



## Strengthening Regional Supply Chains for Agricultural Transformation in Colombia

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Over the last 2 decades, Colombia has gained valuable experience in supporting agricultural supply chains. The government views this approach primarily as a means of achieving agricultural transformation, and to this end the Ministry of Agriculture and Rural Development (MADR, its Spanish acronym) has designed a set of innovative policies. Under these policies, regional committees plan and implement development initiatives in collaboration with the local public and private sectors. While achieving several notable successes, the committees have also come up against various challenges: boosting operational funds; developing stronger relationships with regional governments, private actors, and support systems; strengthening small-scale producer organizations; and, above all, creating a long-term regional vision for supply-chain development. Colombia must meet these challenges effectively if its public policies are to achieve the desired effect of enhancing agricultural productivity.

### Key messages

- Regional committees are an effective mechanism for implementing government policies to support supply chains, but only if producers have access to strong technical support at the national level. While the committees have clearly delivered good results in the short term, measures must be taken to ensure their effectiveness over the long term.
- The lack of operational funds is one of the biggest limitations faced by the regional committees. Potential sources of increased funding include producer associations, local governments, chambers of commerce, national commodity funds, and unions.
- Policies aimed at strengthening supply chains work better when regional committees do a good job of promoting information exchange at the national level between the smallholder farmer organizations making demands on support services and the public and private institutions offering these services.
- Strong producer associations enable more smallholders to participate in regional committees designed to strengthen supply chains.
- Local support is critical for implementing a policy aimed at making supply chains more competitive. This depends not just on the participation of key actors in the local private sector but also on commitment from regional government.

### Supply chain organizations

As a result of this policy initiative, supply chain strategies have become a primary tool for making Colombia's agriculture more productive and competitive. The effort is being channeled through 37 official agricultural and agro-industrial supply chain organizations<sup>1</sup> promoted by MADR. These organizations are required by law to consist of: (1) a national council, (2) one or more regional committees, (3) national and regional secretariats, and (4) national and regional thematic working groups.<sup>2</sup>

The regional committees have become models for social management, resulting in more efficient local public administration. They have effectively addressed various difficulties faced by producers and handled well the interactions between different links in the value chain and its environment, allowing the public sector to concentrate more on dealing with product supply and demand (Parra-Peña et al., 2012a).

The research reported in this policy brief analyzed the management of public policy aimed at making supply chains more competitive in rural Colombia. It was carried out by the Linking Farmers to Markets Theme of the Decision and Policy Analysis (DAPA) Research Area at the Colombia-based International Center for Tropical Agriculture (CIAT), with support from the Ford Foundation, Andean Region and Southern Cone. We focused particularly on the regional

committees of Cacao in Santander, Plantains in Quindío, and Vegetables in Boyacá in terms of competitiveness, institutionalization, equity, and social inclusion with the aim of determining success rates, limitations, lessons learned, and challenges to provide the basis for recommendations aimed at improving the committees' management of supply chain policies.

### Supply chain policies in Colombia

During the 1990s, economic liberalization revealed serious weaknesses in Colombia's economy, to which the government responded by developing a series of sector-based policies. In agriculture, the country's Ministry of Agriculture and Rural Development (MADR) initially opted for an approach centering on "competitiveness agreements" between the public and private sectors. It later reinforced this approach through a legal framework calling for the creation of supply chain organizations supported by national technical secretariats and implemented at the regional level. To this end, regional committees were set up in key production regions, which mirrored the institutional structure of existing national councils but with local actors and regional objectives.

<sup>1</sup> The 37 organizations are concerned with these agricultural and agro-industrial activities: Aquaculture, Avocados, Cotton-Textile Manufacturing, Basic Foodstuffs, Rice, Bananas, Cacao, Coffee, Shrimp Farming, Sugarcane, Beef, Pork, Natural Rubber, Citrus, Coconuts, Beekeeping, Equine, Sisal, Flowers and Foliage, Forest, Bamboo, Guava, Vegetables, Dairy, Mango, Sheep and Goats, Palm, Raw Sugarcane, Potatoes, Herbs, Plantains, Aloe, Tobacco, Cassava, Passionflowers, Deciduous Foliage, and Blackberries.

<sup>2</sup> Law 811 (2003), Decree 3800 (2006) and Resolution 186 (2008).



Figure 1. Evolution of Colombia's public policy on supply chains.

### Theoretical framework and methodology

This study evaluated the management of supply chain policies at the regional level on the basis of four criteria: competitiveness, institutionalization, equity, and social inclusion (Figure 2).

#### Competitiveness

The regional committees are intended to promote actions that make the supply chain more competitive. While closely related to productivity, competitiveness is also influenced by various internal and external factors. The internal ones are those relating to cost, quality, profitability, and efficiency; while external factors include input prices, entry of new buyers, consumer preferences, fortuitous conditions, and economic policies.

#### Institutionalization

A regional committee's level of institutionalization depends on its handling of *governance* and *governability*. Good governance better enables the committee to exercise its authority and ensure that policies provide benefits. The very existence of a regional committee, with a competitiveness agreement and work plan, is a governance indicator. Governability requires dialogue among parties, leading to harmonious and inclusive growth of the supply chain.

#### Equity

Whether a regional committee reflects equity is related to the distribution of the supply chain's economic benefits. These are generally distributed in proportion to the contributions coming from each link in the value generation process. In addition to the division of benefits, equity can also be measured in terms of producers' access to projects managed by the committee.

#### Social inclusion

With respect to supply chains, social inclusion involves linking small-scale producers with one other, so the most competitive ones can have a positive influence, thus helping to raise the incomes of other organizations involved in the regional committee. This is the intent of objective six of Law 811, which refers to "*linking small producers and business owners in value chains.*" This study assessed social inclusion on the basis of small-scale producers' access to markets and MADR programs, such as Rural Opportunities and Productive Alliances.

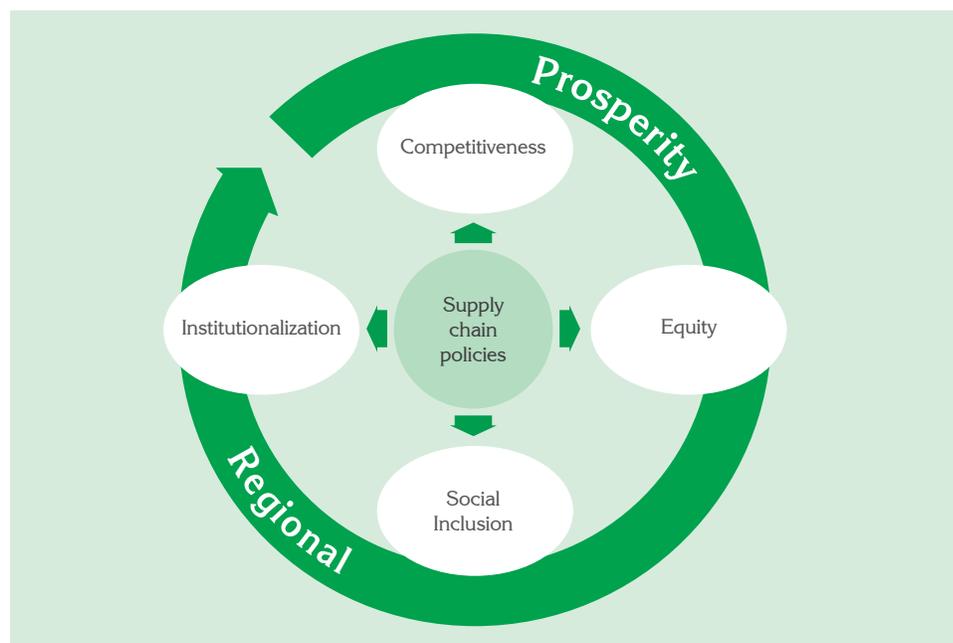


Figure 2. Analytic criteria.

## Selection of regional case studies

To evaluate the performance of public policy at the regional level, we selected three case studies on regional committees, following the two-step process shown in Figure 3.

In the first step, scores for the institutional strength index (ISI)<sup>3</sup> were added up for each supply chain across departments. On this basis, the supply chains were grouped by their level of policy implementation (high, medium, and low) on a national scale. The selection process also took into account each supply-chain organization's level of consolidation, performance history, and inclusion of small-scale producers. The results are as follows:

- **High ISI:** The cacao supply chain organization received the second highest point value (21) and showed a long history of performance. This supply chain has

a formal national organization linked to MADR, with the required national council, technical secretariats, and regional committees. It is also characterized by a high degree of small-scale producer participation.

- **Medium ISI:** The plantain supply chain organization received an aggregated ISI score of 8.3. This supply chain showed characteristics similar to those of cacao with regard to consolidation, regional effort, and small-scale producer participation.
- **Low ISI:** Since the horticultural supply chain organization is still at a very early stage of development, we were unable to give it an ISI score. Even so, the organization showed a high level of small-scale producer participation. The case also presented interesting patterns of specialization among supply chains.

The second step in the process of case-study selection focused on departments' shares of national production between 2007 and 2011:

- **Cacao:** Santander Department is the biggest producer, accounting for 47% of national production.
- **Plantains:** Quindío Department is the center of national production, providing 11% of total output.
- **Vegetables:** Boyacá accounts for 24% of national production.

Through semi-structured interviews with key actors from selected regional committees, the study identified factors of success or failure – lessons learned – and developed recommendations for regional policy management in support of supply chains. The surveys included questions directly related to the four criteria indicated in Figure 2.

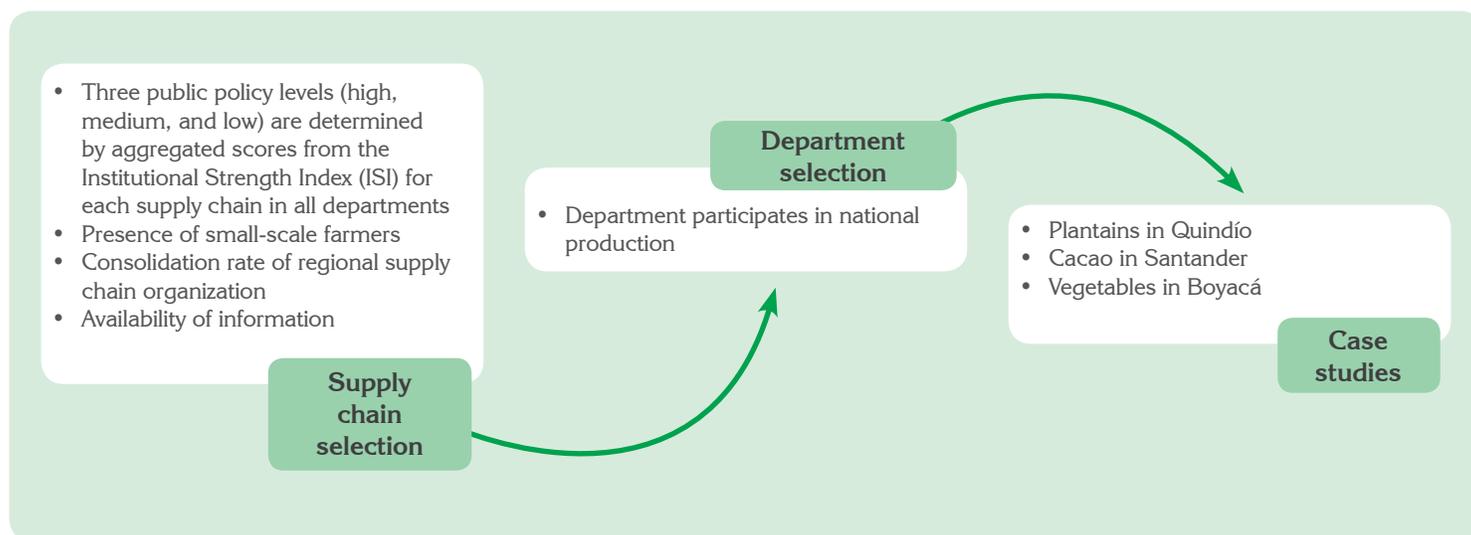


Figure 3. Case study selection.

<sup>3</sup> Data used to calculate ISI are from 2011, the only year for which the necessary figures were available. The results therefore represent only a limited period of time. Moreover, the ISI does not measure the quality of actions taken by each regional committee, hence the importance of the case studies. For further details concerning the ISI, consult Parra-Peña et al. (2012a).

## Case study: Santander Regional Cacao Committee

Santander is the center of cacao production in Colombia, representing 47% of national production. However, the area planted to this crop in recent years has been more or less static.

Below is a review of the strengths, weaknesses, opportunities, and threats (SWOT) of the Santander cacao supply chain organization, based on the semi-

structured interviews. This analysis focuses on the interactions between particular policy characteristics and their implementation by the organization.

Table 1. Santander Regional Cacao Committee: SWOT.

	Competitiveness	Equity	Institutionalization	Social inclusion
Strengths	<ul style="list-style-type: none"> <li>• Diffusion of most productive practices</li> <li>• Phytosanitary campaigns</li> <li>• Research on high-quality plant materials</li> <li>• Reduced production costs</li> <li>• Cacao clones with better performance</li> </ul>	<ul style="list-style-type: none"> <li>• Representation of producers in FEDECACAO, Ecocacao, and the technical committee</li> <li>• Participation in project management</li> <li>• Access to market and price information</li> </ul>	<ul style="list-style-type: none"> <li>• Regional committee created on the basis of competitiveness agreement in 2002 for the Northwestern Cacao-Chocolate Region</li> <li>• Principles and values established by national agreement in 2008</li> </ul>	<ul style="list-style-type: none"> <li>• The regional committee fosters dialogue and participation in project management among all supply chain actors and is linked to poverty relief programs</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Unstable price of cacao</li> <li>• Limited association among producers</li> <li>• Lack of ability to negotiate the purchase of inputs</li> </ul>	<ul style="list-style-type: none"> <li>• Small or emerging associations and/or unions</li> <li>• Lack of information mechanisms for including small-scale producers in strategic discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Operational weakness of the regional committee</li> <li>• No decision making power in relation to the national council</li> <li>• Concentration of responsibility for proposing projects in the national chain</li> </ul>	<ul style="list-style-type: none"> <li>• Producers do not receive much help when establishing commercial links</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• Export-quality surplus and byproducts</li> </ul>	<ul style="list-style-type: none"> <li>• Thematic working groups in which small-scale producers participate</li> </ul>	<ul style="list-style-type: none"> <li>• Strategic planning, coordination, and operational actions with specific objectives</li> <li>• Positive role of the regional committee in information exchange and defining commitments and responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• Small- and medium-sized producers can access new markets thanks to international certification processes and the regional committee's help in establishing formal contracts with large companies</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Presence of an oligopoly involving two big firms, Nacional de Chocolates and CasaLuker, alongside 158 smaller businesses</li> </ul>	<ul style="list-style-type: none"> <li>• Unassociated producers' lack of access to information and absence of mechanisms for making information available to producers</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of project monitoring and absence of specific indicators in action plans, leading to erosion of confidence, cohesion, and collective action</li> </ul>	<ul style="list-style-type: none"> <li>• A small number of buyers have strong control over the prices and quantity of market goods. The oligopoly and brokerage prohibit equal sharing of profits in relation to the efforts and investment of producers</li> </ul>

The Santander Regional Cacao Committee's policies are in a state of flux between the **Developing** and **Established** stages. See Figure 4 on page 7.

### Recommendations specific to the Regional Cacao Committee

Here are some recommendations based on the SWOT analysis:

- Assistance is needed to improve productivity, generate surplus exports, increase product quality, and identify new market niches.
- The activities of the regional secretariat must be better financed, for example, through a strong contribution from regional government.
- Other key measures are to: (1) link the committee's agenda with departmental competitiveness, (2) establish requirements for participation in the committee, and (3) ensure that committee members participate consistently.
- Development of the supply chains should be supported through associative schemes that enable producers to reduce barriers to entry in markets dominated by a few large processors, marketers, and traders.
- The regional government, national council, and regional committee representatives should prioritize the comprehensive development of a regional cacao cluster.

## Case study: Quindío Regional Plantain Committee

Plantain cultivation in the Colombian Coffee Belt has long been one of the region's traditional forms of agriculture.

Quindío Department is the country's primary producer, with production concentrated in the municipalities of Armenia, Montenegro, Calarcá, and Quimbaya.

Below is a SWOT analysis of the management of the plantain supply chain organization in Quindío, based on semi-structured interviews.

Table 2. Quindío Regional Plantain Committee: SWOT.

	Competitiveness	Equity	Institutionalization	Social inclusion
Strengths	<ul style="list-style-type: none"> <li>• Technical assistance and phytosanitary control</li> <li>• Quality seeds</li> </ul>	<ul style="list-style-type: none"> <li>• Producer organizations represented and participating in the regional committee</li> </ul>	<ul style="list-style-type: none"> <li>• Competitiveness agreement at national level and improved cohesion, confidence, and interaction between actors in the regional committee</li> </ul>	<ul style="list-style-type: none"> <li>• Regional committee participates in MADR project management (Productive Alliances and Rural Opportunities)</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Unstable price of cacao</li> <li>• Limited association among producers</li> <li>• Lack of ability to negotiate the purchase of inputs</li> </ul>	<ul style="list-style-type: none"> <li>• Small or emerging associations and/or unions</li> <li>• Lack of information mechanisms for including small-scale producers in strategic discussions</li> </ul>	<ul style="list-style-type: none"> <li>• Operational weakness of the regional committee</li> <li>• No decision making power in relation to the national council</li> <li>• Concentration of responsibility for proposing projects in the national chain</li> </ul>	<ul style="list-style-type: none"> <li>• Producers do not receive much help when establishing commercial links</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• Improving quality to meet BAP (best agricultural practices) standards</li> <li>• Commercial opportunities for fresh and processed products</li> </ul>	<ul style="list-style-type: none"> <li>• Stronger role for small-scale producers to increase incentives for participation in regional committees</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthening of unions</li> </ul>	<ul style="list-style-type: none"> <li>• The regional committee is key to helping producers access resources and information</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Unskilled labor</li> <li>• Aging producer population</li> </ul>	<ul style="list-style-type: none"> <li>• Low organizational capacity among producers, which limits distribution of benefits, resources, and information</li> </ul>	<ul style="list-style-type: none"> <li>• Low levels of empowerment among grassroots organizations</li> <li>• Lack of participation and commitment by regional government</li> </ul>	<ul style="list-style-type: none"> <li>• Producers not associated with the regional committee do not receive resources or information</li> </ul>

The Quindío Regional Plantain Committee's policies are in a state of flux between the **Emerging** and **Developing** stages. See Figure 4 on page 7.

### Recommendations specific to the Regional Plantain Committee

Here are some recommendations based on this analysis:

- Crop management needs to be improved through technical assistance and BAP generalization.
- More knowledge is needed concerning national and international market dynamics to improve access and foster the creation of specialized markets.
- Traders and industry should be encouraged to participate, and the regional committee's links with regional government should be strengthened.
- The regional committee must meet the requirements of Law 811 (2003) to improve institutional capacity.

## Case study: Boyacá Regional Vegetable Committee

Between 2007 and 2011, the production of vegetables in Boyacá increased from 348,778 to 485,046 tons.

Therefore, the annual growth rate (8.7%) is much higher than the national average (1.9%).

Below is a SWOT review of the management of the vegetable supply chain organization in Boyacá based on the semi-structured interviews.

Table 3. Boyacá Regional Vegetable Committee: SWOT.

	Competitiveness	Equity	Institutionalization	Social inclusion
Strengths	<ul style="list-style-type: none"> <li>• Training and dissemination of technology</li> <li>• BAP implementation and certification</li> <li>• Phytosanitary and crop-specific campaigns</li> </ul>	<ul style="list-style-type: none"> <li>• Active presence and participation of small-scale producers on the committee</li> </ul>	<ul style="list-style-type: none"> <li>• Good articulation</li> <li>• Good coordination between regional committees and the national council</li> <li>• Commitment of the national technical secretariat</li> </ul>	<ul style="list-style-type: none"> <li>• Business training</li> <li>• Market studies</li> </ul>
Weaknesses	<ul style="list-style-type: none"> <li>• Lack of communication with universities</li> <li>• Lack of communication between associations and producers</li> </ul>	<ul style="list-style-type: none"> <li>• Absence of government and industry participation</li> <li>• Barriers to accessing financial resources</li> </ul>	<ul style="list-style-type: none"> <li>• Low association between producers due to lack of confidence</li> </ul>	<ul style="list-style-type: none"> <li>• Limited communication between regional committees and departmental programs</li> </ul>
Opportunities	<ul style="list-style-type: none"> <li>• Dissemination of knowledge on production costs</li> <li>• Identification of higher quality genetic material</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthening business skills to help increase the buying power of small producers</li> </ul>	<ul style="list-style-type: none"> <li>• Heightening the profile of successful producers to promote expanded membership</li> <li>• Thematic working groups to engage producers who have difficulty getting involved</li> </ul>	<ul style="list-style-type: none"> <li>• Regional committee meetings provide opportunities to share useful information with small-scale producers</li> </ul>
Threats	<ul style="list-style-type: none"> <li>• Continued difficulty in grower adoption of production innovations</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of commitment to including small-scale producer associations</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of interest from key sectors</li> </ul>	<ul style="list-style-type: none"> <li>• Lack of mechanisms to monitor and analyze the committee's programs and actions</li> </ul>

The Boyacá Regional Vegetable Committee's policies are at the **Established** stage of development. See Figure 4 on page 7.

### Recommendations specific to the Regional Vegetable Committee

Here are some recommendations based on this analysis:

- Financial resources should be allocated to a regional technical secretariat.
- A baseline of indicators (production, yield, and quality) should be established for subsequent monitoring.
- The regional committee should give high priority to studies of production costs, quality certification, and basic product requirements to improve the negotiating power of producers and others in the supply chain.
- Requirements for participation in the regional committees should be established to ensure cohesion and commitment.
- A thematic working group and business roundtable could encourage actors from industry, transport, and the government to get involved.
- Market research should focus on developing value-added and processed products for both national and international markets.
- The regional committee should strengthen its role as an advisory body on public policy.



Figure 4. Developmental stage  
 Regional Cacao Committee: Developing and Established  
 Regional Plantain Committee: Emerging and Developing  
 Regional Vegetable Committee: Established

### Policy recommendations

Here are a set of overall policy recommendations aimed at improving the ability of the regional committees to implement public policy for strengthening supply chains.

#### Competitiveness

Most producers surveyed said that, in general, productivity and product quality had improved for farmers involved in regional supply chains. Nonetheless, these farmers continue to face limitations in accessing markets and developing inclusive businesses. Moreover, better cooperation between supply chain organizations and researchers is needed to boost yields and make the commodity sector more competitive.

#### Institutionalization

Following the guidelines established under Law 811 in 2003, national organizations are formalizing their legal status and regulating their regional operations. At the regional level, however, there is no clear strategic direction beyond the need to define an operational framework. This is particularly the case in production areas where public policy has not been properly implemented. In some of these areas, for example, neither a regional committee nor a formal technical secretariat has been established.

New policies are needed to improve the internal operations of the regional committees. These policies should stipulate requirements for committee membership and establish members' rights, duties, and responsibilities. It is also necessary to improve planning (goals and activities), which will facilitate performance monitoring. Stronger commitment from regional governments and better access to financial resources are essential for consolidating and improving the management of regional supply chains.

#### Equity

Most of the producers surveyed agreed that the regional supply chain scheme had improved their access to resources, technology, technical assistance, credit, financing, and other benefits. However, participation is limited to members of solidarity associations and unions.

Producer organizations should strengthen their capacity to take advantage of information exchange within regional supply chains, with the aim of identifying new commercial opportunities. They also require more technical assistance and training. In addition, they need to strengthen their bargaining position through clear agreements on prices for inputs and products.

#### Social inclusion

Supply chains serve producers as a point of contact for obtaining information about public programs aimed at benefiting farmers. There is an evident need for better coordination between supply chains and programs offered by MADR, such as Productive Alliances and Rural Opportunities. These programs are critical for helping small-scale producers build capital, invest in improved product quality, and establish commercial relationships with potential buyers.

## Further reading

Parra-Peña RI; Miller V; Lundy M. 2012a. Colombian supply chains: How public policy shapes agriculture. CIAT Policy Brief No. 8. Centro Internacional de Agricultura Tropical (CIAT), Cali, Colombia. 6 p. [http://ciat.cgiar.org/wp-content/uploads/2012/12/policy\\_brief8\\_colombian\\_supply\\_chains.pdf](http://ciat.cgiar.org/wp-content/uploads/2012/12/policy_brief8_colombian_supply_chains.pdf)

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