

3

Towards a comprehensive rural policy in Colombia

Colombia has untapped growth potential in its rural areas and a holistic rural policy approach can help to mobilise them. This chapter analyses Colombia's national policy framework for rural development and proposes recommendations to strengthen it. It begins with a short overview of the evolution of rural development policy in Colombia. It then examines the current rural policy approach and the main programmes to improve rural well-being. Finally, it outlines the untapped potential in rural economies and identifies a number of policy actions to improve Colombia's rural policy, building on the OECD Principles on Rural Policy.

Assessment and recommendations

Main messages

Colombia has already undertaken multiple diagnoses and developed action plans that recognise the need for a comprehensive policy to improve well-being of rural communities. Particularly, the 2014 Mission for the Countryside and the 2016 peace agreement recognised the need to develop an inter-sectoral and holistic rural policy strategy to address the main rural challenges and thus attain sustainable peace and national goals. The government has developed positive initiatives to mainstream rural needs across sectoral ministries with the National Sectoral Plans from the 2016 peace agreement and to adopt a place-based approach for rural development with the regional pacts in the National Development Plan (PND) and the Development Programs with a Territorial Approach (PDETs).

Colombian rural economies have untapped growth opportunities across different economic sectors. They include unexploited agricultural value chains due to low levels of rural innovation and lack of incentives and formal spaces to create synergies with off-farm activities (e.g. manufacturing, tourism or energy). Other economic sector in rural regions such as tourism, renewable energy and mining can also leverage rural assets (cultural diversity and environmental endowments) to preserve the environment, empower minorities and boost traditional economic activities.

Despite the improvements in rural policy and the variety of rural assets, Colombia has not been able to move forward with an integrated rural policy approach. The design and implementation of non-agricultural policies for rural regions is highly fragmented without mechanism of coordination or joint actions to attain greater scale. Moreover, a number of strategies in the national policy framework largely associate rural development with agriculture development (e.g. Countryside with Progress in the 2018-2022 PND), while some national policies lack recognition of particular rural needs and characteristics (e.g. innovation and entrepreneurship policy).

Moreover, the Ministry of Agriculture and Rural Development (MADR) has led rural development in the country, but with an agricultural bias and with limited co-ordination capacity with other ministries that conduct relevant policies to rural development (tourism, mining, etc.). On top of that, scale and impact of rural and agricultural programmes are hindered by the lack of a consolidated rural information system, which leads to weak focalisation of beneficiaries and a passive approach to deliver rural policies. All this leads to a rural policy being conducted on a sectoral basis, with duplication of tasks and without a clear coordination to address cross-cutting rural challenges. The Integrated Rural Reform (IRR) has scope to be the basis of an overarching national rural policy, but needs better coordination with economic sectorial policies and embracing forward-looking strategies to help communities benefit from megatrends (e.g digital transition-remote working or automation).

Recommendations

- ***Ensure policies across all levels of government make use of a consistent rural definition that recognises the diversity of rural areas and acknowledges urban-rural linkages*** (supported by Chapter 2).

To this end the government (mainly the Departamento Nacional de Planeación [DNP] and National Administrative Department of Statistics [DANE]) needs to:

- Make better use of the Mission for the Countryside definition and the sub-regional classification for policy purposes. The current statistical classification can be further improved by recognising different types of rurality and territories with strong rural and urban linkages. As in Chile, Colombia could create a commission to standardise this definition.

- **Establish an integrated information system for rural areas.**

To this end, the government could either implement a single system of rural information or ensure the interoperability of existing systems. To this end, the government (mainly DNP, DANE and MADR with the co-operation of other ministries) needs to:

- Accelerate rural information projects that are underway across the government, including the Multipurpose Cadastre (*Catastro Multipropósito*) and other information initiatives (e.g. My Rural Registry) and ensure their interoperability, amongst themselves and with established population databases, like SISBEN 4.
- Improve collaboration among MADR (especially the Rural Agricultural Planning Unit [UPRA]), DNP and DANE to ensure that the rural information system reflects the characteristics of different rural areas and combines information from the different agencies of the ministry and private sector (e.g. National Federation of Coffee Growers of Colombia).

- **Create a comprehensive national rural policy** focused on people's well-being and with an inter-sectoral approach, by harmonising the IRR with other productive and transversal policies. This can take the form of a national public policy (e.g. CONPES) that harmonises the IRR with other productive rural policies and is guided by the OECD Principles on Rural Policy. To this end the government (Presidency, DNP, MADR with the co-operation of ministries) needs to:

- Clarify the place and goals of rural policy and agricultural policy in the PND and programmatic and sectoral strategies. Making a clear difference between rural, agricultural and countryside concepts in policy documents will help create synergies among sectoral policies for rural economies.
- Clarify the role and capacity of MADR in the design and implementation of rural policy and the co-ordination of sectoral policies for rural development (Chapter 6 will build on this).
- Ground the comprehensive national rural policy in differentiated local needs by adapting policies and actions to different types of rural regions based on functional interactions. To this end, the comprehensive national rural policy could leverage planning instruments such as PDETs to gather local priorities to territorialise national plans.
- Include in the comprehensive national rural policy a forward-looking approach to involve effects of megatrends (digitalisation and demographic change) and remote working on rural development. Ireland's national rural policy can be a guide for Colombia.
- Adapt national horizontal policies to the characteristics of rural regions, for example in innovation or entrepreneurship policies. This includes rural proofing national policies to identify practical needs and strategic actions.
- Ensure actions to support urban-rural partnerships and joint projects are included in the comprehensive rural strategy.
- Adopt an inter-sectoral approach that allows ministries to play a distinct role in rural development while acting in co-ordination under an overarching strategy. To this end, this comprehensive rural policy could identify synergies with agricultural and non-agricultural (e.g. tourism and mining policy) policies shaping rural development. This involves:
 - Promoting inter-sectoral programmes around agriculture to help accelerate productivity and diversify the economy. The operability of the Agricultural Innovation System needs to be accelerated and its co-ordination with national innovation systems improved. Moreover, co-ordination of agricultural programmes with other sectors like tourism and bioenergy can help unlock new income sources for farmers and improve their resilience.
 - Facilitating bioenergy projects in agriculture by developing joint initiatives between MADR and the Ministry of Mining and Energy and disseminating the know-how gained

in palm oil and sugar crops. As these projects can be difficult in nature given the complex chain of sourcing, sorting and treatment of waste, they should first target big farms and associations of small farmers with support for technological adoption and capacity. Likewise, the country has still untapped potential in ecotourism (e.g. nature watching) to help finance the protection and management of protected areas and biological diversity.

- Leveraging tourism policy to valorise rural traditional cultures and protect the environment. Tourism projects empower local communities to take a lead role in participating in tourism activities. Practices in Canada and Finland can guide Colombia in the development of ethno-tourism.
- Ensuring that renewable energy plans are aligned with rural policies and can integrate rural economies within larger supply chains. While renewable energy projects create few direct jobs in rural communities, its supply chain from the construction to maintenance phase can provide jobs locally and new income sources to existent or new rural companies.
- Helping shape a mining policy that focuses on improving well-being of local communities and adopting digitalisation (mine electrification and automation) to reduce mining carbon footprint and strengthen the mining value chain to produce and transform minerals that are needed for green technologies (e.g. batteries, solar panels). The energy transition requires a large volume of minerals: self-sufficiency in this supply chain and the capacity to transform them within an environmentally sustainable process (e.g. green hydrogen) can open new growth opportunities for rural areas.

Introduction

Rural regions in Colombia are a source of wealth and environmental and social well-being for Colombia and even the world. They host a variety of cultures with unique traditions, including more than 100 Indigenous and Afro-Colombian communities, along with one of the largest biodiversity in the world and rich natural resources for growth, e.g. fertile land with no growing seasons, the 6th country in terms of volume of water, the 2nd Latin American country in terms of wind speed and important minerals' endowment. Rural economies are gradually reducing their reliance on agriculture and extractive industries and diversifying into activities such as tourism, energy or manufacturing. Linked to increasing development in Colombia, rural communities have also improved the quality of life of citizens.

However, rural regions face acute challenges that have long been affecting development and increasing the gap with cities. Rural communities host the country's highest poverty rates, labour informality and violence along with the lowest productivity levels, access to quality services and land formality. All of these bottlenecks prevent growth and investment across different economic sectors (e.g. agriculture, tourism, mining) and prevent rural assets being taken advantage of in Colombia (e.g. biodiversity, natural endowments or multiculturalism).

In the last decades and particularly since the peace agreement in 2016, the country identified the need for an integral rural policy approach that addresses the main structural challenges for development, as depicted in Chapter 2, and mobilises assets and resources in rural regions beyond agriculture. This is a relevant evolution as rural policy in the country has long focused on security, poverty reduction and primary activities (agriculture and extractive industries). Yet, despite the recognition of this comprehensive policy approach, rural policy in Colombia has remained highly focused on the agricultural sector, with fragmented policy actions to support non-agricultural activities in rural economies that could lead to higher levels of well-being for rural citizens.

Colombia's cross-cutting challenges and inter-sectorial untapped growth opportunities in its rural areas require adopting an integrated and coordinated rural policy approach to realise them. This chapter thus analyses Colombia's rural policy framework and identifies a number of recommendations to strengthen it. The chapter begins with a short overview of the evolution of rural development policy in Colombia. It then describes the current rural policy approach and the main programmes to improve rural well-being before identifying areas of improvement that can mobilise untapped potential in rural economies through a number of policy actions that will also be developed in the remaining chapters of the study.

The evolution of the rural policy vision over the past years in Colombia

The rapid urbanisation process in the country has historically captured most of the policy agenda and investments in quality of life, leaving rural development policy confined to security, primary activities and social assistance (Machado, 1999^[1]; UNDP, 2011^[2]; World Bank, 2014^[3]; DNP, 2015^[4]) (Box 3.1). These topics have occupied the centre of Colombia's policy agendas for rural development and prevented efforts to solve more structural challenges and open up new growth opportunities outside agriculture. Such bias and lack of integrated policy for rural communities have led to important urban-rural inequalities across different dimensions of well-being (economic, services and environment), thus undermining social cohesion.

After Colombia's trade openness in the 1990s, the rural economic policy focused on agricultural and primary sector competitiveness to participate in international markets (Government of Colombia, 2021^[5]; Machado, 1999^[1]). This focus was mainly in the form of supporting competitive advantages of natural assets and eliminating public monopoly in various economic dimensions, for example, agricultural marketing and fossil fuels. In the 2000s, an active security policy and fight against illegal activities were

the top policy priority for rural regions, with important interventions to fight guerrilla groups in rural areas and eradicate illegal crops.

Box 3.1. A short overview of the evolution of rural policy in Colombia

- **Before the 1990s**, rural policy focused on the stability and security of rural areas, many of them controlled at the time by guerrilla and other illegal groups, which often replaced government activities like justice, education or even primary healthcare.
- **In the 1990s**, Colombia's trade openness led economic policy to focus on the competitive advantages of rural areas, mainly linked to agriculture and the extraction of natural resources. These policies fostered greater openness in extractive industries, oil, gas and mining, with international players. The Colombian government eliminated its monopoly in various economic dimensions, for example fossil fuel production or agricultural marketing.

The government negotiated a large number of trade agreements including with Mercosur, Central America, Canada, Chile, the United States (US) and the European Union, which opened new markets for agro-food products and reduced food prices for consumers. At the end of the decade, a first mission that proposed an integral solution for rural development was conducted but recommendations were not fully taken on board in development plans (Machado, 1999^[1]).

- **In the 2000s**, rural development policy and related institutions underwent transformations within the framework of the public administration renewal policy. The institutional framework for rural policy focused on strengthening the productive and competitive capacities in the agricultural sector in the context of an open economy, addressing the imbalances in access to factors of production and producing a comprehensive strategy to overcome rural poverty.

There were attempts to achieve a comprehensive intervention in rural areas with the expedition of the Rural Development Statute (Law 1152 of 2007), which was later declared unconstitutional by the constitutional court, or the creation of the Colombian Institute for Rural Development (INCODER) to merge the programmes for access to land, land adaptation and co-financing the development of rural investment projects. However, security and the fight against illegal activities were top priorities to support rural development. Military confrontations in rural areas increased and aerial spraying of glyphosate was common in many remote regions of the country, often affecting non-illegal crops.

- **In the 2010s**, in the framework of the peace process agreement with the guerrilla group Revolutionary Armed Forces of Colombia (FARC), the government appointed a special mission of experts to provide guidelines to improve rural policy development- the Mission for the Transformation of the Countryside. This mission called for a renewed vision of rural development that rethinks the conception that limits the rural sector to the productive primary sector. Instead, it recommended a greater focus on people and the conditions to ensure the social, environmental and productive development of rural communities, with the inclusion of different local actors in the planning of territorial development. In 2011, the government created the Rural Agricultural Planning Unit (UPRA) to guide the management of the territory for agricultural uses. In 2013, the Ministry of Agriculture created the office of Vice Minister of Rural Development (Decree No. 1985, 2013).

In 2015, the government aimed to enhance efficiency (following recommendations from the Mission for the Countryside) by reforming of the Colombian Institute for Rural Development (INCODER), creating instead two specialised agencies: the Agency for Rural Development (ARD) and the National Land Agency (ANT).

The first point of the peace agreement also set the need for an integrated rural policy with a priority focus on improving land use management and restitution of land dispossessed by the actions of illegal armed organisations.

- **2018 and post-peace agreement**, the IRR from the peace agreement set the bases of a place-based approach to rural development, with territorial programmes that help identify local priorities and co-ordinate sectoral policies at the subnational level (e.g. PDETS) by addressing some structural challenges for rural development. Yet, there is still no comprehensive national rural policy that covers all rural communities.

Source: Centro Nacional de Memoria Histórica (2013^[6]), *La Política de Reforma Agraria y Tierras en Colombia*, <https://centrodememoriahistorica.gov.co/wp-content/uploads/2020/01/La-pol%C3%ADtica-de-reforma-agraria-y-tierras-en-Colombia.-Esbozo-de-una-memoria-institucional.pdf>; Franco Cañas, A. and I. De los Ríos Carmenado (2011^[7]), “Reforma agraria en Colombia: evolución histórica del concepto. Hacia un enfoque integral actual”, *Cuadernos de desarrollo rural*, Vol. 8/67, pp. 93-119; Machado, A. (1999^[1]), “El sector rural y el plan de desarrollo”, *Cuadernos de Economía*, 18(30), 167–179. <https://revistas.unal.edu.co/index.php/ceconomia/article/view/11435>

Colombia’s peace process placed the need for an integrated rural policy at the centre of the agenda

The 2016 peace agreement placed rural development as an engine for national growth and social cohesion. In 2012, the government of Colombia initiated a peace process with the FARC, with the aim to put an end to 50 years of conflict in the country. This process uncovered the urgent need to move away from a single vision of agricultural policy towards an integrated rural policy approach. During the negotiation process, the vice ministry office of rural policy was created (2013) with the aim to co-ordinate and address cross-cutting issues in rural economies, including infrastructure and land formalisation. Moreover, a number of policies were put in place to target the provision of public goods as a starting point for agricultural competitiveness, including science, technology and innovation support.

In 2014, the government appointed a mission of experts – the Mission for the Transformation of the Countryside (hereinafter, the Mission for the Countryside) – to set the vision and provide the guidelines to boost rural development in Colombia and thus support the peace process in the country. The mission acknowledged that “the traditional strategy of productive inclusion in isolation has not been effective and has made it difficult to fight against rural poverty” (DNP, 2015^[4]).

The mission rightly pointed out the need to adopt an integrated and inclusive approach to rural development that recognises the diversity of rural areas and goes beyond the focus on agriculture development, with the aim to focus on improving economic, social and environmental dimensions for rural communities. To this end, the mission proposed 6 strategies with specific actions that involved policy and institutional changes (about 185 recommendations). Many of the strategies proposed in this document involve rural proofing the variety of sectoral strategies in the country (e.g. education, health, innovation) (Box 3.2).

Box 3.2. Policy recommendations emerging from the Mission for the Transformation of the Countryside

The mission proposes six strategies to promote comprehensive development (economic, social and environmental) in the Colombian countryside, built from the territory and with a view of the rural area beyond agriculture:

1. **Social inclusion of rural inhabitants** by closing social gaps with the provision of the basic goods of social interest (food, education, healthcare, social protection, housing, water and sanitation). This strategy aims to eliminate urban-rural gaps in terms of accessibility and provision of services, for instance by creating directorates specialised in rural matters within the ministries, primarily education and health, adapting services to each type of rural area and support food security with schools.
2. **Family farming and productive inclusion in non-agricultural activities** by allowing small producers and rural workers – both agricultural and non-agricultural – to access productive resources and better integrate production and marketing chains. For instance, by establishing a standard definition of agricultural family to guide policy interventions and creating a Rural Development Fund to guide investments.
3. **A competitive agricultural sector** based on the adequate provision of sectoral public goods and services, including technical assistance, technology, innovation, transport, energy and information and communication technology (ICT) infrastructure as well as land adaptation; agricultural sanitation; protection of property rights; information, security and justice. It advocates for state policy to diversify agriculture exports, for instance by creating a new Agency for the Promotion of Agricultural and Agro-industrial Investments and improving the role of agricultural innovation institutions
4. **An environmentally sustainable development**, which seeks to maintain and improve the country's heritage in terms of water, soil, biodiversity and forest wealth, while adequately assessing the provision of ecosystem services, managing the effects of climate change on the agricultural sector and promoting activities that make productive and environmentally sustainable use of our ecological wealth. For instance, by increasing the rates for water use and strengthening payment for environmental services (PES).
5. **Territorial planning and development** aimed at guaranteeing an appropriate environmental, social and productive ordering of rural territories, seeking an integral development of such territories and their articulation with the system of cities, for instance by designing appropriate land use plans, with tools that induce an orderly use of the land and creating a land fund with redistributive purposes.
6. **A comprehensive and multi-sectoral institutional arrangement**, with clear long-term policies articulated with a long-term horizon (ten years) and the guarantee of the availability of adequate and stable public resources to implement such policies. This institutional arrangement must also guarantee a broad presence and execution capacity at the territorial level and the participation of organised civil society and the private business sector, for instance by creating a national policy on rural development.

A number of recommendations from the mission materialised in the following years, in particular those related to agriculture productivity, the creation of the land fund and the reform of the Colombian Institute for Rural Development (INCODER), whose tasks were divided into a new Agency for Rural Development (ARD) and the National Land Agency (ANT).

The guideline document of the mission supports and aligns with the peace agreement conducted by the Colombian government with the FARC. The first point of this agreement referred to the need to develop an Integral Rural Reform (IRR) to attain sustainable peace in the country. This reform calls for a comprehensive view that focuses on people to transform Colombian rural areas and eliminate poverty. The reform contains four pillars:

1. Improving use and access to and of land. It involves the creation of a Land Fund to redistribute land to peasants without land and make land restitutions to victims that were dispossessed during the conflict.

2. Establishing special Development Programs with a Territorial Approach (PDETs) that target the most needed municipalities: 170 municipalities were identified as those having suffered most of the violence during the internal conflict, with the highest poverty levels and weakest institutional presence (known as PDET municipalities). These municipalities receive co-ordinated government interventions for development.
3. Creating 16 national plans to promote basic goods and services in rural regions around:
 - a. Infrastructure: roads, irrigation districts, electricity, connectivity.
 - b. Social development: healthcare, education, housing and drinking water.
 - c. Incentives for the productivity of family farming: technical assistance, promotion of co-operatives, insurance and marketing, among others.
 - d. Labour formalisation.
4. Ensuring food and nutritional security through the strengthening of the family economy and local markets, as well as promoting campaigns for the production and consumption of foods with high nutritional value, taking into account the nutritional characteristics of each region.

The government made a commitment to implement all points of the agreement in 15 years. The government built an Implementation Framework Plan (PMI) to set the actions to implement the peace agreement. A national policy (CONPES Document 3932 of 2018) was established to link the commitments defined in the PMI with the planning, programming and monitoring public policy instruments (PND, 2018^[8]).

An important element of rural reform is the approach to adopting a territorial policy approach. The government developed the PDETs as planning and management instruments to operationalise a place-based approach focusing on improving development in 170 municipalities identified as the most affected by the conflict, which are grouped into 16 subnational territories. These municipalities make up 36% of the national territory. Each PDET is operationalised through an Action Plan for Regional Transformation (PATR) that covers each of the 16 targeted territories, which are built across local meetings to identify and prioritise needs and opportunities. These PATRs have a planning scope of 10 years and should be updated every 5 years. Overall, the place-based approach (e.g. PDET) adopted by the IRR is well designed and represents an important tool to identify needs jointly with the community and address them through co-ordinated policy actions.

The goal of the national rural plans in the third point of this reform covers key priorities affecting rural regions in Colombia. These priorities are in line with the main rural challenges identified in Chapter 2. So far, the government of Colombia has developed 16 national plans tailored to rural development that focus among others on education, healthcare, housing, road and irrigation infrastructure among others (See Table 3.3). If well-coordinated, these national plans can achieve a reduction in rural poverty, especially extreme poverty, and narrow the gap between rural regions and cities.

The integrated approach proposed by the Mission for the Countryside and the peace agreement goes in the right direction and is well aligned with Principle 9 of the OECD Principle on Rural Policy “Implement a whole-of-government approach to policies for rural areas”.

Box 3.3. OECD Rural Policy Principle 9: Implement a whole-of-government approach to policies for rural areas

- Engaging with all sectors and levels of government to integrate national policies that improve the well-being of rural areas.
- Identifying and addressing the barriers to policy coherence across ministries, public agencies and levels of government.

- Setting incentives, regulations and co-ordination mechanisms to mitigate conflicts and manage trade-offs (e.g. land use, mining, agriculture, energy and water).
- Maximise policy complementarities across sectoral strategies through integrated and co-ordinated rural policies (e.g. co-ordinating transportation investments).

Source: OECD (2019^[9]), OECD Principles on Rural Policy,

https://www.oecd.org/cfe/regionaldevelopment/Principles%20on%20Rural%20Policy%20Brochure%202019_Final.pdf

The National Development Plan (PND) 2018-2022 adopts a sectoral approach to rural development, with differentiated policies by type of region

The PND 2018-2022 integrated some of the recommendations from the Mission for the Countryside and the peace agreement and proposed a number of thematic and transversal policies (called pacts) with the overarching goal to improve legality, entrepreneurship and equity in the country (DNP, 2018^[10]). There is a specific pact for each of these 3 objectives, plus 13 transversal pacts and 1 pact for productivity and equity in regions. These pacts are implemented jointly, with the aim of attaining 20 thematic objectives that target the main challenges in the country.

The Pact for Entrepreneurship includes an institutional strategy entitled “Countryside with Progress: An alliance to boost the development and productivity of rural Colombia” that aimed at boosting development and productivity in “rural” communities. This strategy had five objectives with specific goals:

1. Improve **land tenure and land use planning** to boost agricultural development, productive inclusion and legal certainty. It sets two specific goals:
 - a. Increase the number of formalised titles on private properties from 1 056 to 24 350.
 - b. Increase the number of formalised titles to improve access to land from 17 835 to 24 160.
2. Encourage **agricultural productivity transformation** through production planning, cluster development and agro-industrial value chains.
3. Improve **sanitary conditions of agricultural products** to benefit from the Free Trade Agreements through a plan comprehensive of health admissibility. This objective aimed at integrating 48 new agricultural products in international markets.
4. Allocate at least 50% of agricultural sector investment to **public goods and services to ensure farmers have access to active assets**. This aimed at increasing the number of producers served with access to technology, products and service support (agricultural extension service).
5. **Promote the inclusion of small producers** to improve their conditions, both social and economic. This aimed at increasing the number of producers who benefited from inclusion strategies, including access to finance, markets and better risk management, from 33 642 to 91 511.
6. **Strengthen rural household income generation**, based on the promotion of employability and entrepreneurship conditions associated with non-agricultural activities that promote social and productive inclusion in rural territories, according to the categories of rurality.
7. **Modernise and consolidate sectoral institutions and inter-institutional co-ordination** and articulation to promote the transformation of agricultural and rural production at a territorial scale.

The vision of this strategy was set out as follows: “In 2022, the Colombian countryside is a determining factor in economic growth, it increases its competitiveness, strengthens its agribusiness and advances in the inclusion of small and medium producers in the markets. It boosts agricultural exports and achieves proper management of soils for agricultural purposes”. The leading ministry of this strategy is MADR.

Yet, out of the seven objectives of this strategy, only the first five had concrete goals with a budget attached to the National Public Investment Plan 2019-2022. This led to a strategy that was monitored mainly based

on actions related to improving agricultural productivity (five first objectives), despite the inclusion of objectives that go beyond agriculture (Objective 6).

The other nine transversal pacts also defined relevant policies for rural development, which would be implemented jointly by different ministries. They included the harmonisation of agricultural production with the conservation and efficient use of natural resources (Pact for Sustainability), generating a sustainable model for digital connectivity in rural areas (Pact for the Digital Transformation of Colombia) or connecting the territory, increasing the links between city and countryside (Pact for the Digital Transformation of Colombia), among others.

The PND had also an important focus on empowering subnational governments in the development process and adopting an approach to mobilise functional relations across territories. These goals are materialised through the Pact for Decentralisation and Regional Pacts. These pacts included the strategic projects identified in spaces for dialogue and agreement with the regions, which aimed at boosting the regional economies according to their vocation and potential. Therefore, they set differentiated development goals in nine macro-regions (functional groups of departments).

A fragmented rural policy highly focused on agriculture

While the diagnosis from the Mission for the Countryside and the peace agreement called for the need for an integrated rural policy with an inter-sectoral approach, these recommendations have not yet fully translated into policy actions. The recommendations suggested by the Mission for the Countryside did not become a coherent national policy, which led to partial implementation of only a number of recommendations through a sectoral approach. In particular, the call for a long-term national rural policy (CONPES) with an institutional structure to articulate rural policies was never implemented. Furthermore, the national policy framework in Colombia still carries a bias towards agricultural policy and often describes agricultural development as rural development.

National plans overlap “agricultural development” and “rural development” concepts

Across OECD countries, there is an increasing recognition to move beyond agriculture in the design of rural policy, and englobe agriculture as one of its pillars. Rural development policy is a territorial policy targeting the needs of a specific area, whereas agricultural policy is largely dominated by sector-based goals. Although in several OECD countries agricultural policy has long included underlying objectives of rural development in its design, it remains largely dominated by sectoral approaches. For example, in broad terms, a major objective of rural development policy had been job creation in rural regions, while agricultural policy often focused on increasing production and farmers' incomes.

Across OECD countries, strategic areas such as innovation and quality of life have gained weight in national rural policies, ranked as extremely important by 22 out of the 34 surveyed OECD countries, according to the 2018-19 OECD institutional survey (2020_[11]). This does not hinder the high relevance of agriculture in rural policy, which is still a common feature across many OECD countries. Most OECD countries still classify agriculture as the most important strategic sector for rural policy (27 out of the 34 countries that answered this question).

In Colombia, the national policy framework still equates and uses rural policy and agricultural policy interchangeably. The PND 2018-2022 and many national policies in Colombia overlapped the concept of “agricultural development” with “rural development” and used the term “countryside” to refer to “rurality”. In policy, concepts are relevant as they can send ambiguous signs if their meaning is unclear or their use is not systematically attached to a policy objective. This is the case of the PND 2018-2022's “Countryside with Progress: An alliance to boost the development and productivity of rural Colombia” strategy that aimed to develop “rural Colombia”, but five out of the seven measures of this strategy focused on improving the

conditions for the agricultural sector and were linked to monitoring indicators. For example, the action line “Improving public goods and services”, a priority that is transversal to rural development, mainly targeted goods and services for agricultural productivity, such as agricultural extension services and irrigation.

It is worth noting that *Countryside with Progress* was supported by other pacts that include relevant policies for rural development, such as digital connectivity (e.g. Pact for the Digital Transformation of Colombia) or improving rural education (Pact for Equity), but its co-ordination is not clearly institutionalised in the PND. Many actions in Objective 7 of the *Countryside with Progress* strategy, which aimed to improve inter-ministerial rural development co-ordination, have not been implemented, such as the National Unified Rural Agricultural Information System.

The overlap between agriculture and rural policy also occurs across other policies at the national level. For example, innovation policy for rural areas has been reduced to agricultural innovation, while wide innovation policies in the country have lacked a spatial approach. In 2021, the national government approved a national innovation policy led by the Ministry of Science, Technology and Innovation (CONPES 3080) to address the main challenges of innovation in the country. While this policy has a specific action (No. 13) that aims to strengthen regional capacities in science and technology, the strategy does not recognise the particularities of rural context to adopt and diffuse innovation.

Moreover, many economic strategies in the national development policy framework in Colombia have lacked a place-based approach, which can end up benefitting more actors in urban areas. This is the case of the Pact for Entrepreneurship, the PND 2018-2022’s pillar to boost economic development, which highlights the need to enhance the economic activity for rural areas; yet its different strategies and goals are rather general without addressing the particular needs and characteristics of rural economies. For example, key strategies in this pact such as “Increase threefold the number of high-potential entrepreneurship in the country” or “Reduce the costs for small- and medium-sized enterprises (SMEs) to access financial instruments” (DNP, 2018_[10]) did not propose particular actions for potential entrepreneurs or SMEs looking for funding in rural areas, some of which might need a special approach due to the low access to broadband Internet or lack of interaction with official institutions to access information on programmes or the financial mechanism.

The agricultural bias when referring to rural policy, in particular economic-related policies, might be explained by the agricultural sector setting clearer, more compact objectives than rural policy. Agriculture in Colombia, as in most countries, also has a clear constituency where the interest of farmers is easily identified and represented politically (Federal Reserve Bank of St. Louis, 2021_[12]).

In a country of rapid urbanisation and high urban-rural inequalities in education and access to markets, the design and implementation of national development policies without clear recognition of the diverse characteristic of rural areas would likely mostly benefit urban firms and communities. Urban actors have often better access to information and closer relationships with policy makers. Overall, unlocking the potential of emerging rural economic activities and their interlinkages requires a set of policies for rural development that go beyond agricultural and social protection, and instead target the broader growth potential of rural regions.

Rural development policy is a territorial policy targeting comprehensively the needs of a specific area to improve people’s well-being, whereas agricultural policy is largely dominated by sector-based goals

MADR heads the rural policy in Colombia with a strong agricultural focus

MADR is the institution in charge of agricultural, fishing, forestry and rural development in Colombia (Decree 1985 of 2013). The ministry, together with its affiliated bodies, has two main objectives:

- Promote rural development with a territorial approach and strengthen the productivity and competitiveness of agricultural products, through comprehensive actions that improve the living conditions of rural inhabitants, allow the sustainable use of natural resources, generate employment and achieve sustained and balanced growth of the regions.
- Promote the articulation of institutional actions in rural areas in a focused and systematic manner, under principles of competitiveness, equity, sustainability, multisectorality and decentralisation, for the socio-economic development of the country.

The policy scope of the ministry includes defining, implementing and evaluating policies for agriculture, fisheries and forestry, with a particular focus on poor populations and victims. With regards to the design and implementation of the rural policy with a territorial approach, the ministry is in charge of policies related to land use management of rural property and productive soil, productive capacities and income generation in rural communities and management of rural public goods (Decree 1985 of 2013). The leading institutional role of MADR in rural development is consistent with the relevance that agriculture still has in the employment of rural communities (52% of rural employment).

This institutional structure where the agriculture ministry is the lead ministry to delivery rural policy is also common across 62% of OECD countries (21 out of the 34) reviewed by the 2018-19 OECD institutional survey (2020^[11]). Yet, in an increasing number of countries (8), the lead ministry on rural policy is not directly associated with agriculture or rural development, e.g. the Ministry of Enterprise and Innovation in Sweden or the Ministry of Industry, Business and Financial Affairs in Denmark.

Based on the PND's vision, MADR developed the Agricultural and Rural Development Policy 2019-2022, which defines the strategic guidelines and actions to improve the productivity, competitiveness and profitability of the rural economy. The strategic actions, objectives and monitoring indicators of this policy are detailed in the Institutional Strategic Plan 2019-2022.

This policy highlighted the need to address land property rights, infrastructure for rural areas, agricultural productivity and rural-urban migration as main challenges for rural development. It also stresses the need to mobilise non-agricultural activities, given the undergoing diversification process in rural economies. The policy had three policy pillars, each with a number of strategic actions (Table 3.1):

1. Rural development, which includes the social and productive organisation of the land, investment in the provision of public goods and services and the generation of productive capacities and income by the rural population.
2. Productivity and profitability for greater competitiveness of the agricultural sector.
3. Modern institutional framework to manage and implement the actions of the two former strategies.

Table 3.1. Colombia's Agricultural and Rural Development Policy 2019-2022, pillars and objectives

Policy pillar	Objective	Policy strategy
Rural development	Improve the income of the rural population	Promotion of youth and women's access to education and technical training
		Development of income generation strategies for rural entrepreneurs
		Promotion of services for the commercialisation and development of markets for small producers
		Empowerment of rural women
	Manage the use of rural property and productive land	Formalisation of rural property
		Sped-up land restitution processes
		Organisation of productive land use within the agricultural frontier
		Improvement of land suitability (e.g. land irrigation)

Policy pillar	Objective	Policy strategy
	Articulate and invest in the supply of sectoral and non-sectoral goods and services	Strengthened Programme of Rural Housing*
		Improvement of information systems for the agricultural sector
		Progress with the Agricultural Innovation System
Productivity and Profitability for greater competitiveness of the agricultural sector	Strengthen the articulation of the agricultural chains to improve competitiveness	Strengthened ordering of production through chain organisations (e.g. identify geographical areas with the greatest competitiveness)
	Optimise marketing channels for agricultural products	Contract farming (harvest and guaranteed sales) Production in prioritised chains
	Promote science, technology and innovation policies for agricultural development	Generation and strengthening of territorial capacities in science and technology to promote local and regional development
	Generate capacities for climate change adaptation and mitigation of the agricultural sector	Promotion of comprehensive management of greenhouse gas (GHG) adaptation and mitigation actions in the sector
	Strengthen financial, decision-making, risk management and rural entrepreneurship capacities in rural population	Instruments for agricultural producers to manage the different risks associated with their activity
	Strengthen the agricultural and agro-industrial foreign trade policy	High-level agenda to overcome barriers and gain access to key international markets
	Strengthen and optimise the State Health and Safety Policy for the agriculture sector	Strengthened execution of sanitary and phytosanitary plans for control, eradication and declaration of disease-free zones
Modern institutional framework	Strengthen the operational, administrative and financial capacity of the ministry to optimise its value chain	
	Strengthen information and knowledge management to improve institutional capacities	Promotion of the generation of information and knowledge transfer
	Promote the digital transformation of the governance of the agricultural sector and rural	Implementation of the Digital Government policy Strengthened management of information in the agricultural and rural sector

Note: *The portfolio of rural housing was transferred to the Ministry of Housing and Territory in 2020. MADR is in charge of finishing the projects that were not implemented until 2020.

Source: MADR (2019^[13]), *Política Agropecuaria y de Desarrollo Rural 2018-2022*, https://sioc.minagricultura.gov.co/Documentos/20190326_politica_agro_2018-2022.pdf.

The 2018-200 MADR flagship programmes targeted and addressed the relevant structural issues of Colombian farmers

MADR's main flagship programmes in the last years have addressed the relevant structural issues of farmers in Colombia. As in most OECD countries, rural economies in Colombia are characterised by low levels of economies of scale, the greater cost to move goods and people due to distance to markets and a small internal market (in economic diversity and labour force), which require relying on selling products abroad (OECD, 2020^[11]). Therefore, MADR has developed a number of programmes to support associativity to help attain economies of scale, entrepreneurship and technologic adoption to increase value-added in local products as well as lower costs to reach markets and sell products directly to consumers:

- **Productive Alliances (*Alianzas Productivas*)**, which aims to improve associativity and thus economies of scale among producers. It links small rural producers with markets through an agribusiness scheme with a formal business partner, and a profitable production proposal. This programme co-finances agricultural projects through productive or commercial alliances, among other initiatives.

Supporting a culture of associativity is a seminal action to benefit from economies of scale in terms of efficiencies in investment (acquiring a machine for a large number of producers) and in competitive final prices for producers (selling in greater quantities). In Colombia, this instrument can also help to improve social cohesion in rural communities that face low levels of trust due to internal conflict and high levels of displacement, which bring new local actors to the agricultural sector.

- Entrepreneurial Countryside (*El Campo Emprende*), which fosters entrepreneurship culture in the poorest communities. The ministry's more comprehensive and productive programme covers agricultural and non-agricultural activities.
- Contract Farming (*Agricultura por contrato*), which helps reduce barriers to reaching markets and consumers and the uncertainty that characterises agricultural marketing processes. For example, the contract farming programme has connected about 300 000 producers to markets by linking them to commercial partners: in 2020 alone, it benefitted around 120 000 smallholders by reaching purchased agreements with 757 buyers. It organises meetings and knowledge spaces between the associations of agricultural producers and demanding industries. Main products covered by this programme include fruit and vegetables, coffee, fishing, cocoa and milk (OECD, 2021^[14]).
- Support to agricultural productive chains aims to strengthen the commercialisation of agricultural chains by directing incentives to rural producers to improve their productive conditions and invest in infrastructure and logistics for the commercialisation.

In addition, several other programmes complement support to farmers via subsidies to promote financial inclusion (e.g. programmes from the Fund for Financing of the Agricultural Sector- Finagro), improve commercial skills (MADR model of support services for marketing) and boost the adoption of new technologies and innovation in agriculture (programmes from Agrosavia). All of these productive programmes are also complemented by a large set of projects focused on land suitability and regularisation (Chapter 5).

The ministry has also developed and adopted national policies that target specific actors in rural economies and has a transversal objective of enhancing gender equality in rural communities. Some programmes, for example, focus specifically on empowering women, such as the programme for rural women's associations (Pacific Opportunities). Another outstanding example is the Strategic Guidelines for Public Policy for Peasant, Family and Community Agriculture (Resolution 000006 of 2020), which is in line with the third objective of the IRR from the peace agreement (MADR, 2017^[15]).

These programmes go in the right direction to eliminate pressing barriers that are preventing greater income in rural economies. In fact, these programmes are in line with several recommendations from the Mission for the Countryside, particularly to "improve commercialisation and operation of regional and national wholesale markets and intermediation networks" and "promote associativity of small farmers through capacity building". In particular, the four flagship programmes have a number of advantages that are worth leveraging:

- Progress on reaching out to a large number of farmers. These programmes have increased the coverage of agricultural policy to support remote communities, with a focus on the population with the greatest needs, including victims and former members of guerrilla groups. The use of new databases to identify the poorest population (Sisben IV) has been a cornerstone of greater focalisation.
- A focus on gender guides many of these policies to improve women's access to government support for productive projects.
- Greater involvement of private actors, e.g. banks, supermarkets, international retailers and research centres, to implement agricultural policies through programmes like Contract Farming.

Despite the right design of MADR programmes, they mostly target agricultural productivity, with less attention to other relevant areas of rural development

In fact, the strategic actions to attain the objectives in the rural policy pillar of the Agricultural and Rural Development Policy 2019-2022 mostly target and support land regularisation and the competitiveness of the agricultural sector. Apart from the objective of land use management and productive soil, the materialisation of the investment in public goods and services as well as the strategies to improve rural income is focused on the agricultural sector.

To attain the policy goals of the pillar on rural development, the implementation plan (Institutional Strategic Plan 2019-2022) has mainly defined strategic programmes that focus on the agricultural sector. For example, the objective of improving income for the rural population adopted three strategic actions that all mainly focus on improving income for farmers (Table 3.2). In MADR's strategic actions for the management of rural public goods, such goods and services are mainly focused on those needed to support the production and commercialisation of the agricultural sector (e.g. infrastructure for food transformation and storage). Likewise, MADR innovation programmes primarily target agricultural innovation.

Table 3.2. Strategic actions of the MADR Institutional Strategic Plan 2019-2022 on rural development

Selected objective of the policy pillar on rural development	Strategic action	Implementation mechanism (selected)
Improve the income of the rural population	Strengthen the planning of rural development programmes and projects and manage their correct execution	<ul style="list-style-type: none"> • Formulate Comprehensive Agricultural and Rural Development Plans
	Promote access to productive factors and working capital	<ul style="list-style-type: none"> • Technical support for the formulation of Departmental Agricultural Extension Plans
	Promote and strengthen the commercial and associative capacities of the rural population	<ul style="list-style-type: none"> • Strengthen productive associations through the Productive Alliances programme • Support producers with productive inclusion strategies through the Entrepreneurship Countryside programme • Support rural women with productive strategies

Source: MADR (2019^[16]), *Plan Estratégico Institucional 2019-2022*, https://www.minagricultura.gov.co/planeacion-control-gestion/Gestin/PLANEACION/Planes_Estrategicos_Sectoriales_Institucionales/Planes%20Estrategicos%202019%20-%202022/Plan_Estrat%C3%A9gico_Institucional_2019_2022_Primer_Versi%C3%B3n.pdf.

The Vice Minister of Rural Development, the main MADR body in charge of rural development policy, focuses mainly on supporting agricultural development. This vice ministry was created in 2013 to develop rural development policies, improve co-ordination with off-farm policies implemented by other ministries and complement policies undertaken by the Vice Minister of Agriculture. Currently, the vice ministry focuses on four main policy streams: rural women, land use management and productive use of land, management of rural public goods and productive capacities and income generation projects.

However, all of the tasks of the vice ministry end up focusing on supporting the agricultural sector, with a low focus on off-farm activities. Beyond the work stream on rural women and land use management, the other strategies related to public goods and income generation benefit mainly farmers or productive projects in agriculture. The limited scope of the vice ministry to manage non-agricultural-related policies was exacerbated in 2019 with the transfer of the rural housing policy to the Ministry of Housing, City and Territory.

Newer programmes, such as Entrepreneurial Countryside, aim at targeting the creation of added value in the rural economy at large and have made important progress in including other economic activities. Yet,

beneficiaries of the programme are still a majority of farmers or individuals with agricultural-related projects, which can be associated with the fact that the programme targets the poorest municipalities and has greater expertise in agriculture activities. This is not negative as such but the low interoperability with programmes linked to other ministries (tourism, mining) hinders the potential for developing value-added projects outside agriculture.

Finally, most of the MADR budget is dedicated to market interventions (57%), while the rest (43%) is aimed at providing the basic goods for farmers to reduce the cost of production and increase productivity (Parra-Peña, Puyana and Yepes, 2021^[17]). This balance is still below the recommendations of PND 2018-2022 and the OECD (2015^[18]), which recognised the need to increase public goods over subsidies. Overall, most MADR programmes are directed to small producers (66% of programmes), with a high concentration of instruments targeting vulnerable populations (47%) (Parra-Peña, Puyana and Yepes, 2021^[17]).

The current lack of a common information system hampers the effectiveness of rural-related programmes

Beyond the differentiation of rural or agricultural policies, the lack of consolidated information systems prevents productive programmes in MADR, as well as in other ministries, from attaining lasting improvements in rural well-being.

Productive programmes face issues in identifying the right support for communities, which leads to low adaptability to particular needs. The government has implemented programmes to support the deployment of productive facilities in communities, often with initial investment. However, the lack of granular information on producers and rural inhabitants leads to failures in implementation. For example, some programmes providing technological assistance have ended up offering machines (e.g. pasteurised milk machines) that are not adapted to the electrical capacity of the municipality.

The lack of granular information makes it difficult to reach the right beneficiaries of the programmes and leads to inequalities across beneficiaries and municipalities in access to the right information. This has led to a passive approach in the way official productive programmes are delivered, as they tend to rely on voluntary applications. Generally, programmes of agricultural productivity work under application calls, which might exacerbate local inequalities and leave those most in need out of the programme. In rural ecosystems with high inequalities of information and skills, voluntary programmes risk benefitting those producers with greater administrative capacities (e.g. to fill out documents) or networks to access information. Illiteracy or different languages (e.g. for Indigenous peoples) is still an issue in many of the country's communities, making it difficult for them to access official programmes.

The low capacity to identify the right beneficiaries can reach unsuitable candidates, those with a lack of strategies or capacity to make the most of the programme. For example, some associations participating in the Productive Alliances programme have only been created to access a specific programme and have not lasted in time. In Risaralda, by 2021, around 20% of associations created to access these programmes only registered the documents, without implementing the programme or a productive project. Moreover, some productive facilities remain underutilised, as their provision was not suited to the sustainability of the programme: 16% of public goods that have been delivered to associations are not in use due to problems linked with the sustainability of the productive project (MADR, 2020^[19]).

The government has set strategies to address the information issue from different institutional actions but implementation is still slow. UPRA is a technical entity attached to MADR, which manages the Information System for Agricultural Rural Planning (SIPRA), the Information and Communication Network of the Agricultural Sector (Agronet), municipal agricultural evaluations (EVA), and is in charge of the technical secretariat for sectoral information. In addition, two relevant MADR strategies include:

- The strategy to identify existing sectoral public goods (productive, processing, storage and post-harvest and marketing infrastructure) but the information programme had only covered 43.9% of the country's municipalities by 2020.
- The National Unified Rural Agricultural Information System (SNUIRA) aims to improve the capture, quality, frequency and timeliness of information for decision-making. This programme Agronet to consolidate agricultural sector information and knowledge management on the web portal.

MADR is also developing My Rural Registry to identify the beneficiaries of sectoral programmes and thus obtain interoperable information from farmers.

The government has also put in place Sisbén IV, a characterisation system of potential beneficiaries of social programmes (people with the highest levels of multilevel poverty) and has made progress on land use information systems (*Catastro Multipropósito*, see Chapter 5) and tertiary roads (e.g. DNP's artificial intelligence mapping, see Chapter 3). Furthermore, the national strategy of Colombian Spatial Data Infrastructure aims to integrate and display geographical information. However, aside from SISBEN IV, these programmes are far from finished and attaining interoperability to provide integrated rural information for policy making and society. A project to improve the interoperability of SIBEN IV and My Rural Registry is underway but in the first stages.

An additional main bottleneck for the interoperability of rural information is the inability of agencies operating programmes to input information collected locally into a general system. By regulation (e.g. habeas data), the data of beneficiaries from these agencies are anonymised and cannot be shared or disclosed across agencies. This issue is more critical when it comes to information exchange among different sectoral policies attending the same rural municipalities, e.g. energy and agricultural programmes. This particular issue adds to the historical lack of rural information, which makes it one of the greatest structural barriers to improving efficiency and lasting outcomes of rural policies in Colombia.

If the government is to ensure the effectiveness of a national rural policy along with the plans under the IRR, it should prioritise the improvement of rural information systems in the next couple of years. This could be done either by implementing a single system of rural information or by ensuring the interoperability of existing systems. This involves accelerating many of the information projects that are underway, e.g. *Catastro Multipropósito* and My Rural Registry. Furthermore, MADR along with the DNP should better involve the National Administrative Department of Statistics (DANE) to ensure the rural information system can also reflect the characteristics of different rural areas and combine information from the different ministry agencies and producer associations (e.g. National Federation of Coffee Growers of Colombia).

For productive inclusion programmes to reach out to the wider population, the government should adapt the requirements of official programmes to the characteristics of each rural region. This first requires a good characterisation of the different rural communities, to establish differentiated schemes for the same programme and jointly develop an application process with local leaders. Application formats should then be simplified and adapted to different languages and illiterate people.

Pre-identifying beneficiary conditions in person, before approving programmes, could be also adopted as standard policy for rural programmes. Many programmes only rely on the documents sent by applicants without validating the suitability of its conditions. As this pre-identification implies a cost, the government could translate that obligation to the programme operator. A good example is the rural housing policy of the Ministry of Housing, City and Territory, which asks the programme operator (in this case, the construction company) to validate in person the conditions of the pre-selected beneficiary (land conditions, etc.). Once the constructor has validated the suitability of the beneficiary, the latter is formally included in the programme. This implies an extra validation cost for the operator (constructor).

The issue of information adds up to other structural problems in the implementation of rural programmes discussed in Chapter 6, including a lack of co-ordination among agencies and non-governmental organisations (NGOs) in the implementation of productive projects and a monitoring and evaluation system

that measures outputs instead of outcomes, which incentivises coverage of programmes instead of long-term results.

While addressing these issues can improve the efficiencies of MADR's flagship programmes and help gain scale in public investments, these programmes in isolation will not lead to the sustainable development of rural regions. Structural challenges (e.g. lack of transport and digital infrastructure or land insecurity) need to be addressed as a high priority to facilitate the lasting impact of these programmes. To this end, co-ordinating rural policies with other ministries is of particular importance.

There is room to better co-ordinate non-agricultural policies for rural development in Colombia

Beyond the policy scope of the Agricultural and Rural Development Policy, Colombia also has a variety of national policies that shape economic growth and well-being in rural communities. Some of these policies are transversal across ministries (e.g. innovation, productivity), while others have a clearer sectoral focus and are managed by a single ministry (Table 3.3). Yet, there is not a clear mechanism in Colombia to co-ordinate the national rural plans and other off-farm policies, beyond the scope of these plans (e.g. innovation). Colombia's national sectoral approach in rural policy is made of independent actions from different ministries on non-agricultural sectors, where each ministry can design and implement rural-related policies (tourism, mining) without consulting MADR or any other co-ordinating body.

An important step to include the rural vision across different sectoral policies is the creation of national sectoral plans for rural development set out in the peace agreement IRR. As mentioned before, the third point of this reform called for the development of 16 national plans around 3 sectoral axes identified as highly relevant to rural development: infrastructure, social development (education, healthcare) and productivity of family farming. While the development of these plans took considerable time (Only until 2022 all the 16 plans were developed), they constitute a good basis to promote development and rural investment co-ordinating with a comprehensive approach. Thus, the priority for Colombia going forward should be to recover the time invested in the planning phase to accelerate their implementation.

Table 3.3. National policies shaping rural development

Policy (selected)	Lead ministry/institution	Mostly focus on rural regions?
Horizontal plans		
National Development Plan	All-Design is co-ordinated by DNP	No
National Science Technology and Innovation Policy	Ministry of Science, Technology and Innovation	No
National Policy for Entrepreneurship	Ministry of Commerce, Industry and Tourism	No
National Productive Development Policy	Ministry of Commerce, Industry and Tourism	No
National sectoral policies from the IRR		
National Road Plan for Regional Integration (2018)	Ministry of Transport	Yes
Special Plan for Rural Education (2021)	Ministry of National Education	Yes
National Rural Health Plan (2021)	Ministry of Health and Social Protection	Yes
National Rural Electrification Plan (2018)	Ministry of Mines and Energy	Yes
National Rural Connectivity Plan (2019)	Ministry of Environment and Sustainable Development	Yes
Progressive Social Protection Plan to Guarantee the Rights of Rural Workers (2020)	Ministry of Labour	Yes
National Plan for the Promotion of Solidarity Economy and Rural Cooperative (2020)	Ministry of Labour	Yes

Policy (selected)	Lead ministry/institution	Mostly focus on rural regions?
National Irrigation and Drainage Plan for the Peasant and Community Economy (2020)	Ministry of Agriculture and Rural Development	Yes
National Plan for the Promotion of the Commercialisation of the Production of the Peasant, Family and Community Economy. Responsible (2020)	Ministry of Agriculture and Rural Development	Yes
Plan to Support and Consolidate the Income Generation of the Peasant, Family and Community Economy (2020)	Ministry of Agriculture and Rural Development	Yes
National Plan for the Massive Formalization of Rural Property (2021)	Ministry of Agriculture and Rural Development	Yes
National Plan for Comprehensive Technical and Technological Assistance and Research Promotion (2022)	Ministry of Agriculture and Rural Development	Yes
National Rural Plan of the System for the Progressive Guarantee of the Right to Food (2021)	Institute of Family Welfare along with the different entities in the Intersectoral Commission for Food and Nutritional Security – CISAN	Yes
National Participatory Environmental Zoning Plan (2021)	Ministry of Environment and Sustainable Development	Yes
National Plan for Drinking Water Supply and Basic Sanitation (2021)	Ministry of Housing, City and Territory	Yes
National Plan for the Construction and Improvement of Rural Social Housing (2017)	Ministry of Housing, City and Territory	Yes
Other relevant plans for rural development (selected)		
Agricultural and Rural Development Policy	Ministry of Agriculture and Rural Development	Yes
National Food and Nutrition Security Policy	Ministry of Agriculture and Rural Development	Yes
Tourism: • Policy of cultural tourism • Policy of Sustainable tourism	Ministry of Commerce, Industry and Tourism	Yes
Mining Policy of Colombia	Ministry of Mines and Energy	Yes
Environment: • National Policy for the Comprehensive Management of Water Resources • National Policy for the comprehensive management of biodiversity and its ecosystem services	Ministry of Environment and Sustainable Development	Partially
Education: National Public Policy for Early Childhood	Ministry of National Education	No
National Policy for the Provision of Healthcare Services	Ministry of Health and Social Protection	No
National Logistics Policy	Ministry of Transport and Infrastructure	No

Source: Own elaboration based on Presidential Counsel for Stabilization and Consolidation (2022^[20]), *Sectoral National Plans*, <https://www.portalparalapaz.gov.co/loader.php?lServicio=Tools2&lTipo=descargas&lFuncion=descargar&lIdFile=839>.

Despite the existence of institutional committees to co-ordinate rural or agricultural policy, these mechanisms have little convening power and are very little used. MADR has seven sectoral advice and co-ordination bodies (e.g. National Council for Agrarian Reform and Peasant Rural Development) to promote inter-ministerial co-ordination on main topics of rural development (Chapter 6). Yet, these co-ordination mechanisms do not have binding participation nor formally established frequency, so meetings are rare. The underutilisation of these co-ordinating bodies has been already detected by the Mission for the Countryside (DNP, 2015^[41]).

Furthermore, important objectives conducted directly by MADR that could help improve rural development do not undertake inter-ministerial co-ordination. The Ministry of Agriculture promotes farming without exploring the possibilities and potentials associated with the impulse of relationships between economic activities and actors, at least in a formal manner. For example, the efforts in collecting information on

available agricultural production infrastructure, which can feed larger databases on rural infrastructure, are not being co-ordinated with information on other goods in rural areas, which might include schools, healthcare centres or non-food manufacturing infrastructures (paper, refiners).

The next section identifies areas of untapped growth potential in Colombian rural regions and calls for a comprehensive rural policy approach that can further mobilise this growth potential, raise income and living standards and improve well-being of citizens living in rural regions.

Mobilising the growth potential of Colombian rural economies

Rural regions in Colombia are a key source of well-being and growth for the country and of great environmental importance to the world. As seen in the previous chapter, rural communities have several competitive advantages and valuable assets, including:

- **Multi-ethnic culture** with more than 100 Indigenous communities, Afro-Colombian groups, Roma and peasant communities, which have a variety of cultural traditions.
- **Biodiversity.** Colombia hosts about 10% of the planet's biodiversity, ranking as the 3rd country in the world in terms of biodiversity and the 1st in the diversity of birds and amphibians.
- **Important natural resources endowment,** ranking as the sixth country in terms of volume of water, the second Latin American country in terms of wind speed and high solar radiation throughout the year along with fertile land with no growing seasons and rare minerals.
- **Diverse agricultural production can lead to stronger rural value chains** such as coffee.

These assets complement the variety of economic activities in rural economies, including agriculture, manufacturing, retail, mining or tourism. In fact, despite the important focus on agricultural policy for rural areas, the tertiary economic sector (e.g. energy and public activities like education and healthcare) represents the greatest source of gross value-added in rural regions (60% in remote rural regions in Colombia, see Chapter 2).

Moreover, there exist a variety of rural economies with different connections to markets and economic structures. Some rural municipalities close to big cities host and develop manufacturing and industrial activities, benefitting from the proximity to urban markets and lower land cost (e.g. rural municipalities around Bogotá or Medellín). Other rural economies rely on important natural assets, including biodiversity of flora and fauna (e.g. Amazonas and Cauca) and cultural diversity with Indigenous and Afro-Colombian peoples (e.g. Guajira and Choco), which can be an asset for tourism and the bioeconomy. Some rural economies stand out thanks to their natural resources endowment in renewable energy production and minerals to support the energy transition (e.g. municipalities in Antioquia, Guajira and Vichada).

Relevant rural sectors like agriculture, tourism or energy would all benefit from an integrated view to mobilising the economic spectrum in rural regions, with policies that go beyond specific sectoral approaches. This inter-sectoral approach can create new development paths for communities and improve resilience and well-being.

Agriculture as an engine for non-agricultural activities

Agriculture is the main employer in Colombian rural areas and continues to be an important sector for the Colombian economy. This sector employs about 62% of the rural workforce and accounts for 16.4% of workers in the country (around 3.9 million people), which is more than Latin American countries like Mexico (12.8%), Brazil (9.4%), Chile (9.2%) or Argentina (0.1%). Likewise, agricultural contribution to national gross domestic product (GDP) (6.3%) is higher than the average of OECD (3.6%) and Latin American (4.5%) countries.

The diverse climate and topography allow for the cultivation of a wide variety of crops and forest products. Thermal floors also influence cultivation. Crops (e.g. coffee, banana, cocoa) account for most of Colombia's agricultural GDP (71% in 2019), with an increase in the last 15 years (63% in 2005), while the rest is linked to the livestock subsector (23%), forestry (3.2%) and fisheries (2.9%).

In the global context, Colombia ranks third in coffee and fourth in oil palm production. Moreover, it is the 13th-largest producer of beef and poultry in the world (USDA, 2021^[21]).

Agriculture and forestry

In the last decades, Colombia has shifted away from short-cycle (temporary crops, e.g. cotton, barley, beans, corn, potatoes, soybeans and vegetables) towards long-cycle (permanent, e.g. coffee, oil palm, sugarcane, banana and other fruits) crops (OECD, 2015^[18]). Long-cycle crops account for the largest share of harvested crop area in the country (60% in 2018), above short-cycle crops (30%) and forestry (10%) (OECD, 2021^[14]). Colombia is the third-largest producer of coffee in the world. This crop accounts for the largest share of harvest area in the country followed by maize, rice, sugarcane and plantain

The country is increasingly diversifying its agricultural exports. Coffee remains the most important crop in terms of value-added contribution but its share has declined and the number of other crops has increased in importance, including rice, palm oil, beans or avocados. The sector has proved its capacity to adapt to new products and value chains with the increasing adoption of avocados. In less than a decade, this non-traditional product for Colombian farmers reached the top four of Colombia's most exported agricultural products, together with coffee, banana and flowers.

In forestry, the Amazon region is characterised by a commercial forestry system, including small agricultural activities for local consumption along with pastures.

Livestock

Colombia ranks fourth among Latin American countries in cattle farming, after Brazil, Argentina and Mexico. Six percent of cattle is raised exclusively for dairy purposes (1.5 million), 58% is raised exclusively for meat (13.7 million) and 36% for both meat and milk (8.2 million).

In terms of growth, poultry farming has grown faster than other livestock enterprises owing to the use of modern techniques. Production grew almost fourfold over the last two decades.

The ongoing quest for greater agricultural productivity

Despite this potential, the share of agriculture in the national GDP has decreased in the last decades. It has been associated on the one hand with the country's development process and the increase of its service sector. On the other, persistently low agricultural productivity along with low-quality standards to open international markets have negatively affected the economic performance of the sector, despite its relatively high impact on employment.

The sector productivity is persistently low. While the productivity of the agricultural sector has increased in the last decades, its rate of growth lags behind other countries in the region. Between 2001 and 2016, productivity has grown (measured through the total factor productivity or TFP) at a slower pace (0.6 %) than the average of Latin American countries (1.8%), including Brazil (3.1%), Peru (2.5%) or Chile (2.2%) (Parra-Peña, Puyana and Yepes, 2021^[22]).¹ It has translated into relatively low growth of agriculture GDP in Colombia (2.8% from 2000 to 2019), relative to countries like Chile (3.8%) and Peru (3.7%).

The low productivity growth of Colombian agriculture is driven by a combination of factors, some directly linked to the agricultural sector and its structure and others related to general conditions in rural areas of Colombia.

Factors directly linked to agricultural include:

- **Small farms based on family farming.** Atomised agricultural production is composed of family farms operating on relatively small areas of land (65% of agricultural production units operate in less than 4 hectares) and with an incipient culture of co-operatives. Family farms have on average less income per unit of work and are more labour force intensive than large farms (Hamann et al., 2019^[23]; Berry, 2017^[24]). Therefore, most farmers in Colombia have too little land to be able to reach a minimum efficient scale of production and its family nature often translates into few skills and free time to adopt new production processes and marketing strategies.
Such fragmentation in the land also makes it difficult for farmers to either expand or leave agriculture. As in many OECD countries, fragmentation makes it difficult to assemble contiguous parcels of land that are required for modern farm operations and the value of land falls because it is less profitable to operate, locking some families in a circle of poverty (OECD, 2018^[25]).
- **Lack of basic goods and services for agricultural production.** In Colombia, 70% of farms do not use machines for their production process, following a trend in which the smaller the size of the production units, the greater the labour intensity (Hamann et al., 2019^[23]; Berry, 2017^[24]). Moreover, Colombia's production of fertilisers does not meet internal demand, which requires importing close to 70% of its total fertiliser consumption, especially urea, ammonium phosphate (DAP), mono ammonium phosphate (MAP) and potassium chloride. The cost of fertilisers can represent between 20% (e.g. for bananas, Panela cane) to about 30% (e.g. maize) of the total cost of production, particularly affecting small farmers (OECD, 2015^[18]).
- Other factors include lack of information when choosing the right crops for the land, inefficient fertiliser use and overuse of pesticides.

Factors related to overall rural conditions include:

- **Problems with basic enabling factors for rural development,** including lack of infrastructure such as roads, aqueducts, sewerage and mills, and low skills and education attainment with difficulties in access to finance and insurance (Chapter 2).
- **Informal access and high concentration of land.** There is an important share of landowners without legal titles, which leads to uncertainties and acts as a barrier to farmers accessing capital (OECD, 2021^[14]). Moreover, the unequal distribution of land leads to uneconomic fractioning and an unproductive concentration of land (OECD, 2015^[18]).
- **Internal conflict** has dispossessed people of their land and created uncertainty for investment. Based on analysis of 852 units of agricultural production (UPAs) (2007^[26]), López and González estimate that the elimination of political violence (armed groups, displacement) would contribute to an average increase of 6% in agricultural productivity.

These issues also prevent greater value-added in forward and backward linkages in agriculture and thus the creation of stronger rural value chains. In terms of backward linkages, agriculture production in Colombia relies heavily on imports of intermediate inputs, mainly wheat and grains for animal consumption and pesticides. In fact, the share of agricultural imports in Colombia (12.4%) is higher than the OECD average (6.3%) and the selection of Latin American countries (7.1%). This relatively high dependency in agriculture reveals an underdeveloped internal value chain for agriculture that increase the sector's vulnerability to international price shocks.

When it comes to forward linkages, the capacity of the agricultural sector to add greater value to agricultural production has important scope for improvement. According to Parra-Peña, Puyana and Yepes (2021^[22]), the Colombian agricultural sector generates USD 0.67 on value transformed for each USD of agricultural primary production (measured through the transformation ratio)², which is above transformation ratios in Brazil (USD 0.53) or Peru (0.55), but far lower countries like Chile (1.11) or Mexico (1.18).

Such medium-low capacity to add value in agriculture reflects a greater share of export of primary products for consumption (37% over total exports), in contrast with processed products for consumption (17%) or industry (11%). Again, this share of primary export is above the share in other Latin American countries like Mexico (47% of export from processed goods for consumption), Argentina (39% processed goods for industry). Colombia's agro-food exports are almost equally split between those destined for final consumption (54%) and those sold as intermediate inputs (46%) for use in manufacturing.

These challenges are not new for the Colombian government and MADR has made headway in programmes used to solve those challenges specifically related to the agriculture sector, in line with OECD recommendations to enhance productivity in agriculture in Colombia (Box 3.4). In particular, MADR has made important progress in addressing the provision of goods and services for the agricultural sector, including technological transfer (Recommendation 1.a) and strengthening the sanitary and phytosanitary systems (Recommendation 4.b) (2015_[18]).

The government has also heled mitigate the vulnerability from the high reliance on imports of agricultural inputs with an Andean Price Band System, which aims to stabilise import prices for 13 commodities including a number of grains for animals. Subsidies are also provided for the purchase of seeds and fertilisers, and specific programmes of preferential interest rates are helping farmers access credit and insurance (OECD, 2021_[14]).

Box 3.4. OECD recommendations to improve productivity in the agricultural sector of Colombia

Productivity growth is a prerequisite for sustained competitiveness and integration into international agro-food markets and is thus critical for agricultural development. To this end, the OECD (2015_[18]) proposed 4 main recommendations with 11 actions:

1. Support for agriculture should focus on long-term structural reform.
 - a. Refocus policy efforts on strategic investments, which are currently being under-provided, such as public goods for the agricultural sector (e.g. technology transfer or animal and plant health).
 - b. Increase investment in irrigation and improve regulatory oversight over water supply, usage and storage. Increase investment in transport infrastructure.
 - c. Stabilise the country and promote rural development using an inclusive land access policy in Colombia.
 - d. Upgrade the cadastre system. Accelerate the registration of land rights.
 - e. Strengthen and improve the land tax system by assessing the current land valuation system and procedures for land transfer and acquisition.
2. Improve the institutional framework of agricultural policy.
 - a. Reform and strengthen the institutional framework for designing and implementing agricultural policies.
 - b. Strengthen the evaluation and monitoring stages of the policy cycle. Improve the evidence base for policy decisions.
 - c. Strengthen institutional co-ordination between MADR and other relevant ministries implementing programmes in rural areas, for example the Ministry of Environment.
3. Reinforce the Agricultural Innovation System.
 - a. Reassess the framework for public and private investment in agricultural innovation. A longer-term perspective should be adopted, including longer-term funding arrangements.
4. Further integration into international agro-food markets.

- a. Assess the effectiveness of the Andean Price Band System applied to key agricultural products.
- b. Strengthen the sanitary and phytosanitary (SPS) system to support increased export competitiveness.

Source: OECD (2015^[18]), *OECD Review of Agricultural Policies: Colombia 2015*, <https://doi.org/10.1787/9789264227644-en>.

The government issued a national policy to improve agricultural productivity and competitiveness (CONPES Document 4098 - Policy to Promote Agricultural Competitiveness) (DNP, 2022^[27]), which identifies the priority actions that complement existing productive programmes for farmers, strengthening the agricultural policy in line with OECD recommendations (2015^[18]). This national policy provides a solid diagnosis of the challenges in rural economies, with a concrete roadmap to enhance the productivity of the agricultural sector. To this end, most of the actions recommended in this policy are centred on improving information for public policy, promoting food value chains that involve vulnerable groups and strengthening the agricultural innovation ecosystem through better infrastructure and easing financial access.

Accelerating agricultural innovation with a broader approach

An important focus of the forthcoming national policy for agricultural productivity is strengthening the National Agricultural Innovation System. This system is a relevant tool to increase resilience and income for farmers. Agricultural innovation is a seminal strategy to increase effectiveness, competitiveness, resilience to shocks or environmental sustainability (OECD, 2015^[18]).

According to the 2019 National Agricultural Survey (ENA), only 5.2% out of 2.1 million UPAs surveyed have incorporated any kind of innovation (such as production, marketing or administration innovation) in their agricultural production and only 1.6% indicated that they carried out or initiated activities for some change or improvement. Most of the UPAs implemented innovation focused on the preparation and management of soil (19%). It is worth noting that the low innovation rate of small farmers does not reflect their openness to innovation (Agrosavia, 2020^[28]). In fact, the smallest UPAs (less than 5 hectares) represent the largest group of units (40%) that introduced some type of innovation in their activity (Parra-Peña, Puyana and Yepes, 2021^[17]).

This low adoption rate of agricultural innovation can be explained by relatively low investment in agricultural research and development (R&D) and slow implementation of comprehensive policies to create an agricultural innovation system that goes beyond training for cultivation.

Between 2000 and 2018, the share of national R&D and innovation investment in the agricultural sector decreased from 36% to 12%. Moreover, despite the resources available in the Science and Technology (S&T) Fund of the General System of Royalties (SGR) and the resources of the Parafiscal Development Funds that are managed by unions, the share of public investment in R&D as a share of agricultural GDP (1.01% in average in 2016-19) is still below the 2015 level (1.75%).

In 2017, Colombia created a comprehensive system for agriculture innovation, the National Agricultural Innovation System (SNIA) (Law 1876), to co-ordinate efforts for agricultural innovation through the implementation of three subsystems: i) innovation and technological development; ii) public agricultural extension; and iii) education and training. The Public Agricultural Extension Service (SPEA) launched in 2018 (Agricultural Technical Assistance's new programme) goes beyond traditional technical training for cultivation, to include training to improve farmers' knowledge of markets, associativity and information technologies, among others.

Yet, Law 1876 of 2017 has not been fully established. By 2021, the Agricultural Extension Fund Operations Manual and the SPEA monitoring and evaluation system were still missing, which prevented the Agricultural Extension Fund from being fully operational, limiting the resources available to subsidise the

fee for the provision of the programme. Moreover, the SPEA has had a slow implementation that has limited service coverage, as, by 2021, it has only served 41.8% of the goal of 550 000 users for the 2018-21 period.

The Colombian government should put innovation at the centre of the agenda, which comes with the implementation of the forthcoming national policy for agricultural productivity, in particular rebalancing the sectoral budget towards greater investment in innovation and implementing the missing documents (e.g. Agricultural Extension Fund Operations Manual) to make the National Agricultural Innovation System fully operational.

This innovation system could also find synergies with existing MADR programmes focused on entrepreneurship in non-agricultural activities. Entrepreneurial Countryside (*Campo Emprende*) could benefit from training to improve farmers' knowledge of how to involve other rural inhabitants in the learning process and help create local value chains.

Unlocking rural innovation will benefit agriculture sector and the rural economy at large.

Enhancing agricultural innovation can not be seen in isolation from the rural innovation ecosystem. Innovation in rural economies needs greater participation of youth and women in high-value-added economic activities to ensure intergenerational renewal and a more dynamic rural economy. The use of technology to ease economic insertion can help involve all the rural population in the innovation system. For example, new technologies can help involve youth and women in agricultural activities that were traditionally seen as labour-force-intensive or male-dominated. In some OECD rural regions, automation of some repetitive task in primary activities (e.g. mining in the north of Sweden) or the use of technology to monitor operation (e.g. drones to monitor crops) is opening new work possibilities for youth and women (OECD, 2020^[11]).

Promoting innovation in rural context also needs to create role models and improve access and understanding of new technologies. Digital platforms to disseminate information of government programmes or create role models to inspire new generations have proven to be effective to insert young in rural economies. According to OECD work (2021^[29]), a key action to support youth entrepreneurship, beyond addressing the finance gap that they face, is to improve the appeal of support initiatives by better capturing youth perspectives in the design of programmes. In Colombia, there is a good example of an influencer peasant family of YouTubers who share life in rural areas and have become role models, especially for youth and women (Box 3.5).

The government, in co-operation with the Ministry of Information and Communication Technologies (MinTIC), could gather rural digital communication practices in a digital platform to display different life examples in rurality and promote entrepreneurship support programmes.

Box 3.5. Nubia and Children: The YouTuber peasant family

Nubia and Children is a digital project launched during COVID-19 lockdown, led by Nubia Rocío Gaona and her two children, Jaime Alejandro and Arley David in the rural municipality of Chipaque, Cundinamarca. The three created a YouTube channel to make visible the daily reality of the Colombian countryside and offer different tips to enable viewers to make everything from milk candies to vegetable gardens at home.

Nubia was a former full-time farmer who became a cleaner at the departmental school of Chipaque, once her farming business went bankrupt. Her son David, 15 years old at the time, had the idea of showcasing rural life on YouTube, after realising that there were no influencers covering rural matters.

They started to film with a conventional camera on their smallholding, where they keep a few animals and grow some vegetables.

Nubia and Children became a popular YouTube channel in Colombia with more than 800 000 subscribers. They also launched a website where they sell seeds and school kits. Nubia and Children were ranked one of the most outstanding YouTube channels in Latin America in 2020, according to the statistics portal for market data, Statista.

Source: Nubia e Hijos (2020^[30]), *Familia Campesina decide volverse YouTuber*, <https://www.youtube.com/channel/UCeUlkw2mOytSyH-7GerzeLQ>; Distintas Latitudes (2021^[31]), "Nubia e hijos: La familia colombiana, campesina y youtuber", <https://distintaslatitudes.net/destacado/nubia-e-hijos-familia-youtube-colombia>.

Increasing the income of farmers with off-farms activities

Agricultural policies in isolation will not sustainably improve the income and well-being of small farmers. While small farms could be viable, families relying solely on small farming are vulnerable to external shocks and suffer from highly uncertain and unreliable income. This is not unique to Colombia: in many OECD countries, small farms do not provide enough income for a proper living. In countries like Poland, 48% of farms reported annual sales that barely reached the annual income necessary to be above the annual poverty line (EUR 4 000) (OECD, 2018^[25]).

The development process of Colombia and the modernisation of its agricultural sector will keep reducing the sectoral weight in the economy, as has occurred during structural transformation across many OECD countries (OECD, 2014^[32]). The share of agriculture in the Colombian GDP has constantly declined in the last decades, from 8.3% in 2000 to 6.7% in 2019. Rural employment has also diversified in recent years. In 2015-21, the employment growth rate in sectors such as electricity, gas, water and waste management (9.3% annual average), professional and scientific activities (2.9%) and transport and storage (2.3%) was far above growth in agriculture (0.1% annual average) (DANE, 2022^[33]). Other countries in Latin America and the Caribbean region have seen the same decline in agriculture, although the pace of Colombia's transformation has been slower than that of Brazil, Chile and Mexico, and slower than the average pace seen in OECD countries (OECD, 2015^[18]).

Farmers who can complement their incomes with off-farm activities can better cope with external shocks that affect agriculture production and are more likely to meet the sustainable living standard. In the US, some of the counties that produce the greatest amount of agricultural output are not farming-dependent because a larger share of county output comes from another activity, such as manufacturing (Federal Reserve Bank of St. Louis, 2021^[12]).

The vast majority of American farm households now earn more money from off-farm employment than they do from farming (Federal Reserve Bank of St. Louis, 2021^[12]).

A seminal policy to support secondary sources for farmers is the improvement of access to markets and capital. Good access to urban centres is a cornerstone for farmers and their families to sell their products and also find new job opportunities in the eventuality that agricultural production does not provide enough income. Nevertheless, in Colombia, infrastructure network is still poorly developed (Chapter 4), with many rural inhabitants still locked in terms of road infrastructure and deficient fluvial transport solutions.

Inter-sectoral projects can also help unlock new sources of income for farmers. The agricultural sector in Colombia has been traditionally linked with manufacturing (food processing) and the services sector (restaurants). Some products have strong forward linkages with the manufacturing sector. For example, the added value of transforming palm is almost seven times the value of primary production, with transformation that includes seed meals, oils, fats, soaps and perfumes or preparations for animal feed (Parra-Peña, Puyana and Yepes, 2021^[17]).

Improved links with Colombia's industrial sector remains an unexploited opportunity. The country benefits from industrial activity that is distributed across its different regions (Chapter 2). Some industries have the capacity to support backward linkages of the agricultural sector and could be better integrated to develop machinery adapted for Colombian conditions (mountainous land) and purchasing power. Risaralda, a region whose capital is a small/medium-sized city, is among the top coffee producers in the country and also hosts important industrial companies, building busses for Bogotá's Public Transit system or parts for the Black Hawk helicopter. However, most machines to produce and transform coffee are imported, e.g. coffee threshers. Greater regional alliances to address production needs in agriculture should be a key pillar of rural policy in Colombia. In some regions, such policy strategy could rely on the chamber of commerce and other organisations gathering innovative activities (e.g. Centre for Innovation and Technological Development of Manufacturing and Metalworking in Risaralda).

Better linking agriculture and tourism

Closer ties between tourism and agricultural policies can revitalise the traditional process of agriculture, promote improvements in quality and offer new sources of income for farmers. Tourists visiting rural regions bring demand closer to producers by buying directly from farmers' markets or making purchases in the region. Tourism is also a means to provide consumer information to producers to help change or improve the quality process.

Colombia's renowned tradition of coffee production has attracted tourists to regions like Huila, Quindío or Risaralda to experience coffee gathering and processing. Some tourists stay on coffee farms, thus supporting food production and traditional gastronomy. The dissemination of Colombian gastronomic culture is directly related to the recognition of traditional cultures; this accumulated culinary tradition can help position cultural identity (Mora, 2018^[34]).

Linkages between traditional agriculture production and tourism could be extended to other products, beyond coffee, such as rum or exotic fruit. Better mapping traditional agricultural processes with clear information on destinations can help attract tourists to new locations and add value to traditional agricultural products. Hungary's mapping exercise can be a good guide for Colombia (Box 3.6). Tourist experiences linked to agriculture could be further exploited by setting clear routes and guides.

Closer synergies can also allow tourism support sustainable agricultural practices. Tourism plays a key part in food consumption. For example, some OECD countries have increased partnerships with hotels to influence sustainable food production through regional or organic food purchasing policies and to advance in practices of food waste minimisation (Italy and Spain).

To realise this potential, the Ministry of Tourism, Industry and Trade has set a specific strategy to promote agro-tourism clusters and value chains by integrating existing rural, agricultural and environmental development projects. This approach is welcome and should require formal collaboration with MADR to set common goals and policy strategies on this matter. Some OECD countries have adopted bilateral agreements between tourism and agriculture institutions (Greece), while others have set cross-ministerial budget allocations (Japan) (OECD, 2020^[35]).

Box 3.6. Culinary tourism in Hungary

The destination-based approach of Hungary's National Tourism Development Strategy 2030, is adopted in a current project entitled The Taste Map of Hungary. With the use of dynamic food maps, tourists are able to filter and search for local foods and produce in a given region.

The map helps to find unique and traditional tastes in the regions, therefore driving tourism and supporting local supply chains. Tourism and culinary experiences have been an integral part of the Swedish food strategy since 2017. The government has also identified culinary tourism as a priority for

action within the EU Rural Development Programme, which has dedicated SEK 40 million to develop tourism in rural areas and SEK 60 million to develop culinary tourism in rural areas. The partly government-owned marketing company Visit Sweden AB runs programmes with Swedish regions to develop the culinary offer within destinations and develop marketing.

Source: OECD (2020^[35]), *OECD Tourism Trends and Policies 2020*, <https://doi.org/10.1787/6b47b985-en>.

Enhancing bioenergy strategies to promote circular process in agriculture

Bioenergy can play a strategic role in meeting multiple goals in Colombia, from cleaner energy production (e.g. biofuels or combustion for electricity) and improving access to affordable, reliable energy supply to providing a new source of income to agricultural companies. Colombia benefits from substantial potential bioenergy feedstock, e.g. palm, sugar, biomass from agriculture or organic waste (OECD, 2022^[36]).

On average, around 178 million tonnes of organic waste are produced each year in Colombia from agricultural activities (41%), livestock (58%) and the residential sector (<1%) (OECD, 2022^[36]). While some of this waste goes through a composting process to increase its value as fertiliser, the majority is reintegrated into crops in a non-technical way, which has been linked with decreasing land productivity (Government of Colombia, 2019^[37]). The Colombian government has estimated that agricultural biomass residues, via direct combustion and/or anaerobic digestion, could be converted to a fifth of Colombia's total energy supply (around 8 mega tonnes of oil equivalent of energy) (UPME, 2011^[38])

Most agricultural residue currently used for bioenergy in Colombia comes from palm oil and sugar crops. These are used for the production of biodiesel and bioethanol. Manuelita and Ingenio Risaralda S.A. are positive examples of companies cogenerating electricity from sugarcane bagasse and palm fibre and selling electricity surplus to the grid. This type of cogeneration allows the company to withstand shocks from the shortage of energy supply, reduce energy prices, improve the carbon footprint of the production and obtain income.

However, there are a number of unexploited opportunities for bioenergy production in canola or sunflower, forestry residues and developing value chains with new production processes and products (Figure 3.1). Unlocking opportunities from bioenergy requires further policy actions to encourage investment and market conditions for clean energy generation from waste and residues.

To this end, the OECD (2022^[36]) identified a number of policy actions that should be put in place by the Colombian government (Box 3.7). Of particular importance for rural policy is the need to improve institutional co-ordination (e.g. between MADR and the Ministry of Mining and Energy) to facilitate bioenergy projects in agriculture, particularly in small farmers' associations, as these projects can be difficult in nature given the complex chain of sourcing, sorting and treatment of waste. Moreover, support for innovation and local technical capacity is required to enable solutions that are suited to the Colombian context. For example, training farmers to use biodigestion to convert organic waste from farms into bioenergy and biofertilisers.

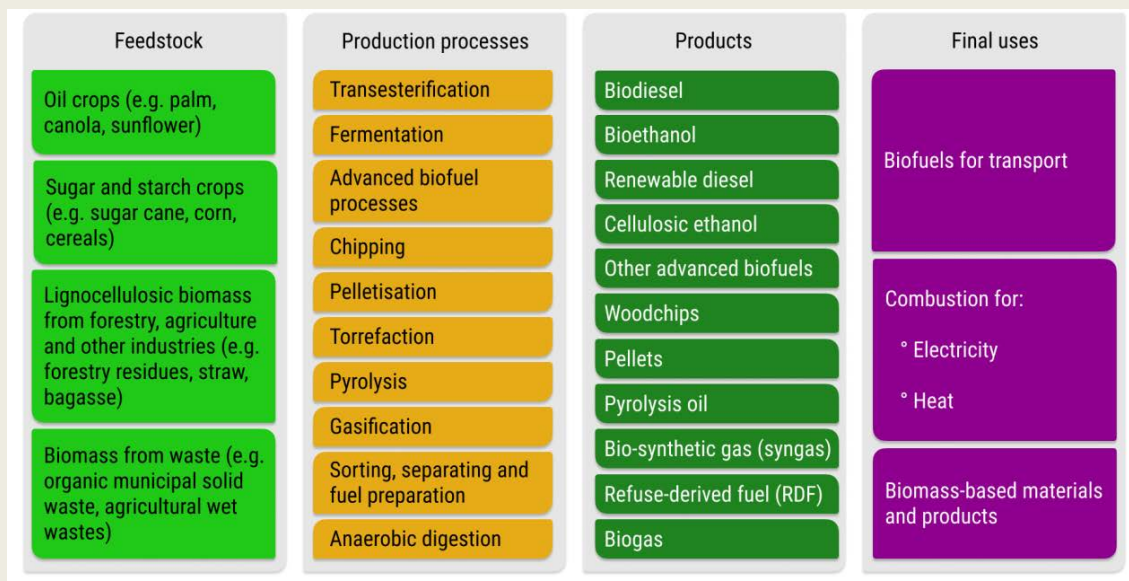
Box 3.7. OECD recommendations to unlock bioenergy potential in Colombia

In 2022, the OECD conducted a study to support Colombia's efforts to achieve its clean energy ambitions through measures that can strengthen opportunities for bioenergy development. While the government has set forth a number of important policy strategies to realise its clean energy ambitions (e.g. 2018 Green Growth Policy and 2021 Energy Transition Policy), the country currently only uses a limited capacity of its feedstock to produce energy but there is a large array of options that can be further explored (Figure 3.1).

Actions to encourage clean energy generation from waste and residues in Colombia include:

- Establishing clear targets for bioenergy capacity additions in energy and electricity market plans.
- Improving institutional co-ordination to ensure the opportunities for bioenergy development are reflected across related public and economic policies. This is particularly relevant for rural economies is the co-ordination between MADR and the Ministry of Mining and Energy.
- Strengthening market signals such as progressive increases in landfill fees paid by waste producers, which remain low compared to other OECD countries, to improve the economics of sorting, treatment and recovery of waste for energy production.
- Providing the needed incentive for businesses and industry to seek alternative pathways to waste disposal.
- Working with financial stakeholders, building upon existing funds such as national development bank Findeter financing for local and municipal infrastructure projects, to implement targeted financial measures that increase the flows of capital to bioenergy projects.
- Training and capacity building, alongside public support for new and innovative technologies and business models, to develop a robust pipeline of bioenergy solutions adapted to the Colombian context. Stakeholders like Colombia's National Centre for Cleaner Production and Environmental Technology can build awareness in the market and enable technical capacity.

Figure 3.1. Potential products and uses of bioenergy resources



Source: OECD (2022^[36]), *Enabling Conditions for Bioenergy Finance and Investment in Colombia*, <https://doi.org/10.1787/20f760d6-en>.

Tourism to help preserve the environment, empower minorities and boost traditional economic activities

The tourism sector is itself an increasingly important source of development for rural communities in Colombia. Currently, it contributes 2% to Colombia's GDP and has become the primary service export in Colombia and the second overall export behind the oil industry, generating 52% of foreign exchange (OECD, 2020^[35]). In fact, the income from foreign exchange for tourism has exceeded that from coffee and any other agricultural/livestock product (Garavito, Roza and Mojica, 2019^[39]).

The country's peace agreement opened up once-inaccessible parts of the country and improved the security perception: tourism has been one of the activities that has benefitted the most from this in the post-conflict era (Esteban and Bonilla, 2017^[40]). The tourism sector in Colombia experiences exponential

growth, with a record number of 4.5 million inbound visitors (3% annual growth) in 2019, just before the COVID-19 pandemic. This sector employs about 9% of jobs in Colombia (around 2 million jobs in 2018) (OECD, 2020^[35]). While not all of these workers are located in rural regions, the important biodiversity and number of nature destinations in the country make tourism an increasingly important economic activity for the rural economy.

Tourism can fulfil multiple goals to increase rural well-being in Colombia. It can provide alternative income and job opportunities for rural communities. Tourism demands services and goods from a variety of economic sectors, including transport, retail, housing and agriculture. Most of the jobs provided by tourism in Colombia are concentrated in passenger transport supporting services (39% of people employed in tourism in 2018), followed by the food and beverage serving industry (36%) (OECD, 2020^[35]). Moreover, tourism can be an engine to advance the implementation of the peace process and offer an alternative source of living to get people out of illegal businesses in the countryside. Tourism in a country rich in natural resources can also help preserve biodiversity and environmental ecosystems.

However, the sector, like many activities in rural areas, faces major challenges in terms of security and the provision of basic services and infrastructure. Security, again, is probably the major issue for tourism attraction. According to the World Economic Forum (WEF) Travel and Tourism Competitiveness Index, Colombia ranked last among the 136 countries analysed in the dimension of security (Ministry of Commerce, Industry and Tourism, 2019^[41]). Many destinations where security has improved substantially suffer from the general perception of insecurity that comes from years of high levels of internal conflict and illegal traffic. In fact, a survey of 206 potential European tourists conducted in 2020 revealed that Colombia as a destination is perceived as more dangerous by potential tourists than by actual tourists who have visited it and perceive it as much safer and more attractive (Antošová, Lima Santos and Stradová, 2020^[42]).

Other pressing challenges for tourism attraction in Colombian rural areas include deficient accessibility (ground and port infrastructure) and quality of public services in touristic destinations (healthcare, water) along with the slow adoption of digitalisation. Likewise, factors such as high labour informality, low worker skills (e.g. English language) in the provision of tourism service along with environmentally unsustainable tourism practices diminish the capacity of tourism to share benefits with the population and to have a positive impact on the environment.

To address the main bottlenecks in the tourism sector in the medium and long terms, the Tourism Sector Plan 2018-22 “Tourism: The purpose that unites us” defined strategies to improve Colombia’s competitiveness as a tourist destination through major strategic lines that include: the generation of **institutional conditions for the tourism sector**, better infrastructure and connectivity and strengthening human capital, among others (Ministry of Commerce, Industry and Tourism, 2019^[41]). The ministry relies on the National Tourism Council, representing 13 different ministries and other agencies to implement this plan and ensure a whole-of-government approach to tourism development.

Some of the flagship strategies to support tourism include the certification programme for tourism service providers and destinations in order to create a culture of excellence in tourism operations and a focus to ensure security and safety for the users and customers of tourism services. The latter programme is done through a joint collaboration with the Ministry of Defence to co-ordinate the Tourism Police, a specialised body that ensures and supervises tourism activity in the public and private sectors.

Tourism is an inter-sectoral activity that can mobilise different development agendas in rural communities, including environmental protection, improving the quality of food production and off-farm income for farmers as well as the valorising culture of traditional communities.

Cultural tourism can revitalise rural traditions

Community-based tourism is also a relevant tool to ensure rural communities and local ecosystems benefit from this growing activity (OECD, 2020^[35]). The community-based tourism not only empowers communities

and helps preserve natural resources but also offers a unique experience to tourists. Examples in Colombia have also shown that this tourism also helps communities play a greater role in the planning and management of economic resources (Ministry of Commerce, Industry and Tourism, 2018^[43]).

The multicultural richness of Colombia makes this type of tourism an important tool to spread income throughout different rural communities, valorise traditions and greater involve Indigenous and Afro-Colombian populations in regional development dynamics. The Ministry of Commerce, Industry and Tourism has created policy guidelines for the development of community tourism in Colombia (2012) and, since 2017, has dedicated a fund to benefit community tourism projects, focusing mainly on an Indigenous and vulnerable population.

The fund focuses initially on the capacitation of communities to apply projects. Examples of projects include the design of the touristic product for the Indigenous community Embera in Nuqui, Choco or the official agreement to create touristic projects in Afro-Colombian communities. The policy proposed the creation of a network of community-based tourism to co-ordinate the different ongoing initiatives around the country and disseminate information to share good practices and improve marketing.

This policy and its projects could benefit from other OECD experiences to ensure local communities are the ones directly harnessing the benefits of tourism. Some tourists rely on travel operators to reach remote destinations. The policy can build the capacities to ensure communities can take a lead role in organising and managing tourism in the regions. Experiences in other OECD countries can guide Colombia's ethno and community-based tourism policy to ensure that funding promotes both the destination and the export products of local communities (Canada) or can help the country better embed Indigenous and local communities' views in the national tourism promotion strategy (Finland) (Box 3.8).

Box 3.8. OECD approach to Indigenous tourism: Canada and Finland

The Canadian Experiences Fund is helping Indigenous peoples present their histories, traditional stories, creative arts and contemporary values to the world while creating new economic opportunities in their communities. It supports the growth of Indigenous tourism in Canada and addresses the demand for market development and export-ready Indigenous tourism products.

In Finland, the Principles for Responsible and Ethically Sustainable Sámi Tourism were adopted by the Plenum of the Sámi Parliament in 2018. These principles recognise the Sámi as having the right to decide by whom, what and how the varying elements of their culture are used and portrayed in tourism.

Source: OECD (2019^[44]), *Linking Indigenous Communities with Regional Development*, <https://doi.org/10.1787/3203c082-en>.

Sustainable tourism can promote growth while conserving natural ecosystems in rural areas

As a reaction to the COVID-19 pandemic, the Colombian government has put in place a recovery strategy for tourism with environmental sustainability at the core of decision-making and created the Sustainable Tourism Policy "Together with Nature". With the adoption of this policy, Colombia became 1 of the first 12 countries in the world with a public policy framework for sustainability in tourism (OECD, 2021^[45]).

In the post-pandemic scenario, Colombia could benefit from a reinvigorated touristic demand that values alternative destinations with an environmental appeal (OECD, 2021^[45]). Colombia's biodiversity and variety of ecosystems (high-elevation mountains, dry forest, *páramo* and coastal habitats) put the country in a good position for sustainable tourism, which would be mainly located in rural regions.

Ecotourism can help finance the protection and management of protected areas and biological diversity. This type of tourism represents an alternative income source that tends to reach remote communities and

traditionally less touristic regions in the country. For example, niche tourism markets, such as nature watching (bird or whale watching), can be further promoted and organised in the country. With over 1 940 avian species, Colombia has the highest diversity of bird species in the world, which makes it an attractive destination for a growing tourism market of birdwatching, e.g. more than 46 million bird-watchers in the US (Ocampo-Peñuela and Winton, 2017^[46]; Maldonado et al., 2017^[47]) (Box 3.9).

However, bringing tourists to nature-rich regions – such as Cauca, the region with the greatest biodiversity of birds in the country – requires security and well-developed accessibility. This is especially relevant for niche products like birdwatching in which tourists tend to be relatively wealthy and require organised journeys (Maldonado et al., 2017^[47]). Tapping into these opportunities requires an integrated policy approach that goes beyond tourism to improve security and local capacity to provide quality services.

Box 3.9. Potential of birdwatching tourism for rural areas in Colombia

Colombia is the country with the greatest variety of birds on Earth, with over 1 940 species, including more than 200 migratory and 80 endemic species. Known for its very diverse bird population, Colombia's variety of ecosystems offers an array of tropical avifauna, including flycatchers, hummingbirds, tanagers, toucans and more.

The potential revenues that birdwatching tourism could bring to post-conflict Colombian communities are promising. The average birdwatcher is relatively wealthy and willing to pay a premium to see Colombian birds: USD 310 per person per day (Maldonado et al., 2017^[47]). The National Audubon Society estimates that birdwatching can generate USD 47 million annually and create up to 7 500 new jobs in Colombia over the next decade (Ocampo-Peñuela and Winton, 2017^[46]; Audubon Society, 2017^[48]). The country has already four recognised birding trails and international-funded projects, not least the Audubon and the United States Agency for International Development (USAID) Northern Colombia Birding project that has trained more than 40 locals to be bird guides, including a group of Wayuus, a native ethnic group that resides in the Guajira Peninsula in northern Colombia.

Source: Ocampo-Peñuela, N. and R. Winton (2017^[46]), "Economic and conservation potential of bird-watching tourism in postconflict Colombia", <https://doi.org/10.1177/1940082917733862>; Audubon Society (2017^[48]), *Birding and Ecotourism in Colombia*, accessed on June 2022 <https://www.audubon.org/>.

Mobilising renewable energy sources to create new job opportunities

Colombia has an important renewable energy potential, including large, solar and wind resources. Investment in these clean energy solutions offers the opportunity to boost the reliability and affordability of energy supply, whilst decarbonising the country's energy mix and creating new income sources for rural communities.

These favourable conditions for wind and solar energy have remained mostly untapped. Potential from wind energy generation in the department of La Guajira in the north of Colombia is estimated at 18 gigawatts (GW) (Mordor Intelligence, 2020^[49]), more than all currently installed electricity generation capacity in Colombia. Furthermore, average annual wind speeds in certain locations off-shore of La Guajira are as high as 11 metres per second (IDEAM, 2020^[50]) making Colombia 1 of only 2 regions in all of Latin America to reach these high levels, at more than double the minimum wind speed needed for utility-scale installations (Norton Rose Fulbright, 2016^[51])

Potential for large-scale solar generation is also particularly strong in the Orinoco region in the east and San Andrés Island in the Caribbean (IDEAM, 2020^[52]), where average radiation reaches as high as

6.0 kWh/m² per day, much higher than countries considered a big player in a solar generation like Spain (on average around 3-3.5 kWh/m² per day in solar irradiance) (World Bank, 2020^[53]; IRENA, 2020^[54]).

This type of renewable energy project is not going to create many jobs but can bring some additional income and employment opportunities in rural areas. Some of the benefits that rural communities can obtain from renewable energy projects include:

- The **greater tax base in hosting communities can be invested in improving service delivery**, as was the case in Abruzzo, Italy, or Scotland, United Kingdom (OECD, 2012^[55]).
- **Extra income for land owners and land-based activities**. For example, farmers and forest owners who integrate renewable energy production into their activities have diversified and stabilised their income sources (OECD, 2012^[55]).
- **New indirect jobs**. While the number of new jobs created by renewable energy projects is limited (mainly in operating and maintaining equipment), rural communities can implement strategies to benefit from indirect jobs arising along the renewable energy supply chain (construction, manufacturing and specialised services). This was the case in Extremadura, Spain, where the newest manufacturing jobs were created in firms producing metal frameworks to support solar energy installations (OECD, 2012^[55]).
- **Deliver affordable and clean energy**. Some Colombian regions, mainly rural ones, still rely heavily on thermal power generation using fossil fuels. For example, Córdoba, La Guajira and Norte de Santander in the northern part of the country relied exclusively on coal for electricity generation in 2017.

Making a positive connection between renewable energy development and local economic growth in Colombia will require more coherent strategies to embed energy strategies in the local economic development strategy. It is especially relevant to ensure these projects reflect local needs and integrate rural economies within larger supply chains. As these projects use significant areas of land, the government should evaluate with local communities the adverse effects of renewable energy projects on current or potential economic activities, including agriculture and tourism.

Making the most of mining to attain climate goals and improve rural well-being

Meeting the Paris Agreement goals will require a massive deployment of clean energy technologies, whose production will in turn rely on important amounts of critical minerals such as copper, lithium, nickel, cobalt and rare earth elements (IEA, 2021^[56]). Clean energy technologies require more minerals than fossil fuel-based counterparts. For example, a typical electric car requires six times more minerals than a conventional car (e.g. lithium, cobalt and manganese for the longevity of its battery) and an onshore wind plant requires eight times as many minerals as a gas-fired plant of the same capacity (IEA, 2020^[57]).

This led to the potential demand for some minerals for the clean energy transition that is in many cases greater than the current production levels. Therefore, many OECD governments have defined access to minerals and metals as a strategic security priority for sustained development, e.g. the European Green Deal and the Canada-US joint action plan to increase autonomy in critical minerals (Sanabria, Forthcoming^[58]).

Colombia has a geological potential that could leverage the increasing mineral demand to support the global energy transition and unlock new job opportunities for rural economies. Currently, the mining sector has a presence in 250 municipalities and represents 12% of the foreign investment into the country and 27% of national exports. As in other OECD countries, if well-managed, this sector can contribute to rural development beyond the economic dimension, for example through infrastructure development, social investments, innovation and the creation of local value chains (OECD, 2017^[59]).

Colombia has a high potential for large-scale, such as nickel, and smaller-scale mining projects, such as gold, platinum, emerald, limestone, copper and manganese ores, and gypsum, among others. It has still untapped deposits of nickel, the most important component of the stainless steel industry, which is already one of the top exported minerals in Colombia (together with coal and gold). Furthermore, the country has deposits of rare or strategic minerals in areas that have never been explored due to the conflict (Ramos, 2021^[60]), including coltan deposits, a mineral widely used for the electrical components industry worldwide.

However, the mining sector faces entrenched challenges in information about the mineral potential, infrastructure, illegal mining and low development of value chains, e.g. gold (Ministry of Mines and Energy, 2019^[61]). For example, there is scope to enhance information about critical minerals required for green technologies and other minerals like copper, in which there are indicative reserves but only one project in the country. Moreover, the country has an increasing issue with the license to operate, with growing reticence in some communities towards mining ventures.

There is also a pressing challenge to support coal communities in the north and centre of the country to attain new economic opportunities in the face of the coal mining transition. This energy mineral is present mainly in regions such as La Guajira and Cesar basin and the regions of Boyacá and Cundinamarca. However, global prices have battered coal and demand is set to end in the medium term due to commitments to reach global climate goals. Early just transition initiatives to leverage the know-how of coal workers and help them shift into new jobs should be a priority for these communities. Experiences in other OECD countries (e.g. Finland, Poland) have shown that close work with mining companies to explore new business alternatives focuses on leveraging workers' know-how, either to explore another type of mining or enter into mining-related industrial activities, as well as long-term plans with finance can lead to diversification of mining communities (OECD, 2019^[62]).

Mining outcomes can be shaped by policy to ensure environmental sustainability and link with local expectations. The Colombian government can unlock mining potential and ensure environmentally sustainable practices with policies that first ensure well-being of people. The government should focus on a mining policy centred on improving well-being of host communities and decarbonising mining value chains. It can include incentivising mining electrification with renewable sources (e.g. as in Western Australia) and mining automation (e.g. Norrbotten in Sweden) to reduce the mining carbon footprint and enhance female and youth participation in the mining workforce (Sanabria, Forthcoming^[58]).

Moreover, the country needs a co-ordinated policy to enhance the benefit-sharing of mining projects and involve local communities, including Indigenous peoples. To this, Colombia can learn from other countries that have promoted Indigenous business participation in energy projects (e.g. in British Columbia, Canada) or created regional centres for excellence to build capacity and connect Indigenous peoples with local business programmes (Ontario, Canada) (Sanabria, Forthcoming^[58]).

An incremental strategy to develop a comprehensive national rural policy in Colombia

Mobilising the different growth opportunities across different rural regions in Colombia requires an integrated approach that can address the structural challenges while unlocking synergies among economics activities. Colombia already has the basis for a comprehensive policy framework for rural development with the Integrated Rural Reform (IRR) that emerged from the peace agreement. This reform has led to the creation of a number of national plans with a focus to provide basic goods and services in rural areas as well as instruments for placed-based implementation like the Development Programs with a Territorial Approach (PDETs), which helps to identify local needs. In addition, there are a number of sectoral policies to support economic diversification in rural economies, including tourism, innovative agriculture, bioenergy, renewable energy and mining. This suggests that Colombia has most of the components for a rural policy already in place.

The IRR, the basis for a national rural policy in Colombia

Because the peace agreement largely deals with addressing the complete development needs in those rural municipalities that were most directly affected by the decades-long armed insurrection, it is in effect a rural development policy. The peace agreement itself is a formal commitment to the people in those regions that it will make the necessary investments to improve rural well-being and contribute to the end of violence. A further reason to see the agreement as a significant policy innovation is that it commits the government by law to a 10-to-15-year process that will extend across multiple administrations. Moreover, progress in implementing the agreement is being directly monitored by external groups and there are multiple stages for formal evaluations of progress.

The peace agreement was mainly designed to end armed violence and has the structure of an integrated rural development approach that can be applied across the entire country. In particular, the IRR of the peace agreement is highly compatible with the philosophy of rural policy developed by the OECD. Certainly, the problems in the municipalities where conflict was more intense do not characterise all of rural Colombia. Yet, because conflict occurred across such a wide variety of rural regions, there are opportunities to use the implementation experiences from the PDET programme as guidance for neighbouring territories with similar geographies and development opportunities.

Leveraging this IRR to develop a comprehensive national rural policy needs greater integration with policies for the rural economy (e.g. tourism, sustainable mining) and an approach that moves away from the programmatic view to deal with policies for rural regions in Colombia's national policy framework (PND). While some current productive government programmes relieve short-term needs in rural communities, such sectoral actions will require coherent co-ordination to address cross-cutting rural challenges in order to deliver sustainable improvements in rural well-being. Beyond the design of this comprehensive rural policy and given Colombia's historic capacity for policy diagnosis, political commitment to the implementation of this policy as a priority in the development agenda is likely the most relevant action for greater well-being in rural Colombia (to be discussed in Chapter 6).

Beyond leveraging the IRR to develop a comprehensive national rural policy, political commitment and prioritisation with the implementation of this policy are a relevant action for Colombia's sustainable rural development.

Lessons from the OECD Rural Well-being Framework for Colombia

A comprehensive rural policy for Colombia should therefore prioritise actions on those cross-cutting enabling factors for rural development to ensure sustainable growth of rural regions, peace and national development. These priorities are listed below. The next three chapters of this review will further analyse these factors and propose policy actions to address them.

- **Infrastructure development.** Despite progress, infrastructure is still insufficient in quality and quantity to provide rural communities access to markets and services and help diversify and improve the resilience of rural economies (Chapter 2). Today, there is an opportunity to palliate the lack of connectivity by developing communication infrastructure in rural regions (Chapter 4).
- **Access to and quality education and healthcare.** Better well-being involves better access to public services like education and healthcare. Lack of education has prevented rural communities from accessing and adopting innovations and attaining a better quality of life (Chapter 4).
- **Informal land tenure.** Improving land formalisation and regularisation help reach multiple goals, including boosting land investment, allowing farmers to access finance, protecting the environment and improving social cohesion, e.g. between Indigenous communities and farmers (Chapter 5).

- **Lack of consolidated systems of rural information.** As described earlier in this chapter, the lack of interoperability among sectoral and rural information systems across MADR agencies diminishes the capacity of government programmes to reach the right beneficiaries, adapt to local conditions and conduct development plans.
- **Low institutional capacity** in rural regions has made difficult the provision of security and justice as well as the enforcement of regulations and co-ordination of policy implementation at the local level (Chapter 6).
- **Security and accountability** are a transversal problem for development in Colombia and likely the more complex issue. Addressing illegal activities and violence against social leaders and civic groups is the first building block for development in the country, whose security approach needs to be centred on protecting people in the country, regardless of age, ethnicity and geographic location, while encouraging and safeguarding civil society to denounce corruption.

The development of this national rural policy in Colombia can take stock from the OECD Rural Well-being Policy Framework and the supporting OECD Principles on Rural Policy adopted by OECD member countries to increase prosperity and improve the living standards of their citizens in rural areas. This framework places the well-being of citizens at the forefront of its objective, recognising the diversity of rural regions and the need for forward-looking approaches to improve communities' resilience and anticipatory capacity to any future shock (e.g. climate change, digitalisation, demographic change) (Box 3.10). The framework calls for a multi-dimensional rural policy approach:

- **Policy objectives should embrace economic, social and environmental objectives.** Transition from a predominate focus on economic dimension (e.g. productivity and income) to encompass a broader concept of well-being that includes environmental and social dimensions. For Colombia, this transition is still in progress as most of the rural programmes still very much focus on productivity, particularly agricultural ones.
- **Policy needs to recognise different types of rural regions.** A policy approach that recognises the diversity of rurality requires sound definitions to identify the variety of rural places and their characteristics. In Colombia, policy still has a strong focus towards defining rural as a leftover of urban centres, without recognising different types of rural (Chapter 2).
- **Different stakeholders need to be involved.** Effective adoption and implementation of rural policies necessitate strong engagement of the private sector and civil society, as well as effective multilevel governance mechanisms to support collaboration between all levels of government. The framework call to recognise that rural people and businesses know their own needs best, which needs meaningful engagement and work with the private sector and civil society in the implementation of rural policy (Chapter 6).

Box 3.10. OECD Rural Well-Being Policy Framework

First developed over 40 years ago, the OECD's rural development framework has helped guide member countries' efforts to increase prosperity and improve the well-being of rural people and has continued to evolve, keeping pace with changing times and reflecting the organisation's latest thinking.

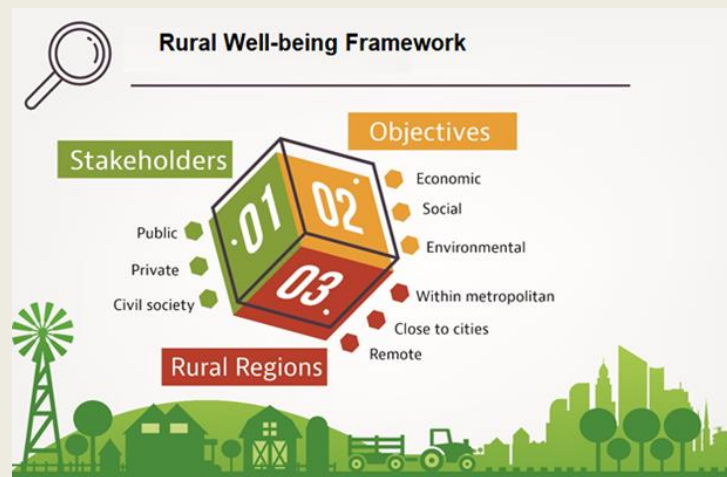
Rural Well-being: Geography of Opportunities (OECD, 2020^[11]) is the latest iteration of the rural development framework. It extends and refines the OECD's earlier work, taking advantage of new analysis to reflect to a greater degree the diversity of rural places and the need for a more comprehensive policy approach.

The new framework's subtitle, "Geography of Opportunities", reflects the central finding that while rural places are not without their challenges, they are also unquestionably places of opportunity, particularly

with accelerated digitalisation. With well-designed rural policies that leverage local assets that are executed in co-ordination across levels of government and between the three key actors of government, the private sector and civil society, rural development policy can deliver more prosperous, connected and inclusive rural places that offer greater well-being.

In short, the Rural Well-being Framework shifts from a one-dimensional to a multi-dimensional view of rural policies.

Figure 3.2. OECD multi-dimensional view of rural policies



Source: OECD (2020^[11]), *Rural Well-being: Geography of Opportunities*, <https://doi.org/10.1787/d25cef80-en>.

Using the OECD Principles for Rural Policy for Colombia to set the comprehensive rural policy

As in many policy areas, rural policy is cross-cutting by nature and involves a variety of governmental and non-governmental actors. Addressing the interdependencies of rural policy and attaining the sustainability of policy outcomes require the adoption of multilevel governance mechanisms with strong multi-stakeholder engagement. The OECD Principles for Rural Development serve as a tool to guide the implementation of rural policy (Box 3.11).

Box 3.11. The OECD Principles on Rural Policy

The Principles on Rural Policy crystallised over 20 years of the OECD's work on rural development and were developed through a comprehensive review process with OECD member countries and key stakeholders. They were adopted by the OECD Regional Development Policy Committee in March 2019.

They target: i) national ministries dealing with rural areas, rural policies and sustainable development, notably ministries responsible for regional development, in OECD member and partner countries; ii) subnational levels of government and stakeholders involved in or affected by rural policy (e.g. from civil society, the private sector, academia or financial institutions).

They cover 11 principles defined in 3 key axes:

Targeting policy actions for all types of rural areas

1. Maximise the potential of all rural areas.
2. Organise policies and governance at the relevant geographic scale.
3. Support interdependencies and co-operation between urban and rural areas.

Adopting integrated and effective strategies to build smart, sustainable and inclusive rural areas fit for the future

4. Set a forward-looking vision for rural policies.
5. Leverage the potential of rural areas to benefit from globalisation, trade and digitalisation.
6. Supporting entrepreneurship to foster job creation in rural areas.
7. Align strategies to deliver public services with rural policies.
8. Strengthen the social, economic, ecological and cultural resilience of rural communities.

Engaging stakeholders in policies for rural areas

9. Implement a whole-of-government approach to policies for rural areas.
10. Promote inclusive engagement in the design and implementation of rural policy.
11. Foster monitoring, independent evaluation and accountability of policy outcomes in rural areas.

Figure 3.3. Eleven OECD Principles on Rural Policy - A toolkit for implementation



Source: OECD (2019^[9]), OECD Principles on Rural Policy, https://www.oecd.org/cfe/regionaldevelopment/Principles%20on%20Rural%20Policy%20Brochure%202019_Final.pdf

All these principles are difficult to adopt at once but, for Colombia, broadening its rural policy approach is already a good step that can have a positive impact on the way ministries and rural communities perceive rural policies. The country has many elements that can facilitate the adoption of the OECD Rural Well-Being Framework and principles and could build on them to speed up the implementation of this policy:

Suggestions for **targeting policy actions for all types of rural areas**, include:

- **Definitions (Principle 1).** As discussed in Chapter 2, the country already has a granular definition for statistical purposes that differentiate rural and urban areas and a second definition proposed by the Mission for the Countryside, which differentiates among the type of rural municipalities, following population and functionality criteria. This duality of definitions still creates confusion for policy making and civil society. (Chapter 2). Therefore, the government, supported by DANE, should work on homogenising both definitions across levels of government and statistics. Other OECD countries like Chile have set up a temporary inter-ministerial committee to homogenise definitions of rural areas across different sectoral policies. This work should leverage the progress made with the functional definition of subregions. Furthermore, including a sense of proximity or accessibility to functional urban areas to differentiate between remote and close to cities could be an important addition.
- **Development policies at the right geographical scale (Principle 2).** Recognising rural particularities is one of the pressing actions for Colombia. As mentioned before, many national policies (e.g. innovation or productivity) do not have a differentiated approach for rural regions but rather do adopt a sectoral approach differentiating the agricultural sector. This difficulty is not particular to Colombia, as other OECD countries are also looking for the right measures to identify and embed rural characteristics inside sectoral policies. A good example is an ongoing effort by the OECD to adjust measurements of innovation to reflect rural realities (Box 3.12).

Box 3.12. A fresh look at measuring innovation in rural regions

Colombia, as in most OECD countries, patents and investments in research and innovation are the most common indicators to define the level of innovation in a region (OECD, forthcoming^[63]). However, these indicators contain a number of measurement biases that overlook rural performance.

Innovation, according to the 4th revision of the Oslo manual, is defined as “a new or improved product or process (or a combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into use by the unit (process)” (OECD/Eurostat, 2018^[64]).

Innovation can be measured using a variety of tools, each with advantages and disadvantages for rural areas. They include:

- **Self-reported measures of innovation** like innovation surveys are a useful method for understanding firm processes and outputs.
- **Product-level data** like export statistics can capture new-to-market and -to-firm innovation.
- **Patents** are the most common measure of innovation.
- **High growth or productivity.**
- **Start-up entrepreneurship** as a proxy for firms that are likely to adopt new ways of producing.

The suitability for each of the proposed measurement methods for use in the rural context as compared to more urbanised regions can be summarised as biases due to the following:

- **Composition:** Bias due to the structure of the economy including the size and sector of rural firms and the occupational structure of rural labour supply.
- **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 statistical methods of gathering information that often centralise responses from multiple branches to firm headquarters. This often results in a downward bias for reported activities that is *de facto* occurring more frequently in less dense areas.

A better focus on the structure of rural economies would require adjusting commonly used measures such as R&D and patents to account for the types of innovation that are more common in rural regions. Moreover, focusing on innovation proxies such as entrepreneurship and start-up activities may be better suited for understanding drivers of innovation in rural areas, as it both avoids headquarter bias and its measurement is not likely to be directly affected by the compositional characteristics of rural areas.

Source: OECD, (2022^[65]), *Unlocking Rural Innovation*, OECD Rural Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9044a961-en>.

- **Support interdependencies and co-operation between urban and rural areas (Principle 3).** Once the right definitions are in place, actions to facilitate co-operation or joint projects among rural and urban municipalities can open up new sources of income for farmers and boost regional growth. In Colombia, these actions need to begin by mapping the urban-rural linkages that exist in the country across different dimension: economic (e.g. communing, business support), social (e.g. shared education services) or environmental (e.g. shared management of waste or water). Other actions to facilitate inter-municipal co-operation include reducing red tape to co-operate or incentives for join planning like contracts (Chapter 6).

Suggestions for **adopting integrated and effective strategies** include:

- **Set a forward-looking vision for rural policies (Principle 4).** In an increasingly interconnected and complex system, unexpected shocks have the potential to divert planned outcomes and disrupt rural economies and communities. While there is increasing acceptance of the importance to include future thinking in policy, policy-making processes at the regional and local levels tend to observe the future passively, often being reactive rather than proactive. Actively thinking about different futures is particularly relevant for rural regions in Colombia, which are at the frontline and ill-prepared to face some of the global megatrends: climate change, digitalisation or depopulation. The Colombian national rural policy should embed a forward-looking and adaptive approach that offers some flexibility to adapt to unexpected shocks and entails possible strategies for today's global megatrends. The example of Ireland's national rural policy can be of guidance for Colombia (Box 3.13).
- **Leveraging the potential of rural areas to benefit from globalisation, trade and digitalisation (Principle 5)** requires setting an enabling environment for rural communities to interact with external markets and actors (e.g. universities, international fairs of agriculture, etc.). To this end, digital connectivity is essential, not only in terms of access but also quality. Chapter 4 will discuss how to improve digital connectivity in Colombian rural areas.

Box 3.13. Our Rural Future – Ireland's rural development plan 2021-25

Our Rural Future represents the Irish Government's blueprint for a post-COVID-19 recovery and development of rural areas over the next five years. Its stated objectives are optimising digital connectivity, supporting employment and careers in rural areas, revitalising rural towns and villages

through enhanced participation, public services and resilience, as well as fostering the transition to a climate-neutral society.

The plan places particular importance on teleworking, acknowledging that the rise of this working mode has contributed to reducing transport emissions, provided a boost for small local businesses across the country and offered possibilities for young people to build a career while continuing to live in their communities, regardless of where their employer is headquartered. Planned actions specifically related to teleworking include, among other things:

- Investing significantly in teleworking infrastructure to provide an opportunity for people to continue to live in rural communities while following their career ambitions.
- Providing financial support to local authorities to bring vacant properties in town centres back into use as Teleworking Hubs and develop an integrated network of over 400 teleworking facilities throughout the country, with shared back-office services and a single booking platform for users: teleworking facilities would support the retention of skilled people in rural communities and attract mobile talent to rural areas.
- Piloting co-working and hot-desking hubs for civil servants in a number of regional towns, and moving to 20% home or teleworking in the public sector in 2021, with further annual increases over the lifetime of this policy.
- Examining the potential to introduce specific incentives to encourage teleworkers to relocate to rural towns and provide funding to local authorities to run innovative marketing campaigns targeted at attracting teleworkers and mobile talent to their county.

- **Supporting entrepreneurship to foster job creation in rural areas (Principle 6).** Adapting the policy support to innovation and entrepreneurship in rural areas is of great importance to promoting stronger value chains in rural areas based on inter-sectoral collaboration (e.g. bioenergy). To do so, innovation and entrepreneurship policies need further rural focus. For example, the national innovation policy should involve the agricultural innovation system to target the creation of a broader rural innovation system. In the case of entrepreneurship, the national policy (CONPES Document 4011) already has some specific strategic actions to boost rural entrepreneurs, which is a good base to upscale rural SMEs and start-ups. However, many relevant strategies in this entrepreneurship policy are still generic actions to improve the ecosystem for entrepreneurs, e.g. the strategies of sophistication of financing mechanisms for entrepreneurship or the construction of support networks among entrepreneurs are strategies (Box 3.14).

Box 3.14. Rural proofing national entrepreneurship policy of Colombia

Entrepreneurship is a topic of national interest in Colombia, being one of the three central goals of Colombia's National Development Plan (PND). To respond to this goal, the government established in 2020 a national policy for entrepreneurship that calls for inter-ministerial action and the involvement of subnational actors to generate enabling conditions in the entrepreneurial ecosystem with a horizon of 2025.

The policy has five objectives with a clear action for MADR and other institutions (National Training Agency [SENA] and regional chamber of commerce) to adapt existing programmes or create new ones for rural contexts (Table 3.4). This rural proofing approach is a good practice as it recognises the need for particular attention to the characteristics of potential (also called latent) entrepreneurs in rural regions.

Table 3.4. Rural entrepreneurship support in the National Entrepreneurship Policy of Colombia

National Entrepreneurship Policy objectives	Specific rural entrepreneurship strategies (selected)
Strengthen skills development and foster an entrepreneurial culture	<ul style="list-style-type: none"> • Psychosocial Plan for entrepreneurs, victims of the conflict (MCIT) • Elaborate a support strategy for entrepreneurship of subsistence and inclusion, through technical assistance and mentoring initiatives (MADR) • Offer of modular training services for entrepreneurs in regions (SENA and chamber of commerce)
Improve access and sophistication of financing mechanisms	<ul style="list-style-type: none"> • Adjust and develop new alternative financing mechanisms for the rural population (MADR) • Formulate and implement a strategic model of intervention to support rural individuals and associations. • Review existing financing instruments in the agriculture sector, aimed at associative and/or individual rural enterprises at an early stage
Strengthen networks and strategies for marketing	<ul style="list-style-type: none"> • Design an integrated agribusiness associativity programme, which builds territorial productive alliances between large traders and mature and large rural producer organisations, or networks of rural producer organisations (MADR)
Facilitate technological development and innovation in new ventures	<ul style="list-style-type: none"> • Implement mechanisms to access technological tools for the development of productive initiatives aimed at low-income populations and victims of the armed conflict (MCIT)
Strengthen the institutional architecture to achieve an offer articulated public	<ul style="list-style-type: none"> • Prepare an analysis of the programmatic offer in rural entrepreneurship of the entities attached to MADR and linked to the agriculture and rural development sector, in order to implement an articulated intervention proposal and a territorial deployment strategy to disseminate the public entrepreneurship programmes in rural areas (MADR)

Note: Institutions in parenthesis refer to the main actors in charge of strategic implementation. MADR refers to the Ministry of Agriculture and Rural Development, MCIT to the Ministry of Commerce, Industry and Tourism.

Source: DNP (2020^[66]), *Política Nacional de Emprendimiento, Conpes 4011*, <https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/4011.pdf>.

- **Align strategies to deliver public services with rural policies (Principles 7)**, as Colombia requires a particular focus on improving accessibility of rural communities to markets and services, education and healthcare. The challenge of service provision in rural areas due to population ageing and low economies of scale has led governments to look for new ways to provide services beyond traditional models. These strategies will be discussed in the next chapter.
- **Strengthen the social, economic, ecological and cultural resilience of rural communities (Principle 8)**. This involves ensuring the sustainable management of natural capital and land use and enabling the creation of value from ecosystem services, which for Colombia comes down to addressing issues of land use management and land formalisation. This action requires legal clarity and active policies to involve ethnic communities in regional development (Chapter 5).

Suggestions for **implementing the rural policy by engaging different rural stakeholders** include:

- **Implement a whole-of-government approach to policies for rural areas (Principle 9)** with a co-ordinating body or mechanism to formally establish inter-ministerial co-operation for rural-related policies. To this end, some countries have established national councils (Chile, Finland), while others presidential inter-ministerial bodies (Korea) (see Chapter 6)
- **Promote inclusive engagement in the design and implementation of rural policy (Principle 10)** involves engaging with all sectors and levels of government to design and implement national policies that improve the well-being of rural areas. For Colombia, this requires a better arrangement to boost local capacity and further involve the private sector in rural agendas.
- **Foster monitoring, independent evaluation and accountability of policy outcomes in rural areas (Principle 11)**. As mentioned in this chapter, moving from a monitoring system based on

coverage towards one that evaluates outcomes in income or well-being can set the right incentives for policies. It also requires a multi-year and transversal budget for rural policies (Chapter 6)

This is not the end...

The following chapters of this review will discuss how to address this priority. Chapter 4 outlines policies to improve accessibility in rural regions, including civil and digital infrastructure as well as access to education and healthcare. Chapter 5 focuses on the mechanism to enhance access to land with the involvement of minorities in regional development and better protection and mobilisation of the environment. Chapter 6 discusses how to implement the comprehensive rural policy approach and the institutional structure that can facilitate such co-ordination and implementation of rural policy.

References

- Agrosavia (2020), *Boletín de indicadores en ciencia, tecnología e innovación del sector agropecuario 2019*, <https://repository.agrosavia.co/handle/20.500.12324/36494>. [28]
- Antošová, G., L. Lima Santos and S. Stradová (2020), "Perception of safety tourism in Colombia", in *Advances in Tourism, Technology and Systems, Smart Innovation, Systems and Technologies*, Springer Singapore, Singapore, https://doi.org/10.1007/978-981-33-4260-6_9. [42]
- Audubon Society (2017), *Birding and Ecotourism in Colombia*, <https://www.audubon.org/>. [48]
- Berry, A. (2017), *Avance y fracaso en el agro colombiano: siglos XX y XX*, Editorial Universidad del Rosario. [24]
- Centro Nacional de Memoria Histórica (2013), *La Política de Reforma Agraria y Tierras en Colombia*, National Center for Historical Memory, Imprenta Nacional, Bogotá, <https://centrodememoriahistorica.gov.co/wp-content/uploads/2020/01/La-pol%C3%ADtica-de-reforma-agraria-y-tierras-en-Colombia.-Esbozo-de-una-memoria-institucional.pdf>. [6]
- DANE (2022), *The Great Integrated Household Survey*, <https://www.dane.gov.co/index.php/estadisticas-por-tema/mercado-laboral/empleo-y-desempleo>. [33]
- Distintas Latitudes (2021), "Nubia e hijos: La familia colombiana, campesina y youtuber", <https://distintaslatitudes.net/destacado/nubia-e-hijos-familia-youtube-colombia>. [31]
- DNP (2022), *Política para Impulsar la Competitividad Agropecuaria*, Consejo Nacional de Política Económica y Social - 4098, <https://www.ambitojuridico.com/sites/default/files/2022-07/CONPES-4098-22.pdf>. [27]
- DNP (2020), *Política Nacional de Emprendimiento, Conpes 4011*, Departamento Nacional de Planeación, <https://colaboracion.dnp.gov.co/CDT/Conpes/Econ%C3%B3micos/4011.pdf>. [66]
- DNP (2018), *Plan Nacional de Desarrollo 2018-2022*, <https://colaboracion.dnp.gov.co/CDT/Prensa/Resumen-PND2018-2022-final.pdf>. [10]
- DNP (2015), *El Campo Colombiano: Un Camino Hacia El Bienestar y La Paz*, Misión para la Transformación del Campo, <https://www.dnp.gov.co/programas/agricultura/Paginas/Informe-misi%C3%B3n-FInal.aspx>. [4]

- Esteban, N. and J. Bonilla (2017), “Turismo y Posconflicto en el municipio de la Macarena, Meta- Colombia”, *RITUR-Revista Iberoamericana de Turismo*, Vol. 7/1, pp. 114-134. [40]
- Federal Reserve Bank of St. Louis (2021), *Investing in Rural Prosperity*, [12]
<https://www.stlouisfed.org/-/media/project/frbstl/stlouisfed/files/pdfs/community-development/investing-rural/investinginruralprosperity-book.pdf>.
- Franco Cañas, A. and I. De los Ríos Carmenado (2011), “Reforma agraria en Colombia: evolución histórica del concepto. Hacia un enfoque integral actual”, *Cuadernos de desarrollo rural*, Vol. 8/67, pp. 93-119. [7]
- Garavito, L., E. Rozo and F. Mojica (2019), “Can tourism lead competitive and sustainable development now and in the near future in Colombia?”, *Via Tourism Review* 15, [39]
<https://doi.org/10.4000/viatourism.3541>.
- Government of Colombia (2021), “Answers to the OECD questionnaire on rural policy”. [5]
- Government of Colombia (2019), *National Circular Economy Strategy: Closing of Material Cycles, Technological Innovation, Collaboration and New Business Models*, Ministry of Environment and Sustainable Development and Ministry of Commerce, Trade and Tourism, [37]
http://www.andi.com.co/Uploads/Estrategia%20Nacional%20de%20EconA%CC%83%C2%B3mia%20Circular-2019%20Final.pdf_637176135049017259.pdf.
- Hamann, F. et al. (2019), *Productividad total de los factores y eficiencia en el uso de los recursos productivos en Colombia*, <https://doi.org/10.32468/espe.89>. [23]
- IDEAM (2020), *Average wind speed at 10 meters above sea level (Velocidad promedio del viento a 10 metros de altura)*, Institute of Hydrology, Meteorology and Environmental Studies (Instituto de Hidrología, Meteorología y Estudios Ambientales, IDEAM), [50]
<http://atlas.ideam.gov.co/visorAtlasVientos.html> (accessed on January 2022).
- IDEAM (2020), *Daily mean horizontal global irradiation (Irradiacion global horizontal media diaria)*, Institute of Hydrology, Meteorology and Environmental Studies (Instituto de Hidrología, Meteorología y Estudios Ambientales, IDEAM), [52]
<http://atlas.ideam.gov.co/visorAtlasRadiacion.html> (accessed on January 2022).
- IDEAM (2020), *National report on hazardous waste and residuals in Colombia, 2019 (Informe nacional de residuos o desechos peligrosos en Colombia, 2019)*, Institute of Hydrology, Meteorology and Environmental Studies (Instituto de Hidrología, Meteorología y Estudios Ambientales, IDEAM), [68]
<http://documentacion.ideam.gov.co/openbiblio/bvirtual/023901/InformeResiduos2019.pdf>.
- IEA (2021), *The Role of Critical Minerals in Clean Energy*, International Energy Agency, [56]
<https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions>.
- IEA (2020), “Clean energy progress after the Covid-19 crisis will need reliable supplies of critical minerals”, International Energy Agency, <https://www.iea.org/articles/clean-energy-progress-after-the-covid-19-crisis-will-need-reliable-supplies-of-critical-minerals>. [57]
- IRENA (2020), *Statistics Time Series*, International Renewable Energy Agency (IRENA), [54]
<https://www.irena.org/Statistics/View-Data-by-Topic/Capacity-and-Generation/Statistics-Time-Series> (accessed on September 2021).

- López, M. and R. González (2007), “Political violence and farm household efficiency in Colombia”, *Economic Development and Cultural Change*, Vol. 55/2, pp. 367-392. [26]
- Machado, A. (1999), “El sector rural y el plan de desarrollo”, *Cuadernos de Economía*, Vol. 18/30, pp. 167-179, <https://revistas.unal.edu.co/index.php/ceconomia/article/view/11435>. [1]
- MADR (2020), *Información de Bienes Públicos*, Ministry of Agriculture and Rural Development, <https://www.minagricultura.gov.co/ministerio/direcciones/Paginas/Informacion-de-bienes-publicos.aspx>. [19]
- MADR (2019), *Plan Estratégico Institucional 2019-2022*, Ministry of Agriculture and Rural Development, https://www.minagricultura.gov.co/planeacion-control-gestion/Gestin/PLANEACION/Planes_Estrategicos_Sectoriales_Institucionales/Planes%20Estrategicos%202019%20-%202022/Plan_Estrat%C3%A9gico_Institucional_2019_2022_Primer_Versi%C3%B3n.pdf. [16]
- MADR (2019), *Política Agropecuaria y de Desarrollo Rural 2018-2022*, Ministry of Agriculture and Rural Development, https://sioc.minagricultura.gov.co/Documentos/20190326_politica_agro_2018-2022.pdf. [13]
- MADR (2017), *The Strategic Guidelines of Public Policy for Peasant, Family and Community Agriculture*, Ministry of Agriculture and Rural Development, <https://www.minagricultura.gov.co/Documents/lineamientos-acfc.pdf>. [15]
- Maldonado, J. et al. (2017), “La paz es mucho más que palomas: Beneficios económicos del acuerdo de paz en Colombia, a partir del turismo de observación de aves (Peace is much more than doves: The economic benefits of bird-based tourism as a result of the peace treaty in Colombia)”, *Documento CEDE*, No. 2017-31, <https://ssrn.com/abstract=2973980>. [47]
- Ministry of Commerce, Industry and Tourism (2019), *Plan Sectorial de Turismo 2018- 2022*, <https://www.mincit.gov.co/CMSPages/GetFile.aspx?guid=2ca4ebd7-1acd-44f9-9978-4c826bab5013>. [41]
- Ministry of Commerce, Industry and Tourism (2018), *Programa de Turismo Comunitario*, Dirección de Calidad y Desarrollo Sostenible del Turismo. [43]
- Ministry of Mines and Energy (2019), *Plan Estratégico Sectorial 2019-2022*, https://www.minenergia.gov.co/documents/10192/24181417/Contexto_estrat%C3%A9gico+13+08+2020.pdf. [61]
- Mora, J. (2018), “Oportunidad del turismo comunitario en el desarrollo rural del posconflicto colombiano”, in Medina, F. (ed.), *Gastronomía, Hotelería y Turismo: Sostenibilidad e inclusión*, Fundación Universitaria San Mateo. [34]
- Mordor Intelligence (2020), *Colombia wind energy market: growth, trends, COVID-19 impact, and forecasts (2021-2026)*, Mordor Intelligence,, <https://www.mordorintelligence.com/industry/reports/colombia-wind-energy-market>. [49]
- Norton Rose Fulbright (2016), *Renewable energy in Latin America*, <https://www.nortonrosefulbright.com/en/knowledge/publications/b09be352/renewable-energy-in-latin-america-colombia>. [51]
- Nubia e Hijos (2020), *Familia Campesina decide volverse YouTuber*, <https://www.youtube.com/channel/UCeUlkw2mOytSyH-7GerzeLQ>. [30]

- Ocampo-Peñuela, N. and R. Winton (2017), “Economic and conservation potential of bird-watching tourism in postconflict Colombia”, *Tropical Conservation Science*, Vol. 10, p. 194008291773386, <https://doi.org/10.1177/1940082917733862>. [46]
- OECD (2022), *Enabling Conditions for Bioenergy Finance and Investment in Colombia*, Green Finance and Investment, OECD Publishing, Paris, <https://doi.org/10.1787/20f760d6-en>. [36]
- OECD (2022), *Unlocking Rural Innovation*, OECD Rural Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9044a961-en>. [65]
- OECD (2021), *Agricultural Policy Monitoring and Evaluation 2021: Addressing the Challenges Facing Food Systems*, OECD Publishing, Paris, <https://doi.org/10.1787/2d810e01-en>. [14]
- OECD (2021), “Managing tourism development for sustainable and inclusive recovery”, *OECD Tourism Papers*, No. 2021/01, OECD Publishing, Paris, <https://doi.org/10.1787/b062f603-en>. [45]
- OECD (2020), *OECD Tourism Trends and Policies 2020*, OECD Publishing, Paris, <https://doi.org/10.1787/6b47b985-en>. [35]
- OECD (2020), *Rural Well-being: Geography of Opportunities*, OECD Rural Studies, OECD Publishing, Paris, <https://doi.org/10.1787/d25cef80-en>. [11]
- OECD (2019), *Linking Indigenous Communities with Regional Development*, OECD Rural Policy Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/3203c082-en>. [44]
- OECD (2019), *OECD Mining Regions and Cities Case Study: Outokumpu and North Karelia, Finland*, OECD Rural Policy Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/cd72611b-en>. [62]
- OECD (2019), *OECD Principles on Rural Policy*, https://www.oecd.org/cfe/regionaldevelopment/Principles%20on%20Rural%20Policy%20Brochure%202019_Final.pdf. [9]
- OECD (2018), *OECD Rural Policy Reviews: Poland 2018*, OECD Rural Policy Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264289925-en>. [25]
- OECD (2017), “Mining regions and their cities”, Scoping Paper, OECD, Paris, <https://www.oecd.org/cfe/regionaldevelopment/Scoping-paper.pdf>. [59]
- OECD (2015), *OECD Review of Agricultural Policies: Colombia 2015*, OECD Review of Agricultural Policies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264227644-en>. [18]
- OECD (2014), *OECD Rural Policy Reviews: Chile 2014*, OECD Rural Policy Reviews, OECD Publishing, Paris, <https://doi.org/10.1787/9789264222892-en>. [32]
- OECD (2012), *Linking Renewable Energy to Rural Development*, OECD Green Growth Studies, OECD Publishing, Paris, <https://doi.org/10.1787/9789264180444-en>. [55]
- OECD (forthcoming), *Enhancing Rural Innovation*, OECD, Paris. [63]
- OECD/EC (2021), *The Missing Entrepreneurs 2021: Policies for Inclusive Entrepreneurship and Self-Employment*, OECD Publishing, Paris, <https://doi.org/10.1787/71b7a9bb-en>. [29]

- OECD/Eurostat (2018), *Oslo Manual 2018: Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition*, The Measurement of Scientific, Technological and Innovation Activities, OECD Publishing, Paris/Eurostat, Luxembourg, <https://doi.org/10.1787/9789264304604-en>. [64]
- Parra-Peña, R., R. Puyana and F. Yepes (2021), “Análisis de la productividad del sector agropecuario en Colombia y su impacto en temas como: encadenamientos productivos, sostenibilidad e internacionalización, en el marco del programa Colombia más competitiva”, Bogotá, Fedesarrollo, <http://hdl.handle.net/11445/4092>. [22]
- Parra-Peña, R., R. Puyana and F. Yepes (2021), *Análisis de la Productividad del Sector Agropecuario en Colombia y Su Impacto en Temas Como: Encadenamientos Productivos, Sostenibilidad e Internacionalización, en el Marco del Programa Colombia Más Competitiva*, <http://www.colombiacompetitiva.gov.co/prensa/Documents/Informe-Productividad-Agropecuaria-10Marzo2021.pdf>. [17]
- PND (2018), *Conpes 3932 de 2018. Plan marco de implementación del Acuerdo Final*, National Planing Department, https://acmineria.com.co/acm/wp-content/uploads/normativas/3932_plan_marco_implementacion_acuerdo_final.pdf. [8]
- Presidential Counsel for Stabilization and Consolidation (2022), *Sectoral National Plans*, <https://www.portalparalapaz.gov.co/loader.php?!Servicio=Tools2&ITipo=descargas&IFuncion=descargar&idFile=839>. [20]
- Ramos, J. (2021), *Mining Potential and Presence of Strategic Minerals in Colombia*, Asociación Colombiana de Geólogos y Geofísicos del Petróleo. [60]
- Sanabria, A. (Forthcoming), “Measuring well-being in mining regions”, OECD, Paris. [58]
- UNDP (2011), *Colombia rural Razones para la esperanza*, Informe Nacional de Desarrollo Humano 2011, United Nations Development Programme. [2]
- UPME (2011), *Atlas del potencial energético de la Biomasa residual en Colombia*, Planning Unit of the Ministry of Mines and Energy, <https://www1.upme.gov.co/siame/Paginas/atlas-del-potencial-energetico-de-la-biomasa.aspx>. [38]
- USDA (2021), *Homepage*, United States Department of Agriculture, <https://www.usda.gov/>. [21]
- USDA (2021), *International Agricultural Productivity*, Economic Research Service, United States Department of Agriculture, <https://www.ers.usda.gov/data-products/international-agricultural-productivity/>. [67]
- World Bank (2020), *Solar resource maps of Germany, Global Solar Atlas 2.0*, <https://solargis.com/maps-and-gis-data/download/germany> (accessed on September 2021). [53]
- World Bank (2014), *Colombia Policy Notes: Toward Sustainable Peace, Poverty Eradication and Shared Prosperity*, World Bank, Washington, DC. [3]

Notes

¹ TFP measures the amount of agricultural output produced from the combined set of land, labour, capital and material resources employed in farm production. It encompasses the average productivity of all of these inputs employed in the production of all agricultural commodities. Growth in TFP reflects the overall rate of technical and efficiency change in the sector. If total output is growing faster than total input, then the total productivity of the factors of production (i.e. total factor productivity) is increasing. Over the long term, improvement in agricultural productivity has been the world's primary means of assuring that the needs of a growing population do not outstrip the capacity of the world's resources to supply food (USDA, 2021^[67]).

² The transformation ratio is measured as the added value of the food, beverage and tobacco sector within manufacturing, relative to the added value of primary production in the agricultural sector.



From:
Rural Policy Review of Colombia 2022

Access the complete publication at:
<https://doi.org/10.1787/c26abeb4-en>

Please cite this chapter as:

OECD (2022), "Towards a comprehensive rural policy in Colombia", in *Rural Policy Review of Colombia 2022*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/84cf29b1-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.