies, ii) promotion of smart diversification and iii) subnational governance to link resources with local priorities.

Leverage resource sector to add value to local economy:

Resource activities do not limit to the extraction itself, but they encompass a variety of activities across upstream phases, such as exploration, construction of production sites and extraction, and downstream phases, such as manufacturing or sales and distribution. Furthermore, in the context of the green transition, there are increasing added value opportunities for rural remote areas through sustainable practices such as circular economy activities. Raw materials are at the start of many industrial value chains, including construction, steel or metallurgy, and present properties of durability, recyclability and adaptability which make them apt for circular production systems (Young, Barreto and Chovan, 2021[31]).

Therefore, regions need to strengthen local economic linkages with resource sector activities to bring benefits to communities including employment and investment. Given that circular activities are often outside the core business of resource companies, these activities offer businesses opportunities for regional companies, entrepreneurs, and researchers. In mining it can translates into revalorization of tailings, repurposing of closed mines, reuse of wastewater or mineral equipment. For instance, Mount Morgan in Australia has benefited from reprocessing mining waste to unlock economic gains and reduction of environmental damage for this region Box 3.8.

In forestry regions, similar activities can include the establishment of biomass and bioenergy processing plans converting forestry residue into biofuel or mushroom cultivation using wood residue. For instance, the Fort St James Green Energy Project in British Colombia is a bioenergy plant situated in a forestry region, utilizing wood waste and supplying electricity to the local grid, employing 30 high skilled employees (BioNorth Energy, 2024[32]).

Other regions are also leveraging partnerships with resource companies to enhance the local business ecosystem, with private-public programmes to upscale local providers, through technological transfer agreements, and to increase local procurement. In Chile, the world-class provider programme led by a private and public mining company in co-operation with the government set capacity building activities to local providers to address a specific industrial need of the industry.

Box 3.8. Mount Morgan mine waste repurposing

The Mount Morgan mine waste repurposing project in Queensland, Australia, is an innovative initiative focused on transforming historical mining waste into valuable resources. The Mount Morgan site, once a highly productive gold and copper mine, left behind large amounts of acidic mine waste that have posed environmental challenges for decades. However, through new technological advancements, companies are now reprocessing this waste to extract remaining precious metals, reducing environmental hazards and creating economic value. The repurposing efforts also aim to rehabilitate the site and improve local water quality, benefiting surrounding communities and ecosystems.

Smart diversification of resource rich economies

Supporting economic diversification and entrepreneurship in resource specialised regions is a main priority to build long-term economic resilience. To this end, there are a number of common focus points that can assist in the diversification process of remote rural economies:

- **Identifying Local Assets:** Resource regions tend to have other environmental, geographical, and cultural assets on which they can capitalise, including geographic conditions for renewable energy sectors (wide open spaces and wind and solar capacity), niche tourism or scientific activities. For example, in Antofagasta, Chile, the region boasts exceptional conditions for astronomical research and tourism star-gazing. The region hosts several observatories (e.g. Gemini Sur, Paranal) and research centres, attracting scientists and astronomers (OECD, 2023[33]).
- **Tailored SMEs and entrepreneurship support in resource context:** Assistance can include loan programmes for new business projects, establishment of business support centres, or hosting relevant workshops/events. Training and education in new sectors through existing education institutions is essential upskilling the workforce for new sectors. Private sector can be instrumental in supporting diversification, and there are positive examples in the mining sector such as the entrepreneurship programme of the Zinkgruvan Mine in Orebro, Sweden.

Box 3.9 Zinkgruvan Mining's Entrepreneur Program: Fostering local resilience

Launched in 2018 by Zinkgruvan Mining, the Entrepreneur Program, also known as Zinkgruvan Mining ReThink, aims to bolster the local economy by fostering entrepreneurship and preparing the community for a future beyond mining. This innovative initiative is led by the company in collaboration with local stakeholders to mitigate the economic impact of potential mine closures.

The programme works by providing mentorship and support to local businesses, particularly those not directly related to mining. Through workshops, personalized guidance, and networking opportunities, the programme equips businesses with the skills and knowledge necessary to thrive independently. Notably, during the COVID-19 pandemic, the programme played a crucial role in ensuring the survival of participating companies by offering additional support and resources.

Outcomes of the Entrepreneur Program have been significant, with over 40 local businesses benefiting from mentorship and support. These companies have reported higher success rates and resilience compared to those not involved in the programme. By fostering a diverse and robust local economy, Zinkgruvan Mining's initiative not only supports current economic stability but also promotes the long-term sustainability of the community.

- **Forward-looking planning with tailored funding:** National and regional governments and authorities can provide a foundation for diversification by creating forward-thinking strategic plans that promote experimentation. This can include providing diversification funds for investments in infrastructure, skills training, and business development. The diversification of Tumbler Ridge in British Colombia, Canada provides a useful example of diversification efforts Box 3.10.

Box 3.10. Tumbler Ridge Diversification from Coal

Tumbler Ridge, a mining town in British Columbia, pursued economic diversification by capitalising on its unique natural and cultural assets. After the first coal mining downturn, local stakeholders rebranded the town as an outdoor recreation and tourism destination, promoting activities such as hiking and rock climbing in the Rocky Mountains. The discovery of significant dinosaur fossils nearby led to the establishment of a paleontological museum and a successful bid for UNESCO Global Geopark status, attracting geotourism. Additionally, Tumbler Ridge invested in alternative sectors like wind energy and forestry, and it developed a community forest license to retain local control over forest resources. This multi-sector approach aimed to create a stable economy less vulnerable to mining's cyclical downturns.

Proactive governance to link resource sectors with local priorities.

Proactive governance to co-operate with resource companies and ensure right local conditions to benefit from these sectors is needed to make the most of these sectors and ensure long-term development beyond the depletion of the resources. To this end some policy action include:

- **Subnational tailored resource strategies**: While normally resources are governed by national authorities, in unitary countries, subnational policies to improve the links of the sector locally are instrumental to provide better indication of the role of mineral-related activities in the local economy. These strategies help to agree with regional actors on the role of resource sector for development, ease local regulations for resource projects (e.g. clearer land-use plans), better communicate the potential benefits of these activities and define tools to mitigate negative effects. Andalusia's Mining Regional Strategy is a good example in setting long-term goals for the sector in the local economy and define actions to enhance local value added and employment linked to this value chain (Box 3.11)

Box 3.11. Andalusia's Mining Regional Strategy

Andalusia's Mining Regional Strategy sets a benchmark for long-term planning by aligning economic, social, and environmental goals. It focuses on modernizing the mining sector promoting the region's potential and integrating sustainable practices while preserving it mining heritage. By fostering collaboration among stakeholders, the strategy ensures mining becomes a driver of sustainable growth and development.

A key pillar of the strategy is enhancing local value added by supporting the entire mining value chain, from mineral extraction to processing and service innovation. To maximise economic benefits for the region, the strategy is committed to processing minerals locally, particularly from the Iberian Pyrite Belt. It also aims to create 10 000 direct and 30 000 indirect jobs while offering specialized training programs to develop skills for sustainable and innovative mining.

By integrating environmental preservation, promoting sustainable practices, and addressing social concerns, the strategy mitigates mining's potential negative impacts. With €3.2 billion in annual business opportunities and global demand for sustainable materials, Andalusia is positioning itself as a leader in responsible mining and regional development.

Source: OECD, Mining Regions and Cities Case Study, Andalusia, Spain, 2021

- **Multi-actor governance structures to manage resource strategies:** Resource activities, such as mining and forestry, can span decades—some lasting up to 100 years. Therefore, strategies to govern such operation require long-term vison, clear goals, and structures for continuous monitoring and adaptation. Community-based boards and organizations should be established and funded to facilitate regional, cross-sectoral collaboration, bringing together government bodies, universities, communities, environmental experts, companies, and Indigenous peoples. Their involvement in monitoring and evaluating regional development strategies ensures resource projects align with sustainability goals and community interests (Vella et al., 2015[34]).
- **Capacity building and resourcing:** To ensure involvement of regional actors including Indigenous rights holders, NGOs, local communities, and others in aligning regional objectives with economies activities requires ensuring these groups have the appropriate resourcing and capacity to engage in discussions. Governments and companies can invest in capacity building programmes and workshops to equip groups with the necessary resources.
- **Community co-ownership of resource projects:** Providing communities and rights holders the financial and capacity support to engage as equity or partner owners in resource projects can be beneficial to ensure social license to operate and prevent environmental and social damage. This is particularly instrumental in resource projects that occur in Indigenous lands. For example, Yindjibarndi traditional owners in the Pilbara, Western Australia have partnered with a renewable energy company to operate a large-scale renewable energy project, with traditional owner equity participation of 25% to 50% as well as Yindjibarndi approval for all project sites to protect cultural heritage (OECD, 2023[35]).
- **Facilitating cross-regional knowledge sharing:** Through sharing best practices and data with similar municipalities, rural remote areas can learn from each other's experiences and potentially collaborate on programmes and policies. An example of this is the Mineral Resources Cluster Portugal that brings together mining companies, research institutions, regional government agencies, and support industries to collaborate on enhancing value from extraction projects (Mineral Resources Cluster Portugal, 2024[36]). A similar consortium is possible to group rural remote areas that specialize in similar industries or share common challenges in improving economic prosperity (lack of diversification, out-migration etc.).

Box 3.12. Policy Actions to leverage natural resources for competitiveness in remote rural areas

Main actions to capitalise natural resources for greater competitiveness and well-being of remote rural regions include:

- **Leveraging resource activities to create local value** by strengthening links between resource companies, local businesses, research institutions, and entrepreneurs, forming partnerships with companies to upscale suppliers and promote local procurement, and implementing incentives to attract companies at different stages of the value chain.
- **Supporting economic diversification** based on resource sector assets and related activities by identifying local strengths beyond resource specialization through bottom-up strategies, promoting programs to support entrepreneurs and local businesses in non-resource sectors, and establishing forward-looking planning in collaboration with companies**.**
- **Establishing governance structures to link resource sectors with local priorities** by developing subnational tailored resource strategies to agree on the role of resource sector for development and ease local regulations for resource projects (e.g. land-use plans), creating multi-actor governance structures to manage resource strategies and allowing opportunities for community co-ownership structures of resource projects.

3.4.3. Inclusion of Indigenous peoples in natural resource development

Indigenous peoples are central actors to help rural regions capitalize on natural resources, as natural resources in some OECD countries are located in Indigenous lands. Many Across Australia, Canada, Mexico, New Zealand, and the US a higher proportion of Indigenous peoples (44%) live in predominantly rural regions compared to non-Indigenous peoples (25%) (OECD, 2019[37]). Many of these remote regions contain natural resource endowments that are critical for national economies. On average, across Australia, Canada, Chile, and Sweden, mining regions are home to almost one third (28%) of these countries' Indigenous peoples. Globally, over half the critical minerals resource base required for the green transition is located on or near Indigenous lands (Owen et al., 2022[38]).

The resource sector activities often significantly impact Indigenous culture and livelihoods. Many projects have dispossessed Indigenous peoples from their land and disconnected them from cultural sites and areas integral to livelihoods such as fishing and hunting sources. While there has been significant advancement in frameworks for Indigenous engagement within resource regions including changes in international and national legislation, the socioeconomic marginalisation of Indigenous peoples continues in these areas. This is largely due to a gaps in government implantation and enforcement of the free, prior, and informed consent (FPIC) as outlined in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). On top of this, other factors that have led to this situation include:

1. Unequal relationships between resource companies and Indigenous peoples
2. Insufficient support for capacity building in Indigenous communities
3. Lack of meaningful consultation with Indigenous groups
4. Lack of investment in Indigenous self-determination

At the pre-conference of the 2024 OECD Mining Regions and Cities in Sudbury, Canada, 35 Indigenous peoples from 4 countries gathered. They developed an Indigenous Call for Action. This document identifies 10 action that can improve opportunities and outcomes for Indigenous peoples living in a mining context, with some being pertinent to Indigenous liveability in region specialised in other resources sectors (Box 3.13).

Box 3.13. Policy Action: Advancing Indigenous Inclusion in the Resource Sector

Building on previous OECD work on **integrating Indigenous perspectives in regional development** (*OECD, 2019*), this **Indigenous-led Call to Action** outlines key policy actions to ensure Indigenous communities are full participants and beneficiaries in the resource sector. These recommendations were developed by Indigenous leaders at the **2024 OECD Conference on Mining Regions and Cities** and, while focused on mining, they are also applicable to improving Indigenous inclusion and well-being across other resource sectors. The proposed actions emphasize strengthening Indigenous rights, economic empowerment, and environmental stewardship:

- **Recognizing Indigenous sovereignty and governance** by embedding Indigenous laws, traditional knowledge, and decision-making authority in mining projects.
- **Strengthening Free, Prior, and Informed Consent (FPIC)** through legally binding mechanisms, ensuring Indigenous communities can assess, renegotiate, or decline projects based on evolving impacts.
- **Expanding Indigenous economic participation** by increasing equity ownership opportunities, creating Indigenous business coalitions, and ensuring procurement policies prioritize Indigenous-led enterprises.
- **Investing in Indigenous capacity-building** by providing financial and technical support for legal, financial, and environmental expertise, ensuring Indigenous communities can fully engage in mining-related negotiations.
- **Enhancing employment and workforce development** through targeted Indigenous hiring, mentorship programs, and culturally responsive recruitment and retention strategies.
- **Integrating Indigenous knowledge in environmental planning** by requiring Indigenous-led monitoring, mine closure planning, and transparent environmental impact reporting.
- **Promoting Indigenous-led regional planning** by fostering Indigenous economic coalitions and regional governance frameworks that support long-term, sustainable community development.
- **Ensuring community safety and well-being** by implementing protective measures against risks such as human trafficking, substance abuse, and violence associated with resource development projects.
- **Empowering Indigenous leadership in mine remediation** by funding and supporting Indigenous-led reclamation initiatives for abandoned mines, integrating traditional land-use practices.
- **Increasing Indigenous representation in global resource governance** by ensuring Indigenous professionals participate in decision-making, policy forums, and international industry standards development.

This Indigenous-led Call to Action emphasizes the need for governments and industry to move beyond consultation toward true partnerships, ensuring Indigenous peoples' rights, knowledge, and priorities shape the future of resource development.

Source: Indigenous Call to Action: Indigenous-led Pathways for Sustainable Futures in Mining Regions, 2024. Indigenous Call to Action: Indigenous-led Pathways for Sustainable Futures in Mining Regions

3.4.4. Unlocking tourism opportunities in remote regions

Tourism plays a pivotal role in supporting economic diversification and social inclusion in rural regions. Across OECD countries, tourism offers rural communities pathways to diversify beyond traditional sectors such as agriculture, creating new jobs, supporting local businesses, and fostering economic resilience. It also delivers important social benefits by offering employment opportunities to youth, women, migrants, and marginalised workers. As a labour-intensive sector, tourism can help rebalance shrinking and ageing rural labour markets, and—when designed inclusively—improve community well-being and cohesion (OECD, 2024[39])..

The impacts of tourism differ between rural areas near cities and remote regions, requiring tailored approaches. Rural areas near cities benefit from easier access and frequent visits, including day trips and weekend getaways. While this stimulates local economies, it also risks over-tourism, rising second-home ownership, and the erosion of rural character and culture. These effects can strain infrastructure, raise housing prices, and alter the identity of local communities (OECD, 2024[39]). In contrast, remote rural areas offer more immersive and culturally distinct experiences, with unique ecosystems, where tourism can help preserve local traditions and environmental assets. However, these areas face greater challenges in accessing markets, maintaining year-round visitor flows, and funding infrastructure. They are also more vulnerable to external shocks—such as natural disasters or travel restrictions—and the growing impacts of climate change. When such economies are reliant on tourism, such shocks can affect local livelihoods and economic stability (Dasgupta and Morton, 2014[40]).

Targeted rural tourism strategies can support economic resilience while protecting local identity. Tourism in rural areas—especially in remote communities—must be managed to maximise benefits while limiting social and environmental risks. Investment in sustainable infrastructure, improved digital connectivity, and support for local tourism entrepreneurship are essential. Importantly, rural tourism strategies should reflect the distinct assets of different rural places, including their environmental, cultural, and Indigenous heritage, and be integrated into broader regional development plans.

Different types of rural tourism offer distinct opportunities for inclusive and sustainable development.:

- Social Tourism. **Social tourism** promotes travel opportunities for all, including marginalized groups, while fostering economic and social benefits for local communities. It helps **boost local economies** by creating jobs and supporting small businesses, **reduces seasonality** by ensuring year-round tourism demand, **enhances accessibility** for disadvantaged groups, and **strengthens local communities** by encouraging inclusive tourism development (OECD, 2024[39]).
- **Cultural tourism** offers significant benefits by preserving heritage, supporting local economies, and fostering intercultural exchange. It helps safeguard traditions, arts, and languages by generating revenue that can be reinvested in cultural sites and practices. This form of tourism also creates jobs, particularly for artisans and cultural practitioners, strengthening local economies. By promoting authentic cultural experiences, it enhances mutual understanding between visitors and host communities, fostering respect and appreciation for diverse traditions. Additionally, cultural tourism empowers local communities by encouraging active participation in heritage conservation and sustainable tourism development (OECD, 2024[39]).
- **Environmental tourism** provides numerous benefits by promoting conservation, supporting local economies, and encouraging sustainable development. It helps protect natural ecosystems by funding conservation efforts and promoting eco-friendly practices such as waste reduction and renewable energy use. This form of tourism creates jobs in conservation, hospitality, and eco-tourism sectors, benefiting local communities and small businesses. By raising awareness about environmental issues, it fosters a sense of responsibility among both tourists and residents. Additionally, environmental tourism supports climate change adaptation efforts and contributes to

sustainable development goals by balancing economic growth with ecological preservation (OECD, 2024[39]) (Box 3.14).

- **Indigenous tourism** plays a vital role in preserving and sharing Indigenous culture while driving economic growth for Indigenous communities. By showcasing traditional knowledge, arts, and heritage, it fosters cultural pride, promotes intercultural dialogue, and ensures traditions are passed down through generations. When managed respectfully, Indigenous tourism supports sustainable development while empowering communities. In Canada, the sector was hit hard by the pandemic, prompting initiatives like national urban parks, conservation partnerships, and the CAD 20 million Indigenous Tourism Fund to help Indigenous tourism recover and thrive in a way that aligns with cultural values and long-term community goals. (Box 3.15).

Box 3.14. New Zealand's Tourism Adaptation Roadmap

New Zealand's Tourism Adaptation Roadmap integrates tourism with environmental preservation by promoting climate resilience, biodiversity conservation, and sustainable infrastructure. Aligned with the National Adaptation Plan, it encourages low-carbon tourism, protects natural resources, and involves local communities in decision-making. This approach ensures tourism supports both economic sustainability and environmental protection.

Source: OECD, OECD Tourism Trends and Policies, 2022, Policy Highlights, OECD Publishing, Paris https://doi.org/10.1787/a8dd3019-en

Box 3.15. Indigenous tourism partnerships in Canada

Strengthening Indigenous tourism is a central focus of Canada's new Federal Tourism Growth Strategy. To support the industry's recovery and long-term, sustainable growth, the government is investing CAD 20 million into the Indigenous Tourism Fund. This initiative aims to help Indigenous tourism bounce back from the pandemic and strengthen its position in the market. Additionally, as part of the 2023 budget, a portion of the CAD 108 million Tourism Growth Program will be allocated to further investments in Indigenous tourism experiences. Before the pandemic, Indigenous tourism was one of the fastest-growing sectors in Canada, with notable increases in job creation and GDP contributions. The new funding is intended to meet the rising demand for authentic Indigenous experiences, ensuring that Indigenous tourism continues to grow and thrive in a sustainable way. (OECD, 2024[39])

Tourism can bring economic benefits to rural communities but also poses significant challenges:

- Environmental impacts: High tourist numbers can strain natural resources like water and land, leading to pollution, habitat destruction, and biodiversity loss (OECD, 2024[39]).
- Over-reliance on tourism: Heavy dependence on tourism makes rural economies vulnerable to disruptions. The COVID-19 pandemic led to the closure of 90% of world heritage sites and museums, with lasting socio0economic consequences (UN Tourism, 2020[41]).
- Rising living costs: Increased demand for housing and services drives up costs, making it harder for residents and local businesses to stay profitable (OECD, 2024[42])
- Infrastructure strain and seasonality: peak seasons overburden roads, healthcare, and waste management, while off-seasons leave resources underutilized, creating inefficiencies.
- Cultural and heritage erosion: heavy foot traffic and commercialization can damage historical sites and alter local traditions, threatening their long-term preservation (OECD, 2024[42]).

- Promoting tourism policies tailored to rural characteristics. Tourism policies with rural focus can help identify assets in rural territories and define measures according to their needs. For example, Portugal's Tourism Agenda for the Inland 2023 stimulates the tourism sector in inland Portugal with initiatives designed to connect territories, enhance local resources, and invest in businesses and tourism offerings, with a dedicated budget (OECD, 2024[39]). In the United States, the Recreation Economy for Rural Communities programme has supported 25 small and rural communities in 17 states to develop strategies to increase outdoor recreation economies, a key objective of the National Travel and Tourism Strategy.

Policy frameworks must strengthen the enabling conditions for rural tourism to thrive. Governments should develop integrated rural tourism strategies that connect tourism policy with transport, digital infrastructure, housing, and environmental planning. Investments in accessibility—both physical and digital—are crucial, especially for remote regions. Targeted support for tourism-related SMEs, skills development in hospitality and cultural sectors, and place-based branding initiatives can also reinforce the competitiveness of rural destinations. Finally, rural tourism strategies must embed sustainability, avoid overdependence on external visitors, and include mechanisms to protect the cultural and environmental assets that underpin rural attractiveness.

Rural tourism strategies can find innovative ways of attracting visitors while benefiting local communities and ecosystems. Countries are increasingly finding creative ways to boost tourism and make less-populated or less-visited regions more accessible to both international and local tourists. For instance, Korea's Digital Tourism Card initiative attracts visitors to areas facing population decline by offering discounts on accommodation, meals, and experiences. This strategy not only stimulates tourism in these underserved areas but also ensures international tourists are well-informed about the region's offerings through digital platforms. By encouraging tourists to explore new destinations, such initiatives can deliver significant economic and social benefits to local communities, as long as they are supported by proper planning and adequate resources (OECD, 2024[39]). Managing these challenges is crucial to ensuring that tourism supports, rather than harms, rural communities.

Box 3.16. Policy action to unlock tourism opportunities in rural remote

To address the challenge of unbalanced tourism and leverage their benefits for long-term local growth, governments can implement tailored policies and investments to promote regional attractiveness and encourage visits through a number of to tailored actions:

- Promoting tourism policies tailored to rural characteristics. Tourism policies with rural focus can help identify assets in rural territories and define measures according to their needs. For example, Portugal's Tourism Agenda for the Inland 2023 stimulates the tourism sector in inland Portugal with initiatives designed to connect territories, enhance local resources, and invest in businesses and tourism offerings, with a dedicated budget (OECD, 2024[39]).
- Incentives for tourism in less-populated areas. Countries are increasingly finding creative ways to boost tourism and make less-populated or less-visited regions more accessible to both international and local tourists. For instance, Korea's Digital Tourism Card initiative attracts visitors to areas facing population decline by offering discounts on accommodation, meals, and experiences. This strategy not only stimulates tourism in these underserved areas but also ensures international tourists are well-informed about the region's offerings through digital platforms. By encouraging tourists to explore new destinations, such initiatives can deliver significant economic and social benefits to local communities, as long as they are supported by proper planning and adequate resources (OECD, 2024[39]).

- Capitalising on natural assets for tourism. Remote rural areas benefit from natural assets such as farmland, forests, waterfalls, and natural landscapes that can offer authentic experiences to tourists For example, building on its unique natural and cultural assets, Hidalgo, Mexico, is strategically leveraging its resources and branding to expand its tourism sector and drive regional economic growth.

Linking environmental and tourism goals. Eco-tourism models stimulate economic growth but also foster environmental conservation, creating opportunities for rural communities to thrive while maintaining their natural heritage. While tourism plays a critical role in achieving these climate goals, much more needs to be done to support green transition tourism sector. For example, countries like Greece, New Zealand, Norway, and Slovenia are already integrating climate action into their national tourism strategies.

3.5. Policies for quality service delivery

As shown in Chapter 2, rural regions display significant gaps in access and quality of essential services. These include education, health, digital broadband and housing. In parallel rural regions are facing higher demographic pressures with shrinking and ageing populations. These pressures will further increase in the future. All things equal, delivering high-quality services in in rural places with more dispersed settlement patterns and lower population densities is more costly at the unit level all things equal. In other words, geography plays a decisive role in determining access to these services.

The provision of quality services is critical to the future of rural communities. It determines the quality of life of rural citizens and their ability to attract firms and workers to these places. Without them rural futures will be daunting. Designing effective policy response by realising the benefits of economies of scale, economies of scope, targeting services at the right scale, making the most of digital solutions, fomenting innovation and putting in place good practices are needed to meet the higher costs and delivery sustainable solutions.

Table 3.6 highlights good policy practices and examples from OECD countries that address key challenges related to service delivery in rural areas. It covers five critical sectors, including education, healthcare, transport, broadband connectivity/digitalisation, and housing, that illustrate innovative approaches and effective strategies to enhance accessibility, efficiency, and quality of services in both rural areas close to FUA and remote regions.

Table 3.6. Social pillar: examples of good practices across OECD countries

Policy area	Country, Region	Description
Education	Finland, Päijat-Häme	Municipalities in the region entered into a co-operation agreement to develop a network-based comprehensive school system that offers high-quality teaching services online to all children irrespective of their geographic location.
	Canada, Quebec	The project Networked Schools (*L'École en réseau*) allows students and teachers in small and remote schools to learn and collaborate via ICT tools such as videoconferencing, enabling the formation of learning communities and augmenting pedagogical approaches.
	Colombia, Valle del Cauca	The "Learning Communities" initiative, implemented since 2014 in some municipalities in Valle del Cauca and other Colombian departments, allows better integration of local communities - via committees made up of teachers, parents, and students – in educational decision-making (on school life, academic matters, including curriculum design and evaluation, cultural activities, school infrastructure and pedagogical tools).
	Portugal, Alentejo	A project involving the municipalities of Almodovar, Mértola, Castro Verde, Aljustrel and Ourique

		has developed a vocational training offer to match the labour market needs and to articulate the students' mobility services, as a mean of preventing both desertification and students' dropout.
	New Zealand	The Kāhui Ako (Learning Communities) initiative brings rural schools together with their urban counterparts to share teaching expertise and resources, particularly in areas such as digital literacy and specialist curricula that can be difficult for rural schools to implement independently.
Healthcare	Italy, Veneto	The region has been successful in responding to local health needs through a combination of strengthening primary care, integrating care, increased use of health technology, and increasing patient participation.
	Colombia, Cauca	An obstetric intensive care unit project in 14 municipalities in northern Cauca, promoted by the Valle de Lili Foundation, allows specialist doctors to assist general practitioners or other specialised doctors telematically.
	Spain, Basque Country	The region has implemented a number of integrated care principles for care co-ordination and structural integration, including merging hospitals and primary care structures into Integrated Healthcare Organisations.
	Australia	Clinical networks provide a range of services to the rural population while seeking cost savings from resource efficiencies in areas such as purchasing or administrative costs. The country has also adopted the hub-and-spoke model for emergency care, with patients stabilised in smaller hospitals and transferred for more intensive care to larger central hospitals.
	France	In the "multi-professional Health Houses", doctors and medical auxiliaries work in a co-ordinated manner as close as possible to the rural population through the sharing of skills.
	Netherlands, Groningen	Groningen has established platforms for collaboration among healthcare organisations and providers, and created the role of "village supporter", connecting formal and informal care workers in smaller communities.
	Canada	Registered nurses and nurse navigators have an important role in improving co-ordination and continuity of care in the MyHealthTeam model of primary health care.
	Australia, Outback	In the remote Outback, where doctors are scarce, a company called DrumBeat AI uses images of patients' inner ears to detect diseases and hearing loss in Indigenous children, who have the highest rates of ear disease in the world.
Transport	Norway, Hedmark	In the sparsely populated municipality of Hedmark, the demand-response model uses regular taxis for regular departures from the municipality centre. It is possible to change to railway and express bus services for trips that cross the border of the municipality. The fares are regular and equal to ordinary public transport tickets.
	Germany	LandMobil, launched by Germany's Federal Ministry of Food and Agriculture, is a funding initiative aimed at improving rural mobility through innovative, flexible, and transferable solutions. From 2020 to 2023, around 40 pilot projects were supported across the country – ranging from e-car and bike sharing to mobile education spaces and youth-driven transport concepts – to enhance accessibility, reduce reliance on private cars, and promote multimodal transport. These projects demonstrated that tailored, community-engaged mobility solutions can effectively close service gaps in rural areas and serve as scalable models for broader implementation.
	Japan, Wakayama Hokkaido & Aichi	Hidakagawa-cho (Wakayama Prefecture) has integrated its bus routes with shared taxis, allowing variation in vehicle size depending on demand at different times, as well as enhanced feeder services and greater frequency. Niseko-cho (Hokkaido Prefecture) has integrated the routes of private buses, municipal welfare buses and school buses. The Migon shared taxi service around the Tohkadai Newtown in Komaki (Aichi Prefecture) is based on flat rate fares, shared rides, limited area of operation and door-to-door service.
	Canada, Alberta	In the province of Southern Alberta, civil society groups, local businesses and local and regional governments collectively invest in electric vehicles' charging infrastructure to facilitate emission reductions, economic development, and tourism. 22 charging stations powered using renewable energy sourced from the region have been installed.
	United Kingdom, Wales & Scotland	Since 2002, older people enjoy free travel by bus throughout the country. In Scotland, older people enjoy free travel by bus after 9:30 a.m. on weekdays and all day on weekends.
Broadband connectivity & Digitalisation	Chile	The "Enlaces" programme for the training of teachers in information and communication technologies (ICT) and the use of ICT in the classroom has a specific component tailored to support technology-enhanced learning in rural schools.
	France	"Résa'Tao", the transport on demand service of Orléans metropolis, and "Icilà", the transport on demand service of Sophia Antipolis regularly cover school transport.
	Japan	Japan has recognised digital infrastructure – particularly fiber optic cables and wireless base stations – as essential for advancing smart agriculture and sustaining rural service delivery. In 2022, the Ministry of Agriculture, Forestry and Fisheries, developed practical guidelines, based on local case studies and inter-ministerial collaboration, to support rural areas in planning and

		implementing this infrastructure and overcoming challenges linked to remoteness and low population density.
	Korea	The country succeeded in rapidly training teachers who had difficulties with new technologies through a digital platform where teachers could train their colleagues on a voluntary basis.
	Czechia	The Automated Geographical Information System (AGIS) has enabled a transparent and data-driven approach for local governments to monitor, manage, and prioritise infrastructure investment and service delivery.
Housing	France	The country has launched partnerships between small town centres and the surrounding rural areas as part of the 'Petites villes de demain' programme. This initiative, which targets small towns with fewer than 20 000 inhabitants, often located close to urban centres, seeks, among other things, to help these small towns renovate their housing stock and improve their infrastructure, to make them more attractive to families or individuals coming from urban centres.

Source: Author's elaboration

Table 3.7 presents recommendations for OECD policy makers to support service delivery in rural areas. These recommendations aim to ensure cost-effective but equitable access to essential services, develop digital infrastructure, attract and retain skilled professionals, improve rural mobility through innovative transport solutions, adapt housing policies to demographic trends, and strengthen regional co-ordination.

Table 3.7. Social pillar: policy recommendations

Recommendation	Description
1. Ensuring cost-effective service delivery while guaranteeing equitable access to services for rural communities	Ensure that rural areas have equitable access to essential services by developing integrated planning frameworks that take account of both current and future demographic trends. Governments should prioritise spatial planning tools, including geospatial analysis, and service consolidation, to optimise the location of health facilities, schools, and other services. In rural areas close to cities, this may mean strengthening existing service centres, while in remote areas, priority should be given to the provision of mobile and digital services. Collaboration between different administrations should be encouraged to ensure that resources are pooled efficiently and that rural communities can access services without experiencing excessive travel times.
2. Developing and guaranteeing access to digital infrastructure	Investment in the expansion of broadband is essential to reduce the digital divide between rural and urban areas, enabling access to digital services such as telemedicine, e-learning and teleworking opportunities. In rural areas close to cities, digital services should complement the physical infrastructure, while in remote areas they should be the main access points for essential services. Public-private partnerships should be used to extend fibre and 5G networks to underserved areas. Digital literacy programmes should be promoted to ensure that all rural residents, particularly older populations, can make effective use of digital tools.
3. Attracting and retaining skilled professionals in rural areas	Policy makers should put in place financial and non-financial incentives to attract and retain professionals, including teachers and healthcare workers. Salary top-ups, housing support and career progression opportunities should be offered, particularly in remote areas where recruitment is more difficult. Hybrid working models, enabling professionals to work in both urban and rural areas, could be encouraged. Educational and vocational programmes should incorporate rural experience as a valued career step, offering preferential hiring or promotion after service in rural areas.
4. Improving rural mobility through flexible, innovative, and sustainable transport solutions	It is essential to develop appropriate transport strategies that ensure connectivity between rural communities and urban centres, while improving internal mobility in rural areas. On-demand transport services should be developed in remote areas, complementing existing public transport systems, and aligned with the schedules of essential services and user needs. In rural areas close to cities, investment in multi-modal networks, including cycle lanes, park-and-ride facilities, and rail links, can provide efficient commuting options. Governments should support shared mobility solutions, such as car-sharing and community-led transport initiatives, to reduce reliance on private vehicles. In addition, incentives for electric and low-emission transport options should be put in place to align rural mobility with sustainable development objectives.
5. Adapting rural housing policies to demographic trends	Rural policy should promote flexible and adaptable housing policies that respond to demographic realities and trends. Governments should encourage the renovation and repurposing of vacant buildings in rural areas, including through tax incentives and financial support. In areas experiencing urban spillover growth, policies should ensure that affordable housing options remain available for rural residents. Co-operative housing models and multi-generational lifestyles should be encouraged to foster social cohesion. Public-private partnerships can also be used to create sustainable, energy-efficient housing developments tailored to the needs of rural areas.

6. Enhancing regional co-ordination in service and infrastructure planning	Encouraging collaboration between rural and urban areas can strengthen and improve the provision of services and investment in infrastructure. Including rural municipalities in regional planning frameworks can help avoid duplication of services and ensure co-ordinated investment. Policies should also promote inter-municipal co-operation in areas such as healthcare, education, and transport services. Mechanisms such as regional councils and inter-municipal agreements should be strengthened to facilitate long-term co-operation.

Source: Author's elaboration

3.6. Delivering services in rural near FUAs

Rural areas close to Functional Urban Areas (FUAs) offer unique opportunities in the provision of essential services. Their proximity to urban centres allows these rural communities to operate as regional hubs, providing consolidated services such as healthcare, education, and retail to the surrounding areas. This can significantly improve access for the most remote rural populations, by strengthening regional service networks.

One of the key opportunities lies in the potential of rural-urban partnerships. These collaborations can improve the sharing of resources and provide access to specialised services that would not be available in rural areas alone. For example, rural areas close to FUAs often benefit from better broadband infrastructure, which facilitates digital services such as telemedicine and distance learning. These innovations enhance access to essential services and bring rural residents closer to information and resources.

Transport also plays a key role in service delivery. Shorter distances to cities provide opportunities for innovative mobility solutions, such as on-demand public transport, car-sharing schemes, and community shuttles. These systems improve rural mobility and give residents efficient access to services. In addition, these areas have the potential to explore green housing developments that integrate residential, commercial, and green spaces. Rural-urban partnerships can also improve the housing stock, secure finance, and upgrade essential infrastructure, thereby promoting sustainable growth in rural areas close to FUAs.

However, challenges remain. Over-dependence on urban centres can lead to a decline in local services in rural areas, creating gaps in education or healthcare. Schools can face funding and enrolment problems, reducing specialist education opportunities for pupils in rural areas. Similarly, healthcare facilities in these areas are often under-resourced, leading to longer waiting times and increased reliance on urban health services. Banking and retail services, such as pharmacies, are also limited, forcing residents to travel to urban centres to meet their basic needs.

Despite their proximity to cities, transport networks in rural areas may be inadequate or inaccessible to vulnerable groups, such as the elderly or those without private vehicles. This limits their ability to benefit from urban services, exacerbating social inequalities. In addition, the influx of urban residents into these rural areas often leads to increased demand for housing and higher property prices. These trends can make housing less affordable for long-term rural residents, displacing vulnerable populations and straining social cohesion.

This section examines policy options for rural areas near FUAs, highlighting their potential as regional service hubs and emphasising the importance of partnerships to improve resource sharing. It also explores the role of transport innovations and digital services in improving accessibility and connectivity. In addition, this section offers policy options to address challenges such as housing affordability issues.

3.6.1. Leveraging proximity to cities to deliver key public services in rural areas

In OECD countries, rural areas close to cities can play a vital role in ensuring access to services across rural areas, particularly for people living in remote areas where services are limited. They can serve as regional service centres, concentrating key services such as hospitals, secondary schools, and administrative centres, and supporting both residents, and neighbouring communities.

Defined as the largest settlements within a 30-minute drive, regional centres offer a wider range of services than smaller rural settlements (OECD, 2024[43]). Consolidating services in these centres and ensuring better access can improve service provision in rural areas. For instance, these hubs can meet the needs of smaller surrounding communities and remote areas as well as to reduce the need for rural residents to travel to urban areas for essential services.

In this context, rural-urban partnerships can improve the efficiency of service delivery, particularly in rural areas close to cities. In education, proximity to cities allows rural schools to benefit from partnerships with their urban peers and, therefore, from shared resources and joint programmes that enhance local educational opportunities. In New Zealand, the *Kāhui Ako* (Learning Communities) initiative brings rural schools together with their urban counterparts to share teaching expertise and resources, particularly in areas such as digital literacy and specialist curricula that can be difficult for rural schools to implement independently (Tātai Aho Rau Core Education, 2017[44]).

In addition, digital learning platforms allow rural students to access online courses and resources that may not be available locally, helping to bridge education gaps (OECD, 2021[45]). In healthcare, for example, partnerships between rural communities and nearby urban healthcare providers can create shared health networks or mobile health units that regularly serve rural areas, offering residents access to high-quality healthcare, including from urban-based specialists (OECD, 2020[46]). Many US states, such as Texas and North Carolina, have set up mobile health units providing preventive services, primary care, dental care and mental health services, linking rural patients with urban healthcare providers. Telehealth initiatives are also being implemented, notably between urban hospitals such as the University of North Carolina and these health units (UNC School of Medicine, 2024[47]).

The effectiveness of this model centre requires good regional transport and digital infrastructure. Policy makers need to ensure that people living in rural areas have easy access to regional centres. The proximity of rural areas to towns and cities provides an opportunity for policy makers to implement flexible and innovative transport solutions that link residents in these areas to services.

On-demand public transport, car-sharing and community shuttle services are increasingly common in these areas, due to the shorter distances to towns and cities and progress in digital technology (OECD, 2021[45]).

Digitalisation offers considerable potential for improving service delivery in rural areas close to cities. These areas often benefit from a better broadband infrastructure than remote rural areas and are therefore more likely to implement digital services for healthcare, education, administration, and other services. The provision of digital services not only saves time for users and generates savings for both users and public administrations, but also improves equity by making services more accessible to rural residents.

3.6.2. The proximity paradox: ensuring that rural areas close to cities do not struggle to provide local services

Although rural areas close to cities can benefit from agglomeration economies, the proximity of these areas to town and cities can present challenges for service provision. Proximity can make rural areas dependent on urban centres for service delivery. People living in rural areas close to cities often travel to nearby towns and cities to access essential services such as healthcare, banking, or retailing. This dependence can

therefore reduce the need for local service infrastructure, resulting in fewer facilities such as hospitals, schools, and pharmacies.

As seen in Chapter 2, OECD analysis shows that settlements close to cities often have fewer services than settlements of a similar size further from cities (OECD, 2024[43]). In rural areas close to cities, parents might prefer schools located in towns and cities for their children's schooling. This can lead to funding problems, reduced pupil numbers and limited specialist services – such as guidance, advanced classes, or support for pupils with special needs – in schools located in rural areas close to cities (OECD, 2020[46]).

Chapter 2 showed that health services are also more common in remote rural areas. As with education, the dependence of rural areas on urban healthcare can increase the vulnerability of rural dwellers, especially in emergencies or when transportation and access issues exist. More limited healthcare provision in these areas can lead to longer waiting times and limited preventive care services, which can have an impact on overall health outcomes (OECD, 2021[45]).

In some cases, place-based public policies, including targeted funding and incentives, tend to focus more on remote rural areas than on rural areas close to cities – which may be considered to benefit from urban spillovers. In addition, while rural areas close to cities benefit from proximity, inadequate transport networks or limited public transport options can result in poor access to urban services, particularly for low-income residents and vulnerable populations with reduced mobility, such as the elderly or those without their own means of transport, leading to accessibility challenges.

To meet this challenge, policy makers need to implement balanced policies that support the development of essential services in rural areas close to cities and recognise the role of these areas as service-providing centres in the wider rural ecosystem.

3.6.3. Addressing housing demand and affordability in rural regions close to cities

In rural areas close to cities, the growing demand for housing, particularly in the aftermath of the COVID-19 pandemic, is often driven by individuals and families seeking more affordable or spacious accommodation outside urban centres. For example, in the areas surrounding cities such as Melbourne, Australia, and Toronto, Canada, high real estate values in the cities have led residents to move into neighbouring rural communities, resulting in a spike in property and rental prices in these areas.

This situation makes it difficult for rural residents, particularly those on low incomes, to find affordable housing (OECD, 2020[46]). Despite these affordability problems, rural areas close to cities have the potential to implement innovative housing solutions, including eco-friendly housing estates and mixed-use areas combining residential, public service, commercial and green spaces.

In addition, rural areas close to cities can benefit from their proximity to urban centres through regional housing partnerships. France has launched partnerships between small town centres and the surrounding rural areas as part of the '*Petites villes de demain*' programme. This initiative, which targets small towns with fewer than 20 000 inhabitants, often located close to urban centres, seeks, among other things, to help these small towns renovate their housing stock and improve their infrastructure, to make them more attractive to families or individuals coming from urban centres (ANCT, 2024[48]). Partnerships or enhanced collaboration between urban and rural areas can also give rural areas easier access to funding, regulatory support, and technical expertise to develop affordable housing for local people and commuters, ensuring that these areas remain accessible to a range of income groups.

3.7. Delivering services in rural remote

Despite the many challenges that remote rural areas face in providing essential services, they also have unique opportunities to benefit from innovative solutions. Digital and mobile technologies, such as

telemedicine and distance learning, are improving access to healthcare and education in remote areas. In addition, multimodal and demand-responsive transport systems offer flexible and environmentally friendly mobility options, reducing isolation and improving access to essential services. Strong community involvement is another key opportunity in remote areas. Local communities can play an active role in shaping policy, managing resources, and supporting schools or health facilities. This local approach can make service delivery more responsive to local needs and build stronger resilience across regions. Improving digital connectivity is also crucial to the development of remote areas. Reliable mobile and broadband networks provide opportunities for remote working, attract skilled professionals, and support small businesses. Improved connectivity also stimulates economic growth, diversifying sources of income and creating more sustainable rural communities.

However, remote rural areas face significant challenges. Demographic changes, including a declining and ageing population, are creating financial constraints, as the rising costs of providing services are coupled with falling tax revenues. Closures of schools, hospitals and other facilities increase travel distances and exacerbate accessibility problems, particularly for vulnerable groups such as the elderly and children. These trends exacerbate inequalities and hamper the prosperity of remote rural communities. A persistent challenge for remote areas is attracting and retaining key professionals, such as healthcare workers and teachers. The gaps caused by this shortage undermine the quality of essential services, leaving communities underserved. Housing problems exacerbate these difficulties. Vacant and poor-quality housing reduces the attractiveness of remote areas to potential residents, limiting population retention and further straining municipal budgets. These conditions hinder economic recovery and reduce the functionality of local housing markets.

In response to changing demographic trends, the provision of basic services in remote areas requires a forward-looking and strategic approach. Ensuring quality, sustainability and equity will require innovative solutions tailored to the specific circumstances of these communities. Investment in digital infrastructure, including broadband expansion and support for telemedicine and e-learning platforms, is essential to provide flexible services that bridge accessibility gaps. Financial and non-financial incentives will also play a key role in attracting and retaining professionals. Competitive advantages, housing subsidies and professional development opportunities can alleviate service shortages in critical sectors such as healthcare and education. At the same time, sustainable transport networks and appropriate housing policies, such as the reallocation of vacant buildings, will improve living conditions and accessibility. This section examines the opportunities offered by digital technologies and the strong involvement of local communities in the provision of services in remote rural areas. It also proposes solutions to the challenges of shortages of professionals or gaps in connectivity. Finally, this section explores the potential of innovative transport and housing policies to reduce isolation and revitalise local economies.

3.7.1. Adapting public service delivery to demographic shifts in remote rural areas

Population decline – which is more pronounced in remote rural areas – directly affects the provision of public services by reducing the number of potential users, causing staff shortages, and forcing the closure of facilities, thereby increasing the distance between users and services. This makes it challenging for remote rural areas to balance proximity and cost-efficiency while maintaining quality. Many service facilities operate on a small scale to ensure citizens' accessibility to services, which often entails high per capita costs (OECD, 2021[49]). Demographic changes, including ageing, can put significant pressure on subnational finances and the ability of local governments to maintain quality services. Fewer people of working age and a higher proportion of older people and low-income households lead to a ‘scissors effect’ in which revenues decrease while expenditures remain stable or increase (OECD, Forthcoming[50]).

In addition, remote rural areas face stronger difficulties in attracting and retaining professionals such as doctors, nurses, or teachers. Therefore, the combination of less users, higher per capita costs of service

provision, and professional shortages makes it difficult for policy makers to maintain the same level of service provision, which can lead to the closure of some facilities.

Adapting to changes in demand following population decline and ageing implies that certain services will need to become more widely available, while others will have to concentrate more. Restructuring rural services requires a consensual decision by policy makers and local stakeholders on whether to relocate certain services and in which settlements it is most promising to invest (OECD, Forthcoming[50]). In remote rural areas, cost-benefit analysis of investments can use accurate information on the cost implications of delivering services in the present and the future (OECD/EC-JRC, 2021[51]) – based on reliable estimates of costs and access arising from demographic and geographic differences – as well as the financial situation of facilities and accessibility costs for users and workers, including transport costs (OECD, 2022[52]).

In the education field, the decline in the number of children, smaller school sizes, and multi-grade teaching make it difficult to maintain small schools that remain efficient or to provide specialised teaching or targeted support for pupils with special educational needs – leading to policy makers deciding to close and consolidate schools (OECD, 2021[45]). OECD analysis shows that, given the estimated decline in pupil numbers, it is possible to meet demand in 2035 while maintaining similar distances between schools, by reducing the number of primary and secondary schools by 8% and 20% in sparsely populated rural areas, by 5% and 13% in villages, by 3% and 5% in towns and suburbs, and by increasing them by 6% and 8% in cities (OECD/EC-JRC, 2021[51]). As a result, the closure of schools in remote rural areas increases the distance pupils have to travel to reach the new school allocated to them. Similarly, the impact of demographic change on healthcare provision varies geographically. OECD estimations show that while maternity and obstetric services will be further concentrated due to lower demand resulting from low fertility rates, cardiology services will increase and be provided more widely in different territories due to higher demand from ageing populations (OECD/EC-JRC, 2021[51]).

Subnational governments will also need new skills and infrastructures, as well as organisational and cultural changes, in order to implement adaptation policies, especially in remote rural areas (Moreno Monroy, A., 2022[53]). In addition, in co-operation with national governments, but also by strengthening inter-municipal co-operation, they will need to pool their resources and capacities and identify opportunities for shared investment in the delivery of public services.

3.7.2. Education: supporting remote schools through digital tools and community involvement

In remote rural areas, declining youth population is stronger. In this context, schools in remote rural areas are facing a decrease in the number of pupils, leading to a reduction in school size, class size and student-teacher ratios, or even the risk of closure (OECD, 2021[45]). While some of these consequences may offer opportunities, such as more personalised instruction and teaching time per student, many schools face the risk of isolation and undercapacity. In addition, fewer and smaller schools also imply longer access and travel times – estimations show that students in sparse rural areas travel on average four to five times further compared to students in cities (OECD/EC-JRC, 2021[51]) – as well as a more limited curriculum, with fewer subjects to choose in secondary school and fewer specialised teachers.

These educational challenges pose a risk to the academic and career prospects of rural students. Analysis using PISA results showed that in some OECD countries the reading scores among students in city schools were above 40 percentage points than their peers in schools located elsewhere – more than the equivalent of a year of schooling (OECD, 2021[45]). Principals and teachers often have to assume multiple roles, which can affect the smooth and effective functioning of schools. Principals, for example, face the need to handle direct teaching responsibilities, and teachers frequently must teach at different levels of education. In addition, the COVID-19 pandemic crisis and the adoption of distance learning highlighted the inequalities faced by rural education communities in accessing digital services.

Policies adapting to demographic change and new technologies are bringing several opportunities for schools in remote rural areas. Digital educational tools can provide more didactic and personalised learning experiences, including through multimedia content and game-based learning, as well as measure understanding and performance, provide immediate feedback and improve pupil motivation. Digitalisation can also make online courses and interactive learning platforms accessible from rural regions, thus expanding the educational offer to students. In Quebec, Canada, the project Networked Schools (*L'École en réseau*) allows students and teachers in small and remote schools to learn and collaborate via ICT tools such as videoconferencing, enabling the formation of learning communities and augmenting pedagogical approaches.

It is also essential to encourage schools in remote areas to participate actively in the restructuring of the school network, and to guarantee an adequate quality of teaching when multi-grade classes are introduced in order to increase the scale of rural schools. Remote rural areas also face the need to retain and attract teachers through financial or non-financial incentives, such as faster career progression or support measures to help them settle in a particular location. Exchange programmes between teachers in urban and rural areas can also be set up. The McCormick Rural Teacher Residency program – a partnership between rural McCormick County in South Carolina, United States, and the Center for Educator Recruitment, Retention, and Advancement (CERRA) – offers a stipend, loan forgiveness, and even low-rent housing for student teachers who teach in rural communities. In addition, remote rural schools, despite having fewer resources, both material and in terms of staff, often benefit from greater community involvement, such as parents' participation in extracurricular activities, volunteering (e.g. canteen staff, cleaners), and fundraising (OECD, 2021[45]). In Colombia, the "Learning Communities" initiative, implemented since 2014 in municipalities of Valle del Cauca and other Colombian rural departments, allows better integration of local communities – via committees made up of teachers, parents, and students – in educational decision-making (on school life, academic matters, including curriculum design and evaluation, cultural activities, school infrastructure and pedagogical tools). To enable remote schools to benefit from the advantages of their close-knit communities, policies need to ensure greater flexibility, for example in health and safety regulations.

3.7.3. Healthcare: overcoming obstacles in remote areas with innovative solutions

Demographic change results in higher shares of elderly population in rural areas on average, with shorter life spans and worse health outcomes, including higher incidence of chronic disease, hence requiring more complex healthcare needs (OECD, 2021[45]). Higher old-age dependency rates also exert further pressure on healthcare public services that are often more costly in rural areas. As in the education field (see above), remote rural areas face longer travel times to accessing healthcare facilities. At least 40% of people living in sparsely populated areas in Europe lives far from a medium-sized health service location (OECD/EC-JRC, 2021[51]). Moreover, remote rural areas also face higher challenges in recruiting and retaining professionals due to a combination of lower wages, concerns about prestige and professional prospects, as well as the often urban-centric medical education. Cost reduction policies in the aftermath of the 2008 financial crisis affected severely rural health provision. While hospital bed rates slightly increased in metropolitan regions since 2008, they decreased in all types of rural regions at an average rate of -0.7% per year (OECD, 2021[45]). This easily leads to rural hospitals being overwhelmed.

New technologies and digital tools are bringing several opportunities for healthcare provision in shrinking and ageing remote rural areas. In most of OECD countries, telemedicine platforms can enable people living in remote areas to receive medical consultations without having to travel long distances. Although these consultations can often be done from home, some of the telemedicine appointments in specialised medical fields are held at local primary care centres, as specialised clinics and services are often scarce in remote rural areas. This can help to alleviate disparities in the geographical distribution of health personnel, in particular specialists who can thus continue to provide medical care to rural patients. Moreover, the integration of new technologies, including Artificial Intelligence, into the healthcare sector is

also offering unprecedented opportunities for rural dwellers and healthcare workers (Bournisien de Valmont, 2024[54]). In the remote locations in Australia, where access to health professionals is scarce, innovative approached are being trialled to provide ear and hearing health care. This includes DrumBeat AI, a company which is piloting the use of images of patients' inner ears to help detecting diseases and hearing loss in First Nations children – who have some of the highest rates of middle ear disease in the world.

In addition, policy makers can make use of innovative solutions for health service delivery, including flexible solutions such as mobile clinics, shifting responsibilities between health professionals, or expanding the role of patients in primary care. In Canada, for example, registered nurses and nurse navigators have an important role in improving co-ordination and continuity of care in the *MyHealthTeam* model of primary health care (OECD, 2020[55]). The University of Kansas has conducted activities that demonstrated how patient-centred health care – giving voice to rural residents – can have a significant impact. Harnessing the power of networks to expand and co-ordinate rural care has also encouraged appropriate models of organising clinical networks for rural care, such as the hub-and-spoke model – the combination of a central "hub" hospital with a wide range of services and skills and small "spoke" hospitals with more limited services that provide basic care when necessary (OECD, 2021[45]). Australia has adopted this model for emergency care, with patients stabilised in smaller hospitals and transferred for more intensive care to larger central hospitals. In the Basque Country, Spain, public authorities have implemented a number of integrated care principles for care co-ordination and structural integration, including merging hospitals and primary care structures into integrated healthcare organisations.

3.7.4. Accessibility to services and mobility: enhancing transport solutions for remote rural areas

Mobility and transport infrastructures play a crucial role in facilitating access to work, services, leisure or even information. However, remote rural regions lack the critical mass needed to deploy cost-effective public transport networks and dependence on private cars is very high. Concentrating service provision in larger facilities in more densely populated places may raise efficiency but it also implies longer journeys for users to access all types of services (see above). Students in EU remote rural areas have to travel on average 5 additional kilometres to reach a school compared to students in other areas (EC et al., 2022[56]). In addition, the insufficient supply of public transport in shrinking places increases car dependency and makes transport a primary source of greenhouse gas (GHG) emissions in rural regions (OECD, 2021[49]) (OECD, 2023[57]). The latter are also more vulnerable to increases in fuel taxes to discourage car use, which can lead to greater social discontent and lower levels of trust in government.

In this context, it is vital to provide transport services in remote areas to enable people to access basic services such as schools and primary care, and to not leave behind vulnerable populations, particularly those with greater difficulties in accessing and using digital services or making longer journeys on their own. Moreover, fixed routes and timetables do not meet the mobility needs of people in rural regions. To meet these transport needs, spatial and land-use plans are incorporating demand-oriented public mobility through demand-responsive transport (DRT) services – door-to-door or predefined pick-up and drop-off points – in which services are provided only if there is demand and taking into account the specific needs of different social groups such as old-age people, young people or children. In the Netherlands, the SD Verbindt project on Schouwen-Duiveland is testing electric mobility solutions to reduce isolation among older adults while supporting climate goals and local employment. In addition, geospatial analysis can improve accessibility to key services while ensuring sustainability. It can help policy makers decide where to locate service infrastructures (e.g. hospitals, schools) and where to provide transport infrastructures to reach these services. In remote rural areas, policy makers can also rely on private transport companies to organise transport routes, including school transport. In Japan, for example, Niseko-cho (Hokkaido Prefecture) has integrated the routes of private buses, municipal welfare buses and school buses.

Multimodal and sustainable transport solutions offer remote regions better connectivity, while targeted policies improve accessibility and encourage the use of public transport for ageing populations. Multimodal transport infrastructure integrating different modes of transport and facilitating the switch between transport modes (e.g. unique ticketing systems, public transport vehicles with space for bikes or scooters) can be an opportunity for remote regions. In the sparsely populated municipality of Hedmark, in Norway, the DRT model uses regular taxis for regular departures from the municipality centre. It is possible to change to railway and express bus services for trips that cross the border of the municipality. The fares are regular and equal to ordinary public transport tickets. Policy makers in remote areas should also enhance sustainable transportation and focus on net zero engines and technological innovations in transportation that reduce emissions (e.g. deployment of electric vehicles and investment in charging infrastructure). In shrinking and ageing contexts, policies can also address accessibility challenges of old-age population in public transport (e.g. reduced mobility and safety concerns, lack of adequate seating, or insufficient signals) as well as provide incentives to increase their use (e.g. free at certain times). In Wales, since 2002, older people enjoy free travel by bus throughout the country. In Scotland, they enjoy free travel by bus after 9:30 a.m. on weekdays and all day on weekends.

3.7.5. Broadband connectivity: improving quality, access, and digital skills

Broadband connectivity is an essential infrastructure for stimulating economic and social development in rural areas, for providing opportunities for businesses, and for facilitating cost-efficient solutions in areas facing remoteness (e.g. teleworking, e-learning, e-health, e-governance). However, extending existing infrastructure networks to connect service facilities is more difficult in rural areas with a sparsely distributed population and, in some cases, difficult topographical conditions (OECD, 2021[49]). Newer technologies and upgrades for broadband provision (e.g. fibre optical cabling and 5G mobile technology) are less common in rural areas, where previous generation and slower technologies (e.g. digital subscriber lines) remain dominant (OECD, 2021[45]). Persistent rural-urban divide in digital infrastructure as seen in Chapter 2 makes it difficult for rural areas to fully benefit from the advantages of digitalisation, from knowledge and skills acquisition, access to e-services, remote working, or social interactions. At the same time, reduced access to high-speed internet in rural areas can undermine opportunities for innovation and business development and limit the attractiveness for skilled workers and entrepreneurs to move to rural areas.

To harness the benefits of digitalisation, rural policy must include innovative solutions and investments that leverage accessibility to communication infrastructures and facilitate the uptake of digital technologies, in particular in remote regions. These include regulatory changes that enhance the efficiency of the market, subsidy programmes for network development, bottom-up approaches, small-scale efforts at the local level, or public-private partnerships. In the United States, the Broadband Technology Opportunities Programme (BTOP) provided USD 10.8 million to the Dakota Carrier Network (DCN) for its fibre-building efforts in rural areas. The project constructed 272 km of new fibre, with backhaul speeds as fast as 1 Gbps to enable last-mile service.

Telemedicine also reduces travelling costs for both users and governments. Patients in the Ontario Telemedicine Network in Canada avoided travelling 270 million km in 2017 and the network saved more than CAD 70 million in travel grants (OECD, 2022[52]). In addition, it is essential to encourage collaboration between public authorities and operators to enhance effective and innovative policies ensuring cost-efficient, accessible, and quality service delivery.

Rural policy must enhance public-private partnerships and benefit from big data and mobile data – to better understand the demand for services, analyse user's behaviour and mobility patterns, and plan services to match user needs, for instance, through DRT services (see above). This increased collaboration can also include the monitoring of the rollout of broadband by operators or decisions on the choice of the location of high-voltage lines and masts. In the United States, a consortium of small, independent rural companies and co-operatives came together in 1996 to purchase the 68 rural exchanges of the incumbent telephone

company, US West (now named Century Link), and formed the Dakota Carrier Network (DCN), a state-wide umbrella organisation that covers 90% of the state's land area and 85% of its population. Federal support for their fibre-building efforts came from the Broadband Technology Opportunities Programme (BTOP), which provided USD 10.8 million for a project to construct 272 km of new fibre in the state, with backhaul speeds as fast as 1 Gbps to enable last-mile service (OECD, 2021[58]).

Policymaking in remote areas also needs to invest in building the digital skills of public professionals and citizens to ensure the continued delivery of essential services. Korea, for example, succeeded in rapidly training teachers who had difficulties with new technologies through a digital platform where teachers could train their colleagues on a voluntary basis.

3.7.6. Housing: boosting revitalisation and adaptive re-use in remote rural areas

Significant population decline in remote areas can reduce housing stock, leave vacant buildings, and increase housing maintenance costs, making it difficult for housing markets to function. The presence of abandoned or inadequately maintained housing diminishes the overall quality of built environments. All these challenges fall into a vicious circle in which oversupply and poor-quality living environments lead to falling house prices and thus to lower municipal tax revenues and to the exclusion of shrinking regions from real estate and renovation investments (OECD, Forthcoming[50]).

Housing policies and land use and spatial planning need to integrate demographic considerations, including population projections, and spatial development trajectories. Policy responses need to identify buildings for demolition and central areas for renovation, use land readjustment, and involve affected residents and landowners in decision-making. The promotion of participatory mechanisms that provide opportunities for dialogue between affected populations and local governments is paramount to building public support. Central governments can also support local authorities in remote rural areas by providing data and estimates on housing vacancies as well as by improving administrative capacity to manage demolition and renovation projects.

In remote rural areas, public policies can seize opportunities for adaptive re-use and rural revitalisation. In Portugal, the government has launched a rural regeneration programme that encourages individuals to renovate vacant homes in depopulated areas, offering grants and subsidies to young families and entrepreneurs wishing to relocate. A similar approach in Scotland offers financial incentives to convert abandoned properties into affordable housing while preserving historic architecture. In addition, isolated rural areas can benefit from the rise of teleworking – subject to the availability of quality broadband connectivity (see above) – by promoting affordable housing and quality rural lifestyles. This is the case, for example, in Ireland, which has launched initiatives that showcase rural areas as ideal destinations for remote working, with affordable housing, community support and a stunning natural environment.

3.8. Environmental policies for the future of rural areas

The environmental challenges facing rural areas require targeted policy responses that reflect the specific conditions of different territories (OECD, 2020[46]). Rural areas close to cities often experience pressures linked to urban expansion, pollution spillovers, increased land-use competition and limited financial access (see Box 3.20). At the same time, their proximity to urban markets and infrastructure creates opportunities for circular economy initiatives, renewable energy integration, and resource-sharing mechanisms with urban centres. In contrast, remote rural areas face distinct challenges, including limited connectivity, higher infrastructure costs, and difficulties in accessing investment for environmental improvements. However, they also possess significant natural resources that can support renewable energy projects, conservation efforts, and sustainable land management practices (OECD, 2020[59]).

Policy solutions must be tailored to these distinct contexts. For rural areas close to cities, strategies should focus on optimising land use, fostering rural-urban energy collaboration, and integrating circular economy principles into regional development plans (OECD, 2021[60]). For remote rural areas, priorities include enhancing access to renewable energy, strengthening land conservation frameworks, and improving climate resilience through adaptive land-use policies. A cross-cutting approach is necessary to ensure that all rural areas benefit from technological innovation, financial incentives, and governance mechanisms that enable effective environmental management. Environmental policies must also be integrated into broader economic and social frameworks to ensure sustainable rural development. Competitiveness in rural regions depends on access to affordable and sustainable energy, regulatory frameworks that support environmental innovation, and investment in infrastructure that enhances resilience. At the same time, demographic shifts, including ageing populations and outmigration, create additional pressures that require policies with a cross-cutting approach.

Box 3.17. Addressing the rural finance gap for the green transition

Access to finance remains a structural barrier to renewable energy development in rural areas, particularly in remote regions

Despite the availability of land and natural resources, rural actors often struggle to access the capital required to develop renewable energy projects. Barriers include the small scale of projects, high transaction costs, limited technical capacity to prepare bankable proposals, and higher perceived investment risks due to low population density and weaker infrastructure (OECD, 2012[61]), (OECD, 2015[62]). These constraints hinder both private sector involvement and community-led initiatives, reducing the capacity of rural territories to leverage their assets for the green transition.

Targeted policy action is needed to improve financing conditions for rural renewable energy. This includes the development of de-risking mechanisms such as guarantees and insurance schemes, simplified permitting procedures for small-scale projects, and technical assistance for project design and financial structuring. Supporting aggregation mechanisms—such as co-operatives or energy communities—can also help rural stakeholders reach sufficient scale to attract investment. These models have proven effective in some OECD countries in mobilising local capital, reducing costs through collective procurement, and strengthening local ownership (CEFIM, 2024[63]).

Strengthening the enabling environment is key to unlocking the renewable energy potential of rural regions. Policy efforts should focus on creating clear and stable regulatory frameworks, providing capacity-building programmes for local authorities and communities, and ensuring that rural actors can access national or EU-level financing instruments. Moreover, ensuring that the benefits of renewable energy projects—such as income from electricity generation or local reinvestment of revenues—remain in rural areas is important to increase public acceptance and long-term viability. Without adequate support, there is a risk that rural areas will remain underutilised in national decarbonisation efforts, despite their resource endowment and strategic relevance (OECD, 2015[62]), (CEFIM, 2024[63]).

Sustainable environmental management in rural areas necessitates integrated strategies tailored to diverse territorial contexts. Regions adjacent to FUAs grapple with challenges stemming from urban expansion and land-use competition, while remote rural areas confront issues related to resource accessibility, ecological conservation, and infrastructural deficiencies. Despite these distinct challenges, implementing cross-cutting strategies can bolster environmental resilience, enhance governance, and promote long-term sustainability. Addressing these issues requires a dual approach that differentiates solutions based on local conditions while ensuring policy coherence across rural territories.

A pivotal aspect of this approach is land-use planning, which significantly influences economic development, conservation efforts, and climate resilience. In regions near FUAs, land-use policies must balance the increasing demand for residential, commercial, and industrial development with the preservation of agricultural land, green spaces, and biodiversity corridors. Without effective land management, these areas risk experiencing uncontrolled urban sprawl, fragmentation of natural habitats, and diminished agricultural viability. Conversely, in remote areas, land-use challenges involve ensuring that large-scale activities—such as renewable energy projects, extractive industries, and extensive agricultural practices—do not lead to environmental degradation or unsustainable resource depletion. Strengthening spatial planning frameworks, integrating nature-based solutions, and adopting participatory land governance models are critical in both settings.

Empowering rural communities to actively participate in environmental management is another key pillar of cross-cutting policy. Local engagement in decision-making processes can enhance the effectiveness of conservation efforts, increase the adoption of climate adaptation measures, and promote community-led sustainability initiatives. However, the mechanisms for achieving this differ by region. In areas near FUAs, participatory planning can help integrate rural perspectives into broader regional environmental strategies, ensuring that rural interests are not overshadowed by urban priorities. In remote areas, decentralized governance structures and targeted capacity-building programs can enable communities to manage local environmental assets more effectively. Providing rural actors with financial resources, technical expertise, and digital tools for environmental monitoring is essential to support their role as stewards of natural landscapes.

Climate adaptation is another fundamental aspect that requires investment in infrastructure, risk mitigation strategies, and ecosystem-based approaches. Both close-to-FUA and remote regions face increasing risks from extreme weather events, soil degradation, and shifting agricultural conditions. In peri-urban areas, policies should prioritize the development of green infrastructure, flood mitigation systems, and low-carbon transport networks to reduce environmental pressures. Conversely, remote regions require strategies that enhance the resilience of rural livelihoods, such as climate-smart agricultural practices, improved water resource management, and financial instruments for disaster recovery. Strengthening climate adaptation policies will be crucial for ensuring that rural areas remain viable and resilient in the face of environmental change.

3.8.1. Indigenous peoples as climate vulnerable group and active source of climate solutions

Indigenous people across the world are disproportionately impacted by climate change for three key reasons: i) geographic vulnerability, ii) dependence on traditional lands and livelihoods, and iii) colonial legacies and socio-economic marginalisation.

Many Indigenous peoples living in rural areas are located in regions highly susceptible to climate change, such as remote arid lands, forests, and coastal areas (Standen et al., 2022[64]). Those living on traditional lands may therefore disproportionately experience devastating impacts of rising temperatures, extreme weather events, and rising sea levels. As ecosystems shift many Indigenous peoples are forced to adapt their ways of life, facing relocation, food insecurity and loss of livelihoods (Lam et al., 2019[65]).

Indigenous peoples in rural areas often have strong connections to traditional lands and livelihoods including activities such as fishing, farming, and cultural activities (Nuttall, 2007[66]). Impacts of climate change directly impacts these activities, threatening economic survival and eroding cultural identity and intergenerational knowledge transfer (Pearson, Jackson and McNamara, 2021[67]). For instance, for Indigenous Sami reindeer herders across Finland, Norway, Russia, and Sweden the more frequent and intense rain-on-snow events and freeze-thaw cycles caused by climate change make it difficult for reindeers to access food and impact these activities.

The historical and ongoing impacts of colonialism has created systemic inequalities, land dispossession, and marginalisation for many Indigenous peoples (Reid, Cormack and Paine, 2019[68]). This has resulted in higher poverty rates, weak political representation, and worse socio-economic outcomes than non-Indigenous peoples (Hajizadeh et al., 2018[69]). In the context of climate change, this impacts Indigenous peoples' ability to adapt to climate change and secure government support or funding for climate resilience. This can be exacerbated in rural areas where extreme weather events can disproportionately impact marginalised Indigenous peoples. For instance, across remote Indigenous housing in Australia, overcrowding exists in 32% of dwellings in remote areas, and 55% of dwellings in very remote areas, creating economic, social, and health problems especially with the onset of extreme heat or flooding caused by climate change (AIHW, 2023[70]).

Traditional knowledge for protecting ecosystems and advancement of the circular economy

Despite representing less than 5 per cent of the world's population, Indigenous peoples steward over 25 per cent of land and seas across the globe and protect over 80 per cent of global biodiversity (Conservation International, 2023[71]). Programmes and policies that enable Indigenous peoples to engage in environmental conservation on their land can therefore have significant practical benefits for addressing climate change. For instance, Indigenous land rights in Colombia over lands and forests has enabled GHG emissions to be 10-15% lower than had Indigenous stewardship not existed (Arango, 2017[72]). Initiatives such as Indigenous-led environmental ranger groups, mostly located in rural and remote areas have been successful in not only improving environmental indicators such as water quality and biodiversity, but also provides culturally appropriate employment opportunities for Indigenous peoples (First Nations Clean Energy Network, 2024[73]).

Circular economy strategies can help reduce emissions, accelerate clean energy, and enhance adaption. It is estimated that circular economy approaches could supply approximately 20% of total critical mineral demand (OECD, 2024[74]). The activities of the circular economy such as repurposing, reusing, and recycling reflect Indigenous approaches to environmental management that have existed for millennia. Indigenous engagement with the environment takes a whole of system approach that considers the interconnected impact of human activity, passing down knowledge of local ecosystems from one generation to another (Kumari et al., 2022[75]). This includes the sustainable use of environmental resources that allows for natural regeneration, only taking what is needed and ensuring materials are repurposed or returned to the earth (Beamer et al., 2023[76]). Involving Indigenous peoples in circular economy strategies can therefore provide more successful transitions to circular systems.

Table 3.8 Environmental pillar: examples of good practices across OECD countries

Dimension	Country, Region	Description
Resource Management & Conservation	**Japan, Yamanashi Prefecture**	Fruit tree farmers in Yamanashi produce biochar from pruned orchard branches and apply it to the soil, contributing to long-term carbon storage and soil health. Combined with compost use and no-till practices, this method supports biodiversity, reduces greenhouse gas emissions, and enhances the environmental resilience of rural farming systems (MAFF, 2024[77])
	Australia, Murray-Darling Basin	The Murray-Darling Basin Plan ensures a balanced allocation of water between agricultural, environmental, and urban needs, preventing overuse and supporting long-term sustainability. By implementing an evidence based water trading system and adaptive management strategies, the initiative provides resilience against droughts while maintaining agricultural productivity. The plan is an example of how government can regulate natural resources in rural regions to support both economic and ecological goals (Australian Government, 2024[78]).

Dimension	Country, Region	Description
	Finland, Lapland	In the Áldujohka Sámi Indigenous Community Conserved Area (ICCA), located in northern Lapland, Indigenous-led conservation integrates traditional Sámi reindeer herding with biodiversity restoration and monitoring. The site, co-managed by Sámi herders and the Snowchange Cooperative, supports cultural continuity while protecting endangered habitats and species, such as old-growth boreal forests and native trout streams. Although it covers only 70 hectares, Áldujohka demonstrates how community-based conservation can align traditional land use with ecological goals, despite the lack of formal land rights recognition (ICCA, 2025[79]).
	Canada, British Columbia	The Great Bear Rainforest agreement protects one of the world's largest temperate rainforests through a collaborative governance model that involves Indigenous communities, environmental groups, and the forestry industry. The initiative allows for limited, sustainable logging while ensuring that ecological integrity is maintained. This model highlights how rural regions can balance economic activities with large-scale conservation efforts (British Columbia Gov, 2024[80]).
	United States, Montana	A land restoration programme in the Northern Great Plains is rewilding degraded prairie landscapes, restoring native plant species, and reintroducing bison herds. These efforts help combat soil erosion, enhance carbon sequestration, and promote ecotourism as a sustainable economic alternative to traditional resource extraction industries. The initiative illustrates how rural areas can transition towards nature-based economies while restoring degraded ecosystems (NFWF, 2021[81]).
Climate Adaptation & Renewable Energy	**Japan, Okinawa Prefecture**	In line with Japan's Strategy for Sustainable Food Systems, a private company in Okinawa has installed a biogas plant that converts dairy cow excrement into clean electricity, liquid biomass fertiliser, and solid compost. The liquid fertiliser is distributed to nearby sugar cane and vegetable farms, supporting organic agriculture and improving nutrient cycling. This initiative contributes to decarbonisation and sustainable waste management in rural areas (MAFF, 2024[77])
	Germany, National Level	Germany's federal policy framework supports rural areas in advancing environmental objectives through improved access to funding, decentralised planning capacity, and the evaluation of federal programmes for their spatial impacts. The *Fourth Federal Report on Rural Development* and the *Equivalence Report* highlight a reduction in regional ecological disparities and promote legislation that accounts for the needs of structurally weaker rural areas. Instruments such as the GAK and GRW remain key tools, while reforms aim to reduce bureaucratic barriers and reinforce local capacity to manage the energy transition and environmental services (Federal Government of Germany, 2024[82])
	New Zealand, National (excluding metropolitan areas)	The Provincial Growth Fund (NZD 3 billion) was launched in 2018 to improve long-term economic, social and environmental outcomes in rural and regional New Zealand. It supported infrastructure, sectoral investment and capability-building, including projects contributing to climate resilience, biodiversity restoration and more sustainable use of land and water. By mid-2024, PGF had contributed to over 48,000 jobs, NZD 11.2 billion in additional expenditure, and NZD 4.8 billion in GDP. In regions like Northland and Gisborne, environmental benefits included reforestation, waterway restoration and increased resilience to natural disasters (Kānoa, 2023[83])
	Scotland, Orkney Islands	The Orkney Islands consistently produces more electricity from renewables than it consumes. To manage this surplus, Orkney has developed hydrogen production projects that convert excess renewable energy into hydrogen for storage and local use. These initiatives demonstrate how remote rural areas can contribute to the energy transition, generate skilled jobs in clean technologies, and explore new roles as net energy producers (Orkney, 2025[84]).
	Netherlands, Zeeland	The "Room for the River" programme is a large-scale initiative designed to reduce flood risks in rural and urban areas by restoring natural floodplains and wetlands. In addition to improving climate resilience, the project enhances biodiversity and creates recreational opportunities, showcasing how integrated environmental management can address multiple sustainability challenges at once (GEJ, 2024[85]).
	South Korea, Gangwon Province	Gangwon Province has implemented an advanced IoT-based forest monitoring system to prevent wildfires and illegal logging. By combining satellite data with artificial intelligence, this initiative improves real-time environmental monitoring and rapid-response capabilities. It highlights the role of digital innovation in enhancing environmental protection in rural regions (Lee et al., 2020[86]).
	Germany, Bavaria	Community-owned renewable energy co-operatives have enabled small municipalities in Bavaria to finance and operate wind and solar farms, also called "Bürgerenergiegenossenschaften". These co-operatives reinvest profits into local infrastructure, such as public transportation and energy-efficient housing. By ensuring that economic benefits remain within rural communities, this model supports local development while advancing the energy transition (WIP Renewable Energies, 2014[87]).

Dimension	Country, Region	Description
Circular Economy & Waste Management	**Belgium, Flanders**	Flanders, under the Flanders Circular programme, aims to reduce its material footprint by 30% by 2030. The Flanders Materials Programme has helped connect businesses to exchange residual flows and by-products, fostering new business models based on resource efficiency. These initiatives contribute to reducing raw material demand and landfill use, while supporting economic innovation through circular value chains (Circular Flanders, 2024[88]).
	Sweden, Västerbotten	Västerbotten's bioeconomy strategy focuses on converting forest biomass into high-value products such as biofuels, bioplastics, and sustainable chemicals. By integrating rural forestry industries into circular supply chains, the initiative reduces dependence on fossil fuels while generating employment in knowledge-intensive sectors (Jolly and Hansen, 2025[89]).
	Japan, Kamikatsu Town	Kamikatsu has become a global pioneer in rural zero-waste policies, requiring residents to separate waste into 45 different categories. This has resulted in an 80% recycling rate and significantly reduced landfill use. The initiative showcases how rural municipalities can achieve high environmental standards through strong local engagement and waste reduction policies (Zero Waste Center Kamikatsu, 2022[90]).
	France, Paris Region	A regional circular economy strategy connects businesses, public authorities, and citizens to scale up sustainable production and consumption practices. The initiative supports industrial symbiosis, green public procurement, and rural-urban collaboration on waste reduction, demonstrating how policy frameworks can drive systemic change (Choose Paris Region, 2024[91]) .
Community-Led Environmental Governance	**New Zealand, South Island**	Maori-led ecotourism projects in New Zealand integrate conservation with cultural heritage, creating sustainable employment while preserving traditional land management practices. These initiatives enhance biodiversity protection while strengthening the economic resilience of Indigenous rural communities (Fountain and Lück, 2024[92]).
	United States, Texas	Texas has implemented a community resilience programme that provides rural municipalities with technical assistance to develop climate adaptation plans. By supporting locally led solutions for flood risk management and extreme weather preparedness, the programme ensures that rural communities can effectively respond to climate-related challenges (GeorgeTownClimate, 2017[93]).
	Norway, Hedmark	In response to declining public transport services, rural communities in Hedmark have developed demand-responsive transport solutions tailored to low-population areas. This system ensures that vulnerable groups, such as elderly residents, have access to essential services while minimising transport emissions. It highlights how localised solutions can improve mobility in remote rural regions (Interreg-baltic, 2019[94]).

Table 3.9. Environmental pillar: policy recommendations

Recommendation	Description
Promote climate resilience	Investing in nature-based solutions and resilient infrastructure can help rural areas adapt to climate change. Policies should support reforestation, agroforestry, and wetland restoration projects that enhance biodiversity while mitigating extreme weather impacts. Rural areas close to cities should integrate green infrastructure into urban planning, while remote regions should prioritise ecosystem-based adaptation strategies to strengthen local resilience.
Support sustainable land management	Land-use policies must balance economic and environmental priorities. Policies should promote regenerative agriculture, soil conservation practices, and carbon sequestration incentives, such as payments for ecosystem services. In peri-urban areas, urban expansion must be managed to protect farmland and biodiversity corridors, while in remote areas, large-scale land use should align with conservation goals.
Enhance acess to green technologies	Supporting rural enterprises and farmers in adopting green technologies is essential for environmental sustainability. Governments should develop funding mechanisms, tax incentives, and training programs to facilitate the deployment of renewable energy systems, precision agriculture, and circular economy solutions. Off-grid and microgrid solutions should be prioritised in remote areas to improve energy resilience and reduce reliance on fossil fuels.
Inclusive engagement in renewable energy	Local participation in renewable energy initiatives can improve social acceptance and ensure long-term sustainability. Governments should promote community-led energy projects, such as co-operatives and benefit-sharing models, that allow rural populations to take ownership of local energy assets. Regulatory frameworks should support decentralised energy production and ensure equitable distribution of economic benefits.

Recommendation	Description
Develop circular economy strategies	Circular economy approaches can reduce waste and create new economic opportunities for rural areas. Policies should support industrial symbiosis, organic waste-to-energy initiatives, and sustainable material use. Rural regions close to cities should strengthen rural-urban linkages for waste valorisation, while remote areas can develop bio-based industries that utilise local biomass resources efficiently.
Strengthen biodiversity and ecosystem services	Rural areas provide essential ecosystem services such as carbon sequestration, water filtration, and habitat conservation. Policies should integrate biodiversity considerations into rural development plans, establish conservation easements, and create financial incentives for landowners to protect natural landscapes. Agroecological practices should be promoted to maintain soil health and pollinator populations.
Improve water resource management	Water scarcity and quality issues are major concerns in many rural areas. Policies should prioritise investments in efficient irrigation systems, watershed protection, and sustainable groundwater management. Rural areas close to urban centres should integrate water resource planning with metropolitan strategies, while remote regions should adopt decentralised water governance models that involve local communities in decision-making.
Foster sustainable mobility and low-carbon transport	Rural mobility strategies should address transportation emissions while ensuring accessibility. Governments should invest in public transport links between rural and urban areas, support car-sharing and on-demand transport services, and promote the use of electric and low-emission vehicles. Remote areas should explore alternative fuel options and digital connectivity solutions to reduce travel needs.
Ensure just transition for resource-dependent communities	Regions reliant on extractive industries must navigate economic transitions while safeguarding livelihoods. Policies should support workforce retraining, economic diversification, and community-driven development strategies. Funding mechanisms should prioritise the development of sustainable industries, such as renewable energy and eco-tourism, to provide stable employment in rural regions.
Enhance multi-Level governance for environmental management	Effective environmental policy requires co-ordination across local, regional, and national governments. Strengthening governance mechanisms can improve policy coherence and resource allocation. Rural areas close to cities should integrate environmental policies with metropolitan planning frameworks, while remote areas should be supported with targeted governance capacity-building initiatives.

Source: Author's elaboration

3.9. Policies for the environmental agenda: rural areas close to a FUA

Rural areas close to a FUA face unique environmental challenges and opportunities due to their geographic position at the interface of urban and rural systems. These regions experience significant land-use pressures as expanding urban centres drive demand for residential, commercial, and industrial development. The competition for land can strain agricultural production, biodiversity conservation, and ecosystem services, requiring careful planning to balance economic growth with environmental sustainability. Additionally, pollution spillovers from nearby urban areas, including air and water pollution, waste accumulation, and noise, can impact local ecosystems and quality of life.

However, proximity to urban centres also presents opportunities for rural areas to play a critical role in advancing sustainable environmental policies. These regions can facilitate circular economy initiatives by integrating resource recovery, waste management, and sustainable supply chains into urban systems. Additionally, their strategic location allows for renewable energy production that can serve both rural and urban markets, contributing to the decarbonisation of regional economies. Effective environmental policies for these areas must leverage rural-urban synergies, ensuring that economic development and sustainability goals are aligned.

Box 3.18. Rural Agenda for Climate Action (RACA)

Rural areas are crucial in advancing the global transition to net zero, home to 30% of the OECD population and covering 80% of its land (OECD, 2021[60]). Rural policies are influential in key activities for net zero, such as land use, renewable energy deployment, and circular economy strategies. The OECD Rural Agenda for Climate Action (RACA) focuses on these, highlighting sustainable mobility in rural areas. Challenges include high GHG emissions from transport while ensuring access to services and markets across large areas.

The RACA emphasises the need for rural policies to accelerate progress towards net zero emissions, envisioning a thriving rural landscape that seizes opportunities from the green transition. It recognises the unique strengths and challenges of each rural region, aiming to align rural policies with global climate objectives by showcasing achievements and identifying growth opportunities.

Endorsed by OECD countries in November 2021, the RACA calls for rural policies to actively contribute to net zero targets. It adopts a holistic approach to ensure rural regions benefit from opportunities linked to environmentally friendly economies. RACA highlights six policy areas as key levers for achieving rural development and net zero goals and promotes dialogue on integrating rural opportunities into broader climate strategies.

The six policy areas of the RACA are:

- **Indicators and Information**: Strengthen the evidence base by collecting and consolidating local data to assess climate-related opportunities and challenges in rural areas.
- **Capacity Building**: Empower rural areas to develop effective transition strategies, providing them with the necessary conditions, such as knowledge, governance, data, and funding, to build climate resilience.
- **Renewable Energy Deployment:** Utilise rural regions' advantages in renewable energy production, link local innovation ecosystems to new green initiatives like hydrogen production.
- **Ecosystem Services**: Support sustainable land management and enhance natural capital to create value from ecosystem restoration.
- **Circular and Bioeconomy**: Promote the transition to a circular and bioeconomy, improving resource efficiency and creating new markets for rural businesses.
- **Sustainable Mobility**: Decarbonise rural transport by advancing sustainable mobility options.

Many OECD countries are progressing in these areas, and RACA supports effective use of available funds to accelerate the transition. Recent examples include:

- EU Common Agricultural Policy (2023-27), allocating EUR 387 billion to support farmers and rural areas in tackling climate change.
- US Department of Agriculture (2022), allocating over USD 914 million for climate-smart agriculture and USD 564 million for clean energy activities.
- Australian Government (2023), funding AUD 100 million for the Port Bonython Hydrogen Hub, comprised of AUS 70 million from the Federal Government and AUD 30 million from the South Australian State Government to support creating regional jobs and the enhancement renewable energy capacity.

Sustainable mobility is a critical area for reducing GHG emissions in rural regions, where higher per capita CO2 emissions are due to extensive car use and limited public transport. Policy makers must

address the movement of people and goods in these regions, considering the impact on accessibility, community resilience, and sustainable development.

3.9.1. Circular models can help address rural challenges, while strengthening regional economies and natural ecosystems

The circular economy presents a significant opportunity for rural areas close to urban centres to reduce waste, optimise resource use, and create economic value through sustainable practices. These regions have the potential to integrate into urban circular economy strategies by acting as key suppliers of bio-based materials, recycling hubs, and participants in industrial symbiosis initiatives (OECD, 2020[95]).The proximity to urban markets facilitates the development of closed-loop systems, where organic and inorganic waste from cities can be repurposed into rural-based production cycles, creating added value while reducing environmental impact (Ellen MacArthur Foundation, 2019[96]).

A well-functioning circular economy in rural areas close to urban centres relies on three key principles:

- **Designing out waste and pollution**: Implementing policies that prevent resource depletion by promoting eco-design, extended product lifespans, and sustainable production models.
- **Keeping products and materials in use**: Developing strategies to foster reuse, repurposing, and remanufacturing, creating business opportunities in local economies.
- **Regenerating natural systems**: Supporting practices that improve soil health, water conservation, and biodiversity through circular agricultural models and sustainable land use.

The circular economy has strong economic potential. Estimates suggest that shifting from a linear “take-make-dispose” model to a circular system could generate up to USD 4.5 trillion in economic growth by 2030 (OECD, 2020[95]). Additionally, circular activities such as repair, remanufacturing, and recycling are more labour-intensive than traditional extraction and production sectors, offering job creation opportunities for rural communities. Thus, the circular economy presents a significant opportunity for rural areas close to urban centres to reduce waste, optimise resource use, and create economic value through sustainable practices. These regions have the potential to integrate into urban circular economy strategies by acting as key suppliers of bio-based materials, recycling hubs, and participants in industrial symbiosis initiatives (OECD, 2020[95]). The proximity to urban markets facilitates the development of closed-loop systems, where organic and inorganic waste from cities can be repurposed into rural-based production cycles, creating added value while reducing environmental impact (Ellen MacArthur Foundation, 2019[96]). A well-functioning circular economy in rural areas close to urban centres relies on three key principles:

- **Resource Efficiency:** Ensuring that materials are reused, recycled, and reintegrated into production systems to minimise waste and reduce environmental footprints.
- **Rural-urban Synergies**: Strengthening collaboration between urban industries and rural production networks to enhance material flows, particularly in bioeconomy sectors.
- **Economic Diversification**: Using circular economy principles to develop new rural business models, such as bio-based industries, waste-to-energy solutions, and sustainable food systems.

Bioeconomy, a crucial building block for both the rural environment and economy

The bioeconomy is a key driver of sustainable economic development in rural areas close to urban centres. It encompasses the production and use of biological resources—such as crops, forests, fisheries, and organic waste—to develop new materials, chemicals, energy, and food products (OECD, 2018[97]). These bio-based solutions reduce dependence on fossil fuels, enhance environmental sustainability, and generate new economic opportunities. Additionally, the bioeconomy supports ecosystem restoration and

biodiversity conservation by promoting sustainable land-use practices and reducing the environmental footprint of traditional industries.

The economic potential of the bioeconomy is significant. Estimates suggest that by 2030, the global bioeconomy could generate over USD 2 trillion annually and provide millions of new jobs in bio-based industries (OECD, 2009[98]). These benefits are particularly relevant for rural areas close to urban centres, where bio-based production can be integrated into existing supply chains and industrial ecosystems. Expanding bioeconomy initiatives can lead to more diversified rural economies, reducing reliance on traditional extractive industries and increasing resilience against market fluctuations.

Rural areas close to urban centres are well positioned to develop bioeconomy initiatives due to their access to raw materials, proximity to research and innovation hubs, and connections to urban markets. The availability of diverse biomass sources, combined with technological advancements in bio-refining and bioprocessing, enables these regions to integrate bio-based production into circular supply chains. By leveraging biomass resources efficiently, these regions can contribute to both rural and urban sustainability goals while fostering economic resilience. The bioeconomy is particularly relevant for sectors such as agriculture, forestry, and aquaculture, where value can be added by converting residues into bio-based materials, fuels, and high-value biochemicals. Urban food waste can also be redirected towards bioenergy production, creating an efficient rural-urban resource flow. Furthermore, biotechnological advancements are opening new opportunities for bio-based pharmaceuticals, biodegradable plastics, and sustainable construction materials, strengthening the economic potential of the bioeconomy. A strong bioeconomy relies on three core principles:

- **Sustainable resource use**: Ensuring that biological resources are managed efficiently and replenished for long-term environmental sustainability. This includes sustainable agricultural practices, reforestation efforts, and responsible fisheries management.
- **Innovation and technology integration**: Developing bio-based industries through research and collaboration between rural producers and urban technological centres. This involves scaling up industrial bio-refining, improving microbial processing techniques, and integrating digital tools to optimise resource efficiency.
- **Circularity in biomass utilisation**: Closing resource loops by using agricultural residues, food waste, and forestry by-products in industrial processes. This enhances waste valorisation and reduces reliance on non-renewable inputs, contributing to both economic efficiency and environmental resilience.

3.10. Policies for the environmental agenda: rural remote

Rural remote areas face unique environmental challenges due to their geographic isolation, lower population density, and limited access to infrastructure and services. These regions are often characterised by vast natural landscapes, extensive agricultural or forestry activities, and rich biodiversity. However, they also encounter difficulties in securing investment for environmental initiatives, developing resilient energy and water systems, and mitigating climate-related risks such as droughts, wildfires, and biodiversity loss.

Despite these challenges, remote rural areas also offer significant opportunities for sustainable environmental policies. Their large land areas make them well suited for renewable energy projects, carbon sequestration initiatives, and conservation programmes. In some contexts, they may also host infrastructure related to carbon capture, utilisation and storage (CCUS), particularly where geological and industrial conditions are favourable (see Box 3.19).

Additionally, these regions often serve as key providers of ecosystem services, such as clean water, air purification, and biodiversity protection, which benefit both rural and urban populations. Effective policy responses for rural remote areas must address both their environmental vulnerabilities and their potential

contributions to sustainability. Strategies should focus on enhancing resilience to climate change, ensuring access to clean energy and water, and promoting land stewardship practices that balance economic activities with environmental protection. Given the demographic trends in many remote rural areas—including ageing populations and outmigration—policies should also consider ways to create sustainable livelihoods and attract new residents or businesses.

3.10.1. Leveraging on the RE production capacity to push rural areas forward

Remote rural areas play a crucial role in the expansion of renewable energy (RE) due to their vast land availability and access to natural resources such as wind, solar, hydro, and bioenergy (OECD, 2021[60]). Chapter 2 highlighted how rural areas already host the majority of renewable energy infrastructure, yet they face structural challenges such as grid connectivity, seasonal variability, and financial constraints in developing new projects. The decentralised nature of energy production in remote areas requires tailored policy interventions to ensure that energy remains both accessible and cost-competitive.

Expanding renewable energy in rural remote areas requires a multi-dimensional approach. Strengthening decentralised energy solutions such as off-grid and microgrid systems can improve energy access while increasing resilience against power disruptions (IEA, 2024[99]). Investments in infrastructure, particularly in grid connectivity and energy storage, are crucial to address seasonal fluctuations and ensure a stable energy supply. Additionally, renewable energy projects offer an opportunity for economic diversification by fostering local innovation ecosystems and supporting new business models that extend beyond energy production (OECD, 2021[60]). The transition to renewables also demands a skilled workforce capable of operating and maintaining energy infrastructure. Implementing targeted training programmes can help rural workers acquire the necessary technical skills, opening new employment opportunities in the renewable energy sector. Furthermore, encouraging community engagement through energy co-operatives and local ownership models can ensure that economic benefits are retained within rural communities, fostering long-term sustainability (OECD, 2019[100]). Streamlining regulatory frameworks is also essential to facilitate small- and medium-scale renewable projects, reducing administrative burdens and accelerating project deployment (OECD, 2023[101]). By integrating these strategies, rural remote areas can position themselves as key players in the energy transition, contributing to national decarbonisation goals while securing local economic resilience (Vermeulen, 2022[102]).

Building local capacity through green jobs and technological innovation

The transition to renewable energy also presents significant opportunities for rural communities to strengthen their local economies. The expansion of the green energy sector is expected to generate up to 100 million green jobs across OECD countries (20% of total), with 30% of those jobs being based in rural areas (approximately 24 million in 2021). These jobs, primarily focused on renewable energy infrastructure, maintenance, and innovation, can help revitalize local economies while contributing to national decarbonisation goals. By attracting skilled workers through targeted training programs, rural areas can benefit from a new wave of employment opportunities that foster long-term resilience and promote technological advancements (OECD, 2024[103]), (OECD, 2023[104]).

Fostering community engagement and overcoming barriers to adoption on RE projects

As remote rural regions embrace renewable energy, community engagement becomes a crucial factor in ensuring long-term sustainability. By encouraging local ownership models and energy co-operatives, rural communities can retain the economic benefits of renewable energy while building stronger, more resilient economies (OECD, 2012[61]). These community-led initiatives not only provide energy security but also empower residents to shape their energy future.

However, there are barriers to the widespread adoption of green technologies in these areas. Remote regions often struggle with limited access to funding, insufficient infrastructure, and a lack of skilled workers. Overcoming these challenges requires a multi-faceted approach, including investments in digital and physical infrastructure, financial incentives, and targeted training programs to build local capacity. With proper support, these regions can effectively bridge the gaps in access to green technologies and contribute to the overall global energy transition (OECD, 2022[105]). The role of rural regions in achieving national and global sustainability targets cannot be underestimated. By strategically investing in renewable energy, fostering local innovation, and empowering communities, rural areas can position themselves not only as key players in the energy transition but also as economic hubs for green technologies and sustainable growth. Many OECD countries are employing place-based instruments to facilitate the shift to clean energy and modernise infrastructure in rural communities. Such strategies often entail targeted investments that consider local energy needs, community capacity, and long-term sustainability goals.

Maximising the development benefits of resource exploitation in rural areas

The extraction and use of natural resources remain foundational to the economies of many rural remote regions. Industries such as mining, forestry, and large-scale agriculture are key sources of employment and economic activity (OECD, 2023[27]). However, the extraction processes associated with these industries also generate significant environmental challenges. The scale and intensity of resource extraction in rural areas often result in deforestation, soil degradation, water contamination, and loss of biodiversity. Additionally, resource-based industries are major contributors to greenhouse gas (GHG) emissions and other pollutants, exacerbating environmental concerns (OECD, 2023[27]).

One of the core challenges faced by resource-rich rural regions is ensuring that the economic benefits of natural resource extraction do not come at the expense of long-term environmental sustainability. The high levels of land and water usage associated with industries like mining and forestry often disrupt local ecosystems and place immense pressure on biodiversity. These industries are also highly dependent on global commodity markets, which makes rural economies susceptible to market volatility. Such volatility often leads to boom-and-bust cycles (Papyrakis and Raveh, 2013[106]), where environmental degradation occurs during periods of resource booms, while downturns leave local communities with inadequate investment in environmental restoration. A sustainable approach to resource exploitation requires a balance between economic opportunity and environmental stewardship.

Table 3.10. Resource exploitation - Policy implications

Mining	Forestry	Water
Mining, a key industry in many resource-rich rural regions, contributes significantly to economic growth but also leads to substantial environmental degradation. The extraction of minerals and metals often results in soil degradation, water contamination, and destruction of ecosystems.	Forestry is another resource-intensive industry that is essential to many rural economies, particularly in regions with abundant forests. However, unsustainable logging practices can lead to deforestation, habitat destruction, and soil erosion. To balance forestry's economic benefits with environmental protection.	Water is a critical resource for both economic and environmental sustainability in rural regions. Mining, agriculture, and forestry all have significant water demands, and improper water management can lead to contamination and depletion of local water sources.

Some policy actions:

- **Promoting sustainable extraction practices**. Sustainable extraction practices focus on minimizing environmental damage. In mining, methods like underground mining reduce land disturbance, while in forestry, selective logging preserves forest health. These approaches help maintain the environment while allowing industries to continue operations**.**
- **Strengthening Environmental Governance:** Stronger environmental governance ensures industries follow sustainable practices. For example, Canada's mining regulations require land restoration post-extraction. Monitoring and enforcement prevent long-term environmental harm, ensuring industries adhere to regulations and protect ecosystems.

- **Enhancing Community-Led Conservation Efforts.** Local communities play a key role in conservation. Indigenous groups in the Amazon, for instance, use traditional practices to manage resources sustainably. Empowering communities fosters ownership and helps ensure conservation efforts are effective and culturally appropriate.
- **Integrating Circular Economy Principles** Circular economy principles encourage reuse and recycling. In forestry, wood waste is repurposed for energy or products. Mining tailings can be processed for additional minerals. This reduces reliance on virgin resources and creates new economic opportunities through material recovery.
- **Resource Efficiency:** Resource efficiency focuses on using resources wisely. In agriculture, precision farming reduces water and fertilizer use. In mining, improving recovery rates reduces the need for new extraction. Efficient resource use lowers environmental impact while maintaining economic benefits.

Box 3.19. Rural opportunities in the decarbonisation efforts

Carbon capture, utilisation and storage (CCUS) is increasingly recognised as a key component of national and regional decarbonisation strategies, especially in hard-to-abate sectors such as cement, steel, and chemicals. While still at an early stage of deployment in many countries, CCUS projects are expanding and may represent an emerging opportunity for rural regions, particularly those with suitable geological formations, legacy industrial infrastructure, or connections to energy networks.

Rural areas may be well positioned to host different components of the carbon value chain. Some territories offer favourable storage conditions, such as depleted oil and gas fields or deep saline aquifers. Others can accommodate transport infrastructure or low-carbon industrial hubs. For example, Scotland's Acorn Project, located in a rural coastal area, is re-purposing former North Sea gas infrastructure to store CO_2 emissions offshore. The project is part of the Scottish Cluster, which is expected to support up to 10,800 jobs during construction and generate £9 billion in economic output, including direct benefits for rural communities in Aberdeenshire and beyond (AGCC, 2025[107]).

However, CCUS deployment in rural areas requires careful policy design and territorial consideration. Projects must be aligned with local environmental priorities, including land use, biodiversity, and water resources. Transparent planning processes and early community engagement are essential to ensure public acceptance and mitigate risks related to social opposition or environmental trade-. As noted in recent studies, public perception of CCUS remains mixed, and trust in institutions plays a key role in shaping support in rural contexts offs (Kim and Ladenburg, 2024[108]) and (Stavrianakis, Nielsen and Morrison, 2024[109])

From a rural policy perspective, there is scope to explore CCUS as a place-based instrument—but only under the right conditions. Pilot initiatives in well-suited areas could be supported through targeted

investment, technical assistance, and knowledge sharing. Ensuring that rural communities receive tangible benefits (similar discussion to natural resource extraction, or renewable energy projects), such as employment, training, or revenue-sharing mechanisms, can increase the viability and legitimacy of CCUS projects. Long-term monitoring and adaptive governance will also be necessary to ensure that rural participation contributes to broader decarbonisation goals without undermining local sustainability.

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Notes

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[2] This process is described in Rodrik, D. (2008), “Industrial Policy: don’t ask why, ask how”, Middle East Development Journal, Demo Issue (2008) 1–29.

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[7] Source: https://www.oecd.org/en/topics/sub-issues/productivity-and-innovation-in-regions.html

[8] The manufacturing sector’s direct contribution to rural GVA increased in OECD rural regions from 18.5% to 21.1% from 2000 to 2019 and the sector also supports a significant proportion of upstream service sector jobs, including in metropolitan regions. Source: OECD (2023), The Future of Rural Manufacturing.

4 Enabling rural policies: key pillars for consideration

This chapter examines key factors that underpin effective rural policy implementation. These include promoting policy coherence and integrated action, working at functional scale through collaboration, strengthening the evidence on rural regions to inform decision-making, galvanising the rural voice through targeted action, and developing more effective rural communication strategies.

4.2. Introduction

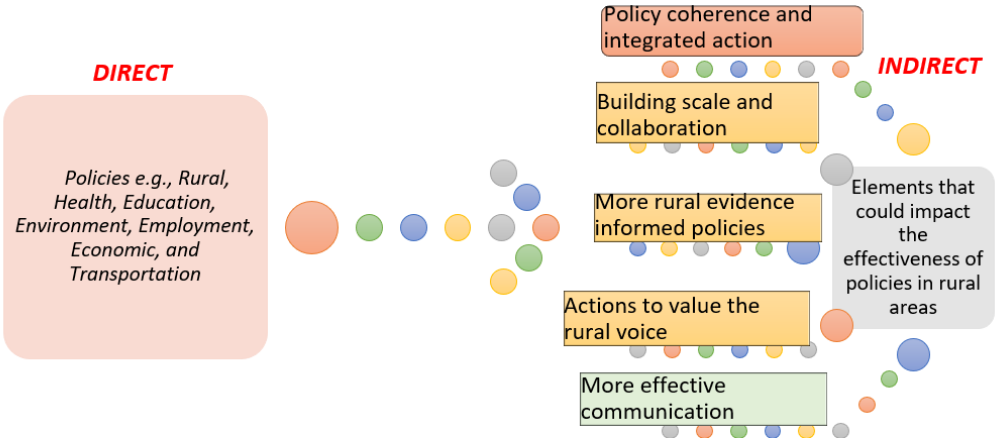
Rural areas are at a crossroads. Once seen as isolated, they are now emerging as hubs of innovation, driven by technological advances and evolving work patterns. But unlocking their full potential requires more than economic investment – it demands a new approach to governance and policymaking. The COVID-19 pandemic reinforced this reality. It demonstrated that remote work is viable in rural areas with the right infrastructure and that policy agility and local engagement are crucial for responding to shocks and seizing new opportunities (UN DESA, 2021[1]). Similarly, the OECD Working Party on Rural Policy has long emphasised the importance of understanding how sectoral and structural policies affect rural areas differently (OECD, 2006[2]). The *OECD Principles on Rural Policy* (2019) provide a strategic framework for navigating these complexities and fostering inclusive, sustainable rural development.

This report reinforces the need for more responsive, place-based rural policies that reflect shifting realities and emerging opportunities. Chapter 2 assesses trends across different indicators on wellbeing, analysing challenges and growth potential in rural places. It identifies three enabling factors to be strengthened to unlock rural opportunities, including entrepreneurship and innovation, skills, and digital connectivity. The STAR drivers of rural growth (tradeable sector specialisation, proximity to FUAs, natural resource endowments, and rural-specific assets) can be leveraged through integrated and effective policy approaches to improve rural wellbeing. Chapter 3 builds on this by examining important areas for policy action in rural places, including economic competitiveness, service delivery, and the green transition, and outlines specific actions across different types of rural places.

However, even the most carefully designed strategies will struggle to deliver results if policy implementation is weak or inconsistent. This chapter, therefore, shifts focus to the underlying conditions that, if left unaddressed, risk weakening the impact of rural policies (Figure 4.1):

1. Promoting policy coherence and integrated action
2. Working at functional scale and collaboration
3. Strengthening rural evidence to inform policies
4. Actions to galvanise the rural voice
5. Developing more effective rural communication strategies

Figure 4.1. Supporting more effective rural policies



Source: Author's elaboration

While these issues are not new, addressing them has become more urgent. The chapter opens by examining the growing expectations of rural citizens for coordinated, long-term solutions that extend beyond electoral cycles and bureaucratic divisions. It also explores the relationship between policy discontent and rural well-being. The first section makes the case for greater policy coherence and highlights the importance of an integrated, cross-government approach to rural policymaking. The second section focuses on the significance of working at scale, particularly in regions with low population density and limited agglomeration benefits. It underscores the need for collaboration across various levels – including rural-urban and public-private partnerships.

The third section emphasises the importance of gathering stronger rural evidence to inform strategies and guide policy development by identifying rural well-being indicators and gathering rural proofing intelligence. The fourth section highlights three key approaches to empowering rural communities: strengthening local capacity by enabling greater fiscal dexterity, supporting meaningful consultation processes, and promoting foresight activities at the local level to enable rural actors and citizens to co-design solutions on the issues that matter most to them. Finally, the chapter addresses the critical role of communication. It explores how governments can adapt their communication mechanisms to ensure that rural citizens are better informed, understood, and more effectively engaged in the policy process.

4.2.1. Why the focus on the potential barriers to effective implementation is urgently needed

Increasingly, rural communities are resisting policies that they perceive as unfair or imposed upon them. Similarly, rural residents are no longer willing to quietly endure access to poor infrastructure, inadequate public services (e.g. education and healthcare), fewer employment opportunities, and a general sense of insecurity (Pelling, 2022[3]) as well as systemic disinvestment that has contributed to rural decline (Cahill, 2024[4]). This is evidenced by the increase in social unrest and ballot box decisions in OECD Member countries.

The Rural Voter: *The Politics of Place and the Disuniting of America* (Shea and Jacobs, 2023[5]) examines the cultural, economic, and political factors contributing to this divide and its implications for American politics. The findings are based on a comprehensive survey, which included a sample of 14 000 U.S. residents, 10 000 of which live in rural areas. The work revealed the importance of place in animating modern rural politics. The authors note that rural voters are an important voting bloc that feels disenfranchised, left behind, and concerned about their way of life, which fuels their electoral decisions. Specifically, the authors note that perceptions matter (Jacobs and Shea, 2024[6]). In the *Politics of Resentment*, Katherine J. Cramer noted that rural voters are distrustful that politicians will respect the distinct values of their communities and allocate a fair share of resources (Cramer, 2016[7]). Both authors observe that the divisions between rural and urban communities are becoming more pronounced and a divide that are rooted in trust.

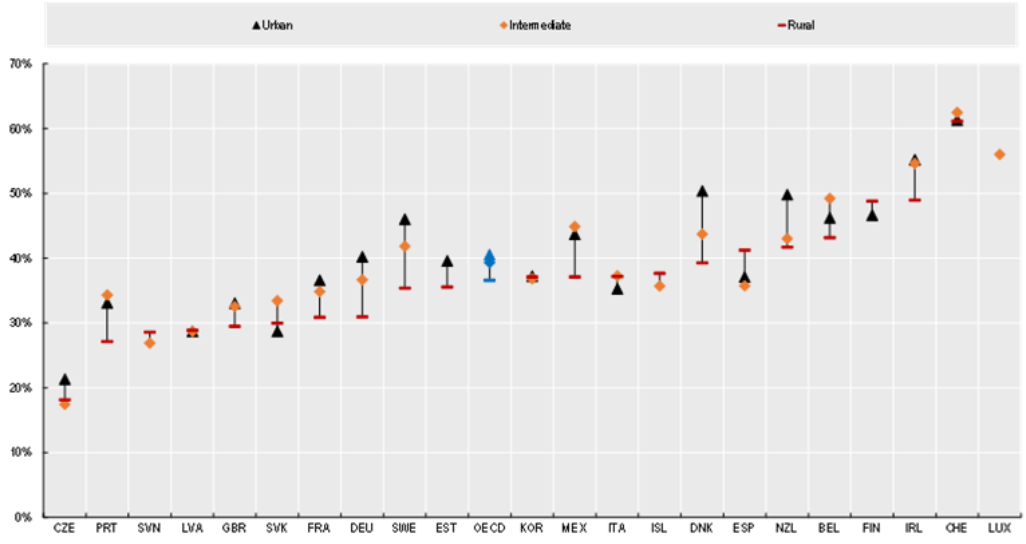
The recent farmers' crisis that broke out in several European countries (i.e. Belgium, France, Germany, the Netherlands, Spain) reflects this growing divide (Blenkinsop, Latona and Wlodarczak-semczuk, 2024[8]) (Ausloos and Trompiz, 2024[9]). The widening gap between prosperous and lagging regions has fuelled frustration with government policies, with rural discontent increasingly translating into populist movements. (Crulli, 2024[10]) argues that the rise of populist parties represents the political backlash of marginalised rural communities, which feel abandoned by policy makers following socio-economic transformations driven by globalisation, de-industrialisation, and post-industrialisation. For example, in Germany, some argue that the rise of the Alternative for Germany (AfD) party has been fuelled by economic disparities and feelings of being unheard (Stroud and McCabe, 2025[11]). Similarly, in the Netherlands, tensions led to the formation of the Farmers' Party in 2019, which became the largest party in regional elections by 2023, significantly influencing national policymaking (Taylor and Horton, 2024[12])).

These episodes serve as a reminder that policy, when detached from local realities, risks exacerbating rather than resolving discontent. These factors should also signal to national governments that they will not be able to conduct and effectively implement policies that impact rural constituencies if they do not understand and support them. When rural communities feel undervalued, underrepresented, and deprioritised in national policymaking, their frustrations can lead to what scholars call the *geography of discontent* (Rodríguez-Pose, 2017[13]). Social unrest in rural communities has increased across OECD countries, driven by economic disparities, policy disputes, and environmental concerns. These grievances stem from environmental regulations, widening inequality, and declining trust in national public institutions. The rise of inequality within countries is mainly occurring amongst small Territorial Level 3 (TL3) regions, and particularly between TL3 metropolitan and non-metropolitan regions, giving rise to an increasing rural urban divide (Bryce and Garcilazo, 2024[14]).

Perception of trust

The results from the trust survey reveal higher or moderate trust in the national government in predominantly urban regions than in intermediate and in rural areas (Figure 4.2). This is collected through analysing respondents' confidence in institutions, civil servants, and the judiciary. Across the 22 OECD countries where data is available, trust was highest in predominantly urban regions in 7 countries, while in both intermediate and rural regions, it was highest in 4 countries each. This not a surprising result, it is linked to citizens' proximity to institutions, their ability to engage with local authorities and more easily inform the decision-making process that the institution plays in providing services, infrastructure, economic opportunities etc (Foster and Frieden, 2017[15]). Studies show that across the European Union, although people assess local and national governments differently, local institutions are more trusted, largely because their actions to directly improve citizen's wellbeing are easier to see at this level (Arrighi et al., 2022[16]). Additionally, governance structures may also play a role, studies show that in in centralised systems, people report higher trust in the national government compared to decentralised ones, where people feel more directly represented at the local level (Fitzgerald and Wolak, 2014[17]).

Figure 4.2. High or moderate trust in the national government



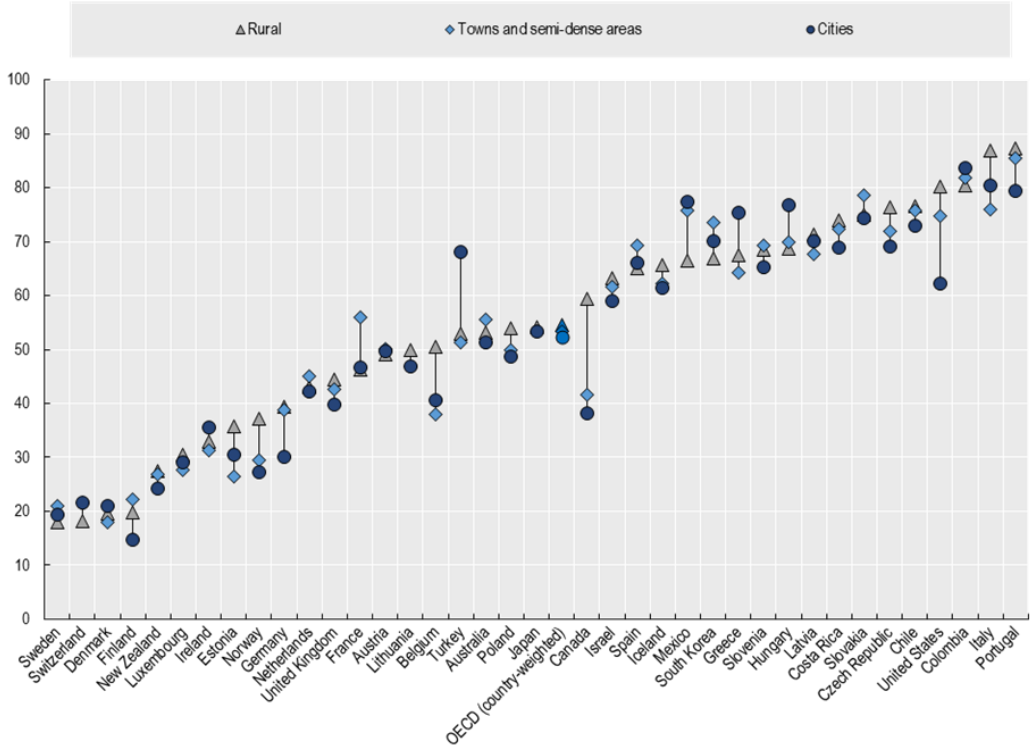
Note: The OECD average is not weighted by the number of respondents. The question asked is: "On a scale of 0 to 10, where 0 is not at all and 10 is completely, how much do you trust each of the following? The national, regional, local government" (0-4=Lower trust, 5=Neutral trust, 6-10=Higher trust)".
Source: Own calculations based on the 2023 OECD Trust Survey

Perceptions of corruption further compound rural discontent. Understanding how corruption is perceived – particularly in rural regions – adds nuance to the broader narrative of institutional mistrust. The corruption index is a measure of people's perception of the prevalence of corruption within the national government. It is not a measure of actual corruption. These results reveal that rural places perceived higher levels of corruption and urban areas the lowest. The analysis shows that in 20 countries the highest values of perceived corruption occurred in rural areas, followed by towns and semi-dense areas which were the highest in 10 countries and in 8 they were the highest in cities (Figure 4.3). This implies that the degree of rurality could be linked to perception of corruption in the government, the further away someone is from a city, the more they perceive corruption in their government.

Corruption could be due to a combination of factors including limited access to services and lower education rates, weaker legal and institutional frameworks, and a lack of economic opportunities. Implicit in this is how people perceive benefit, so arguably if the impact of a national policy seems imbalanced at the local level, that could also be perceived as corruption e.g. national government favouring urban dwellers or rich over poor. Studies suggest that people with limited access to services and economic opportunities view the government as ineffective and unconcerned with their wellbeing, with selective attention to corruption-related information being higher among rural areas that are socio-economically disadvantaged, especially when comparing themselves to urban areas where political power is concentrated (Maeda and Ziegfeld, 2015[18]); (McKay, Jennings and Stoker, 2023[19]).

Figure 4.3. Perception of corruption, 2022

Corruption Index, as an index score from 0-100



Note: The Corruption Index measures perceptions in a community about the level of corruption in business and government. Higher scores on the Corruption Index indicate more residents perceive corruption as widespread. Index scores are calculated at the individual record level. The average figures inside countries are weighted by design weights calibrated to age, gender and education or socio-economic status at national level

Source: Own calculations based on Gallup data and interim result from the project *Regional development along the settlement network*

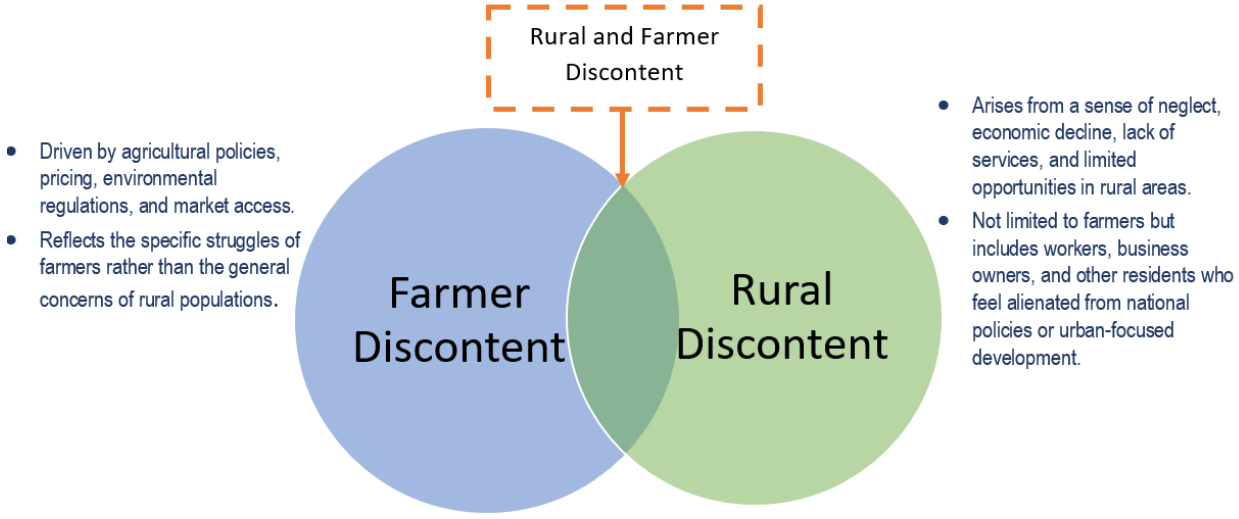
Rural discontent and farmer discontent

Farmer discontent and broader rural discontent are overlapping but distinct phenomena (Figure 4.4). It is important to distinguish between the two and understand their difference to craft the best policy response. Rural discontent could stem amongst others from economic decline, suboptimal access to services, and limited economic opportunities, affecting a diverse range of rural residents, small business owners and rural workers. In parts of the United States, for instance, hospital closures have exacerbated frustration among non-farming rural populations.

Farmer discontent, by contrast, is rooted in agricultural policy, pricing mechanisms, and market access. In several European countries including in France, Poland, Belgium, and the Netherlands, farmers have staged large-scale protests environmental regulations, such as pesticide bans and nitrogen emission limits. These policies, while designed to address environmental concerns, negatively impact farmer yields, fuelling resentment.

If governments are to address discontent--rural or farmer--effectively, they must go beyond economic indicators and consider the broader determinants of well-being. Policies should be tailored to local conditions, ensuring they do not inadvertently deepen inequalities. Developing robust, place-based well-being measures is not just an academic exercise but a policy necessity. Without such insights, interventions risk being too generic to address the realities of those most affected.

Figure 4.4. Rural and Farmer Discontent



Source: Author's elaboration

4.3. Strengthen policy coherence and integrated cross government actions

Effective rural policy requires both policy coherence and integrated cross-government action, two interrelated but distinct governance challenges. *Policy coherence* ensures that different policies reinforce rather than contradict one another by aligning goals, reducing inefficiencies, and preventing unintended conflicts across sectors. *Integrated cross-government action* moves beyond alignment to focus on the practical co-ordination of policy implementation across ministries, agencies, and levels of government. In rural contexts, both are essential. Without coherence, policies risk undermining each other – investments in broadband expansion, for example, may be ineffective if not accompanied by policies on digital literacy

and economic support for businesses to use the technology. Without integration, even well-aligned policies may fail due to fragmented decision-making and a lack of co-ordination in service delivery.

4.3.1. Policy coherence: a necessity for rural policy

Policy coherence refers to the systematic alignment of government policies to ensure that different sectors work toward shared objectives rather than competing priorities. In rural policymaking, this means ensuring that policies on agriculture, transport, business development, and social services are mutually reinforcing. Incoherence occurs when policies work at cross-purposes (OECD, 2005[20]). For instance: A government promoting rural economic development may simultaneously impose restrictive land-use policies that limit agricultural expansion, creating unintended barriers for farmers and businesses. An ambitious broadband expansion policy may overlook digital literacy, making it difficult for rural businesses and communities to fully leverage connectivity. Policies encouraging decentralised energy production must be co-ordinated with grid infrastructure investment to ensure feasibility. A coherent approach ensures that rural policies complement rather than obstruct one another.

Table 4.1 highlights several policies related to land use, infrastructure, resource management, and public services. Each of the areas in the table are typically managed by different levels of government and departments. In peri-urban areas, land conversion from rural to urban uses is often regulated through formal land-use plans. However, land-use policies are most effective when integrated with other policy areas, such as transport infrastructure and labour market integration. For instance, pressure for land-use changes may stem from decisions to improve transport links, expand sewer and water capacity, or facilitate better rural-urban connectivity. Policy coherence ensures that these domains work together rather than at cross-purposes.

Table 4.1. Policy complementarities for different types of rural regions

Type of rural region	Land use	Infrastructure/ accessibility	Resource use	Public services
Close to a city	Manage land conversion to limit urban sprawl.	Control expansion of sewer and water systems to slow land conversion. Plan road and public transit to manage development.	Maintain environmental quality and restrict activity that is not sustainable. Work to valorise rural amenities used by urban residents.	Provide local high quality services that are integrated into adjacent urban capacity.
Remote	Restrict land use practices that create environmental externalities. Preserve high-value land that provides natural or cultural benefits.	Improve connectivity to urban regions through broadband, roads and rail	Maintain environmental quality and restrict activity that is not sustainable. Work to valorise rural amenities used by urban residents.	Develop innovative ways to deliver high-quality public services in health, education, business support and workforce training. Local countercyclical revenue stabilisation plan/support

Source: OECD (2020), *Rural Well-being: Geography of Opportunities*, OECD Rural Studies, OECD Publishing, Paris, https://doi.org/10.1787/d25cef80-en.

Challenges to achieving policy coherence

Despite its importance, policy coherence is difficult to achieve due to the complexity of governance structures and competing political and institutional priorities. One of the most significant challenges is the existence of sectoral silos, where ministries and agencies develop policies independently, with limited co-ordination. This often results in conflicting priorities, inefficiencies, and policies that fail to account for cross-sectoral dependencies. Another challenge stems from the different time horizons and objectives of

government actors. Infrastructure projects, for instance, require long-term investments, while political cycles and budget constraints often push policy makers to prioritise short-term gains. This can result in inconsistent policy approaches, where rural development strategies shift with changes in political leadership, disrupting continuity and long-term planning. Furthermore, weak institutional mechanisms for interdepartmental collaboration exacerbate incoherence. Without structured co-ordination mechanisms, different departments may implement policies that contradict one another, leading to inefficiencies and missed opportunities for synergy.

To overcome these challenges, several countries have institutionalised mechanisms that promote coherence in rural policymaking. Finland, for example, has adopted a National Rural Programme, overseen by a Rural Policy Council that brings together stakeholders from various sectors to ensure alignment across policy areas. Policy coherence in rural policy aligns with the concept of mainstreaming, a strategy embraced by the British government (OECD, 2011[21]). Mainstreaming ensures that rural considerations are integrated into the decision-making processes of all ministries, rather than being treated as a niche concern. This approach aims to provide consistent policy treatment across different regions. The UK government has reaffirmed its commitment to mainstreaming rural policy through initiatives like Unleashing Rural Opportunity, which integrates rural concerns into broader policy agendas to improve rural quality of life. Additionally, the Delivering Rural Opportunity report outlines key funding, policy, and delivery commitments, highlighting efforts to embed rural considerations within the general policy framework. However, OECD analysis indicates that effective mainstreaming requires significant co-ordination capacity and oversight beyond what is typically visible in government (Box 4.1).

Box 4.1. Mainstreaming rural policies

Mainstreaming rural is complex; it requires wide co-ordination capacity and oversight. Through mainstreaming the government is pursuing a multi-faceted agenda with multi-stakeholder objectives. Numerous departments at the national level have important roles to play in improving the responsiveness of policies. Mainstreaming rural makes it more, rather than less, dependent on existing common understandings about rurality, at the national and subnational level, and on an interconnected framework at the national level beyond what is now visible. This is largely because mainstreaming is simple in theory, but more complex in relation to rural. Placing the responsibility on all departments to mainstream rural is conceptually elegant. But ensuring that the needs of rural areas are understood and considered as part of day-to-day policymaking can be a challenge when the department that has the responsibility for rural development does not control or dictate the work of these departments or organisations.

Source: (OECD, 2011[21])

Similarly, Germany's Federal Government's Fourth Report on Rural Development and the Equivalence Report underscore the importance of ensuring that all ministries adopt a common approach to strengthen rural areas, calling for reduced regulatory burdens and sustained support for local authorities. This co-ordination helps address spatial disparities and maintains viable rural communities (Box 4.2).

Box 4.2. Germany's fourth report on rural development and the equivalence report

In Germany, the Federal Government published its Fourth Report on Rural Development, which presents the situation of rural areas and describes co-ordinated federal policy measures. This includes an overview of how different ministries collaborate on place-based initiatives and funding. Another key

milestone, the recent Equivalence Report “For strong and liveable regions in Germany”, underlines that economic, social, and environmental disparities among the country’s regions have narrowed in many respects. Still, ensuring that municipalities receive adequate resources and have sufficient legal autonomy remains central to maintaining liveable, productive rural places.

Both reports emphasise how streamlining administrative procedures can create better scope for local action. Greater trust in local self-government, along with clear funding formulas that consider spatial realities, support rural communities in providing essential services and generating sustainable local growth.

Source: (BMEL, 2024[22]), (BMWK, 2024[23])

4.3.2. Integrated cross government action

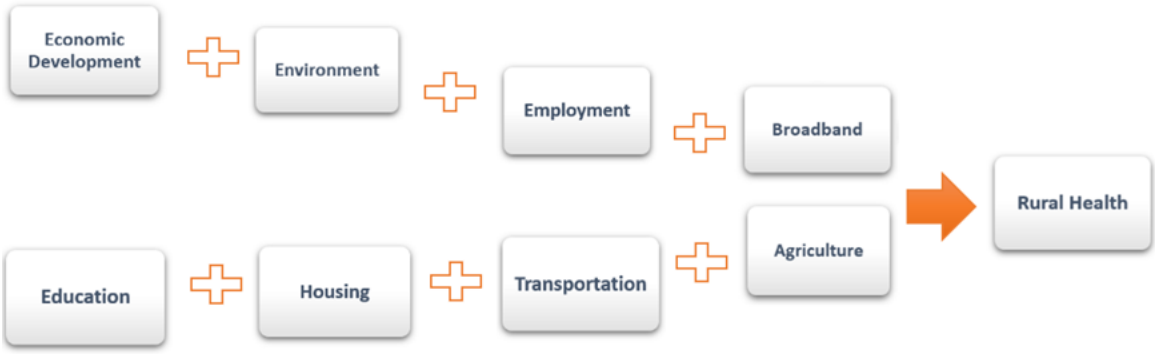
While policy coherence ensures alignment of goals, integration focuses on how policies are implemented across different agencies, ministries, and levels of governance. Integration entails a whole-of-government approach where public institutions work collaboratively to design and execute policies that reflect the interconnected nature of rural development. Without integration, even the most well-aligned policies may fail due to fragmented decision-making, duplication of efforts, and inefficiencies in service delivery. Rural areas often require multi-sectoral solutions due to their unique geographic and demographic characteristics. Infrastructure development, for example, must be planned in co-ordination with economic policies to support job creation, while education policies should be linked to local workforce needs. An integrated approach ensures that these policy areas work in tandem rather than in isolation.

Why is cross agency integration especially relevant for rural policy

An integrated approach is needed because rural policy spans multiple sectors

An effective integrated approach requires more than the mere articulation of common goals. It demands that government departments and agencies actively co-ordinate their actions to achieve these objectives. No single agency controls all aspects of rural policy. Transport, housing, healthcare, education, business support, and environmental policies must be co-ordinated across departments to avoid duplication and inefficiencies. For example, rural healthcare services depend not only on investments in hospitals and clinics but also on adequate transport infrastructure to ensure access, particularly for those in remote areas (see Figure 4.5). Effective rural healthcare therefore requires collaboration across government agencies, community organisations, businesses, and academic institutions to deliver holistic solutions (Aslam, 2023[24]). Similarly, economic development strategies must be aligned with housing, education, and business support policies to create an environment conducive to long-term growth.

Figure 4.5. Improving rural health systems through integrated action



Source: Author's elaboration.

This means re-visiting government spending typically allocated according to departmental mandates to build in flexibility to support initiatives that span multiple policy areas. This would allow rural communities to benefit more from public investment. This also ensures that investments in one sector often catch opportunities to reinforce progress in others, leading to improved efficiencies and less gaps. For instance, the Netherlands complements national rural strategies with place-based agreements such as Regio Deals and community-led initiatives like *Dorpendeals.* These initiatives support local ownership of development, social cohesion, and service delivery, particularly in rural and peripheral areas. A recent national programme also addresses wellbeing disparities through improved policy and funding co-ordination (RLI, 2023[25]).

An integrated cross agency approach is needed to foster rural economic growth

Rural economies rely on integrated approaches that align infrastructure investment with job creation, skills training, and business support. For example, rural manufacturing and agrifood industries require co-ordinated policies on workforce development, transport, and digital connectivity to thrive. Rural economies face unique structural challenges, including higher relative fixed costs, lower returns on investment, and constraints related to geography and scale. These factors influence decision-making in both the public and private sectors, often leading to underinvestment in rural areas in critical areas such as housing, infrastructure, and economic diversification. Economic shocks – caused by the departure of major employers, downturns in nearby cities, or shifts in global trade patterns – can disproportionately affect rural communities. Those grappling with population decline, shifting labour markets, and inadequate connectivity require co-ordinated, multi-sectoral investments to sustain long-term growth.

A cross-government approach implement strategies offers the flexibility to respond to such disruptions while keeping long-term strategic objectives in focus. Governments across the OECD are increasingly recognising the need for a more balanced territorial development that can one the one hand support rural areas that are stagnant and on the other maintain prosperity in more dynamic regions.

- **The Netherlands** has emphasised the integration of social, ecological, and economic factors in rural policymaking to promote balanced territorial development (Belterman and Meulen, 2024[26]).
- **Japan** combines investment in digital infrastructure with land use planning and sustainable food systems to address the specific needs of remote rural areas (MAFF, 2023[27]).
- **Latvia** has implemented territorial reform and introduced Functional Urban Area (FUA) planning tools, while promoting participatory budgeting, citizen councils and Smart Villages to enhance policy co-ordination at the local level (HLPF, 2022[28]).

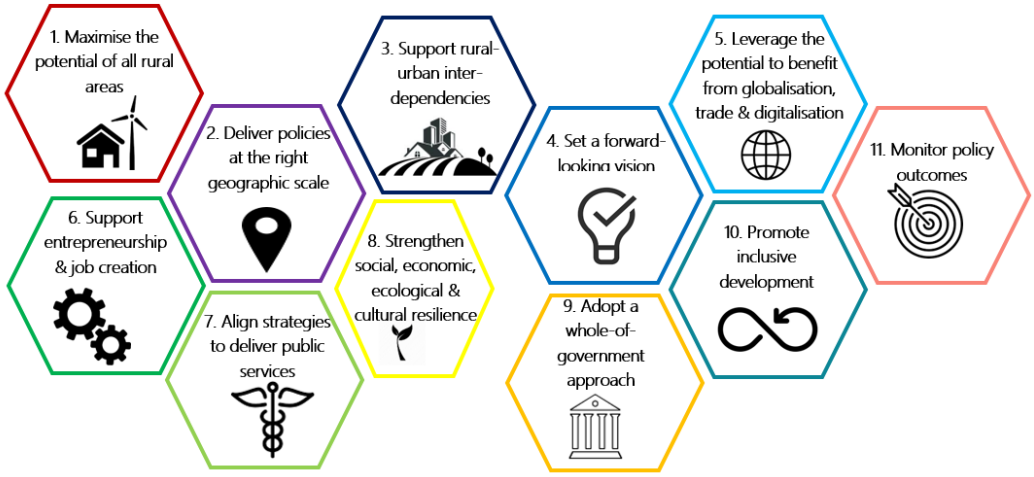
- **New Zealand** launched the NZD 3 billion Provincial Growth Fund to support regional infrastructure, Māori economic participation, and climate resilience. The fund has led to significant job creation and GDP growth through co-financing and targeted support to underperforming regions (Kānoa, 2024[29]).

Without an integrated approach, rural populations will continue to contend with inconsistent and often contradictory policies that affect their economic and social well-being. An integrated approach ensures that policy actions reinforce one another, fostering synergies across sectors rather than working at cross-purposes.

An integrated cross agency effort is needed to Implement the OECD Principles of Rural Policy

The OECD Principles of Rural Policy provide a strategic framework aimed at improving rural policymaking among member countries Figure 4.6. These principles emphasize the importance of integration across sectors, governance levels, and rural-urban connections. This approach ensures that rural areas can fully leverage emerging opportunities, such as new technologies and changing societal preferences, to enhance their competitiveness and inclusiveness. A core tenet of these principles is the need for co-ordinated action, blending bottom-up initiatives with top-down policy alignment. This entails fostering local innovation while ensuring coherence with national and regional strategies. As part of the OECD Rural Principles Dialogues series, country representatives have shared examples of initiatives that put these principles into practice. One such example is Canada's seven Regional Development Agencies, which collaborate with other federal departments to implement place-based solutions that advance both national and regional objectives. This co-ordinated approach helps bridge policy gaps and maximise the impact of public investment in rural areas. Other examples, detailed in Table 4.2, further showcase the importance of integrated governance, cross-sector collaboration, and regional connectivity in advancing rural development.

Figure 4.6. OECD Principles of Rural Policy



Note: The OECD Principles of Rural Policy was adopted by the Regional Development Policy Committee on March 1, 2019.
Source: (OECD, 2019[30])

Table 4.2. Selected example of actions on the OECD Principles of Rural Policy

Principles	Examples of action
Maximising the Potential of Rural Areas (Principle 1)	Chile: The country has developed its first national rural development policy, promoting collaboration between different ministries at both national and regional levels. This represents an important step toward decentralization, ensuring that rural policies align with long-term development goals. Türkiye: The Southeastern Anatolia Project (GAP), launched in 1989, is an integrated regional development plan covering nine provinces. It aims to improve living standards by utilizing local resources, reducing disparities with other regions, and enhancing employment opportunities.
Strengthening Rural-Urban Linkages (Principle 3)	Colombia: Following the Rural Reform Peace Agreement (2016), Colombia introduced 60 Policy Plans to promote rural development in areas such as education, agriculture, and infrastructure. These plans specifically emphasize stronger rural-urban linkages, ensuring that rural areas benefit from national development strategies.
Principle 4 Set a forward looking vision for rural policies	Lithuania: The country's long-term strategic planning incorporates spatial considerations, emphasizing local production, regeneration, and access to public services. This ensures that rural policies contribute to national development goals while addressing specific regional needs.
Principle 6. Supporting entrepreneurship to foster job creation in rural areas:	Hungary: Hungary's Rural Development Programme and EU funding schemes provide financial and advisory support to rural entrepreneurs. While these programs help integrate rural SMEs into larger supply chains, scaling businesses remains a challenge due to knowledge and capacity constraints. To address this, the EU LEADER program supports skill-building and facilitates co-operation between rural and urban areas, as well as cross-border collaborations. Israel: The Margalit Startup City in Kiryat Shmona demonstrates how public-private partnerships can drive rural innovation. By bringing together startups, academia, and global corporations, this initiative fosters breakthrough solutions in food and agtech. Built on a bottom-up, triple helix model, it integrates government, industry, and research institutions to stimulate long-term rural development.

Source: Author's elaboration

An integrated cross agency approach is needed to help shrink the gap in inequality

A long-standing policy concern is how to guide rural economies toward a more productive and prosperous future without allowing them to fall further behind as urban areas grow (UN DESA, 2021[1]). The 2023 OECD Regional Outlook presents compelling evidence of deepening inequalities within OECD countries, particularly between metropolitan and non-metropolitan regions. While globalisation has facilitated economic convergence between countries, stark regional income disparities continue to exist within them (OECD, 2023[31]). Over the past two decades, the gap in income per capita between the wealthiest 20% of regions and the poorest 20% has remained stark. In countries such as France, the United Kingdom, the United States, Italy, and several Eastern European nations, the wealthiest regions earn more than twice as much per capita as the least affluent ones.

Beyond economic disparities, widening inequalities risk eroding public trust and fuelling social unrest, particularly in rural areas that feel overlooked by national policies. Canada's Indigenous people play a crucial role in climate change mitigation drawing on extensive ecological knowledge. They also suffer disproportionately from climate change related issues such as food insecurity. More broadly, when rural populations perceive that decision-makers prioritise urban interests, political tensions can emerge. Even well-intentioned policies can inadvertently deepen rural grievances if they fail to account for local economic and social realities. A case in point is the Netherlands' nitrogen emissions policy. Following a ruling by the country's highest administrative court, the government concluded that its nitrogen permit system was failing to prevent environmental damage (Tullis, 2023[32]). As a result, the government proposed buying out and shutting down thousands of livestock farms to meet environmental targets and his decision provoked intense backlash.

4.3.3. Enabling policy Integration

Collaboration is not an end but a means to achieving better public policy outcomes (Institute for Government, 2020[33]). In 2020, the Institute for Government organised a roundtable with civil service leaders and conducted a survey to identify the primary barriers to interdepartmental collaboration. Five key challenges emerged consistently:

- weak organisational structures that fail to sustain co-operation,
- competition for resources among departments,
- limited data-sharing mechanisms,
- an absence of shared objectives, and
- difficulties in securing commitment from key actors.

Addressing these issues requires proactive institutional changes, stronger incentives for co-operation, and well-defined accountability frameworks (Institute for Government, 2020[33]) Overcoming barriers to integration in the context of rural policy requires more than just institutional reforms – it requires a fundamental shift in mindset, accompanied by deliberate actions and supported by robust data.

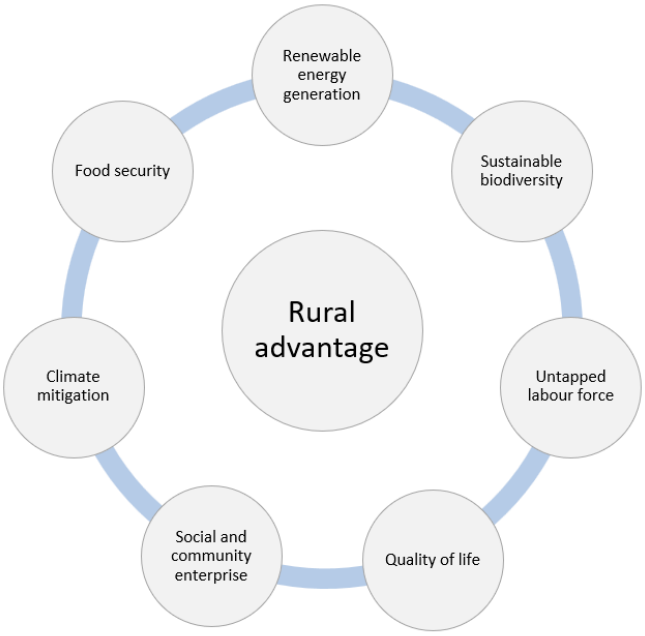
Reframe the narrative on rural areas to focus on the advantages

Many argue that policy integration challenges exist across all areas of government, so why should rural policy be any different? While this is true, the Institute for Government's survey of civil servants offers valuable insights into why rural policy faces distinct obstacles. The survey found that one of the key barriers to cross-government action is a lack of understanding among civil servants about how and why collaboration improves outcomes. Compounding this is a negative perception of rural areas—as economically and socially disadvantaged, in contrast to dynamic urban centres (Ashwood and MacTavish, 2016[34]). Together, these assumptions create a "double bind", meaning a situation in which rural policy struggles not only with more co-ordinated implementation issues but also with biases that hinder collective action.

For this reason, experts consistently argue that a shift in the rural narrative is urgently needed. One that highlights its strengths and contributions rather than portraying it as dependent on urban areas for support (Atterton, 2022[35]) (Shortall and Alston, 2016[36]). In a 2020 study Jones *et al*, analysed the impact the EU approach to territorial cohesion has on *lagging* regions and the ability to *catch up* with more prosperous regions. They found that "limited visions of success or failure" tended to "reinforce the notion that 'lagging' regions have to play a game" based on rules defined by urban areas (Jones, Goodwin-Hawkins and Woods, 2020[37]),

An integrated approach to developing and implementing rural policies is not merely a rural concern: it is a national imperative. Expanding rural broadband, for instance, does not solely benefit remote communities; it enhances national digital inclusion, supports business growth, and strengthens regional economies. The notion that urban areas must "rescue" rural communities, or that rural regions are inherently disadvantaged, diminishes their perceived role in advancing national objectives (see Figure 4.7). Without a fundamental shift in this narrative, civil servants must first be persuaded that collaboration itself is beneficial, and then be further convinced that collaboration on rural issues is equally worthwhile. This added layer of scepticism makes achieving meaningful cross-government co-ordination even more difficult.

Figure 4.7. Rural areas sources of opportunities



Source: Influenced by (Parnell, 2022[38])

Enabling an integrated approach

Governments that embrace integrated, cross-sectoral approaches are better positioned to foster sustainable rural growth. Several OECD countries have adopted integrated rural strategies:

- Austria: Every ten years, Austria conducts a forward-looking review of integrated policymaking, bringing together experts, ministries, and local governments to shape long-term rural development strategies. This process fosters collaboration across sectors, ensuring that policies related to digitalization, knowledge dissemination, and infrastructure align with national and local objectives.
- South Korea: The South Korean government promotes rural-urban linkages by strengthening local government autonomy, preparing independent economic self-reliance structures, and adopting flexible spatial definitions to facilitate co-operation across administrative boundaries. These efforts help ensure that rural development policies are locally driven while still benefiting from national-level support.
- Ireland: Our Rural Future is Ireland's national rural development strategy, developed through extensive public and stakeholder input. This place-based approach integrates economic, social, and environmental development goals while ensuring policy alignment across government departments. By spanning regional and national policy domains, it promotes co-ordinated investment in rural areas.
- Poland: Poland's rural areas face many risks such as depopulation, public services insecurity, and increasing intra-regional disparities. To address this, the biggest policy focuses are to bring knowledge to rural areas and build networks. This supplements both national and EU financial support to encourage the capacity building necessary for rural households to diversify away from farming and engage in activities necessary in the current context such as support of the EU Green Deal.

A range of tools can enhance policy coherence and align investment across different levels of government. Contractual agreements, co-financing arrangements, policy conditionalities, formal consultation processes, and intergovernmental committees all serve as mechanisms to strengthen co-ordination (OECD, 2022[39]) (OECD, 2019[40]). Dedicated partnership councils, such as the Partnership Council for Wales, facilitate collaboration between local authorities and the Welsh Government. However, while such platforms exist, their effectiveness depends on whether they foster meaningful dialogue and lead to actionable outcomes. Collaboration should not be reduced to a *checkbox* exercise but must serve as a strategic mechanism to deliver seamless public services across government departments. In Wales, stakeholder interviews revealed concerns that the council lacked the capacity to advance meaningful discussions, limiting its ability to address key issues and drive constructive engagement at the highest level (OECD, 2024[41]).

Actively create opportunities for co-ordinated implementation

In Canada, Innovation, Science and Economic Development Canada (ISED)'s rural economic development team conducts targeted outreach to other government departments, ensuring that rural best practices are integrated into new policy proposals. ISED's rural economic development team also builds local networks that connect rural partners and provides a pathfinding service to navigate government support. Vertical integration – aligning national, regional, and local policies – ensures that high-level strategies are effectively translated into practical solutions on the ground. The Inuit-Crown Partnership Committee, for instance, creates a direct dialogue between the Inuit community and the Canadian government, strengthening mutual respect and ensuring that Indigenous cultural assets and environmental priorities are safeguarded alongside economic development initiatives.

Assess the levels of co-ordination on rural policies with a view to improve it.

Governments should also assess the extent and effectiveness of integrated policymaking for rural areas. This requires clear indicators to track how well policy silos are being dismantled and how effectively different government sectors collaborate. Key metrics include:

- *Number of interministerial or inter department committees*: A higher number suggests active efforts to align strategies across government departments (e.g. agriculture, health, education, environment) in addressing rural challenges.
- *Budget allocation analysis*: Examining funding streams can reveal whether resources are being directed toward integrated solutions or remain fragmented. For example: The Agricultural Policy Framework in Canada, which involves joint federal and provincial funding, reflects an integrated financing model for agricultural initiatives.
- *Cross-government joint training initiatives*: Investing in joint training programs for policy makers and civil servants fosters shared understanding and capacity-building across silos.
- *Diversity and number of stakeholder engagement platforms*: Greater participation of local governments, NGOs, businesses, and community leaders signals stronger collaboration in rural policy development and implementation.

Develop effective rural proofing process to support integrated action

Rural Proofing is a process designed to ensure that policies are suitable for rural areas. It involves making evidence on rural dynamics, available in a timely fashion to decisionmakers, to enable changes and adjustments early in the policy design and strategy development phase. (Bryce, 2024[42]). It is a measure that is growing in importance to help shape how policies are applied in rural areas. Northern Ireland provides an example of a most formalised process. The *Rural Needs Act* makes rural proofing a part of the policymaking process and calls for the rigorous scrutiny of proposed policies to ensure: i) fair and equitable

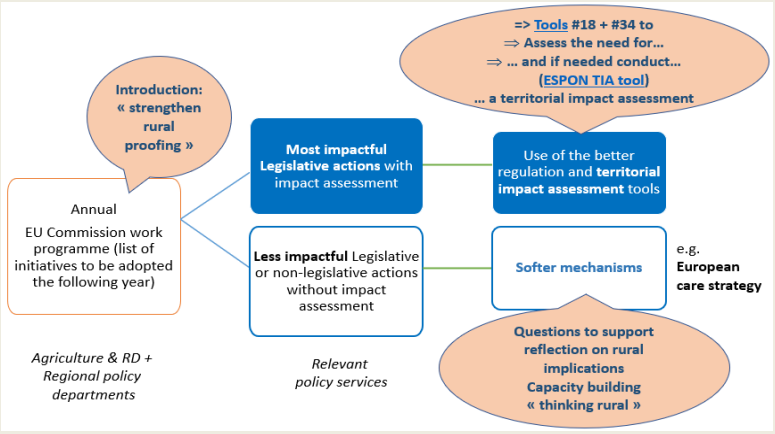
treatment of rural communities; and ii) that a policy does not indirectly have a detrimental impact on rural dwellers and communities (DAERA, 2015[43]). In Canada, rural proofing initiatives at the provincial level aim to help ministries evaluate the effects of new policy proposals or changes on existing programs before they are put into effect" (Rural Ontario Municipal Association, 2015[44]).

- The effectiveness of rural proofing increases when the process is designed well, implemented, supported, and embedded into national, regional, and local policy frameworks. The rural proofing model used by the European Commission provides a solid foundation. The scepticism largely stems from its process-oriented nature, which depends on multiple factors aligning before meaningful results can be achieved. Additionally, there are often too many expectations on rural proofing – a successful process highlights the potential negative consequences of a proposed policy, but it cannot compel a policy maker to act on the information provided. As a result, governments may acknowledge identified risks yet proceed with policies unchanged due to competing priorities.

Box 4.3. European Commission Rural Proofing model

The requirements to consider any significant impact on territorial and rural issues and to gather evidence from various types of territories is included in the European Commission's Better Regulation Guidelines. The guidelines set a clear objective, to ensure coherence, consistency, and complementarity between policies, including when it comes to impacts on rural areas. The rural proofing process involves screening the list of upcoming initiatives to be adopted the following year (called the Annual Commission work programme), for new ones likely to have differential impacts on rural areas. The initiatives are categorised by type for screening. For most impactful or new legislation, better regulation guidelines require an impact assessment. In this case, services are invited to conduct a pre-territorial assessment necessity check to determine if the legislation is likely to have a symmetrical territorial impact. If the preliminary check is positive, then, a full territorial impact assessment is needed. Less impactful or non-legislative actions (e.g. communications) which are not subject to impact assessments are reviewed using softer mechanisms and qualitative approaches.

Figure 4.8. European Commission Rural Proofing model



Note: The ESPON TIA tool is an interactive web application designed to provide a quick overview of the potential territorial impacts of EU Legislations, Policies, and Directives (LPDs) that are currently being developed. https://tiatool.espon.eu/TiaToolv2/welcome. The European Commission Better Regulation Guidelines and Toolbox outlines the principles that the Commission adheres to when creating new initiatives and proposals. Chapter 3 of the guidelines focuses on identifying impacts in evaluations, fitness checks, and impact assessments. It includes Tool number 18, which is dedicated to identifying all types of potential impacts and Tool number 34, which specifically encourages screening for territorial impacts.
Source: (Rouby and Ptak-Bufkens, 2022[45])

Rural proofing involves a few crucial steps:

- **Identifying potential issues**: assessing the direct impact of a proposed policy action.
- **Conducting deeper analysis**: using data and other tools to examine indirect and long-term effects.
- **Adjusting policy measures**: Introducing interventions to mitigate or remove negative impacts

While it is not meant to be a tick box exercise, it can become one when it lacks essential guardrails such as co-ordination, authority to act, monitoring, and buy-in from government departments. Ideally, rural proofing should take place as early as possible in the policy development process – before a decision to act is final. It will only be useful if it is properly positioned to influence decisions at key moments and provides decisionmakers with the necessary information to make informed decisions. Governments should consider several factors to improve the process (see Box 4.4).

Box 4.4. Factors to support more effective Rural Proofing mechanisms

Rural proofing has proven to be a valuable mechanism for improving policy implementation – enhancing effectiveness, reducing costs, and mitigating negative side effects. Countries considering new rural proofing initiatives, or refining existing ones, should follow these guidelines:

1. ***Develop clear objectives and tailored supporting tools***: Avoid vague, overly ambitious, or excessive objectives, as they can hinder effective implementation.
2. ***Adopt a pilot approach and learn from sub-optimal short-term results***: In a *learning by doing* model, schemes can be recalibrated based on feedback as well as ensure that allocated resources align with the actions needed to fully support and sustain rural proofing.
3. ***Create a model that becomes less dependent on political commitment over time***: Maximise political support, especially when it exists, especially in countries new to rural proofing, but develop mechanisms that ensure sustainability beyond political cycles by embedding a “rural proofing culture” within public administration.
4. ***Reframe the rural narrative from "rural needs help" to "rural is a place of untapped opportunities":*** Shift the perception of rural areas from being problematic to being full of potential.
5. ***Consider the context:*** Start small if rural proofing is new. A targeted, issue-specific approach may be more feasible than an all-of-government model, depending on the country’s context, governance structure, and available resources.
6. ***Design the rural proofing model with the public servant “end user” in mind***: Ensure that rural proofers (the civil servant) have access to training, tools, and support tailored to the governance type (bottom-up or centralised).
7. ***Encourage the collection of rural proofing intelligence***: Strengthen quantitative and qualitative data collection to inform rural proofing, making it more effective and innovative.
8. ***Be flexible: there is no one size fits all rural proofing model***: Consider arrangements that facilitate access to external expert bodies/stakeholders taking advantage of their resources and skills also consider ad hoc or more formalised processes.
9. ***Measure success but set realistic expectations:*** Rural proofing cannot force policy makers to act on its findings. In some cases, despite identified issues, policies may proceed unchanged due to external factors. Evaluation metrics should capture these nuances, ensuring that rural proofing is assessed fairly and not just in terms of immediate impact, but also over the long-term.

Source: (Bryce, 2024[42])

4.4. Building scale and enabling greater co-operation

4.4.1. Functional Rural Areas: overcoming fragmentation in rural policy

Developing policies based on Functional Rural Areas (FRAs) presents a significant opportunity to enhance the effectiveness of policymaking in rural regions. By recognising the intricate links that define rural life such as shared markets, transportation networks, and public services, governments can craft more coherent policies that address key challenges (e.g. employment, infrastructure, and public health). FRAs prioritise the economic, social, and spatial interconnections among communities. This approach ensures that interventions are more attuned to the realities of rural populations. Beyond improving policy relevance, FRAs offer a sharper lens through which to understand rural dynamics. Traditional administrative boundaries often obscure crucial trends and opportunities.

A framework rooted in FRAs enables policy makers to detect patterns that might otherwise remain hidden, fostering a more nuanced and effective response to rural development. The result is policymaking that is not only better informed but also more impactful in improving rural livelihoods. The concept of a functional area is not new. The OECD Working Party on Territorial Indicators collaborated with the European Commission (EC) to define Functional Urban Areas (FUAs). More recently, the 13th OECD Rural Development Conference in Cavan underscored the importance of this issue, culminating in the Cavan-OECD Roadmap for Strengthening Rural Resilience in the Face of Global Challenges. This roadmap outlines six key actions, the first of which calls for an internationally harmonised definition of FRAs that accurately reflects rural realities while accounting for regional diversity.

Defining Functional Rural Areas

Typically, official statistics on commuting flows constitute the methodological foundation for the delineation of functional areas, and these data should be used for this purpose whenever available. However, commuting patterns provide only a partial view of the complex interactions between and within regions. A singular focus on work-related mobility fails to account for the full breadth of rural interactions – whether rural to rural or rural to urban.

These interactions often transcend administrative boundaries, making a more comprehensive framework necessary. Rural areas vary widely, encompassing islands, mountain areas, natural reserves, and mining territories. A well-calibrated approach should reflect these distinctions, enabling targeted policy interventions that bolster resilience and growth.

Although FRA's should capture linkages and provide a basis for developing indicators on:

- **Economic activity:** Understanding the dominant sectors in rural economies – whether agriculture, forestry, tourism, mining, renewable energy, or technology – provides essential insights into regional strengths and vulnerabilities.
- **Labour mobility:** Examining commuting flows among rural areas and between rural areas and urban centres sheds light on economic dependencies and development opportunities.
- **Access to services:** Evaluating proximity to healthcare, education, and retail facilities is crucial for assessing quality of life and policy gaps.
- **Infrastructure and connectivity:** Mapping transportation networks, digital infrastructure, and logistics routes helps determine the extent to which rural areas are integrated into the wider economy. Investment in these domains can catalyse economic opportunity and social cohesion.

They must also balance the computational costs and availability of data in developing a comprehensive and comparable definition.

Testing the Functional Rural Area Approach

To implement the FRA framework effectively, governments must pilot tailored strategies designed to enhance economic and social outcomes. A phased approach, involving test cases in diverse rural settings, across three distinct types of rural areas: peri-urban zones, clusters of mid-sized towns, and remote rural regions will provide the empirical foundation needed for broader adoption. This diversity will enable policy makers to formulate interventions that reflect local needs while generating insights applicable to wider implementation. Testing and refining interventions in pilot FRAs, policy makers can ensure that successful strategies are scaled up to benefit rural communities more broadly. A well-executed FRA framework has the potential to transform rural policy, shifting from fragmented, one-size-fits-all approaches to a model that is both regionally specific and globally applicable.

4.4.2. Seek ways to maximise rural-urban interconnections

Urban and rural areas are deeply interconnected. An ecological crisis in a rural area can escalate into a social crisis in an urban centre. Conversely, an urban shock – such as a health crisis – can disrupt key infrastructure and services that supply entire regions. These areas have distinct yet complementary assets, which, if leveraged effectively, could bring significant economic, environmental, and social benefits to both. New technologies are reshaping rural-urban linkages. For example, increasing numbers of people live in the countryside while commuting to urban centres for work.

Some cities are actively seeking partnerships with their surrounding rural areas. In Poland, rural-urban linkages are being strengthened to counteract the decline of cities and towns outside Functional Urban Areas (FUAs). These towns risk losing their social and economic functions, but enhanced collaboration can improve access to services and economic opportunities across the rural-urban continuum (OECD, 2022[46]). As green and digital transitions accelerate, rural areas will play a key role in supporting urban sustainability. Growing demand for renewable energy will require cities to rely on rural regions for wind, water, and biomass energy production. Rural-urban partnerships will be crucial in managing these interdependencies effectively.

To unlock the full potential of rural-urban partnerships, governments must take deliberate action by:

- Incentivising collaboration through policy frameworks that encourage investment and co-ordination.
- Strengthening local governance capacity to ensure that both urban and rural areas can effectively implement policies.
- Developing better measurement tools that go beyond commuting patterns to capture the full scope of rural-urban interdependencies.

By embracing a functional, place-based approach, policy makers can ensure more balanced and sustainable development across regions—bridging gaps, fostering co-operation, and unlocking shared prosperity for both urban and rural communities.

Integrating rural-urban partnerships into policy frameworks

Maximising rural-urban linkages is increasingly recognised as a key objective in national and supra-national regional development policies. The Cohesion Policy of the European Union (EU), along with the OECD's Regional Development Policy Committee, emphasises the need for greater co-operation across territories. Both the OECD Principles on Urban Policy and the OECD Principles on Rural Policy share Principle 3, which underscores the importance of supporting interdependencies between urban and rural areas (OECD, 2019[47]). The RDPC's research highlights how sectoral and structural policies have differentiated spatial impacts and stresses the importance of a functional approach that goes beyond traditional administrative boundaries. These interactions include demographic shifts, labour market flows,

public service provision, and environmental considerations – all of which require tailored, place-based solutions.

Despite policy efforts, some OECD economies struggle to achieve balanced development. Additionally, the growing disparities between urban and rural areas, waning public trust in public institutions and persistent social unrest reinforce the need for stronger collaboration. Currently, urban policies often overlook rural perspectives, while rural policies fail to recognise urban centres' significance for rural development. Additionally, urban and rural policies frequently operate in isolation, with little consideration for their interdependencies. Furthermore, urban and rural policies frequently operate in isolation, failing to account for their interdependencies.

Table 4.3. Rural-urban collaborations: benefits and challenges

Well-designed rural-urban partnerships offer multiple benefits, including:	Barriers to rural urban collaborations
Enhanced public goods provision (e.g. transportation, waste management, and ecosystem conservation).	Competition for investment between urban and rural areas.
Economies of scale in public service delivery.	Limited inclusion of rural areas outside FUAs in partnerships.
New economic opportunities through shared investment and innovation.	Administrative burdens and a lack of human and financial capacity in local governments.
Improved environmental sustainability through joint resource management.	Insufficient participation from private and non-governmental actors.

Source: (OECD, 2022[46]) (OECD, 2013[48])

To overcome these obstacles, governments must take a more proactive role in fostering rural-urban co-operation through national and regional policy frameworks by actively promoting and incentivising rural-urban partnerships. Stronger co-operation can lead to: Sustainable land use and planning; Better public services, including transport, healthcare, and education and more resilient economies that harness both urban and rural strengths. Portugal is already piloting initiatives that support networking and capacity-building among towns, villages, and cities. These efforts help communities tackle challenges such as climate change adaptation through co-ordinated action.

Measuring rural-urban linkages look beyond commuting flows

Traditional measures of rural-urban interaction, such as commuting data, provide valuable insights but fail to capture the full complexity of these relationships. The movement of people between rural and urban areas significantly influences economic patterns, as income earned in urban jobs supports rural businesses and local economies. However, rural-urban interdependencies extend beyond mobility, encompassing environmental services, economic exchanges, and shared infrastructure.

A more comprehensive approach to measuring rural-urban linkages should incorporate multiple dimensions. In Türkiye, research has identified five key areas of rural-urban interaction: demographic patterns, economic interdependencies, public service access, environmental externalities, and governance structures. France has also explored alternative classifications of rural-urban relationships, mapping different types of rurality based on economic and social transformations. These approaches demonstrate the need to move beyond simplistic rural-urban distinctions and instead analyse functional relationships that drive regional development.

New technologies offer promising ways to improve the measurement of rural-urban connections. Mobile device data, for example, provides real-time insights into how people access services, recreational spaces, and economic opportunities across urban and rural settings. Estonia has pioneered the use of such data to redefine mobility patterns, offering a more nuanced view of how rural and urban populations interact.

Additionally, tracking economic flows – such as urban investment in rural infrastructure, rural food supply chains, and ecosystem service exchanges, can help policy makers design more effective regional strategies. Expanding the scope of rural-urban metrics will enable governments to develop policies that are better aligned with the realities of regional interdependencies (Box 4.5). By considering factors such as environmental linkages, digital connectivity, and shared public services, policy makers can design strategies that foster stronger collaboration and more balanced territorial development.

Box 4.5. Potential new ways to measure rural-urban connections

Capturing the full complexity of rural–urban relationships require going beyond traditional metrics such as commuting flows. Expanding the types of information collected is a critical first step toward building a more comprehensive evidence base—one that can better inform territorial policies, identify new opportunities for collaboration, and support more integrated development strategies.

There are different approaches to move beyond commuting data to measure rural-urban interaction.

- replacing "place of work – place of residence" data, the traditional commuting data from censuses, with alternative data (e.g. mobile data) to improve the analysis of "functional areas" for urban or rural spaces.[1].
- using new data/technologies to measure alternatives commuting patterns, such as access to services or recreational activities. E.g. Estonia
- looking at dimensions of rural-urban interdependencies other than the mobility of people. This can be achieved by examining the mobility of goods, interactions resulting from sharing infrastructure, and interactions resulting from sharing environmental resources and assets, including ecosystems and ecosystem services.
- Economic exchanges and dependencies, showing how urban markets rely on rural areas for food supply and vice versa.
- Proportion of rural population accessing urban healthcare, education, or other essential services
- Level of public or private investment from urban areas in rural development projects or vice versa.
- Monitor nutrient flows (e.g. organic waste from cities being used as fertilizer in rural areas) and their environmental impact.
- Track rural tourism development driven by urban demand and its impact on rural communities' social and economic wellbeing.

Source: (JRC, 2020[49]), (OECD, 2020[50])

For rural-urban collaboration to reach its full potential, governments must take a more proactive role in fostering co-operation across administrative boundaries. Policies should incentivise joint planning and investment, ensuring that rural and urban areas work together to build resilient and inclusive economies. Strengthening local governance capacity is also crucial, as many municipalities lack the resources and expertise needed to engage in effective partnerships. Additionally, shifting towards a functional, place-based approach will allow governments to design policies that reflect the interconnected nature of urban and rural areas. Instead of viewing these regions as separate entities, policy makers must recognise their mutual dependencies and develop strategies that support balanced development. This means expanding the measurement of rural-urban linkages beyond commuting data to include economic exchanges, environmental flows, and digital connectivity.

4.4.3. Public-private partnerships to support more effective rural policies

The success of rural development depends on collaborative efforts that transcend traditional boundaries and engage diverse stakeholders. Government should collaborate extensively, and foster co-operation, at the local level with private and public sector actors, to ensure that market sensitive development interventions are delivered in a professional and supported manner. Public-private partnerships (PPPs) serve as a catalyst for rural development by bringing together government agencies and private entities to leverage resources, expertise, and operational efficiencies. Given the scale of rural needs, the diversity of rural communities, and government fiscal constraints, mobilising private sector partnerships is a strategic tool for policy implementation (OECD, 2020[51]). For those promoting local development in rural areas, private co-investment can add important ingredients that are otherwise absent Box 4.6.

Box 4.6. Public-Private-Partnerships can unlock private financing

Public-private partnerships bring more innovative way to share risks, costs, returns, and the stewardship of assets because private financing:

- provides more capital than is otherwise available, and in a quicker and more efficient manner.
- helps to rebuild local investment markets and averts other 'disinvestment' from occurring.
- creates a greater commercial and professional discipline within development policies and initiatives.
- attracts wider interest from other commercial players, giving confidence that something of value must be occurring which might merit their interest.
- builds a more sustainable finance strategy into local development initiatives, allowing public funds to be gradually unlocked for alternative actions.
- repositions good local development activity as 'investment' rather than 'expenditure' in the modern economy.

Source: (Clark and Mountford, 2007[52])

Additionally, these partnerships can create a more structured framework for risk-sharing and responsibility allocation, enabling the development of infrastructure and services that can transform rural communities. PPPs represent a "third way" – a model that capitalises on private sector investment and expertise while advancing rural development goals. Through collaborative engagement, the public and private sectors can combine knowledge, financial resources, and innovation to deliver public goods more efficiently (Bjärstig and Sandström, 2017[53]). By working together, they can develop and implement solutions for challenges that neither sector can fully address alone. For example, in the past 20 years, many governments have partnered with the private sector to enhance the development and management of water systems. Such partnerships are essential for securing additional funding and optimising the use of available resources.

PPPs are a powerful tool for rural development because they combine the agility and investment power of the private sector with public sector incentives to drive sustainable rural growth. Governments can leverage private sector engagement to enhance their capacity and benefit from risk transfer, financial incentives, technical expertise, and innovation. Governments can play a critical role in initiating partnership connections as well as structuring, financing, and regulating partnerships, especially in rural areas, where private sector engagement may be less prevalent compared to urban settings (Bjärstig and Sandström, 2017[53]). Civil society actors can also play a role by lending their expertise and knowledge and leveraging their connections in the community to bring voices from the community see Table 4.4.

Table 4.4. Actors' means and roles in PPPs for sustainable rural development

Actor	Means	Roles
Government e.g. national, regional or local	Legal authorities Financial means Political legitimacy	Regulator Financing-provider Mediator, enabler Co-ordinator Initiator of policy design
Market (e.g. entrepreneurs and companies)	Property rights Financial means Expertise/knowledge	Provider of services, e.g. expertise and financing, in return for operational venture Initiator of policy design
Civil society organisations	Expertise/knowledge (local) Social change Local identity Social legitimacy	Advisory role Local mobilization Channel of information Improving accountability Initiator of policy design Monitoring effective implementation Build social capital and/or reduce social exclusion

Source: (Bjärstig and Sandström, 2017[53])

To effectively harness the efforts of diverse private stakeholders, governments must focus on aspects that go beyond financial contributions, particularly on robust policies and regulatory frameworks, fair risk allocation, and enhanced accountability (OECD, 2009[54]). To successfully engage the private sector, governments should consider:

- The nature and modalities of private sector participation
- The institutional and regulatory environment for investment
- Ensuring public and institutional support for the project and financing choices
- Aligning public-private co-operation with the public interest
- Encouraging responsible business conduct
- Assessing economic, social, and environmental impacts

One example of a PPP model gaining traction in the critical minerals and mining sector is Environmental, Social, and Governance (ESG) integration. ESG-focused partnerships align business investments with sustainability and social responsibility, ensuring that projects not only generate economic returns but also benefit local communities and mitigate environmental impacts. Private sector engagement in rural policy has shifted from traditional Corporate Social Responsibility (CSR) initiatives to structured ESG frameworks, which help companies measure and report on their environmental, social, and governance (OECD, 2022[55]; Eccles and Stroehle, 2018[56]). These frameworks are now widely used see Box 4.7 to learn more.

Box 4.7. Lessons learned from ESG partnerships

By 2026, ESG-focused institutional investment is expected to grow by 84% from 2022 levels, reaching USD 33.9 trillion and making up over 21% of assets under management (PwC, 2022[57]). As a result, companies operating in natural resource sectors—especially in rural areas—are under increasing pressure to adopt ESG principles.

The impact of ESG practices is amplified in rural regions that are economically dependent on resource-related activities, such as mining, forestry, or energy. Many of these rural, resource-rich regions have lower population density and are dominated by a handful of multinational companies that drive local

economic activity (Breul and Atienza, 2022[58]). This makes corporate ESG initiatives an essential tool for improving local development and quality of life.

Some examples of how mining companies' ESG actions support rural development across environmental, social, and governance dimensions include:

- ***Environmental activities***: Given their environmental footprint in rural communities, resource companies often implement ESG programmes focusing on land restoration, community-led environmental monitoring, and compensation strategies for environmental impact. For example, Teck Resources has invested in rehabilitating mined land for future uses such as wetlands, wildlife habitats, and recreational spaces (Teck Resources, n.d.[59]).
- ***Social activities***: ESG programmes enhance community well-being by investing in education, childcare, healthcare, housing, and cultural infrastructure. In Ontario, Canada, and Pilbara, Australia, mining companies have partnered with local schools to improve educational infrastructure, funded sports centres, and worked with local governments to enhance childcare and healthcare access.
- ***Governance activities***: Some companies promote good governance in resource management by ensuring transparency, ethical compliance, and local economic integration. For instance, in Antofagasta, Chile, mining companies have joined the regional governance board to align industry activities with local development priorities and improve regional economic cohesion.

While ESG initiatives have the potential to drive sustainable rural development, **several challenges must be addressed such as**:

- ***Ensuring ESG initiatives produce long-term benefits****:* The effectiveness of ESG activities depends on a company's ability to engage with local communities, the type of project (greenfield vs. brownfield), and the governance capacity of local authorities.
- ***Overcoming the timing mismatch*** between short-term financial needs and long-term community priorities. Junior companies with limited institutional capacity face difficulties balancing financial pressures with community engagement in long-term consultation processes.
- ***Strengthening local governance capacity:*** Many rural regions lack co-ordination between multiple ESG initiatives, which can increase inequality between beneficiary communities and create economic dependency. Additionally, monitoring and evaluating ESG outcomes remains difficult due to a lack of clarity on responsible oversight bodies and technical expertise.

As ESG-focused investment continues to grow, PPPs that incorporate ESG principles will play an increasingly central role in driving responsible rural development, securing social license to operate, and ensuring long-term economic and environmental sustainability. To maximise the long-term impact of ESG activities in rural regions, governments and businesses must adopt a more co-ordinated approach to planning, designing, and implementing ESG initiatives. Key actions to strengthen ESG contributions to rural development include:

- Participatory planning that involves local communities in decision-making
- Stronger subnational governance mechanisms to facilitate PPPs
- Collaborative strategies between governments and rural stakeholders to ensure ESG efforts lead to sustainable, long-term development

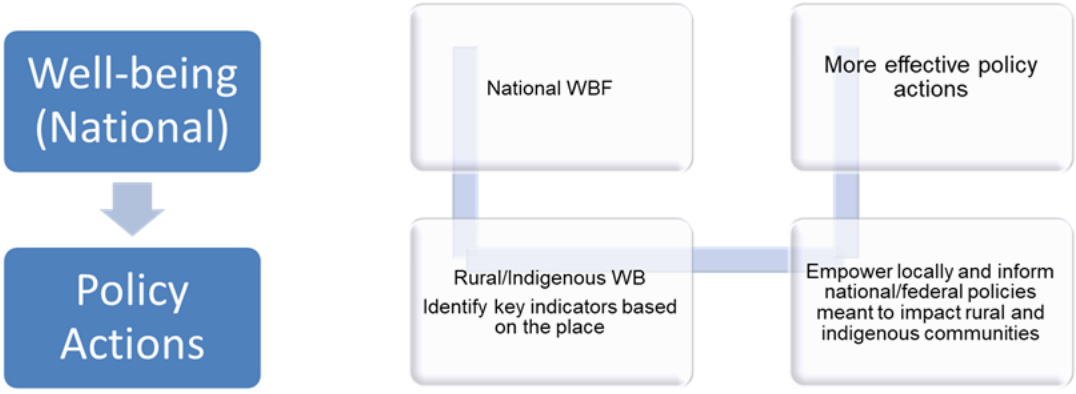
4.5. Improving rural evidence for more effective policies

4.5.1. Measuring rural well-being

As noted earlier the recent social tensions in several countries signal a degree of dissatisfaction with current policies in some rural places. However, understanding what drives happiness or discontent in rural regions is an area that requires further exploration. There is undoubtedly a link with between rural well-being and discontent. Well-being includes various dimensions, and perceptions of well-being can differ significantly. In many instances, this dissatisfaction arises from a combination of factors, including a lack of opportunity, declining services, and demographic shifts. Rural well-being indicators may tell us part of the story, but discontent emerges when certain conditions intersect in ways that go beyond what traditional quality-of-life data can fully capture.

Today's policy makers face a complicated landscape where economic decline, social inequalities, and policy failures erode well-being. When individuals face more challenges than they have resources to manage, their well-being declines (Dodge et al., 2012[60]). In Greece, for instance, research suggests a strong correlation between economic downturns – measured through unemployment and income changes – and shifts in electoral outcomes (Sotiriou, Petrakos and Alexiou, 2025[61]). As such, identifying the triggers and drivers of rural discontent could be key to crafting more effective policy responses.

Figure 4.9. Expanding the framework on Well-being to bring in local realities



Source: Author's elaboration

Many countries have national wellbeing frameworks in place using the OECD model as a starting point (OECD, 2020[51]). These well-being frameworks aim to diagnose socio-economic vulnerabilities and assess whether policies improve living standards. National wellbeing frameworks may cover domains like income, housing, health, and environment but the rural experience of these domains will differ in ways that the national framework does not catch (Figure 4.9). For example, access to healthcare as a national metric may not capture the driving distance to the nearest healthcare provider or hospital. However, despite growing recognition that rurality shapes well-being outcomes, rural specific well-being indicators are less prominent.

Quantifying rural well-being: the data imperative

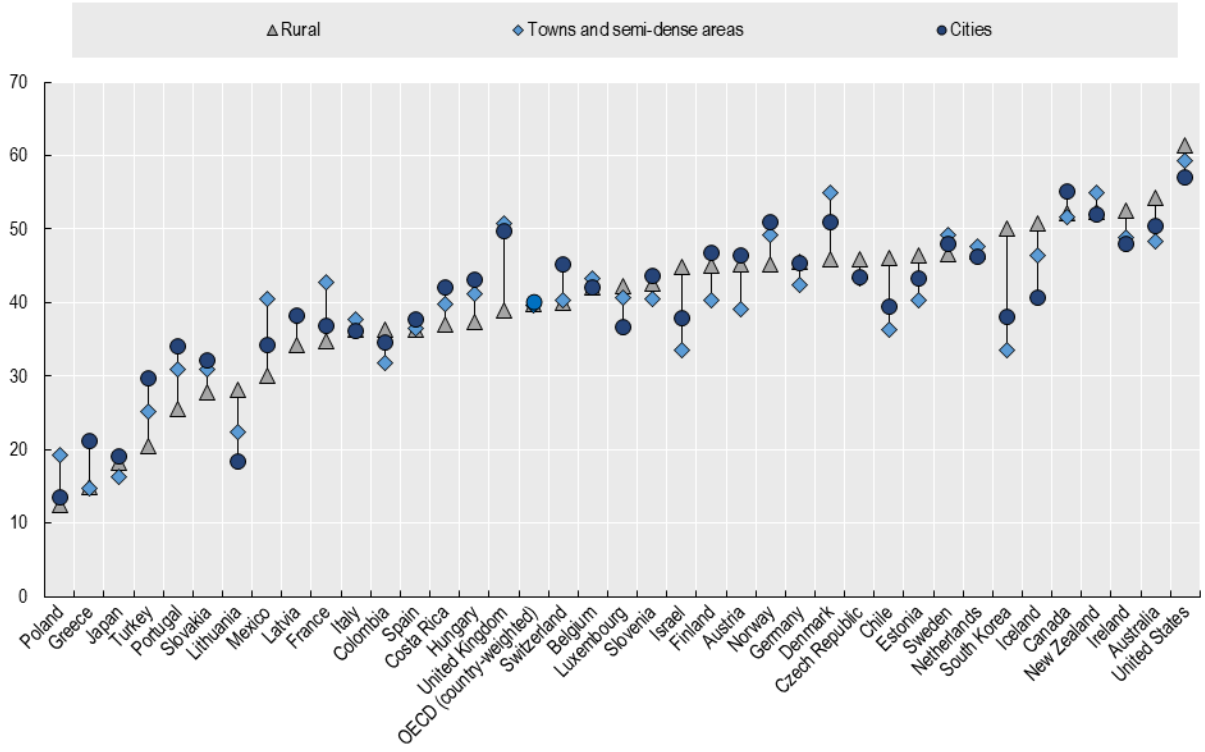
Discontent does not emerge in isolation; it is nurtured by a combination of structural inequalities and policy neglect. Geographical remoteness can mean reduced access to public services, digital exclusion, and weaker social cohesion. The OECD's Rural Well-being: Geography of Opportunities calls for a shift towards a more people-centred approach to rural policy – one that moves beyond productivity metrics to

consider social and environmental dimensions (OECD, 2020[51]). There are two ways to measure the quality of life in rural areas. One is more objective and is the more typical approach relying on indicators that focus on resources and opportunities. Specifically, how well the needs of individuals in a society are being met across several spectrums, such as physical, economic, social, environmental, and emotional aspects. The other is more subjective and places the focus on the individual perceptions and assessments of their own life within society and how individuals perceive their benefit from societal decisions or policies.

There are inherent difficulties in measuring these dimensions, rural residents often value different aspects of life. For example, they may not prioritise travel distances or certain opportunities as highly as preserving a certain way of life. Studies suggest rural and semi-dense areas exhibit higher levels of community attachment. These include more distinct boundaries in rural areas that encourage residents to form a stronger sense of belonging, more frequent social interaction with community members that increases networks and social capital, and less transience in rural areas with people staying for extended periods of time (Whitham, 2019[62]). This can lead to increased civic engagement as people feel a sense of pride in contributing to improving wellbeing in their community (Figure 4.10). There may also be a correlation between age demographics in rural regions and civic engagement with older adults having more time to engage in these activities (Kafkova, Vidovicova and Wija, 2018[63]); (Stoecker and Witkovsky, 2022[64]).

Figure 4.10. Civic engagement index using, 2022

Civic Engagement Index, as an index score from 0-100



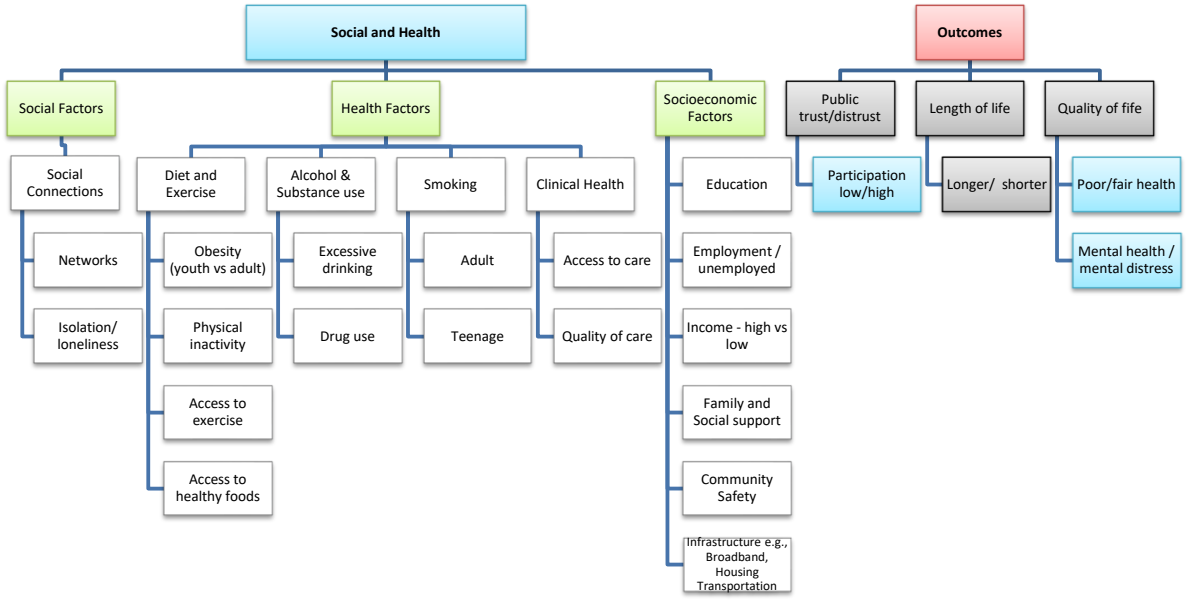
Note: The Civic Engagement Index assesses respondents' inclination to volunteer their time and assistance to others. It is designed to measure a respondent's commitment to the community where he or she lives. The average figures inside countries are weighted by design weights calibrated to age, gender and education or socio-economic status at national level.
Source: Own calculations based on Gallup data and interim result from the project *Regional development along the settlement network*.

To design effective rural interventions, policy makers need better data on rural wellbeing. Identifying the key *domains* of well-being – those factors that matter most to rural communities – requires a combination

of empirical research and direct engagement with local populations. In Canada, discussions on rural well-being measurement highlighted a critical gap: the lack of localised data, the absence of community-specific tools, and limited capacity to use existing data effectively. The issue is even more pronounced in island and mountain communities, where geographic isolation, fluctuating economies, and small populations make standardised data collection difficult. The EU, for example, lacks a common definition for mountain areas, complicating efforts to assess well-being in these regions.

In 2022, the Dutch National Statistics Bureau applied an expanded version of the OECD's well-being framework to examine the transition to nature-based agriculture. Their analysis spanned twelve themes, including housing, material wealth, work-life balance, environmental conditions, and social cohesion. The goal was to determine whether policies translated into tangible improvements for rural residents. A broader effort to systematise well-being measurement comes is highlighted in *What is Rural Well-being and How is it Measured? An Attempt to Order Chaos* (Veréb et al., 2024[65]). This study analysed 159 research papers covering 33 dimensions of well-being, revealing that rural well-being is a highly interconnected concept. It is not sufficient to examine single aspects in isolation; relationships between indicators matter just as much.

Figure 4.11. Exploring rural well-being links and outcomes



Source: Author's elaboration

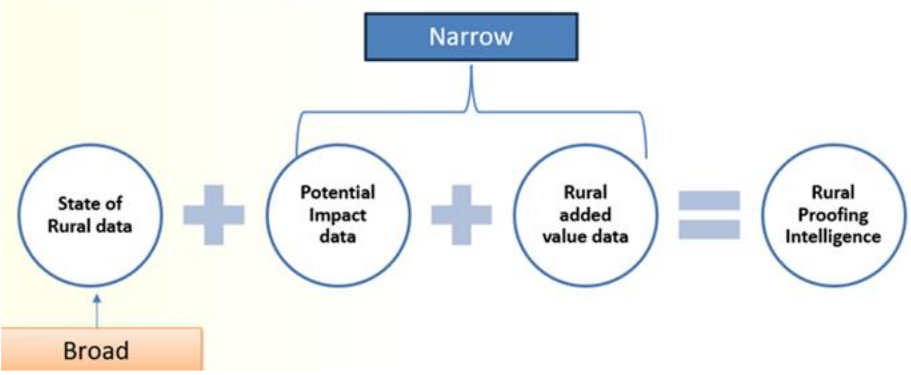
4.5.2. Rural proofing intelligence

One factor that underpins the entire rural proofing process is the availability and quality of the supporting evidence or *rural proofing intelligence*. Access to comprehensive and reliable data strengthens the analytical foundation of rural proofing, allowing for evidence-based policy adjustments and supporting more integrated policy actions. The capacity to provide policy advice grounded in 'evidence-based' analysis is dependent on the availability of reliable data (Head, 2015[66]). In the United States, the Census Bureau's annual American Community Survey is a key resource for determining federal programme eligibility and assessing rural needs and strength. One criticism of this survey is that the data on the "small sample sizes in sparsely populated areas", produces high margins of error and makes measures for individual communities unreliable (Scally and Burnstein, 2020[67]). However, as observed by the Environment, Food and Rural Affairs Committee when examining the expenditure, administration, and policy of the Department

for Environment, Food and Rural Affairs in the United Kingdom, how well data on rural conditions is presented across government is a *crucial factor* in shaping government wide policy (House of Commons, 2013[68]).

To develop effective policies, policy makers must be aware of potential impacts between policies and have tools to identify their nature and extent. *Rural proofing intelligence* could address this need by compiling statistical analysis, simulations, expert consultations, and other forms of evidence (see Figure 4.12 and Table 4.5). This intelligence could be structured in three tranches:

Figure 4.12. Strengthen the evidence: expand the data used to support rural proofing

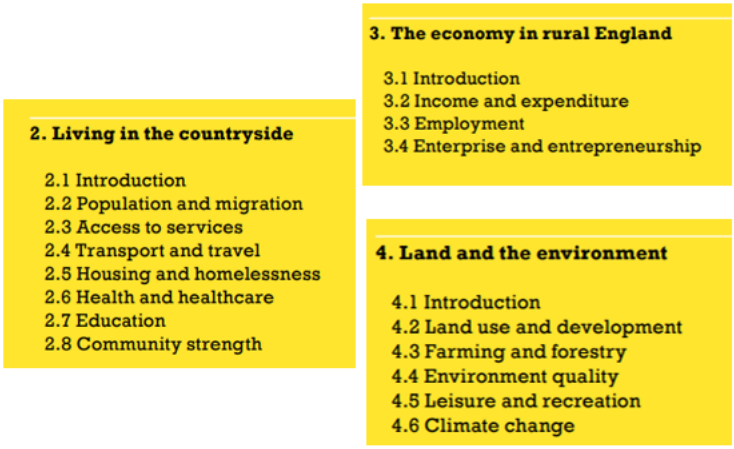


Source: Author's elaboration

- ***State of rural data*** to provide an overarching view of rurality and rural conditions within a country, including its definition and its economic, environmental, and social dimensions. This is a critical starting point, as a common reason for rural policy disparities is a lack of awareness of the distinct characteristics that differentiate rural and urban areas. Example of *state of rural* data include the *State of the Countryside* reports by the former Commission for Rural Communities (England, United Kingdom) Up until the Commission closed, the reports presented statistical and analytical evidence on social, economic and environmental issues in rural England (see Figure 4.13). Similarly, the *State of Rural Canada* report produced by the Canadian Rural Revitalisation Foundation provides it also offers an overview of the diverse challenges and opportunities facing rural, remote, and northern communities across the country (Canada Rural Revitalization Foundation, 2024[69]).

Figure 4.13. State of Rural Data

State of Countryside 2010 Table of Contents



Source: (Commission for Rural Communities, 2010[70])

- ***Potential impact data*** to evaluate how specific policy proposals may affect rural communities, particularly in ways that may be unintended, disproportionate, or overlooked, thus supporting necessary policy adjustments. For example, if a new tax on gasoline is proposed the potential impact data would provide evidence of any effects on rural communities if the tax were to move forward. This type of data is narrower than state of rural data, specific to the proposed policy but key to supporting evidence informed decision-making.
- ***Value-added data*** to demonstrate how working with rural communities – rather than overlooking or bypassing them – can help non-rural ministries (e.g. environment, health, education, energy) more effectively achieve their policy goals. This evidence can take different forms such as case studies, rural narratives, or outcome-based evaluations.

Collecting rural intelligence does not have to be an overwhelming or resource-intensive task for governments. In many cases, a substantial body of relevant evidence, particularly the *state of the rural* data, already exists but is either dispersed across agencies and institutions or simply not packaged in the form recommended here. Governments also do not need to work alone. This process presents an opportunity to engage a diverse range of rural stakeholders in strategic collaborations.

Moreover, many governments already maintain relationships with expert institutions – such as universities or research bodies – that can be mobilised to support both the quantitative and qualitative dimensions of rural intelligence gathering. Finally, ensuring that information is synthesised and clearly communicated is essential for those tasked with rural proofing. These institutions are not only well placed to identify evidence gaps and collate dispersed data, but also to translate findings into accessible, policy-relevant formats.

Box 4.8. Using Rural Proofing Intelligence to Inform Carbon Tax Implementation, an example.

Climate change policies, such as carbon taxes, renewable energy projects, or land use regulations can disproportionately affect rural communities. The below example explores how the different pillars that comprise rural proofing intelligence could potentially support a carbon tax policy:

> ***State of rural data*** would help establish a clear understanding of the rural context and baseline conditions in rural areas, including:

- High dependence on fossil fuels: Rural residents rely more on personal vehicles and agricultural machinery than urban populations.
- Limited access to alternative energy sources: Many rural homes use oil, wood, or LPG heating instead of electricity or gas grids.
- Longer travel distances and fewer public transport options: Rural workers and businesses have limited alternatives to petrol and diesel vehicles.
- Lower average incomes than urban areas: A carbon tax could have a higher financial burden on rural households.

Potential impact data would help assess risks early by exploring how a carbon tax might affect rural communities, potential areas include:

- Increased fuel costs: Higher petrol and diesel prices would disproportionately impact rural households, farmers, and transport-dependent businesses.
- Reduced rural economic competitiveness: Higher costs for agriculture and manufacturing could put rural businesses at a disadvantage compared to urban industries.
- Energy poverty risk: Low-income rural households reliant on oil or wood heating may struggle with higher costs.
- Social and political backlash: Policies perceived as unfair to rural communities could trigger protests and erode public trust.

Value added data would provide opportunities to leverage rural assets to create shared benefits and additional value for climate adaptation and economic development rather than simply minimising harm to rural areas. Some areas that could be explored include:

- Incentivising rural renewable energy development: Providing subsidies for rural solar, wind, and biofuel projects can create local jobs and reduce dependency on fossil fuels.
- Supporting rural transport innovations: Expanding electric vehicle charging networks and rural bus services can offer alternative mobility options.
- Creating tax rebates or exemptions for rural industries: Farmers and rural businesses could receive targeted tax relief or transition support.
- Encouraging localised climate action: Rural communities could be partners in conservation efforts, reforestation projects, and carbon sequestration initiatives.

Source: Authors' elaboration

4.5.3. Rural proofing intelligence and the OECD Principles on Rural Policy

More broadly, rural proofing intelligence can play a crucial role in supporting the implementation of the *OECD Principles of Rural Policy*. Robust rural data can provide evidence-based insights that improve policy design and help identify barriers to economic development, infrastructure gaps, and demographic trends. This ensures that investments align with local needs, reinforcing Principles 1, 2, and 7. Impact assessment data can support Principles 3, 4, and 9 by preventing rural-blind policymaking and helping prioritise initiatives with the greatest potential to strengthen rural economies and communities. Meanwhile, Principles 5, 6, 8, and 10 can be enhanced through value-added data, which allows policies to be crafted in a way that leverages rural strengths, creates win-win opportunities, and aligns local strategies with broader national policy goals.

Table 4.5. Rural Proofing Intelligence and the OECD Principles on Rural Policy

State of rural data	Potential impact Data	Value added data
Principle 1 Maximise the Potential of All Rural Areas - collecting accurate and up-to-date data allows policy makers to identify untapped economic opportunities in rural areas, ensuring that their potential is not overlooked.	***Principle 3: Support Interdependencies and Co-operation Between Urban and Rural Areas*** Policies affecting transport, labour markets, and supply chains should consider rural-urban connections to prevent unintended negative consequences.	***Principle 5: Leverage the Potential of Rural Areas to Benefit from Globalization, Trade, and Digitalisation*** Demonstrates how rural areas can contribute to national economic growth, particularly in sectors like agriculture, renewable energy, and digital services.
Principle 2: Organise Policies and Governance at the Relevant Geographic Scale Rural data helps tailor policies to specific geographic needs, avoiding a one-size-fits-all approach that may not work for diverse rural settings.	***Principle 4: Set a Forward-Looking Vision for Rural Policies*** Impact assessments and foresight intelligence help governments anticipate long-term rural challenges and opportunities, ensuring policies remain resilient to future changes.	***Principle 6: Support Entrepreneurship to Foster Job Creation in Rural Areas*** Shows how rural innovation and entrepreneurship can be nurtured through targeted support.
Principle 7: Align Strategies to Deliver Public Services with Rural Policies Service provision gaps (e.g. healthcare, education, broadband access) can be quantified and addressed using rural-specific data.	***Principle 9: Implement a Whole-of-Government Approach to Policies for Rural Areas*** Rural impact assessments encourage collaboration across multiple departments, preventing policy fragmentation.	***Principle 8: Strengthen the Social, Economic, Ecological, and Cultural Resilience of Rural Communities*** Ensures that rural policies are not just reactive but proactively build resilience against economic and environmental shocks.
		Principle 10: Promote Inclusive Engagement in the Design and Implementation of Rural Policy Encourages direct engagement with rural stakeholders, ensuring that policies reflect local realities and aspirations.

Source: Author's elaboration

4.6. Actions to value the rural voice

Participatory governance and inclusive decision-making work indicate that policies aimed at supporting rural areas alone may not be sufficient to restore trust. As Jacobs and Shea emphasise, many rural constituents have "a long memory" regarding how previous governments have treated them or failed to meet their needs, which reinforces their scepticism towards new initiatives. Cramer identifies three key aspects of rural resentment:

- A belief that rural areas are ignored by decision-makers.
- A perception that rural communities do not receive their fair share of resources.
- A conviction that rural values and ways of life are misunderstood and disrespected by urban policy makers (Cramer, 2016[7]).

Participatory governance commonly defined where citizens and stakeholders actively contribute to shaping policies, is a cornerstone of open government, as recognised in the 2017 OECD Recommendation on Open Government (OECD, 2022[71]). Participatory governance must be more than a rhetorical commitment: it must become an institutionalised practice. Governments must move beyond one-time consultations and establish real feedback loops to ensure that rural concerns are not only acknowledged but meaningfully addressed in policy design and implementation. However, true engagement requires more than simply bringing diverse voices to the table: it demands that rural stakeholders be given equal footing. The study *Moving Towards Social Inclusion: Engaging Rural Voices in Priority Setting for Health* (Tugendhaft et al., 2023[72]) found that rural communities, when properly engaged, can actively contribute to discussions on resource allocation and policy trade-offs and contribute valuable insights – when given the opportunity.

4.6.1. Engagement and meaningful consultation

Governments must recognise that rural discontent is not merely an economic issue; it also highlights a governance problem. A multitude of initiatives aimed at addressing climate change and facilitating a green transition is being implemented across OECD countries. However, a recurring oversight is creating a role for rural communities in shaping these strategies. This exclusion reflects a long-standing perception of rural areas as peripheral to national interests, rather than recognising them as equal partners in tackling societal challenges. If rural voices continue to be sidelined from policymaking, especially on critical economic, social, and environmental issues, the repercussions could extend beyond social unrest to broader economic and governance failures.

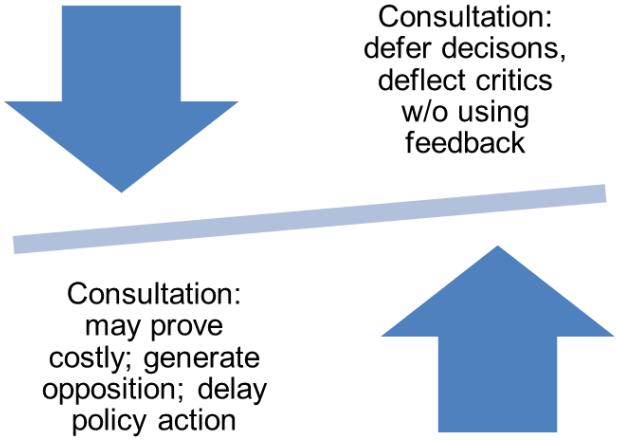
The erosion of trust in institutions has made a balanced and participatory approach to governance essential, including meaningful consultation with affected communities. The recent increase in social unrest should alert policy makers to the fact that policies impacting rural constituencies cannot be effectively designed or implemented without their support. Rural stakeholders should be engaged not only from a pragmatic perspective (e.g. where gaps need to be filled), but also from an ethical standpoint, acknowledging their right to influence the policies that affect their lives. Therefore, governments should actively pursue new and improved methods for informing, consulting, and engaging rural citizens in the policymaking process. This means:

- Amplifying rural voices and ensuring their concerns are considered and the potential impact of the policies on rural communities considered.
- Bringing rural actors into policy discussions early to craft more effective, context-sensitive solutions.
- Prioritising transparency and accessibility to create buy-in for necessary but difficult policy changes.
- Ensuring sustained engagement beyond one-time consultations to establish lasting trust.

When do you consult rural constituents

Another factor that can hinder effective consultation is the need for rapid decision-making. While speed is often prioritised in policymaking, this can lead to suboptimal outcomes if it is not balanced with collaboration between departments and engagement with rural communities (Ali et al., 2024[73]). It is essential to weigh the need for speed against the potential impact of a policy or initiative. For instance, if a policy could face significant opposition, proceeding with minimal engagement could be costly in the long run. Likewise, superficial check-the-box consultation processes that provide little opportunity for feedback and necessary adjustments.

Figure 4.14. The Risks of consultation

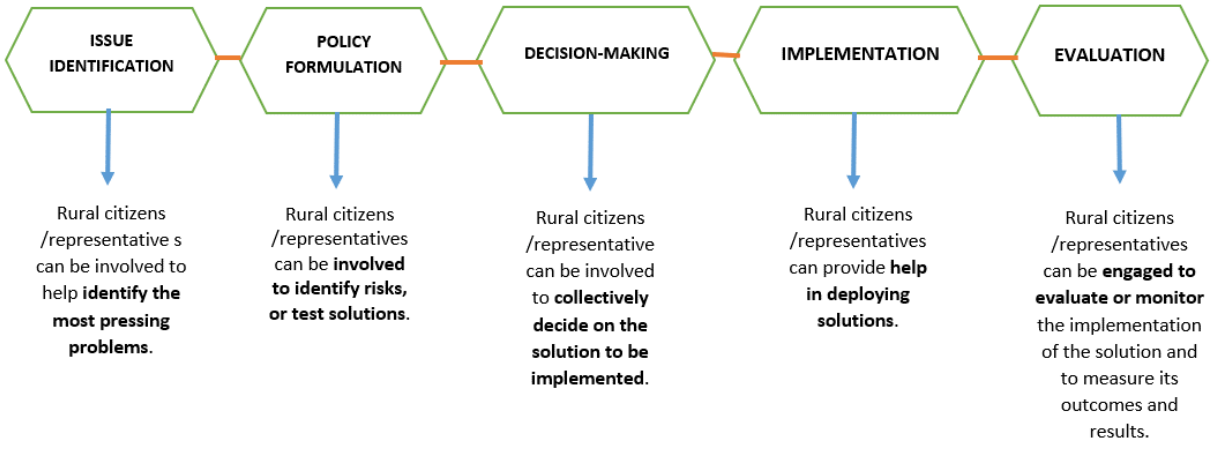


Source: Author's elaboration

Citizen participation can be helpful to address problems in most policy areas, from climate change, public health, housing, infrastructure, transportation, education, to combating inequality and social exclusion, among others. Citizens should only be involved in a decision-making process if:

- There is a problem that citizens can help solve.
- Citizens or a particular group will be impacted by the policy action (e.g. Indigenous communities, farmers, etc.).
- There is room in the decision-making process for citizens to have influence over certain decisions. In other words, it is possible to act on the advice received from people. is a genuine commitment by senior leadership to take into account citizens' inputs.
- There are sufficient financial, technical, and human resources available to implement a meaningful participatory process.
- There is enough time to organise a participatory process, and the timeframe fits the decision-making cycle. Meaning that the decision has not been taken before the process starts.

Figure 4.15. Rural engagement and the policy cycle



Source: Author's elaboration based on (OECD, 2022[71])

Table 4.6. Information, consultation and active participation throughout the policy cycle

State of the policy cycle	Information	Consultation	Active participation
Design	White papers, policy documents Legislative programmes Draft laws and regulations	Large-scale opinion surveys Use of discussion groups or citizens' panels Invitation of comments on draft legislation	Submission of alternative draft laws or policy proposals Public dialogue on policy issues and options
Implementation	New policy or regulations and their provisions	Use of focus groups to develop secondary legislation	Partnership with CSOs to disseminate information on compliance with new laws
Evaluation	Public notice of evaluation exercises and opportunities to participate	Inclusion of stakeholders in review of government evaluation programmes	Independent evaluation conducted by CSOs

Source: (OECD, 2001[74]).

Meaningful consultation

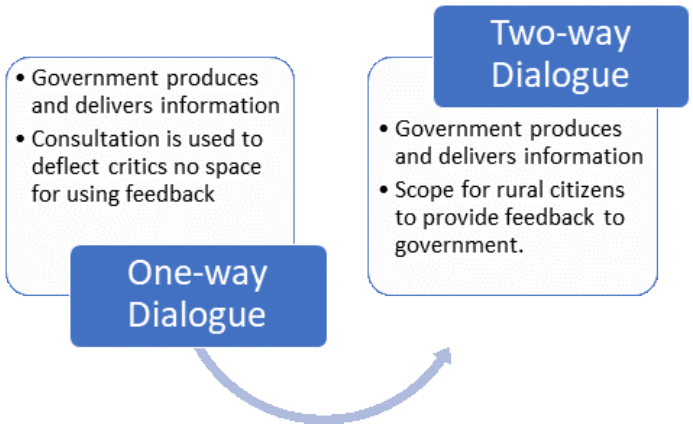
Studies show that rural residents often lack awareness about climate change and therefore do not actively participate in, or support, climate-related policies (Slee, 2021[75]). Additionally, rural populations tend to define their identity strongly around their geographical location, which also influences their stance on environmental policies (Bonnie, Diamond and Rowe, 2020[76]). If rural stakeholders perceive policies as threats to their way of life, rather than collaborative solutions, their resistance increases. Meaningful engagement must acknowledge this identity-driven perspective and integrate rural knowledge into climate discussions to foster more inclusive, locally adapted solutions.

One of the leading causes of consultation fatigue is the perception that public contributions are ignored or have little influence on outcomes. When citizens see no evidence that their recommendations or comments are considered, trust erodes and future engagement declines. Governments should institutionalise mechanisms to summarise consultation outcomes and clearly explain how public input has shaped (or not) final policies or strategies. A lack of feedback can deter participation and diminish the legitimacy of consultation processes. For example, a study on community consultation perceptions found that ineffective feedback mechanisms not only undermine the purpose of engagement, but also discourage future involvement (Walsh, van der Plank and Behrens, 2017[77]).

To be effective, engagement with rural communities must go beyond symbolic consultations and adhere to the following principles:

- **Create a space for exchange:** Effective consultations should allow for open dialogue where participants can disagree, propose changes, and contribute to solutions.
- **Ensure a two-way dialogue**: Policymakers must practise active listening, consider multiple perspectives, and provide space for structured discussions, alternating between small group and plenary formats, facilitated by skilled moderators.
- **Ensure diverse stakeholder representation**: Participants should be a microcosm of the general public, selected through stratified random sampling based on demographic and attitudinal criteria to reflect the broader community.
- **Provide access to prior information**: Rural constituents should have access to a wide range of accurate, relevant, and accessible evidence and expertise, including experts and advocates they select.
- **Establish transparent feedback mechanisms** that demonstrate how public input influences decision-making. This approach not only validates participants' contributions but also encourages ongoing engagement in future consultations.

Figure 4.16. Meaningful consultation is a two-way dialogue



Source: Author's elaboration

Different ways to engage rural citizens

Governments can improve service delivery and policy effectiveness by engaging rural citizens in decision-making processes. Ensuring their voices are heard allows them to influence agendas while also playing an active role in achieving development goals. Successful engagement strategies must be inclusive, community-cantered, and adaptable to rural needs. Countries worldwide have implemented various approaches to enhance rural participation in integrated governance and development. Finland's Rural Policy Council acts as a cross-sector policy platform ensuring that different sectors collaborate in designing co-ordinated policies with rural input. In Australia, the Regional Development Australia (RDA) initiative trains rural leaders to act as connectors between their communities and government bodies, facilitating alignment across sectors such as education, transport, and energy.

- Raising awareness about integrated development policies is also essential. Norway's government runs campaigns to educate rural citizens on how green energy projects, sustainable agriculture, and infrastructure development intersect, ensuring greater participation in policy planning. While engaging rural citizens in participatory budgeting allows them to influence how public funds are allocated across sectors. Portugal's rural municipalities employ participatory budgeting to direct funds toward community-driven projects integrating transport, tourism, and environmental initiatives. Governments can also collaborate with businesses and NGOs to co-design rural development projects that align with community needs. In the United States, the Rural Development Innovation Center facilitates public-private partnerships (PPPs) to improve broadband connectivity, healthcare access, and economic development in rural areas.

Box 4.9. Rural Americans the rural-urban divide and environment policy

In a study by the Duke Nicholas Institute for Energy, Environment and Sustainability (NIEPS) the research found that there are opportunities to engage rural voters on climate change and environmental policies. The results also highlight the complexity of the rural/urban divide on environmental issues. It emphasised that rural voters seemed to care about the environment but have concerns about policy effectiveness, government intervention, and climate change regulations. See a summary of the key points below:

- ***Similar environmental concerns across regions***: While a rural/urban divide exists regarding environmental policy, rural and urban/suburban Americans value environmental protection

similarly. However, rural voters prioritize clean water and farmland conservation more, while urban/suburban voters focus more on climate change.

- ***Core values shape rural perspectives***: Rural Americans' views on environmental conservation are influenced by strong community ties, environmental stewardship, and a deep connection to nature.
- ***Scepticism toward government policies***: Rural voters, even those from typically pro-regulation groups (Democrats, younger, highly educated), are more sceptical of government intervention, particularly federal policies.
- ***Pro-environment, yet critical of policies***: Rural voters often support environmental conservation but are concerned about the impact and effectiveness of specific environmental policies, such as the Clean Water Act.
- ***Knowledgeable on environmental issues***: Rural voters are not uninformed about environmental issues or policies; they understand trade-offs and have nuanced views.
- ***Preference for local and state oversight***: Rural voters favour environmental policies managed by state and local governments, where they can have direct involvement in decision-making.
- ***Climate change is highly polarised***: Rural voters are less supportive of government action on climate change, and even pro-environment rural demographics are more muted in their support compared to their urban/suburban counterparts.
- ***Climate change scepticism linked to regulatory concerns***: Many rural voters hesitate to accept climate change science due to concerns that climate policies may negatively impact rural communities.
- ***Low trust in environmental advocacy groups***: Rural voters trust scientists and local farmers/ranchers the most for environmental information but are sceptical of environmental advocacy groups, though they differentiate conservation groups as more collaborative.
- ***Effective messaging for rural voters***: Rural voters respond well to messages focused on moral responsibility, protecting future generations, and clean water. They also resonate with messaging that emphasizes holding corporations accountable for environmental protection.

Source: (Bonnie, Diamond and Rowe, 2020[76]).

4.6.2. Build Capacity by strengthening local government fiscal capacity

Increased fiscal flexibility to drive local development

Some local government in rural communities are often caught in a financial paradox. They require investment to grow yet lack the fiscal tools to finance that growth themselves. Indeed, many governments rely on national transfers that shape strategies not around long-term investment but around eligibility criteria for national transfers. Thus funding streams that can be unpredictable, restrictive, and politically driven. The result is a system where some localities prioritise eligibility for central government aid over long-term investment in their own economic future. The problem is not merely a lack of funding. It is the structure of financing itself. When local governments have little control over their own revenue, they struggle to make independent, strategic investments. Shifting towards a more flexible and diversified financial model – one that allows rural areas to mobilise their own resources – is not only an economic necessity but a matter of governance. A locality that can finance itself can shape its own future (Clark and Mountford, 2007[52]).

Local fiscal and financial frameworks vary greatly from country to country, with some countries giving large autonomy to local governments, in terms of revenue-raising capacity, expenditure decisions or borrowing

rules. Some countries have recognised the importance of empowering local governments with greater financial autonomy. In Denmark nearly two-thirds of public expenditure takes place at the municipal level, with local income taxes generating up to 80% of revenues. This structure ensures that local leaders have both the responsibility and the means to foster long-term economic growth. Crucially, Denmark's Kommune Kredit, a publicly owned, non-profit financial institution, allows local governments to access capital markets at competitive rates, reducing reliance on national transfers.

Finland follows a similar path. Municipalities there raise approximately 50% of their revenue through their own taxes and benefit from MuniFin, a financing institution that issues bonds on international markets to fund local development. In this system, fiscal autonomy translates directly into investment capacity. Contrast this with Ireland, where local governments control just 22% of public investment and raise a mere 2% of total tax revenue. Heavily dependent on national transfers, Irish municipalities have limited ability to set independent fiscal policies. The central government's control over funding decisions constrains local leaders' ability to shape economic strategies tailored to their communities (Vammalle and Bambalaite, 2021[78]).

Table 4.7. Overview of subnational finance across OECD countries

Country	Decentralisation	Expenditure		Revenue		
		% GDP	% public expenditure	% GDP	% subnational revenue	% public tax revenue
Australia	Medium	17.3%	48.2%	5.2%	34.5%	19.5%
Austria	Low	18.1%	34.0%	2.0%	10.6%	7.0%
Belgium	High	26.7%	50.3%	6.6%	25.7%	22.2%
Bulgaria	Low	7%	21%	1%	12%	4%
Canada	High	31.0%	74.1%	15.9%	51.9%	53.9%
Chile	Low	3.7%	13.8%	1.7%	42.0%	7.2%
Colombia	Medium	11.1%	31.4%	3.5%	30.5%	18.6%
Costa Rica	Low	1.6%	4.3%	0.7%	40.5%	4.0%
Croatia	Low	12.0%	26.0%	1.0%	12.0%	4.0%
Cyprus	Low	1.0%	3.0%	0.0%	23.0%	1.0%
Czech Republic	Medium	12.6%	28.4%	6.1%	44.6%	31.6%
Denmark	High	30.0%	66.7%	11.1%	37.0%	26.5%
Estonia	Low	9.6%	24.3%	0.2%	2.1%	0.9%
Finland	High	22.1%	41.5%	9.9%	45.1%	32.0%
France	Medium	11.2%	19.2%	6.3%	56.0%	20.3%
Germany	High	23.5%	47.6%	13.4%	55.9%	54.5%
Greece	Low	3.9%	7.4%	1.0%	25.5%	3.3%
Hungary	Low	5.9%	12.1%	1.7%	29.2%	6.6%
Iceland	Medium	14.1%	29.7%	9.9%	77.9%	30.0%
Ireland	Low	2.1%	9.7%	0.3%	15.7%	1.7%
Israel	Low	5.4%	14.4%	2.7%	48.1%	9.7%
Italy	Medium	14.3%	25.5%	4.1%	28.7%	14.1%
Japan	Medium	17.3%	40.3%	7.9%	43.4%	36.0%
Korea	Medium	17.8%	43.5%	5.6%	31.1%	23.5%
Latvia	Medium	10.0%	24.8%	5.0%	49.5%	24.0%
Lithuania	Low	8.9%	24.4%	0.3%	3.6%	1.5%
Luxembourg	Low	5.0%	11.4%	1.4%	29.0%	5.1%
Malta	Low	0.0%	1.0%	0.0%	0.0%	0.0%
Mexico	Medium	11.7%	43.1%	1.0%	8.4%	7.4%
Netherlands	Low	12.9%	29.6%	1.2%	9.6%	4.9%
New Zealand	Low	4.5%	10.8%	2.1%	55.5%	6.5%
Norway	Medium	12.6%	32.9%	4.5%	38.0%	12.4%

Poland	Medium	13.8%	31.4%	4.1%	30.5%	19.1%
Portugal	Low	6.5%	14.7%	2.5%	39.6%	9.9%
Romania	Low	8%	23%	1%	10%	6%
Slovak Republic	Low	8.0%	18.8%	0.5%	6.9%	2.6%
Slovenia	Low	9.0%	19.1%	3.2%	36.0%	15.0%
Spain	High	24.5%	51.7%	8.8%	37.7%	35.7%
Sweden	High	23.3%	49.1%	12.0%	50.4%	30.6%
Switzerland	High	20.4%	62.0%	11.2%	53.1%	55.1%
Turkey	Low	2.9%	9.9%	0.2%	8.2%	1.5%
United Kingdom	Low	9.2%	19.8%	1.7%	19.0%	5.9%
United States	High	19.1%	48.7%	9.4%	48.1%	43.5%

Source: MUNIFI Database

How local governments are financed influences their economic strategies

Local governments rely on five main sources of revenue: tax income, grants, user fees, property-related income, and other streams such as social contributions and revenue from public enterprises. However, their control over these funds is often constrained. Many local governments operate less as decision-makers and more as administrators of centrally dictated spending programmes. Budget ceilings, earmarked grants, and regulatory restrictions limit their ability to shape investment priorities. The way subnational governments are funded directly influences their approach to economic development. OECD research suggests that in countries with high tax levels, public investment plays a central role in driving economic growth. In contrast, countries with lower tax levels tend to encourage private-sector engagement as the primary growth engine. The more a local government relies on national transfers, the more likely it is to prioritise demonstrating public need over fostering private investment. (Vammalle and Bambalaite, 2021[78]).

Most OECD countries fall somewhere in between these models, but their position on this spectrum has profound consequences. At one extreme, local government focus on maximising eligibility for state funding. At the other, they act more like businesses. Meaning competing for investment, fostering entrepreneurship, and improving infrastructure to attract firms and skilled workers. A local government's financial flexibility determines whether it can proactively invest in its future or remain confined to administering central budgets. Those with greater tax autonomy have clear incentives to develop their local economies, while those dependent on transfers often adopt a passive stance, positioning their regions as beneficiaries of government aid rather than engines of economic opportunity. The contrast is stark: some regions vie for subsidies, while others strive to become magnets for investment. In the EU funding for rural development is also supported by LEADER programme that enables bottom-up action by putting resources directly in the hands or rural constituents so they can co-design their own development (see Box 4.10).

Box 4.10. LEADER - Links between Actions for the Development of the Rural Economy

The European Commission's LEADER programme has become a cornerstone of EU rural development policy. Introduced in 1991, the initiative—its name an acronym of the French Liaison Entre Actions de Développement de l'Économie Rurale (Links between Actions for the Development of the Rural economy)—marked a departure from conventional, top-down policymaking. By shifting control over policy decisions to the local communities themselves, LEADER seeks to ensure that development initiatives are tailored to local needs. It also fosters cross-sector collaboration, bringing together individuals, local authorities, social and economic partners, businesses, and civil society through Local

Action Groups (LAGs). Networking, cooperation between local territories and local innovation are also part and parcel of the LEADER method.

Implemented under the national and regional Rural Development Programmes of each EU Member State, LEADER is co-financed by the European Agricultural Fund for Rural Development (EAFRD). Its resources support place-based development strategies, reinforcing the principle of bottom-up governance by granting local communities a direct role in decision-making, strategy formulation, and resource allocation. Today, some 2 600 LAGs operate across the EU, covering 65% of the rural population.

The success of LEADER has prompted its adoption beyond rural policy. The European Regional Development Fund (ERDF), the European Social Fund (ESF), and the European Maritime and Fisheries Fund (EMFF) have incorporated its principles into a broader framework of Community-Led Local Development (CLLD). LEADER and CLLD groups now manage tens of thousands of projects across rural Europe, generating economic, cultural, social, and environmental benefits. What began as an experiment in participatory governance has become a defining feature of EU rural development.

Source: European Commission

Actions to strengthen local government fiscal capacity

Empowering rural local governments with greater financial autonomy is not simply an economic matter – it is a question of governance. Without the ability to raise and control their own revenues, local leaders remain constrained by national priorities rather than local needs. Reforms that allow municipalities to expand their revenue sources, borrow responsibly, and participate in capital markets would enable them to take control of their own development. Four key steps could help shift the balance:

- **Expanding fiscal autonomy** by allowing local governments to adjust tax rates, impose user fees, and retain a greater share of property and business taxation.
- **Diversifying financing tools**, including municipal bonds, loan facilities, and new revenue instruments such as land value capture.
- **Providing regulatory flexibility** to ensure that local governments can borrow responsibly, enter into partnerships, and leverage financial markets effectively.
- **Restructuring intergovernmental transfers** to reward investment-led development rather than reinforcing dependency on central funding.

4.6.3. Use foresight tools to enable experimentation and local co-designed policy actions

In an era of rapid transformation, rural communities must be equipped not only to respond to external pressures, but to actively shape their own futures. Participatory governance offers a powerful framework for placing local voices at the heart of policy decisions. Yet, traditional policymaking often lacks the anticipatory tools needed to prepare for complex, long-term challenges. Foresight methodologies such as scenario planning, horizon scanning, and participatory futures thinking, can help fill this gap. When embedded within local governance structures, these tools empower rural stakeholders to co-design policies that reflect their aspirations and prepare for uncertainty. By incorporating foresight into decision-making, communities can better navigate disruption, align strategies across sectors, and enhance resilience. This section explores how foresight tools can strengthen participatory governance, allowing rural communities to shape the policies that will determine their long-term development.

Definition of futures thinking and foresight

Foresight is the discipline of exploring and anticipating future possible developments to shape the preferable future (European Commision, 2023[79]). It involves creating and using information about the future in a way that combines "facts", derived from empirical data with assumptions about the future based on a blend of subjective perceptions, expectations, hopes and fears, imaginative and creative thinking (Wilkinson, 2015[80]). The process employs a structured framework that draws on multiple disciplines to elicit assumptions about the future, thereby aiding decision-making in the present (Berkhout, 2002[81]). It is future-oriented, with a significant emphasis on gathering information about future realities. At its core, foresight involves three interconnected principles. "Thinking the Future", "Debating the Future" and "Shaping the Future" (Figure 4.17). Rather than focusing on a single projected future, foresight explores a wide range of possible, plausible, and preferable futures.

Figure 4.17. What is foresight?

Source: (European Foresight Platform, 2012[82])

Box 4.11. Strategic Foresight – a step beyond foresight

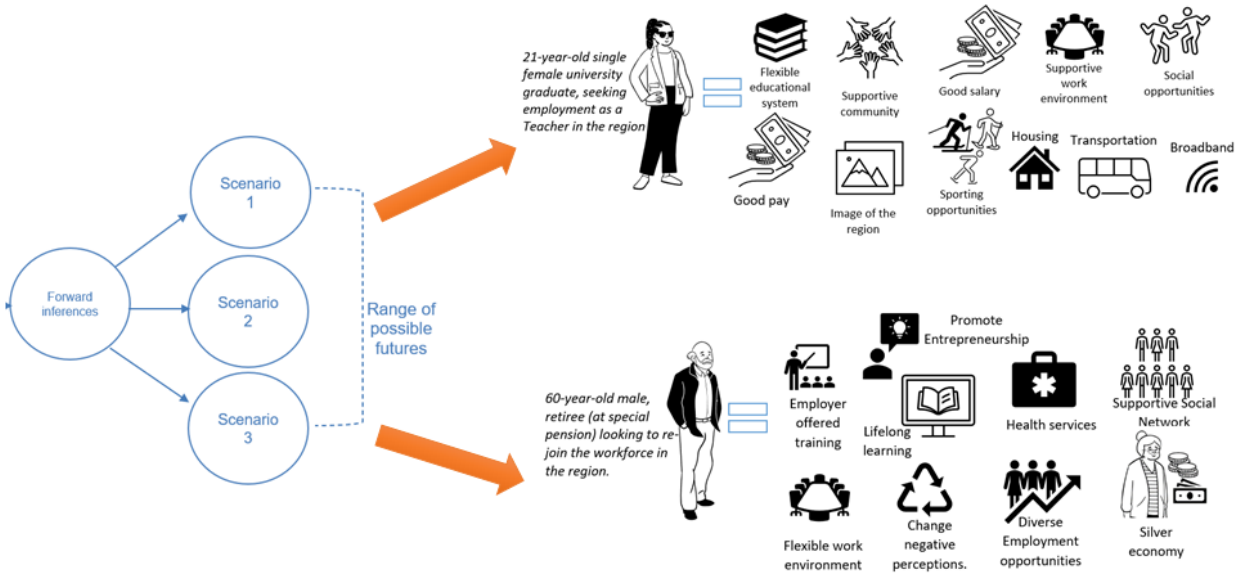
The European Commission has bolstered strategic foresight capacity both internally and across Member States, aligning it with ongoing Resilience and Recovery Plans. Key initiatives include foresight networks, annual foresight reports, and policy tools to identify opportunities and vulnerabilities (OECD, 2024[83]). Strategic foresight goes a step further. It seeks to embed future insights into policymaking, strategic planning, and preparedness (European Commision, 2023[79]). The OECD defines strategic foresight as the "structured and explicit exploration of multiple futures in order to inform decision-making." It is considered an approach to assist decision making in the face of uncertainty. By engaging in strategic foresight, governments can make prudent decisions in uncertain situations and explore diverse, plausible future scenarios, while also considering the potential opportunities and challenges that may arise. Considering and preparing for a broad range of possible future developments and their implications as a fundamental aspect of responsible and effective policymaking (OECD, 2020[84]).

Source: (OECD, 2024[83]) (European Commision, 2023[79])

Foresight work is a participatory process

Foresight is inherently collaborative. A participatory approach is essential to both the design and implementation of foresight initiatives. Engaging a diverse range of stakeholders—including local governments, community representatives, businesses, and researchers – in data collection and scenario-building strengthens the credibility, relevance, and practicality of foresight outcomes. It also recognises people as active agents in shaping the systems in which they live (Gore, 2014[85]). The result is an approach to policymaking that prioritises local knowledge, assets and potential for growth.

Figure 4.18. Foresight workshops and knowledge exchange



Source: Author's elaboration

This participatory model places local knowledge, assets, and aspirations at the centre of policymaking, fostering approaches tailored to the unique characteristics of each place. Tools such as foresight workshops create platforms for inclusive engagement, enabling stakeholders across levels and sectors to co-create scenarios and exchange knowledge. These exercises facilitate mutual understanding, bridge disciplinary divides, and strengthen policy coherence. For example, a foresight exercise on demographic pressures might examine future scenarios from the perspectives of both a young person considering relocating to a rural area and an ageing resident contemplating retirement Figure 4.18. This helps build shared narratives around challenges and risks that are essential for resilient policy design. In complex contexts such as climate change, where baselines are shifting and outcomes are uncertain, the value of exploring a spectrum of futures becomes especially critical (Bengston et al., 2022[86])

Foresight tools: scenario planning, horizon scanning, and trend analysis.

Scenario planning creates plausible portrayals of different futures, grounded in assumptions, historical trends, and local context. It does not aim to predict outcomes but to prepare for a range of possibilities. Effective scenario development begins with identifying regional drivers of change and key uncertainties shaping rural development. These drivers may be highly localised. A change in municipal leadership, for example, may lead to new policy directions or shifts in administrative structures, as seen in Limerick, Ireland. Analysing the interaction between trends and drivers across different parts of a region creates a clearer view of possible trajectories – identifying both opportunities and challenges ahead.

Change drivers can be different across regions, certain parts of a region or a rural areas and local communities. For example, a change in local government can lead to new directions, or an incoming government may demand greater administrative efficiencies or more control of resources/budget flexibilities e.g. Ireland, Limerick. Closely examining the interplay between trends and change drivers in different parts of the region would provide a more complete picture of possible futures in the region as a whole. This analysis provides the foundation for developing narratives or storylines, making a region's trajectory clearer and identifying challenges and opportunities on the horizon. Foresight intelligence noted in Figure 4.19 and discussed below, uses this information to explore how different rural futures might unfold to help policymakers and stakeholders develop strategies for long-term resilience and adaptation.

Intelligence gathering specific to rural regions

Rural foresight activities require robust intelligence that integrates spatial elements at all stages of data collection. The environment in which subnational governments operate is evolving rapidly, unpredictably, and fundamentally. Since future changes will affect different regions in distinct ways, as a result spatial characteristics are vital in rural foresight work. This requires data that accurately reflects the state of rural areas from multiple perspectives. This could be referred to *foresight intelligence*, which is comprised of three pillars as shown in Figure 4.19: The state of the region by typology (e.g. socioeconomic, demographic, and environmental conditions) impact data (including megatrends and localised trends); and change drivers (or forces) that shape future developments.

Figure 4.19. The components of intelligence for rural foresight activities

Source: Author's elaboration

- ***State of the region data****:* This is robust data that clearly delineates the region and rural story*:* Regions are highly diverse, encompassing a mix of landscapes, populations, and economic conditions – from flourishing employment hubs to areas experiencing population decline. Foresight intelligence must reflect these specific variations to be useful. Rural-urban interconnectivity plays a crucial role. Rural areas are linked to cities through demographic shifts, labour markets, public services, and environmental interactions. These connections often cross traditional administrative boundaries and go beyond city-cantered labour markets, forming bi-directional relationships (OECD, 2018[87]). The local government in the Outer Hebrides in Scotland conducted a state of the region analysis and found that: the youth population is shrinking due to lack of job opportunities. The dominant industries (fishing, tourism, and agriculture) are struggling due to climate change and declining market demand. The local workforce lacks training in renewable energy or sustainable industries (Thomson et al., 2024[88]).
- ***Trends impact data****:* Data on the Impact of trends (mega and local) in the rural context. Identifying emerging disruptions and opportunities is crucial for rural areas local governance and policy planning and is probably not analysed as much as it should be on a granular scale. How do global megatrends and local trends impact rural regions differently? How do rural trends compare to national, regional or global trends? Megatrends, weak signals (lower impact but potentially transformative events), and change drivers form the foundation of foresight intelligence (Stucki, 2023[89]). In July 2022, the OECD organised a strategic foresight workshop to assess the effects

of megatrends on subregional governments and their implications for multilevel governance policies. The exercise highlighted two primary ways in which rural areas may transform: exogenous factors (e.g. urban spillover effects or global economic and environmental shifts) and endogenous factors (e.g. local community-driven actions and policy initiatives). Leaders in the Alentejo region in Portugal, analysed global trends and found that renewable energy investments were increasing, with companies seeking land for solar farms. European Union climate policies were incentivising green projects and funding skills programmes. Sustainable agriculture practices were growing in demand, and eco-tourism was expanding (OECD, 2023[90]).

- ***Change drivers impact data:*** Data that puts the impact of change drivers in the rural context. Change drivers are the underlying forces that propel trends forward (Gordon, 2010[91]). These forces determine the trajectory of trends, making them significant disruptors that may vary in impact across different rural contexts. For example, the rise of disinformation or declining trust in government may manifest differently in rural and urban settings within the same region. A single driver can influence multiple trends Gordon, 2010[38]. For example, the ageing population trend is driven by medical advancements, improved healthcare access, and healthier lifestyles. Change drivers are often categorised as social, technological, environmental, economic, and political. Identifying the key drivers that influence regions, and the main uncertainties are crucial before undertaking a scenario development process. Local leaders in Lausitz, Germany found that the energy transition policies were driving demand for green jobs. Companies were willing to invest if a trained workforce was available and young people showed interest in sustainability careers, but there were no structured training programmes (Baron and Bartl, 2024[92]).

Box 4.12. Overlaps and Differences Between Rural Proofing Intelligence and Foresight Intelligence

Rural proofing intelligence and foresight intelligence share common data needs but serve distinct purposes in policymaking. Both require robust demographic, socioeconomic, environmental, and technological data, and both assess the impact of trends and external forces on rural areas. However, their key distinction lies in their temporal focus and application.

- *Spatial Characteristics:* Both foresight and rural proofing rely on demographic, socioeconomic, and environmental data, but foresight intelligence will place greater emphasis on long-term spatial shifts rather than current policy effects.
- *Trends and Change Drivers*: Both frameworks examine how trends shape rural areas, but foresight will focus on predictive insights and scenario planning, while rural proofing assesses policy effectiveness and immediate adjustments.
- *Rural-urban Linkages*: Both approaches consider rural-urban dynamics, but foresight will look at future interactions and dependencies, whereas proofing focuses on existing conditions

While both approaches utilise spatial and cross-sectoral intelligence, foresight intelligence places a stronger emphasis on strategic visioning and transformation, whereas rural proofing intelligence is focused on mitigating immediate policy risks. Together, these intelligence frameworks can complement one another—proofing ensures policies work for rural areas today, while foresight helps shape the policies needed for the rural communities of tomorrow.

Source: Author's elaboration

4.7. Effective communication

Public expectations and the way information is consumed have transformed how information is delivered. Digital technology has empowered the public to choose their own communication platforms and to become producers and co-creators of content (Yudarwati and Gregory, 2022[93]). While this has expanded communication channels, it has also made information more susceptible to misinterpretation and distortion. Government messages and communications will be influenced by new digital trends and initiatives. This is particularly relevant in the rural context, specifically regarding how the government communicates policies and initiatives with potentially negative impacts to rural communities.

4.7.1. The Importance of Effective Communication in Rural Areas

Improving communication with rural communities is crucial for rebuilding trust in government policies. Governments must better understand the concerns, needs, and realities of rural citizens, especially those who feel left behind, to design more effective and context-specific responses. This is also essential when shaping national policy reforms affecting rural economies. Failure to consider regional differences can lead to one-size-fits-all solutions, which risk alienating rural populations. For example, spatially blind policies, such as the fuel tax increases in France or the nitrogen crisis in the Netherlands, have triggered significant rural discontent. On the other hand, rural citizens expect clear, transparent, and useful communications from their government.

Communicating complex policies and decisions is challenging, particularly within electoral cycles, where political considerations often take precedence. However, weak communication, especially with those most affected, can undermine the success of policy initiatives. The case of the Netherlands serves as an illustrative example. According to *Nitrogen wars: the Dutch farmers' revolt that turned a nation upside-down,* the highest administrative court in the Netherlands ruled that the country's nitrogen permit system was failing to prevent emissions from harming nature reserves and, therefore, needed to be addressed immediately. However, it took dairy farmers several months to fully grasp the implications of this ruling" (Tullis, 2023[32]). A few months later, an advisory committee released a report outlining measures to address the issue, including the potential buyout and closure of livestock farms. However, the report failed to clarify whether these buyouts would be voluntary or compulsory, and the farming community assumed the worst. The way governments communicate their vision, mission, and policies can determine their success or failure

The OECD's first report on public communication (OECD, 2021[94]) though not rural-specific, makes the case for a more strategic and evidence-based approach to communication. It outlines key recommendations, including:

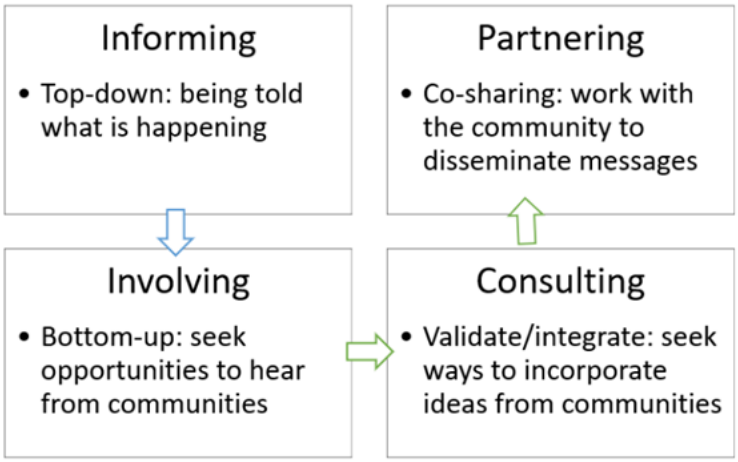
- Strengthening the governance of public communication
- Adopting data-driven and evidence-based communication strategies
- Evaluating the impact of public communication on policy outcomes
- Enhancing agility in communication in a rapidly evolving digital landscape
- Countering mis- and disinformation through communication-led interventions
- Using communication to improve public trust and policy transparency

Public policies are not merely technocratic decisions; they directly shape citizens' lives, so "they must have a say" (Nic Cheeseman, 2014[95]) Traditionally, public sector communication has been one-directional – governments informing rural communities about policies or strategies. While this approach has its place, it is often limiting when local communities have little opportunity to contribute their own knowledge and perspectives. A more effective model for rural communication involves transitioning from a one-way approach (informing) to a participatory framework based on three pillars:

- **Informing**: The government communicates policies to the public.
- **Consulting**: Rural citizens provide feedback and contribute insights; and partnering
- **Involving and partnering**. Communities actively participate in decision-making (see Figure 4.20).

This participatory approach increases government accountability, enhances rural empowerment, and fosters greater public engagement in decision-making processes.

Figure 4.20. Public-centric approach to rural communication



Source: Adapted from (Yudarwati and Gregory, 2022, p. 48[93])

Tailoring Communication for Rural Audiences

Effective communication is not just about delivering information – it is about fostering trust, transparency, and participation. Governments must prioritise engagement with rural communities through consultation and communication strategies, ensuring that rural voices are heard and respected. To communicate effectively, messages must be adapted to suit the rural audience. In the United States, rural communities were disproportionately affected by the COVID-19 pandemic, experiencing higher death rates per capita than urban areas. The Centers for Disease Control and Prevention (CDC) faced significant challenges in building trust and reaching rural populations. In response, the CDC Foundation worked with partners to refine its communication strategy. Key lessons learned include:

- Co-creating messages with rural communities to ensure they align with local values and priorities
- Using plain language to ensure clarity
- Acknowledging community concerns without judgement
- Leveraging existing local communication networks rather than imposing top-down strategies
- Tailoring messages to cultural and demographic contexts
- Selecting the right channels for communication, including social media, local newspapers, radio stations, and community events
- Engaging trusted local messengers to improve credibility and uptake of messages

Trust is built through honesty, transparency, and consistency. Governments must avoid technical jargon, misinformation, and ambiguity when conveying policies to rural communities.

Select the proper channel to disseminate the message. This is crucial to ensure that the intended audience receives the message. Dissemination channels include social media, newspapers, community events, and

local radio or television. In diverse rural communities, engaging trusted messengers to spread messages also helps increase buy-in. Local leaders, community organisations, and influencers play a vital role in bridging the communication gap between governments and rural communities. Governments should identify and train local ambassadors to deliver messages in ways that resonate with rural audiences. A bottom-up approach, where information is contextualised by trusted community figures, enhances engagement and credibility.

Box 4.13. Countering misinformation

Misinformation is a growing challenge in rural areas, often exacerbated by limited media literacy and the rapid spread of unverified information. Governments and organisations should:

- Identify key sources of misinformation in rural communities
- Develop proactive strategies to counter false narratives
- Train community members and local media representatives to verify information
- Implement media literacy programmes to help rural citizens critically assess information sources

By empowering rural residents to identify credible sources, they can become more informed participants in community discussions and policy dialogues.

Finally, implement communication strategies in collaboration with community partners to help ensure messages resonate with diverse rural communities. Partnerships are essential for implementing effective strategies in diverse rural communities. Digital communication is expanding, but traditional methods remain critical in rural settings. Some rural areas have limited internet access and digital literacy. Therefore, communication strategies should integrate both digital and traditional media. Radio, for example, remains one of the most powerful tools for reaching remote and under-resourced areas. It provides real-time information, strengthens community connections, and ensures inclusivity. To ensure accessibility, messages should be communicated in local languages and include visual aids suitable for diverse literacy levels.

4.8. Conclusion

Transforming rural policy is not just a necessity; it is an opportunity. Rural regions are no longer passive recipients of national policies but dynamic spaces of innovation, resilience, and growth. However, realising their full potential demands a fundamental shift in governance. Rural areas face distinct challenges and opportunities that require tailored, place-based responses. As rural economies evolve, governments are under increasing pressure to ensure that policies result in tangible improvements in people's lives. Today's transformations including shifting patterns of globalisation, biodiversity loss, climate change, democratic decline, digitalisation, and demographic shifts, are reshaping societies and economies. Without forward-looking policies that anticipate disruptions, enhance preparedness, and foster resilience, rural regions risk falling further behind.

To meet these challenges, a greater focus on innovation, industrial policies, and enhanced access to public services is essential. However, these efforts must be embedded within a framework that is evidence-based, participatory, scalable, and fosters partnerships across sectors and regions. Effective policy communication will also be critical to ensuring that rural communities understand, support, and benefit from these strategies. The challenges facing rural communities such as economic disparities, policy fragmentation, and social unrest, are not isolated issues; they are symptoms of broader governance failures. The response must go beyond economic development alone. The future of rural policy is not about

sustaining the status quo; it is about transformation. By reframing the rural narrative from considering it not as a problem to be managed, but as an opportunity to be unlocked, governments can build thriving, inclusive, and future-ready rural economies that benefit both rural and urban areas alike.

The five focus areas outlined in this chapter (e.g. policy coherence and integrated cross-government action; considering scale and enabling collaboration; improving rural evidence; empowering rural actors; and strengthening communication with rural communities), are essential for responding to the growing distrust and dissatisfaction among rural populations. Each element contributes to rebuilding trust in public institutions by addressing longstanding perceptions of being undervalued, unheard, and overlooked in national policymaking.

Policy coherence and integrated governance promote a more balanced and co-ordinated approach to rural development, helping to reduce fragmentation and inconsistencies that often frustrate rural communities. A better consideration of scale and spatial dynamics enables governments to understand rural patterns more clearly and tailor interventions accordingly. Fostering collaboration, whether through rural-urban linkages, public-private partnerships, or community initiatives, broadens the range of options for job creation, service delivery, and economic opportunity in rural regions.

The collection and use of rural-specific evidence ensures that decisions are grounded in the lived realities of rural populations. Over time, this enhances the legitimacy of public action and reassures communities that policies are responsive to their needs. Equally important is empowering rural voices by creating more flexible mechanisms for local governments to access resources and actively participate in shaping policy. When rural actors are consulted meaningfully, especially early in the policymaking process, this not only strengthens buy-in but also fosters a deeper sense of inclusion and respect. Taken together, these actions can help close the trust gap, respond to rural discontent, and support the design of more effective, inclusive, and resilient rural policies.

RECOMMENDATIONS:	
Policy Coherence and cross government Integrated action	• Leverage governance tools (e.g. co-financing, consultation processes, intergovernmental committees) to align investment and enhance cross-sectoral co-ordination.
	• Develop indicators to track inter-sectoral collaboration (e.g. number of committees, budget allocations, stakeholder engagement metrics).
	• Introduce a rural proofing process tailored to national and regional contexts to integrate rural considerations into policy development.
Building Scale and Promoting Co-operation	• Base policies on Functional Rural Areas (FRAs) to reflect real economic and spatial dynamics of rural regions.
	• Enhance rural-urban linkages through incentives, governance capacity-building, and improved interconnection metrics.
	• Promote public private partnerships to mobilise investment and innovation for sustainable rural development.
Improving Rural Evidence	• Improve data collection on rural well-being by identifying the key domains that matter most to rural communities. This requires a blend of empirical research and participatory engagement to ensure that indicators reflect lived realities.
	Develop and maintain rural proofing intelligence comprised of: • ***State of rural data*** to establish a clear overarching understanding of rural conditions. • ***Potential impact data*** to evaluate how specific policy proposals may affect rural communities—particularly in ways that may be unintended, disproportionate, or overlooked—thus supporting necessary policy adjustments.

	• ***Value-added data*** to demonstrate how working with rural communities—rather than overlooking or bypassing them—can help non-rural ministries (e.g. environment, health, education, energy) more effectively achieve their policy goals.
Actions to galvanise and value the rural voice	• Support rural local governments in adopting a broader range of financing tools, such as municipal bonds, land value capture, and public–private partnerships. • Establish or strengthen institutions (e.g local government financing agencies) to facilitate access to affordable capital and reduce reliance on national transfers.
	• Effective engagement should: Be inclusive of diverse stakeholders; ensure two-way dialogue; provide prior access to relevant information; and, include transparent feedback mechanisms to show how input influences decisions
	• Invest in spatially disaggregated data to strengthen rural foresight intelligence and track the impacts of megatrends and change drivers.
Effective Communication	• Transition from one-way communication to a participatory model. Adopt a three-tiered communication approach – inform, consult, partner – to actively involve rural communities in the design, delivery, and evaluation of policies. • Co-develop and tailor messages with rural communities. Work collaboratively with rural residents and local organisations to co-create messages that reflect community values and priorities. • Use trusted local messengers and appropriate communication channels. Leverage existing local communication networks, including community leaders, organisations, and influencers, to deliver policy messages and select channels that match rural realities. • Develop inclusive and accessible communication strategies - Ensure communications are inclusive by integrating visual aids, local languages, and non-digital formats. • Institutionalise strategic communication planning across all policy reforms impacting rural areas and incorporate communication planning into all stages of policy design—particularly for changes with rural implications.

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Note

[1] See: Delineating Functional Areas in All Territories | en | OECD

OECD Rural Studies

Reinforcing Rural Resilience

This OECD report provides a roadmap for strengthening rural resilience by promoting people-centred policies that respond to the diverse challenges and opportunities facing different types of rural regions. Building on the OECD Rural Well-being Framework and Principles on Rural Policy, it distinguishes between rural regions near cities and rural remote regions to tailor more effective strategies. Amid global transformations such as the green transition, digitalisation, and demographic change, rural regions show potential in renewable energy, advanced manufacturing, and digital services. Yet, they face persistent issues including population decline, ageing and service gaps. The report outlines four STAR drivers of rural growth: Specific assets, Tradeable specialisation, Access to urban markets, and Resources (natural resources). It highlights enabling factors such as skills, entrepreneurship, and digital connectivity, and stresses the need for improved rural data, cross-government co-ordination, and stronger local voice. The report calls for differentiated policy actions to enhance competitiveness, service delivery, and environmental sustainability across rural types. In ensuring effective implementation of rural policy, the report explores key considerations such as effective communication, scale and co-ordination, and collection of reliable rural evidence.

PRINT ISBN 978-92-64-42079-3
PDF ISBN 978-92-64-53795-8