Agriculture in the Southern Cone, a global contribution

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Valeria Piñeiro* and Pablo Elverdin**

Historically, the agricultural sector has played a very significant role in the four economies of the Southern Cone - Argentina, Brazil, Paraguay and Uruguay. While its contribution differs from one country to another, the added value of agriculture represents between 5% and 20% of total GDP and generates between 7% and 25% of employment; such contribution is largest in Paraguay in both cases. However, its main contribution is the foreign currency generation capacity of agro-industrial exports, which accounts for between 38% - Brazil- and 76% - Uruguay- of total foreign sales.

The four Southern Cone countries thus have a very important place in the international agroindustrial products market, representing approximately 9% of world exports of such products. As a group, they are the largest exporters of soybeans, beef, poultry meat, sugar, coffee, orange juice, lemon juice, garlic, honey and tobacco, and the second largest exporters of corn and sunflower, with a large potential for increasing their importance in this and other products in the near future.

Table 1: Share of Agriculture in the Southern Cone. 2013.

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>6.3</td>
<td>7.4 a</td>
<td>56.2</td>
<td>2.6</td>
</tr>
<tr>
<td>Brazil</td>
<td>4.7</td>
<td>10.9</td>
<td>38.4</td>
<td>5.5</td>
</tr>
<tr>
<td>Paraguay</td>
<td>20.3</td>
<td>24.8</td>
<td>67.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Uruguay</td>
<td>7.9</td>
<td>11.2</td>
<td>75.6</td>
<td>0.4</td>
</tr>
</tbody>
</table>

a. Includes chapters 01-24, 41, items 4301,4302, 4401-4413, 4501,4502, 4601, 4701-4704, 5001-5003, 5101-5105 and 5201-5203 and sub-item 3826.00 of the Harmonized System
b. Agricultural economically active population over total economically active population
Source: Authors based on ECLAC, World Bank and UN Comtrade.

Even more important is the contribution of the countries of the Southern Cone to global food security since, in the aggregate, they account for 30% of net food exports and are thus the leading net exporter worldwide. This is doubtlessly not only thanks to their natural resource endowment, but is also achieved through soil management capabilities, new ways of organizing production and the adoption of modern agricultural technology.

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4 ECLAC 2014.
5 UN Comtrade.
6 UN Comtrade.
In a changing international scenario, with rising commodity prices -starting in 2004 and a new upward trend as from 2011- the region was able to capitalize on this opportunity by jointly increasing grain and oilseed production by more than 93% and meat production by over 57% since the beginning of the millennium -measured in tons in both cases-. The increase in prices was linked to technological and structural changes in demand, such as the rise in the use of biofuels and the increase in the income of the population in Asia and Africa, which triggered changes in consumption habits -more proteins and more diversified and sophisticated goods than they were used to-. But commodity prices also changed due to supply restrictions caused by extreme climate events, protectionist policies and a combination of agricultural border restrictions -with drops in productivity as a result of the inclusion of land less suitable for agriculture- and the lack of physical infrastructure to allow the activity to grow.

The countries of the Southern Cone will therefore continue to play a very important role in global food security in the future, not only because they have the potential to increase the area sustainably allocated to food production, with sufficient renewable drinking water for use in agriculture, but also because current productivity is greater than in other developing countries, they have a well-developed institutional structure and a highly dynamic production sector, which rapidly adopts new technologies.

The swift adoption of technology and productivity increases in the Southern Cone can be explained by certain organizational reforms and innovations in the agricultural production system which are characteristic of the countries of the region. Specifically, the development of horizontal and vertical work networks, which allowed for improvements in the relations between the various links of the value chain, improving polarity and speed in the transmission of innovations, boosting efficiency and productivity and reducing transaction costs all along the chain. This new form of organization in primary production...
production networks entails a process of differentiation and specialization that results in a highly efficient production process, with a scheme characterized by different specific players who participate in grass-fed production, including both traditional producers and suppliers of raw materials and services to production.

There has also been another strategic change in the agriculture of the region, which is the mass implementation of environmentally friendly production systems, including the introduction of no-till production, crop rotation, health, improved seeds, integrated pest control, intensive use of information and communication technology and use of satellite image support -precision agriculture- along with innovations in storage and logistics such as silo bags and post-harvest management, among others.

Thanks to such innovations and agricultural practices, the Southern Cone countries account for less than 3% of global agricultural emissions\(^8\), which is very important in a context of growing concern about the impacts of climate change in general and, after COP 21, of agricultural emissions in particular.

For all these reasons, it is clear that the region will be able to continue to play a strategic role in world food security and in global environmental sustainability in the coming decades. Knowing that production can expand on the basis of availability of land, water and human capital, projected annual growth rates for regional production and exports in the next ten years are considerably greater than those projected worldwide for most commodities. In fact, the area devoted to agricultural production is expected to grow by 42 million hectares by 2025, with Brazil and Argentina accounting for half of such increase.\(^9\)

However, despite the clear advantages described above, the region still faces several challenges in seeking to exploit its potential. In particular, a framework of clear and stable sector policies needs to be developed to attract investments in this area. Recent policy changes in Argentina -the elimination of export duties- and the rapid recovery of agricultural activity have clearly shown the limitations that such policies imposed on production and investments, reducing exportable supply.

It would also be desirable for the countries of the Southern Cone to have a fuller agricultural Research and Development (R&D) agenda, since the amounts allocated represent less than 2% of agricultural GDP. Brazil is the country with the largest such investment, totaling 1.8% in 2013, but it is still very far from the 4% of the sector GDP invested by the US the same year.\(^10\)

The R&D agenda must focus not only on boosting productivity, but also on adding value through the diversification of exportable supply and the development of new products; however, resources must also be allocated to the analysis and design of new production techniques and technologies to address the consequences of the variable climate -floods and droughts, among others.

In an international scenario marked by a transition towards multipolarity -through a significant number of “Mega Agreements” currently under negotiation-, the countries of the Southern Cone do not exhibit a clear insertion strategy that will strengthen their production capacity, and have a comparatively limited agenda in number of ongoing negotiations that does not take advantage of opportunities for greater economic development.

Most competitor countries in global agroindustrial markets have implemented an active trade agreement agenda that generates loss of preferences and diversion of trade and investments towards other regions. In light of this, the Southern Cone countries need to make some progress in trade

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\(^8\) Viglizzo, E. Climate Change in the ABPU region: Threats and opportunities. GPS, March 2015.
\(^9\) OECD-FAO Agricultural Outlook 2016-2025.
\(^10\) According to Agricultural Science and Technology Indicators (ASTI) Argentina and Uruguay invested 1.3% and 1.4% of their GDP in 2013, while Paraguay only invested 0.3% the same year.
negotiations to improve their export performance and cement their position as an efficient and reliable global agrifood supplier.

Concurrently therewith, the region will also need to work on achieving greater physical integration and on improving transport and port infrastructure to reduce logistics costs and achieve greater phytosanitary harmonization in order to allow for the establishment of regional value chains, facilitating transnationalization of regional agro-industrial companies and generating a regional agro-industrial export platform that will make it possible to develop products with greater added value.

Conclusions

The agro-industrial sector plays a significant economic and social role in each of the countries of the region. It currently has the opportunity to develop safe and high-quality diversified agro-industrial products, generating comparative advantages with respect to other countries and allowing it to compete in the markets in a differentiated manner. However, it must still propose greater diversification of exportable supply, particularly with respect to products with greater added value and differentiation, establishing a clear and lasting strategy to achieve such goals.

A broader view of agriculture needs to be adopted, focusing on bioeconomy, where agriculture is used not only for food production, but also for power generation and for the transformation of raw materials into polymers, chemicals and medicines, among other things. Greater coordination and integration is required to achieve this goal, improving health levels and establishing joint control and certification mechanisms such as labeling and traceability.

It is also clear that investment in agricultural research has been limited in recent decades, and this needs to be reversed soon to increase sustainable use of natural resources. Similarly, the countries of the region -except for Uruguay, where there has been greater progress- still need to work on implementing new legal instruments to impose certain parameters concerning sustainable use of natural resources with a view to preserving such resources.

In addition, the region needs to re-launch its international economic relations agenda, which has practically come to a standstill in the last decade. Joint negotiations with third countries are an important instrument to improve international competitiveness. The decision not to participate in bilateral trade negotiations might not have had negative consequences if the Doha Round had made significant progress. However, stagnation in multilateral negotiations calls into question the absence of a clear and aggressive trade insertion policy of the region.

Increasing foreign relations will unquestionably make the region a significant player in ensuring global food security. However, this will not depend solely on the Southern Cone countries, and work will be required to revise global trade regulations.

Trade flows have always been constrained by various kinds of regulations and trade barriers, which generally translate into higher prices for consumers and fewer incentives for producers.

The fact should not be overlooked that as consumption and production patterns continue to evolve at the current pace, world trade in agroindustrial products may be expected to continue to increase over the coming decades. By 2025, approximately one fourth of the world’s population will have to obtain at least 25% of their cereal for food use from imports. By 2024, global consumption of calories from vegetable and animal products will be 14% and 15% higher than in 2015, respectively which, adjusted for population growth, represents an increase in per capita consumption of 4% and 5%, in each case. \(^{11}\)

\(^{11}\) OECD-FAO Agricultural Outlook 2016-2025.
On the basis of the foregoing, global markets are ever more important as a source of food for the future. Any unwarranted restriction may affect the ability to obtain food of a substantial portion of the population—at least to obtain quality food and at affordable prices. Opening to trade unquestionably increases food availability in importing countries, exerts downward pressure on consumer prices and provides greater predictability for producing countries. That is where the countries of the Southern Cone make a superlative contribution to global food security, given that for most agricultural products, world exports are concentrated in a few supplier countries that can make up for the deficiencies existing elsewhere in the globe.

There is currently growing awareness of the fact that food security is an extremely serious humanitarian problem that requires not only technical solutions. Rather, it is a highly political question with respect to which the international community has been unable to respond consistently and in a coordinated fashion to date. Such inability highlights the limitations of global governance mechanisms, making it necessary to give priority to food security on the international agenda.

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