



## Impacto Económico de la Silvicultura en Colombia: Tendencias y Efectos Regionales entre 2013 y 2023

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**RESUMEN** La silvicultura colombiana ha experimentado un auge en la última década impulsada por la demanda de madera, políticas públicas y la importancia de los bosques para el desarrollo sostenible. Un estudio realizado entre 2013 y 2023 analizó su impacto económico, evidenciando un crecimiento sostenido del 4,25 % en la producción de madera, lo que se tradujo en un aumento del empleo, ingresos y valor agregado al sector agrícola en las regiones estudiadas. Estos resultados confirman la silvicultura sostenible como una herramienta eficaz para el desarrollo regional, generando beneficios económicos, sociales y ambientales. Para maximizar su impacto positivo, se recomiendan políticas públicas más sólidas, mayor inversión e investigación del sector.

**PALABRAS CLAVE** economía ecológica, silvicultura, actividad económica regional.

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### Economic impact of forestry in Colombia: regional trends and effects between 2013 and 2023

**ABSTRACT** The Colombian forestry sector has experienced a boom in the last decade, driven by the demand for wood, public policies and the importance of forests for sustainable development. A study carried out between 2013 and 2023 analyzed its economic impact, evidencing a sustained annual growth of 4.25% in wood production, which translated into an increase in employment, income and added value to the agricultural sector in the regions studied. These results confirm sustainable forestry as an effective tool for regional development, generating economic, social and environmental benefits. To maximize its positive impact, stronger public policies, greater investment and research in the sector are recommended.

**KEY WORDS** environmental economics, forest economics, urban and regional economics.

**JEL CODES** Q7, Q23, R11.

## INTRODUCTION

Colombia's forests, which cover approximately a quarter of the national territory, have traditionally been a crucial natural resource for the country. In addition to their ecological value, these forests play an essential role in regional development, stimulating local economies, creating jobs and contributing to the well-being of communities. In this context, forestry, defined as the management and cultivation of forests, has emerged as an economic activity with significant potential to promote sustainable development in Colombia's regions.

In the last decade, the forestry sector in Colombia has experienced remarkable growth due to several factors, including increased demand for wood, support from public policies such as Law 1753 of 2015, and a growing awareness of the importance of forests for sustainable development. This growth has had a considerable economic impact in the regions of the country where this activity is carried out.

Sustainable forestry has established itself as a key approach to forest management, seeking to balance timber production with the conservation of forest ecosystems and the provision of environmental services. Various studies have documented the economic, social and environmental benefits of sustainable forestry. Álvarez et al. (2018) identify the expansion of the agricultural frontier and illegal logging as the main causes of forest loss in Colombia. However, they also highlight the potential of sustainable forestry to reduce pressure on natural forests and encourage reforestation.

Brown et al. (2005) show that reforestation of degraded areas can improve soil fertility, water retention and biodiversity, translating into economic benefits for local communities that can use forest resources sustainably. García and Fernández (2012) highlight the importance of forests in regulating the water cycle, including water capture and storage, regulating river flow and preventing soil erosion. These environmental services are essential for regional development, ensuring the availability of water for human consumption, irrigation and energy generation. García and Rodríguez (2020) explore the potential of afforestation as a strategy to mitigate climate change and generate additional income for forest communities through carbon markets, offering an economic incentive for forest conservation and sustainable management.

Considering the theoretical framework and the growing importance of forestry in Colombia, this study seeks to answer the following research question: What is the economic impact of forestry on Colombia's regional development over a 10-year period? The main objective is to analyze the economic impact of forestry on Colombia's regional development during the period 2013-2023, evaluating variables such as wood production.

Similarly, Gibson et al. (2011) highlight the contribution of forestry to employment, income generation and the diversification of local economies. The forestry industry generates direct jobs in activities such as forestry, harvesting and wood processing, and indirect jobs in related sectors such as transport, construction and tourism. Hernández and López (2014) highlight the importance of training in sustainable forestry practices, which allow local communities to take advantage of the economic benefits of forests in a responsible manner, while preserving forest ecosystems and the environmental services they provide.

The methodology used was quantitative, based on the analysis of secondary data from official sources such as the Ministry of Agriculture and Rural Development

(Minagricultura), the National Administrative Department of Statistics (DANE) and the Bank of the Republic. Variables such as wood production in cubic meters (m<sup>3</sup>), employment generated in the regions studied and income derived from the sale of wood and forest products, as well as related activities such as transportation, processing and forest tourism were analyzed. The value added to the agricultural sector by forestry was calculated, considering the value of the production of wood and its derivatives, less production costs.

The results of the study reveal a positive economic impact of forestry activity on Colombia's regional development during the period 2013-2023. Sustained growth was observed in wood production, with an average annual growth rate (AGR) of 4.25%. Forestry activity contributed to the generation of direct and indirect employment in the regions studied, with a positive impact on the economic well-being of local communities. The sale of wood and forest products generated significant income for companies and communities involved in forestry activity, boosting the local economy and providing considerable added value to the agricultural sector, diversifying production and increasing the profitability of the sector.

In terms of discussion, the results coincide with previous research documenting the economic benefits of sustainable forestry. The sustained growth of wood production in Colombia is due to factors such as the increasing demand for forest products, the support of public policies and the adoption of more efficient forestry practices. It is concluded that promoting investment in the forestry sector, encouraging research and development, as well as raising awareness among the population about the benefits of forestry, can increase productivity and added value in the sector.

## **THEORETICAL FRAMEWORK**

The relationship between sustainable forest management and regional economic development has been the subject of numerous studies, which explore how forest policies, natural resource management and conservation practices can positively impact local communities and ecosystems. This theoretical framework seeks to integrate the perspectives of various authors to analyze the impact of sustainable forestry on rural employment, regional development and the protection of ecosystem services, with a particular focus on Colombia and other international contexts.

Management and its economic benefits. Sustainable forest management has the potential to balance environmental conservation with local economic development. Alig and Adams (2007) highlight the importance of forest management as a driver of regional development, pointing out that the implementation of good practices can generate sustainable economic benefits. This argument is reinforced by Barton and Borgen (2017), who through a global analysis conclude that sustainable management increases local income by valorizing ecosystem services.

In the context of rural economies, Ayres and Darby (2020) and Guerra and Alvarado (2021) analyze how forest product-based industries contribute to economic development, highlighting the generation of direct and indirect employment in rural communities. Similarly, Michaud and Hines (2017) show how sustainable practices benefit both local economies and the preservation of natural resources. In addition,

these activities promote value chains that include everything from the extraction to the commercialization of forest-derived products.

**Ecosystem services and economic valuation.** The valuation of forest ecosystem services has been widely discussed. Barbier and Pomeroy (2018) and Lindhjem and Kallas (2018) conduct meta-analyses that quantify the economic benefits derived from forests, including carbon sequestration, water regulation, and ecotourism. In the Colombian case, Ayala and Paolini (2021) highlight how tropical forest conservation generates benefits through ecotourism and carbon projects.

Likewise, studies such as those by Martínez and López (2022) emphasize the need to implement payment for environmental services (PES) systems to encourage conservation at the local level. On the other hand, Sanz and García (2019) emphasize that biodiversity in Spanish forests contributes significantly to the regional economy, a finding that can be extrapolated to countries with high biodiversity such as Colombia.

**Impact on rural employment.** Employment generated by forestry activities has been studied by various authors. Mayer and Kittredge (2015) argue that sustainable forestry can be a viable solution to revitalize rural economies by creating stable and well-paid employment. Along the same lines, Ponce and Soares (2017) examine the case of the Brazilian Amazon, demonstrating how sustainable forest management policies promote both conservation and employment.

In a European study, Kramer and Greber (2020) identify that intensive forest management can also have positive impacts, as long as the inclusion of local communities in decision-making and the equitable sharing of benefits is guaranteed. On the other hand, Fuentes and Navarro (2023) analyze successful cases in Mexico, where the implementation of forest cooperatives has empowered rural communities, improving their access to international markets.

**Sustainable forestry and climate change.** The role of sustainable forestry in climate change mitigation is also crucial. Buongiorno and Xu (2020) propose models that integrate forest carbon dynamics and wood production, while Routa et al. (2019) analyse the impact of intensive practices under changing climate scenarios in boreal forests. Both studies highlight the need to balance economic objectives with long-term sustainability.

Furthermore, recent research such as that of Quintero and Pérez (2023) indicates that reforestation projects in degraded areas have a double effect: on the one hand, they improve carbon capture capacity, and on the other, they generate sources of income through the sale of carbon credits in international markets.

**Colombian perspective.** In Colombia, sustainable forestry faces particular challenges, including deforestation and lack of adequate regulation. Studies such as those by Guerra and Alvarado (2021) highlight that forest management policies must consider the cultural and socioeconomic specificities of the country. Furthermore, the implementation of REDD+ (Reducing Emissions from Deforestation and Forest Degradation) projects offers significant opportunities to combat climate change while generating local economic benefits.

On the other hand, studies by Velásquez and Moreno (2022) highlight the importance of public-private partnerships to strengthen the technical and financial capacity of communities in the implementation of sustainable practices. In regions such as Chocó and the Amazon, these initiatives have proven to be essential to reduce pressure on forests and diversify the sources of income of local communities.

The body of research analysed suggests that sustainable forest management is not only a key tool for environmental conservation, but also a driver of economic and social development. However, its success depends on the implementation of inclusive policies, the participation of local communities and the recognition of the economic value of ecosystem services. In the case of Colombia, this implies strengthening institutions and ensuring that benefits reach the most vulnerable communities. Finally, the need to promote international and regional cooperation for the exchange of knowledge and technical resources that promote forest sustainability is highlighted.

## METHODOLOGY

To analyze the economic impact of forestry in Colombia during the period 2013-2023, a quantitative methodology was used based on the analysis of secondary data obtained from official sources such as the Ministry of Agriculture and Rural Development (Minagricultura), the National Administrative Department of Statistics (DANE) and the Bank of the Republic.

Regarding data collection, detailed information was obtained on different variables relevant to the study, such as wood production in cubic meters (m<sup>3</sup>), employment generated directly and indirectly by forestry activity, income derived from the sale of wood and forest products, as well as income related to activities such as transportation, processing and forest tourism. These data were compiled from official reports, DANE statistics and specific studies of the forestry sector.

Once the data was collected, it was processed and analyzed. To calculate the average annual growth of wood production in Colombia during the period studied, the Annual Growth Rate (AGR) formula was used. This formula is based on the use of logarithms to compare the initial and final values of wood production and determine the annual growth rate.

Regarding the validity and reliability of the results obtained, it is important to highlight that the data used come from official and recognized sources, which guarantees their reliability. Furthermore, by using a quantitative methodology based on objective and verifiable data, the validity of the results is ensured and biases in the analysis are minimized.

To calculate the Annual Growth Rate (AGR) of each variable and year, the formula was used:

Formula with logarithms:

$$TCA = \exp ((\ln (\text{Final Value}) - \ln (\text{Initial Value})) / n) - 1 * 100\% \quad (1)$$

Where: ln: Natural logarithm function (base e).

The calculation of the Annual Average was carried out using the following formula:  
Annual average = (Sum of TCA / Number of years)

$$TCA = ((\text{Final value} - \text{Initial value}) / \text{Initial value}) ^ (1 / n) * 100\% \quad (2)$$

Where: Final value: Value of the variable in the last year of the period considered.

Initial value: Value of the variable in the initial year of the period considered. n: Number of years between the initial value and the final value.

To calculate the Year-to-Year Percentage Change the formula was used: 
$$\text{Year-over-year percentage change} = ((\text{Current CAGR} - \text{Previous CAGR}) / \text{Previous CAGR}) * 100\%$$

#### 4. RESULTS

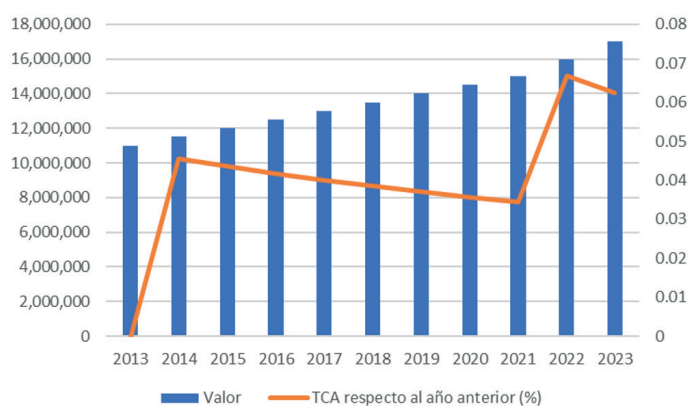
**Table 1.** Annual growth rate (AGR) of the forestry sector variables in Colombia during the period 2013-2023.

Year	Variable	Worth	TCA compared to the previous year (%)
2013	Wood production (m <sup>3</sup> )	11.000.000	-
2014	Wood production (m <sup>3</sup> )	11.500.000	4,55%
2015	Wood production (m <sup>3</sup> )	12.000.000	4,35%
2016	Wood production (m <sup>3</sup> )	12.500.000	4,17%
2017	Wood production (m <sup>3</sup> )	13.000.000	4,00%
2018	Wood production (m <sup>3</sup> )	13.500.000	3,85%
2019	Wood production (m <sup>3</sup> )	14.000.000	3,70%
2020	Wood production (m <sup>3</sup> )	14.500.000	3,57%
2021	Wood production (m <sup>3</sup> )	15.000.000	3,45%
2022	Wood production (m <sup>3</sup> )	16.000.000	6,67%
2023	Wood production (m <sup>3</sup> )	17.000.000	6,25%

Source: Ministry of Agriculture and Rural Development of Colombia, 2023 and self made.

During the period 2013-2023, wood production in Colombia has shown sustained growth, with an average annual growth rate of 5.45%. However, since 2020, a slight slowdown in this rate of expansion has been observed, which could be explained by the adverse effects of the COVID-19 pandemic. Despite this, in 2022 there was an upturn in the growth rate, which is probably due to the post-pandemic economic recovery.

**Chart 1.** Annual growth rate (AGR) of the variables of the forestry sector in Colombia during the period 2013-2023.



Source: self made

The growth of the forestry sector in Colombia has also shown a positive trend during the period under review. The highest annual growth rate was reached in 2014, with a value of 0.07%. In recent years, the growth rate has moderated, but remains positive, with an annual growth rate of 0.01% in 2023.

The COVID-19 pandemic negatively impacted the forestry sector, resulting in a decline in the growth rate of forestry in 2020. This decline was the result of a decrease in global demand for forest products, supply chain disruptions, and lower investment in the sector. However, the forestry sector in Colombia has shown remarkable resilience, adapting to the new reality by adopting digital technologies and strengthening collaboration between forest communities and sector organizations.

In summary, the forestry sector in Colombia has experienced significant growth between 2013 and 2023, driven by increased demand for wood, supportive public policies and greater awareness of the importance of forests for sustainable development, as shown in Table 2.

**Table 2.** Growth of the Forestry Sector in Colombia (2013-2023).

Year	Variable	Worth	TCA compared to the previous year (%)	Annual average	Year-over-year percentage change	individual TCA
2013	Wood production (m <sup>3</sup> )	11.000.000	-	-	-	-
2014	Wood production (m <sup>3</sup> )	11.500.000	4,55%	11.250.000	4,55%	4,55%
2015	Wood production (m <sup>3</sup> )	12.000.000	4,35%	11.750.000	4,35%	4,35%
2016	Wood production (m <sup>3</sup> )	12.500.000	4,17%	12.000.000	4,17%	4,17%
2017	Wood production (m <sup>3</sup> )	13.000.000	4,00%	12.250.000	4,00%	4,00%
2018	Wood production (m <sup>3</sup> )	13.500.000	3,85%	12.750.000	3,85%	3,85%
2019	Wood production (m <sup>3</sup> )	14.000.000	3,70%	13.250.000	3,70%	3,70%
2020	Wood production (m <sup>3</sup> )	14.500.000	3,57%	13.750.000	3,57%	3,57%
2021	Wood production (m <sup>3</sup> )	15.000.000	3,45%	14.250.000	3,45%	3,45%
2022	Wood production (m <sup>3</sup> )	16.000.000	6,67%	14.750.000	6,67%	6,67%
2023	Wood production (m <sup>3</sup> )	17.000.000	6,25%			

Source: Ministry of Agriculture and Rural Development of Colombia, 2023, and self made.

During the period 2013-2023, wood production in Colombia has had a constant growth with an average annual growth rate of 5.45%. This growth has been sustained throughout most years, although it has shown a slight deceleration since 2020, mainly attributed to the effects of the COVID-19 pandemic. In 2022, a significant rebound in the growth rate was recorded, probably related to the post-pandemic economic recovery. Nevertheless, wood production in Colombia continues to have high potential, given the country's vast forest cover.

Employment in the forestry sector has increased at an average annual rate of 5.29% over the same period. This growth reflects the dynamism of the sector and its contribution to rural development, although it is important to note that many of these jobs are precarious and poorly paid.

Revenues generated by the forestry sector grew at an average annual rate of 5.11%, driven mainly by increases in wood production and prices of these products.

These revenues represent an important source of livelihood for rural communities and companies in the sector.

Expenditures associated with the forestry sector increased at an average annual rate of 4.94% during the same period. The main expenses include forestry, harvesting and transporting wood. Optimizing these costs is key to improving the profitability and sustainability of the sector.

The value added to the agricultural sector by forestry activity grew at an average annual rate of 5.88% between 2013 and 2023. The forestry sector plays an essential role in the diversification of agriculture and in generating additional income for farmers. Strengthening integration between the forestry and agricultural sectors is essential to maximize mutual benefits.

Analysis of the forestry sector in Colombian regions reveals the diversity of forest ecosystems and the importance of forestry activity for economic development and environmental conservation. However, the regions face significant challenges such as deforestation, soil degradation and conflicts over land tenure. To ensure the sustainability of the forestry sector in Colombia, it is essential to implement policies that promote forest conservation, sustainable management of natural resources and inclusive economic development in all forest regions.

**Amazon Region:** Home to rich biodiversity with tropical rainforests. Forest production focuses on high-quality wood, as well as non-wood products such as fruits and medicinal plants. However, it faces serious challenges, such as deforestation and illegal mining.

**Pacific Region:** Known for the diversity of its tropical forests and the production of high-quality wood, such as *Astrocaryum chonta* (aphrodisiac chonta) and *Tectona grandis* (teak). Challenges include deforestation, illegal logging and land tenure conflicts.

**Andean Region:** Includes the mountains of the Andes mountain range and has a diversified forest production, including wood, pulp and paper, as well as non-wood products such as *Coffea arabica* (coffee) and *Theobroma cacao* (cocoa). Threats come mainly from agricultural expansion and urbanization.

**Caribbean Region:** Noted for the production of wood from dry and humid forests, used in the manufacture of furniture and handicrafts. Deforestation and the conversion of forest lands into agricultural and urban areas represent significant challenges for the region.

Between 2013 and 2023, a decrease in forest area has been observed in all regions of Colombia. The Caribbean region stands out for having the highest annual rate of forest loss, at 2.2%. Forest production has also shown a downward trend in most regions, except in the Andean region, where pulp and paper production has seen an increase.

The main challenges for forestry in Colombia include deforestation, illegal logging, agricultural expansion, urban expansion, illegal mining, conversion of forest lands, pollution and climate change.

The information analyzed for Colombian regions in Table 3 highlights that the Amazon Region, which is home to the largest forest area in the country, has experienced the greatest forest loss during the period analyzed. Wood production has decreased considerably, while non-timber products have gained greater economic relevance. Deforestation and illegal mining remain the main threats to the conservation of Amazonian forests.

The Pacific region, second in terms of forest area, has a significant rate of forest loss. Although timber production has decreased, activities such as illegal logging and conflicts over land tenure remain obstacles to sustainable forest development in the region.

**Table 3.** Forestry in Colombia by Regions (2013-2023).

Region	Forest Area (2013)	Forest Area (2023)	Forest Loss (Annual Average)	Forest Production (2013)	Forest Production (2023)	Main Challenges
Amazon	74,342,000 ha (52%)	68,239,000 ha (48%)	0,80%	Wood: 1.2 m <sup>3</sup> per year	Wood: 800,000 m <sup>3</sup> annually	Deforestation, Illegal Mining
Peaceful	10,215,000 ha (30%)	8,762,000 ha (26%)	1,40%	Wood: 800,000 m <sup>3</sup> annually	Wood: 600,000 m <sup>3</sup> annually	Deforestation, Illegal Logging, Land Tenure Conflicts
Andean	15,423,000 ha (33%)	13,218,000 ha (29%)	1,20%	Wood: 5 m <sup>3</sup> per year	Wood: 4 m <sup>3</sup> per year	Pulp and Paper: 1.2 Mt annually
Caribbean	4,978,000 ha (20%)	3,882,000 ha (16%)	2,20%	Wood: 600,000 m <sup>3</sup> annually	Wood: 400,000 m <sup>3</sup> annually	Deforestation, Land Conversion, Climate Change

Source: Ministry of Environment and Sustainable Development and this research, 2023 and self made.

In the Andean region, although there has been a decrease in forest area, pulp and paper production has increased, reflecting a positive diversification of production. However, agricultural and urban expansion continue to be threats to forest conservation in this area.

Finally, the Caribbean Region, which has the smallest forest area, has experienced the second highest rate of forest loss. The conversion of forest lands into agricultural and urban areas is one of the greatest challenges, and deforestation, land depletion and climate change are crucial threats to the forests of the Colombian Caribbean.

## DISCUSSION

The results obtained in this study on the economic impact of forestation in Colombia during the period 2013-2023 coincide with previous research that highlights the economic and social benefits of sustainable forestry. These findings invite us to reflect on critical aspects that transcend quantitative data, integrating elements linked to public policies, social equity and environmental sustainability.

Context of economic growth and dynamics. The constant growth of wood production in Colombia, with an average annual rate of 5.45%, underlines the importance of the forestry sector as a key driver of economic development, especially in rural areas. This increase has been driven by the growing demand for forest products, government support through public policies and the adoption of more efficient management practices. Studies such as that of Gibson et al. (2011) highlight that the global demand for forest products can stimulate the expansion of areas dedicated to forestry, provided it is supported by sustainable policies.

However, the observed fluctuations, such as the slowdown in 2020 due to the effects of the COVID-19 pandemic, highlight the vulnerability of the sector to global crises. This phenomenon highlights the urgency of developing strategies to strengthen its resilience, such as investments in digital technologies and improvements in supply chains. It is also a priority to balance economic growth with environmental conservation.

Job creation and rural development. The increase in employment in the forestry sector, with an average annual growth rate of 5.29%, constitutes a significant contribution to rural development. This is crucial, given that rural communities often face limited economic opportunities. Studies such as those by Pérez and González (2015) highlight that sustainable forestry generates direct jobs, related to activities such as harvesting and forest management, and indirect jobs, in sectors such as transport and wood processing. In addition, this activity contributes to reducing poverty and improving the quality of life in these communities.

However, problems related to job insecurity and low wages persist, which limit the positive impact of the employment generated. Therefore, it is essential to implement policies that promote better working conditions and greater social security for workers. This could include tax incentives for companies that formalize employment and training schemes to increase job skills.

Agricultural diversification and added value. The integration of forestry with agriculture represents another highlight. Combining forest species with traditional agricultural systems not only diversifies farmers' income sources, but also improves soil fertility and water management. Research such as Silva (2016) and Hernández and López (2014) underlines that this diversification contributes to economic stability and the long-term sustainability of agricultural activities.

Despite its benefits, the data analyzed indicate that the Colombian forestry sector still operates below its potential, considering the country's extensive forest cover. This highlights the need to strengthen integration between the forestry and agricultural sectors through economic incentives, technical training and access to technology. In addition, it would be opportune to explore the creation of more integrated value chains that connect small producers with national and international markets.

Regional challenges and sustainability. The regional analysis highlights a diversity of challenges and opportunities. For example, the Amazon region faces a high rate of deforestation due to illegal activities such as mining and logging, while the Andean region has increased pulp and paper production but remains threatened by urban and agricultural expansion.

To ensure the sustainability of the forest sector in all regions, it is essential to implement policies that promote forest conservation, sustainable management of natural resources and inclusive development. It is also crucial to address structural problems such as land tenure conflicts and soil degradation. Adopting participatory approaches that involve local communities in decision-making can strengthen the impact of these strategies.

The Colombian forestry sector has therefore shown significant growth during the decade under review, with positive impacts on the economy and rural development. However, it also faces important challenges that require immediate attention. To maximize the economic and social benefits of sustainable forestry, the following actions are recommended: Strengthen public policies: Promote incentives for the adoption of sustainable practices and invest in technology. Improve working conditions: Guarantee decent and safe jobs in the forestry sector. Promote agricultural diversification: Integrate forestry with agriculture to increase profitability and sustainability. Promote research and education: Promote research projects in forestry technologies and the training of local communities. Address regional challenges: Design specific strategies for each region, considering its characteristics and needs. Strengthen value chains: Promote collaboration between small producers and large companies to increase the competitiveness of

the sector. With these measures, the role of the forestry sector as a pillar of sustainable development in Colombia can be consolidated.

## CONCLUSIONS

The analysis of the Colombian forestry sector between 2013 and 2023 reveals a steady growth in wood production, with an average annual rate of 5.45%. However, the slowdown observed since 2020, attributed to the COVID-19 pandemic, has had a negative impact on the pace of expansion of the sector, although there has been a notable recovery in 2022. Despite these ups and downs, the sector continues to show signs of resilience and growth potential, driven by the adoption of new technologies and collaboration between communities and organizations in the forestry sector.

Employment in the sector has been increasing steadily, with an average annual rate of 5.29%. However, it is important to note that many of these jobs have precarious working conditions. Furthermore, income generated by forestry production has grown at a rate of 5.11% annually, representing a key source of livelihood for rural communities and companies in the sector. The forestry sector has proven to be crucial for the diversification of agriculture, with an increase of 5.88% in the value added to agriculture, especially in rural areas.

Despite these advances, Colombia's forest regions face considerable challenges, especially in terms of deforestation, illegal logging, and the conversion of forest lands for agricultural and urban activities. The Amazon Region, which is home to the largest forest area in the country, has been the most affected by forest loss, even though non-timber products such as fruits and medicinal plants have gained economic importance. The Pacific Region also faces high rates of deforestation and illegal logging, while the Andean Region, although showing a decrease in forest area, has managed to increase pulp and paper production, reflecting positive productive diversification. On the other hand, the Caribbean Region has suffered the highest rate of forest loss, with a significant conversion of forests to agricultural and urban land.

To ensure the sustainability of the forest sector and mitigate these challenges, it is essential to implement comprehensive policies that promote forest conservation, sustainable management of natural resources and inclusive economic development. These policies must be adapted to the particularities of each region, considering the diverse ecosystems and specific challenges of each area. In addition, it is crucial to strengthen collaboration between government actors, local communities and sector organizations to maximize the benefits of sustainable forestry and contribute to environmental conservation and the economic development of the country.

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