LAC-INDIA

New Horizons, New Hopes

Latin America and the Caribbean with India

DEVELOPMENT BANK OF LATIN AMERICA

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Latin America and the Caribbean with India

Report specially prepared for the LAC-INDIA business dialogue, on the occasion of the visit to Panama of the Minister of Foreign Affairs of India, Subrahmanyam Jaishankar.

CAF DEVELOPMENT BANK OF LATIN AMERICA

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Towards a multidimensional Integration platform

SERGIO DIAZ-GRANADOS
Chief Executive Officer
CAF-development bank of LAtin America

The history of Latin America and the Caribbean relationship with India can be known in many ways. One of the most interesting and eloquent may be, perhaps, from the products that are part of our daily lives. Examples of this are bananas and mangoes; fruits originating in India that arrived in America hundreds of years ago, generating an impact on trade in the region.

Today, three of the top five banana and mango exporters in the world are Latin American countries. The history of these products serves as an example in a story of exchange that began many years ago, but which may currently have a scenario of obvious potential and benefit for millions of people.

The relationship of India with Latin America and the Caribbean offers an important window of opportunity in a post-pandemic planet, armed conflicts and environmental urgency. This group of economies, complementary to each other, brings together a series of strategic resources that could leverage the commercial and investment link in a significant way for mutual benefit.

This is how, in a world that is so in need of solutions and hope, we see the 21st century as the crucial moment for the relaunch of relations of Latin America and the Caribbean with India. This is the LAC – India century.

It is a relationship that, without a doubt, can promote fundamental actions in promoting key issues for the development of our countries. The sectors in which we have identified clear opportunities are diverse and very important.

First of all, there is food security. The experience that Latin America and the Caribbean and India have in this aspect offers very relevant possibilities for synergies. The productivity of the sector in many nations of the region constitutes a source of learning for India which, as the most populous country on the planet, it faces the challenge of expanding production frontiers, ensuring environmentally friendly practices, and promoting learning in its rural sector.

In the case of the energy transition and the climate agenda, there are great opportunities to add technological value from the perspective of the production of strategic materials in Latin America and the Caribbean -such as lithium-, as well as from the common impulse that both

At CAF, we aspire to become a permanent integration platform between Latin America and the Caribbean and India, which contributes to forge productive dialogues in the public-private sphere.

India and the region have been advancing in the field of renewable energies in the framework of a global discussion of "common but differentiated responsibilities".

It is also essential to share experiences in the protection of our biodiversity, a field in which India has made important achievements, such as Project Tiger, launched in 1973 and which has managed to double the tiger population in the country since its historical minimum in 2006. We can think of parallels between this initiative and the urgent need to protect the jaguar, the great Latin American feline that, unfortunately, is today a threatened and endangered species in some countries.

On the other hand, health as a global public good also finds this relationship with enormous potential, as was verified during the pandemic with the provision of vaccines, and as it is deployed in the new technological frontier of biosimilars.

These developments have to do with industrialization 4.0 processes, the knowledge economy and the latest generation technologies that have a vibrant impact on both sides of the relationship. In this matter, there is evidence of cross-fertilization in the nuclear and satellite sectors of Argentina; precision agriculture and biotechnology in Brazil; electromobility and new auto parts in Mexico; and the fruits and healthy agriculture of Chile, which gain markets from the Indian middle class. For its part, the Isthmus of Panama connects Latin America with the world.

We must also take into consideration the creative advances of the entertainment industry in its multiple dimensions and financial inclusion through innovative digital payment media.

In turn, geographical distances can be overcome with creativity, empathy and the deepening of cultural ties. The artistic creation has manifestations both in the production of films via Bollywood, as well as in multiple movie theaters in India of Latin American and Caribbean companies. Traditional medicine –both Indian and Latin American– also offers options that are complementary to technological advances in preventive medicine.

Despite the physical distances with the region, India exports more to Brazil and Guatemala than to its neighbors in Cambodia, Japan or Thailand. For its part, Latin America and the Caribbean export more to India than to traditional partners such as Spain, Germany, France or Italy. We have before us a common future of strategic convergence that is truly promising.

Due to all of this, at CAF we offer this report, which is part of the launch of an ambitious work plan that will enrich and benefit the Global South. The strategic link can scale in quantity and quality. The events of the past and the present demonstrate this. As outlined in the pages that follow, total trade between the two regions grew by 145% in 10 years and by 2,000% in 20 years.

At CAF, we aspire to become a permanent integration platform between Latin America and the Caribbean and India, which contributes to forge productive dialogues in the public-private sphere, to identify opportunities to deepen the exchange, to mobilize resources from multiple sources to boost the relationship, and to improve the soft and hard infrastructure that enables business. We are also ready to monitor the incidence that, at the geopolitical level, the associated countries can have in the highest global discussion agendas.

Perseverance, organization and a culture of convergence are the keys to forging a deep and multidimensional integration. As a development institution in the region, we are convinced that meeting the challenge is possible. Dreaming of building more and better convergence bridges is making the challenge of genuine integral human development a reality.

To conclude, I would like to bring the words of the Nobel Peace Prize Laureate, Kailash Satyarthi: "The first mantra of the Vedas, the oldest scriptures of knowledge and wisdom, says that each of us has a spark within. Each of us has the potential within to make a better and more beautiful society (...). That light of knowledge and wisdom should also be turned into a shared prosperity, so that everyone can benefit together. That is the foundation of peace. That is the foundation of sustainability. It is the foundation for creating a global family." At CAF, we are promoters of Latin America and the Caribbean in the global environment and we see the strengthening of the relationship between the region and India as an ideal opportunity to promote its development and, together, ignite the spark.

In a world that is so in need of solutions and hope, we see the 21st century as the crucial moment for the relaunch of relations between Latin America and the Caribbean and India.

Ten beacons for a new Confluence Hope

S+D+S

The challenge of Scaling, Diversifying and Sophisticating trade and investment

Latin America and the Caribbean and India are increasingly projected as central axes of the world economy of the future. Together, they presented a GDP of 8.8 trillion dollars in 2022, with growth expectations. Both regions are home to a population of 2 billion people, with a median age of 28 for India, and 31 in the case of Latin America and the Caribbean. Despite the distances with the region, India exports more to Brazil and Guatemala than to its neighbors in Cambodia, Japan or Thailand. A common future of strategic convergence, with growth in quantity and quality of the bond is possible.

Scaling the relationship with **Creative Impact**

2,230 %

Increased total trade between India and Paraguay in the last 20 years.

Total trade between the two regions grew 145 % in 10 years and 2,000 % in 20 years.

It is remarkable to review the numbers that show the magnitude of trade between Latin America and the Caribbean and India in the 21st century. Volume increased from USD 1.6 billion in 2001 and USD 22.8 billion in 2010, to USD 42.5 billion in 2021[1].

In 2021, India was the seventh export destination in the region, the fourth for Argentina's exports, and the sixth for Colombia and Peru. Likewise, India was the fifth importing country in Brazil, the seventh in Colombia and the eighth in Argentina.

However, there is still a promising path ahead. In 2021, LAC accounted for just 3.5 % of India's total trade, while ASEAN, EU and North American countries accounted for 10 %, 11 % and 13 % respectively[2].

In terms of foreign direct investment (FDI), there is a wide path for improvement.

Both in nominal terms and compared to other major economies, India's investments in the region are still modest. From 2001 to 2022, the LAC region has received 6.7 % of India's total foreign direct investment (accounting for equity, loans and issued guarantees): USD 1.8 billion, out of a total of USD 27.8 billion[3].

Likewise, investments by Indian companies that have landed in the region in the last 30 years through greenfield or brownfield investments were estimated between USD 12 billion and USD 16 billion in 2021[4].

Conversely, the 50 LAC companies that invest in India do so for a value of approximately USD 1.5 billion. 86 % of the investments are made by 30 companies of Latin American origin. Among these, the investments of Brazilian (39 %), Mexican (25 %), Argentinian, Chilean, and Peruvian companies (11 % each) stand out[5].

India's exports to Mexico are higher than those to Canada or Russia. Sales to Brazil exceed those to Thailand or Japan. Despite this, there is a lot to do. In 2021, LAC accounted for just 3.5 % of India's total trade.

5 main exports, 2021 (thousands of USD)

Source: International Trade Centre (ITC)

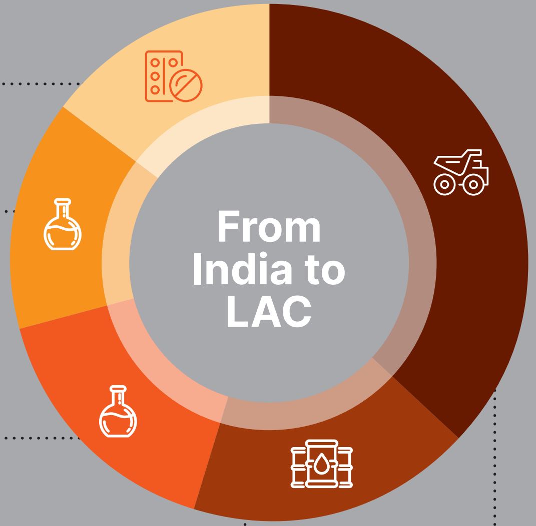
15.3 % Animal or vegetable fats and oils
3,725,363
2020: 2,500,152
2019: 2,022,710
2018: 2,189,551

6.8 % Ores, slag and ash
1,662,710
2020: 631,135
2019: 1,097,635
2018: 1,975,615

2.2 % Wood and articles of wood; wood charcoal
527,502
2020: 293,731
2019: 10,959,931
2018: 13,629,917

35.5 % Mineral fuels, mineral oils and products of their distillation
8,621,865
2020: 6,924,883
2019: 10,959,931
2018: 13,629,917

28.0 % Natural or cultured pearls
6.806.967
2020: 3.571.915
2019: 3.927.279
2018: 4.386.314



7.7 % Pharmaceutical products
1,420,423
2020: 1,133,187
2019: 966,770
2018: 880,220

7.7 % Organic chemical products
1,423,565
2020: 1,206,383
2019: 1,122,298
2018: 1,193,259

8.5 % Miscellaneous chemical products
1,566,740
2020: 1,118,649
2019: 1,020,133
2018: 852,318

9.6 % Mineral fuels, mineral oils and products of their distillation
1,758,937
2020: 1,105,361
2019: 811,640
2018: 193,407

19.7 % Vehicles and parts and accessories thereof
3,626,595
2020: 2,535,669
2019: 3,267,893
2018: 3,444,950

Diversifying business partners

Only four countries concentrate 85 % of the total bond between LAC and India, and only three accounted for 58 % of FDI outflows from India to the region in the last 22 years.

5=80%

In 2020-2021, India only had 5 countries at the top of 80 % of its imports from LAC: Brazil (24.15 %), Argentina (21.06 %), Peru (12.19 %), Colombia (11.24 %), and Bolivia (9.29 %)[10].

In addition to scaling the volume of trade, the relationship presents another challenge: diversifying LAC trading partners. India's top four partners in LAC during 2021 accounted for 84 % of the total bilateral commerce: Brazil totaled 33 % (USD 11 billion); Mexico, 24 % (8.3 billion); Argentina, 15 % (5.1 billion), and Colombia, 12 % (4.0 billion).

Two geographical points knew how to have a greater commercial exchange with India in the past decade, and have a large number of exports to expand: CARICOM and the Andean Community. There is an export expansion border of 250 % in the first case and 64 % in the second one, considering that India trades with each one 28 and 59 baskets of goods, respectively, out of a total of 98 that India and each region trade with the rest of the world.

Three countries accounted for 58 % of India's outward FDI to the region in the last 22 years: Brazil (32 %), Colombia (14 %), and Mexico (11 %). India invested in 19 other countries in the region, of which Uruguay and the Bahamas accounted for 9 % of the total investments each; Cuba and Chile, 8 %; Bolivia, 3 %, and Peru, Puerto Rico, Venezuela and Guatemala, 1 % each[6].

Mexico is India's most important strategic and commercial partner. After a 25 % decrease in trade during the pandemic (2020-2021), Indian exports to Mexico increased by 50 %, and exports from Mexico to India, by 67 % (2020-2021)[7]. Mexico is the main LAC investor in India, in the auto parts sector (Nemak, Tremec, Metalsa and Katcon); information technologies (Softek); industrial products (Mexichem and Ruhrpumpen); services (Kidzania and Cinépolis); processed foods (Bimbo), and energy[8].

It has been shown that the diversification of partners between India and LAC can overcome geographical barriers. In 2021-2022, Indian exports to Guatemala (11 million inhabitants) doubled those of Cambodia (16 million inhabitants); those destined for Honduras (10 million inhabitants) exceeded those of Kazakhstan (19 million inhabitants), and those destined for Brazil were higher than those for Japan or Thailand[9].

India not only exports finished products, but also raw materials and industrial inputs for pharmaceutical companies, in addition to fabrics, fibers and yarns for the textile industry, which favors the competitiveness of LAC.

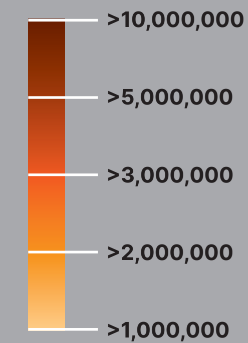
Ranking

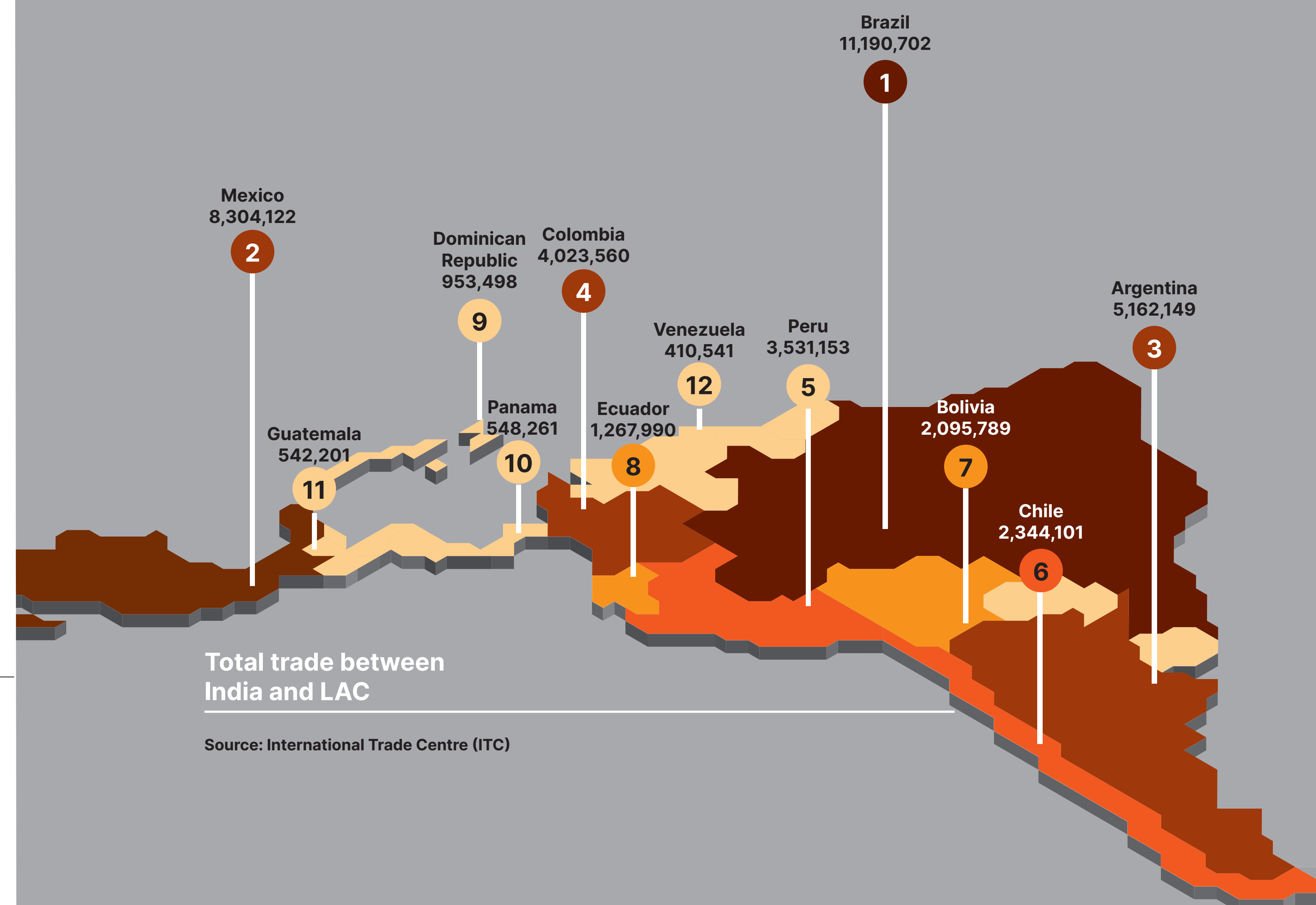
of total trade between India and Latin America and the Caribbean, 2021

(thousands of USD)

	Imports from India	Exports to India
Brazil	6,262,205	4,928,497
Mexico	4,161,539	4,142,583
Argentina	1,186,970	3,975,179
Colombia	1,317,624	2,705,936
Peru	916,922	2,614,231
Chile	1,128,135	1,215,966
Bolivia	133,657	1,962,132
Ecuador	295,955	972,035
Dominican Republic	300,431	653,067
Panama	334,882	213,379
Guatemala	519,808	22,393
Venezuela	311,922	98,619

Total trade between India and LAC





Total trade between India and LAC

Source: International Trade Centre (ITC)

Sophisticating the productive framework

The commercial relationship between LAC and India is highly complementary, although still unsophisticated regarding Latin American exports. This is key to transcend its primarization.

7%

The Indian economy grew by an average of 7 % in this century, ranking as the most dynamic on the planet, after China.

Broadly speaking, the complementarity in the commercial relationship is based on the benefits of LAC in terms of food and energy security, which are proportional to those of India in terms of information and communication technologies, automotive and pharmaceuticals.

The top five LAC exports to India in 2021, accounting for 88 % of total exports, were primary products or manufacturing based on natural resources: 1) fuels and mineral oils and products of their distillation; 2) fine pearls and precious metals; 3) animal or vegetable fats and oils; 4) minerals and ash; 5) wood, charcoal and wood goods.

Therefore, the primarization of LAC exports to India presents a gap with the level of complexity of the region's exports, which in 2020 were 50 % explained by manufactured products[11].

In contrast, the export basket from India to the region consisted of products with added value and medium-high technology. The top five exports in 2021 were: 1) motor vehicles; 2) mineral fuels, mineral oils; 3) various chemicals; 4) pharmaceuticals; 5) machines, mechanical devices and nuclear reactors.

Indian investments in the region promote industrialization with registered employment and high added value

Approximately 70,000 people in LAC are employed by a total of 134 Indian companies. The sectors with the highest investment are pharmaceuticals (55 companies), energy (16 companies), automotive (17 companies), and information technology (57 companies). In these last two cases, they employ 30,000 and 38,000 people, respectively[12].

The operational obstacles identified by Indian capital to invest in LAC are: regulatory frameworks and complex administrative procedures that increase investment costs and limit trade; restrictions on the mobility of talent, little flexibility in visas and work permits; lack of clarity in the rules that regulate the granting of credits by the national development banks of LAC to companies with foreign capital; complex administrative regulations to approve national certification in machinery provided by foreign companies, in areas such as automotive, petrochemical and electronics[13].

9 out of 10 LAC products exported to India are primary or based on natural resources. Fuels, oils and precious metals head the list. A commercial strategy to incorporate technological and manufacturing value is fundamental.

5 main exchanges in the Mercosur sphere, 2021

(thousands of USD)

Source: International Trade Centre (ITC)

From India to Mercosur

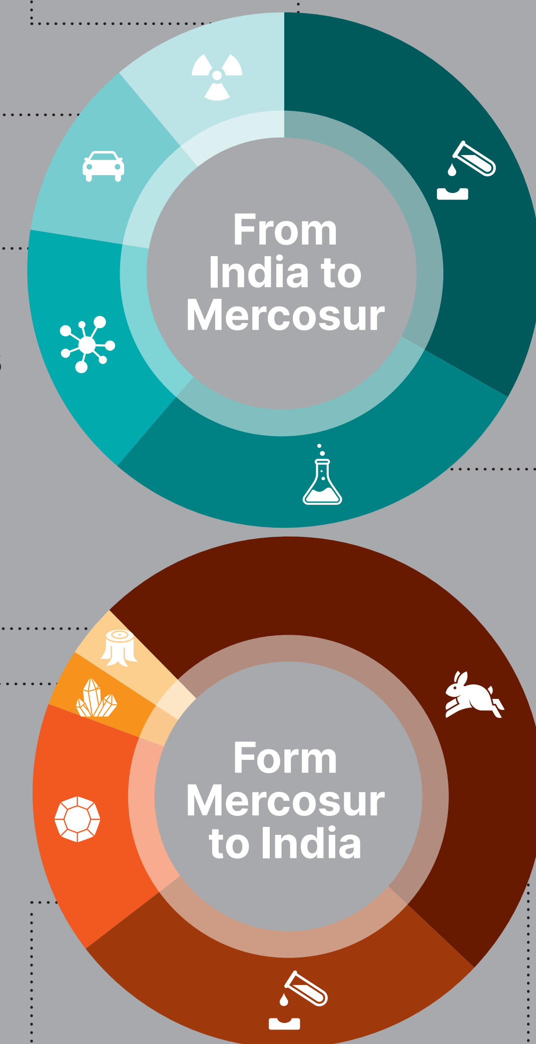
16 % Organic chemicals
791,401
2020: 688,092
2019: 619,945
2018: 665,574

12 % Vehicles other than railway or tramway rolling stock, and parts and accessories thereof
554,144
2020: 330,064
2019: 385,968
2018: 426,357

11 % Machinery, mechanical appliances, nuclear reactors, boilers; parts thereof
541,605
2020: 325,840
2019: 395,356
2018: 308,737

33 % Mineral fuels, mineral oils and products of their distillation; bituminous substances
1,617,200
2020: 1,048,656
2019: 794,123
2018: 176,940

28 % Miscellaneous chemical products
1,367,432
2020: 933,186
2019: 858,945
2018: 685,474



Form Mercosur to India

3% Wood and articles of wood; wood charcoal
254,893
2020: 135,514
2019: 91,176
2018: 84,405

4% Ores, slag and ash
273,203
2020: 14,253
2019: 120,980
2018: 427,653

16 % Natural or cultured pearls, precious or semi-precious stones
1,212,286
2020: 506,087
2019: 542,089
2018: 492,247

28 % Mineral fuels, mineral oils and products of their distillation; bituminous substance
2,072,545
2020: 3,526,793
2019: 6,681,248
2018: 8,989,317

49 % Animal or vegetable fats and oils and their cleavage products
3,722,585
2020: 2,498,793
2019: 2,021,437
2018: 2,188,390

The indian market as a Global Springboard

1ST.

India is the first country with the most Globant employees outside of Latin America and the Caribbean, reaching 4.000 people.

Globant is an Argentine unicorn that has 24,500 employees and a global presence in 19 countries. It was featured as a case study at Harvard, MIT, and Stanford. It is a member of the Green Software Foundation (GSF) and Cybersecurity Tech Accord. According to its global team[14], these are its main challenges when it comes to expanding in India:

We started operations in India in May 2015, following the acquisition of a local technology company, Clarice Technologies, with the goal of adding and expanding our talent, with the potential to grow rapidly there. Clarice had 300 people with DNA similar to Globant. A year after the acquisition, we were already more than 1,000 people. Today we are more than 4,000 people, and India is one of the largest talent markets for Globant.

What initial challenges did we find? What led us to analyze the possibility of investing in the country? The first thing someone can bring up is cultural; but that was not a challenge in our case. We found a company with a very similar DNA to Globant and that made it very easy. We both had a global perspective, but with an emphasis on teamwork.

If we have to mark a challenge, it would be the time change, given that by being a company born in Latin America, it was easy to be aligned with the United States, but we adapted and we were able to find a way to work. As Globant's markets expanded and spread across the globe in the Middle East, Oceania and Singapore, it was no longer a challenge. Globant wants to be the best technology company that helps transform other industries in the world. That part of the world had not yet been explored by Globant, and in the world expansion plan it was necessary to go. We all know that India is one of the biggest talent pools in the world.

Regarding the challenges posed for the acquisition, there were multiple approvals over long periods of time, approximately six months. Globant structured the investment in a way that did not require going through these processes; but the rule was to go through this. We achieved great growth and the integration of this development center into the Globant operation. We managed to be a different employer in India, with a different proposition. The consulting firm Great Place to Work recognized Globant in its list of Top 50 India's Best Workplaces in IT. Outlook for Brands included Globant in its list of Top 10 Software Development Companies in India 2023.

Fortunately, the pandemic did not negatively influence our work. When it started, Globant was still online and providing the same or more added value. In fact, there was an acceleration in terms of investment in technology.

Basically, India is used to provide services in other markets. We are going to continue expanding to other cities in India, and to a lesser extent, we will be selling some services locally. Globant continues to focus on a 360 value offer with diverse technological services, so that its clients have a lasting digital transformation. Indian talent has diverse capabilities in all the verticals that the industry demands. The talent market is dynamic, and has high penetration in artificial intelligence.

India is a market with a scale much higher than Latin America. The availability of talent is endless. Technically, Latin America competes very well with India, although the labor cost is higher.

How does the regulatory and tax frameworks influence? India has mechanisms called Special Economic Zones that reduce the tax burden, and in regulatory terms it is very stable. It is a necessary market for any company that wants to be truly global. Global customers often order part of the delivery from India. The country is currently our third talent market, with more than 4,000 Globers. During 2022, it was the fastest growing market in terms of employees.

Key milestones for the Future

- Studying the cultural characteristics of the Indian consumer and its enormous diversity of languages and regions, as well as promoting the teaching of the Spanish language in Indian universities, are important factors for the generation of new markets.
- The specialization–both in India and in LAC–of business schools that focus their training programs on the economic and business realities of both regions, would contribute to expanding the frontier of exchange.
- The opportunity offered by a growing middle class in the most populous country on the planet means facing vibrant competition from other regions. The opening of well-staffed embassies and delegations, both in India and in LAC, would help this purpose.
- The establishment of a permanent office dedicated to LAC at Invest India (Investment Promotion and Facilitacion Agency), as well as the opening of regional Eximbank offices in the main LAC partner countries, would favor increased trade and investment.
- Overcoming bureaucratic restrictions on the mobility of talent and the opening of new companies are also a priority when it comes to boosting the productive relationship.

Food Safety

Agro-bioeconomy for a better nutrition

Being the most populous country on the planet and the region with the optimal amount of natural resources for food makes India, Latin America and the Caribbean strategic partners on the international scene. Latin American food companies also have successful records in India, as a source of foreign investment with labor power and social inclusion. Existing tariff levels present opportunities for improvement as a way to incorporate added value to regional exports, and avoid bias towards primarization. The incorporation of digital and exponential technologies can also allow an essential leap in productivity for the future.

Promoting Convergence beyond soybean oil

India's nutritional patterns represent an opportunity to add value and diversify the regional export basket.

19%
of the total exports from LAC to India in 2021 were explained by soybean oil.

LAC can contribute to a leap in productivity in the Indian sector, which still has significant deficiencies: 40 % of its farmers only have one tractor; 86 % have less than 2 hectares that make up to 50 % of the country's cultivated area. 55 % of the soils have nitrogen deficiency, and 44 % present phosphorus deficiency[15]. Although in the past half century India has gone from being an importer to a producer of food and a net exporter of food, its agriculture remains especially vulnerable to climate change due to seasonal water shortages, high temperatures, and frequent droughts[16].

Exports of processed foods and agro-based manufacturing from LAC to India reached USD 6.6 billion in 2022, and they were mainly explained by the export of soybean oil, which came to represent 85 % of the total, with a value of USD 5.6 billion. Next on the list of exported products were sunflower oil (USD 631 million), sugar cane (USD 228 million) and oilcake (USD 74 million).

Due to the composition of this export basket, Argentina and Brazil are India's main trading partners in the agricultural and food segment. Argentina was the third country that exported the most processed foods and agricultural-based manufactures to India in the world (USD 3.8 billion in 2022), and Brazil was the sixth (USD 2.6 billion).

The most significant evolution in Argentina occurred between the years 2009-2010, when due to the drop in Chinese demand, the nation tripled its soybean exports to India. This also led to deepen the relationship through a cooperation agreement that focuses on biotechnology, cloning and fish farming, among other areas[17].

Likewise, India was the first destination for exports of processed foods and manufacturing based on agriculture in Argentina and Brazil in 2022. This led to Argentina representing 57 % of LAC exports, and Brazil, 39 %.

On the other hand, India exported USD 101 million in processed foods and agricultural-based manufactures to LAC in 2022. The main items were prepared food for animals and dried onions (USD 16 million each). Clearly, the main destination of India's agricultural export are African and Middle Eastern countries. The share of the agricultural sector in India's GDP was 18.8 % in 2022, with an increase of 3.6 % in 2020-21 and 3.9 % in 2021-22. However, this does not come close to its contribution to the national economy in the 1950s, when it reached 40 % to 50 % of exports.

Agricultural exports have grown by 19.92 % during 2021-22, and external sales of wheat went up by 273 % in the same period[18].

The total bilateral trade exchange has increased significantly in the last 2 years, due to the proportional increase in soybean oil, which became the main primary good exported from LAC to India in 2021.

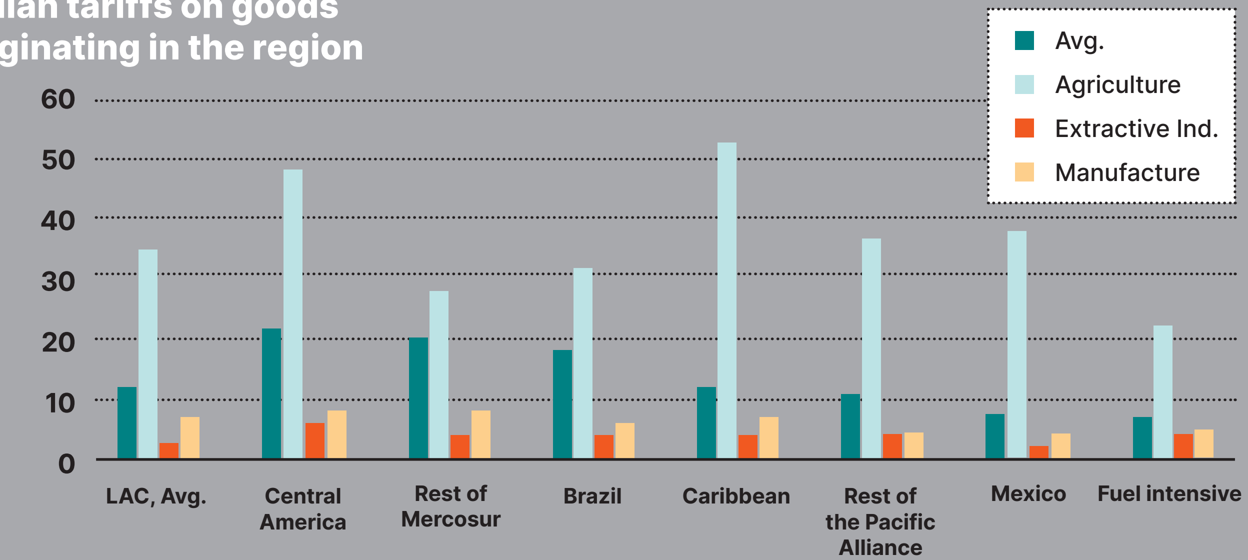
Barriers to overcome in trade

India's tariff structure is key when analyzing the potential access of Latin American and Caribbean products to one of the most important markets in the world, since high tariffs act, in practice, as barriers to trade entry.

An assessment of the average tariffs faced by exporters in Latin America and the Caribbean shows an average of 12 %. However, there is a great dispersion according to the sector and the country in question. As an example, the group of countries that are intensive in fuels and energy and Mexico face lower average tariffs, around 8 %. Other countries of the Pacific Alliance and the Caribbean have average tariffs of 12 %; while, for example, in Brazil, they reach 16 %; in the rest of Mercosur, 20 %, and in Central America, 22 %. At the sectoral level, the countries of the region face higher tariffs on agricultural products, where the average rate ranges between 21 % and 52 %.

Meanwhile, India faces more uniform tariffs in the various sub-regions, as well as sectorally. In general, and as an example of this disparity, the member countries of Mercosur have higher tariffs for manufactures, while the Central American countries apply greater restrictions on agriculture.

Indian tariffs on goods originating in the region



Note: Weighted average of tariffs by the value of trade of products and countries.
Source: CESifo, World Bank and IDB.

The **Vegetarian** opportunity

Despite the conducive nutritional culture environment, only 10 % of the dried pulses exported by LAC to the entire world in 2021 went to India.

+400

million people follow some type of vegetarian diet in India.

India has historically been the country with the largest vegetarian population in the world, due to the prevailing religious belief system and values in the country. Despite the fact that the proportion of the population that does not eat fish, chicken or meat has decreased, it reaches 16% of men and 29% of women. These values represent a total of 400 million people[19].

Food insecurity and nutritional levels in India continue to be the biggest public policy challenges, notably aggravated by the war situation as of 2022. During the period 2019-2021, 67 % of children 6 to 59-month-old had anemia, 27 % of children under 5 years of age presented some level of malnutrition, and 35 % showed some type of growth retardation[20].

The pattern of food consumption of the Indian population, as well as the peculiarities of the widespread vegetarian diet in the country, underpin the importance of pulses and nuts, an important source of nutrients, and foods rarely consumed in the country. India consumes less nuts (3 grams per day), pulses (25 g/d), vegetables (168 g/d) and fruits (3 g/d), than the world average and the level recommended by the EAT - Lancet Commission, stipulated in 25, 100, 300 and 200 grams, respectively[21].

Some of the public policies that have been formulated in India in order to increase both the consumption and the supply of pulses have been the expansion of product coverage within the framework of the Price Support Scheme (PSS); the creation of the Price Stabilization Fund (PSF) for the acquisition of pulses and the duty-free importation of pulses from Mozambique, Malawi and Myanmar[22]. However, the supply of this essential food is still lacking in India. In this sense, LAC could play a role that is absent today: in 2021 exports of dried pulses to India were USD 111 million, representing only 10% of the dried legumes exported from LAC to the world[23].

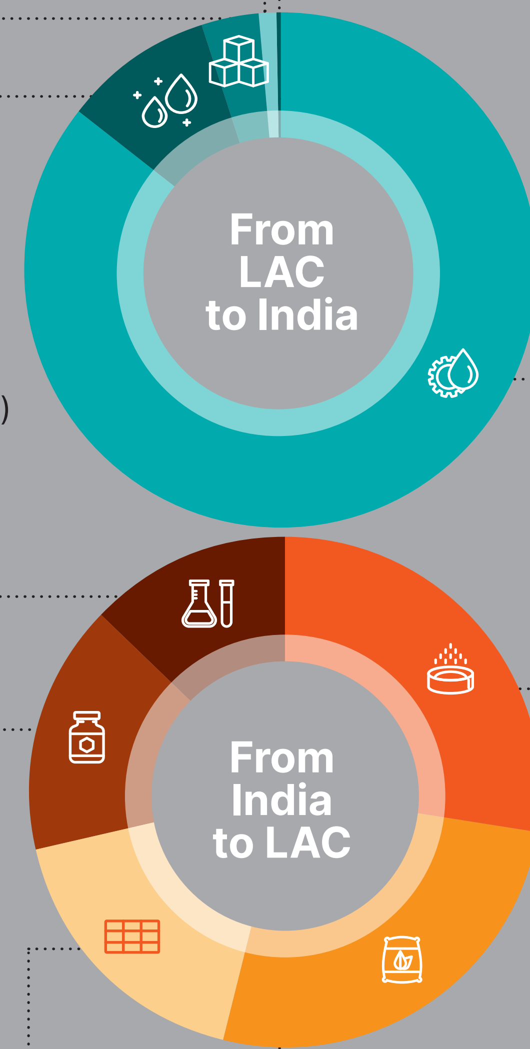
The Indian middle class is also a window of opportunity in the post-pandemic scenario

Attention to the urban sectors with the highest purchasing power, the gourmet destination as an emerging channel after the pandemic, the cultural and religious factors that influence offering fruits and nuts as gifts at celebrations, an incipient development of electronic commerce

In the period 2019-2021, 67 % of children of up to 5 years of age in India had anemia, 27 % some level of malnutrition and 35 % some type of stunting.

5 main exports of the food sector, 2022 (thousands of USD)

Source: International Trade Centre (ITC)



From LAC to India

9.59 % Crude sunflower-seed or safflower oil
631,107
2021: 204,778
2020: 108,228

3.47 % Raw cane sugar, in solid form
228,384
2021: 104,756
2020: 482,397

1.13 % Oilcake and other solid residues from the extraction of peanut oil
74,093
2021: 91,480
2020: 0

0.14% Oils of sweet and bitter orange
9,077
2021: 8,141
2020: 8,227

85.13 % Crude soy oil
5,603,760
2021: 4,296,613
2020: 2,441,117

From India to LAC

7.62% Extracted oleoresins
7,757
2021: 24,338
2020: 12,223

9.30% Oils of mints
9,475
2021: 10,312
2020: 14,694

10.54 % Chocolate and other preparations containing cocoa
10,737
2021: 12,833
2020: 11,446

15.73 % Dried onion
16,013
2021: 19,290
2020: 17,932

16.49 % Preparations of a kind used in animal feeding
16,795
2021: 21,031
2020: 17,994

that allows reaching neighborhood businesses, and the countercyclical nature of crops with respect to the northern hemisphere, are factors that allow the development of a clear strategy to expand the export basket.

An example of all this is expressed in the case of Chile, where after the signing of the sanitary agreement with India in 2017, and thanks to a joint effort with the Association of Fruit Exporters, the Andean country increased sales to India by 70 % in one year. In the 2020-2021 interannual period, sales increased by 133.07 % (apples, kiwis, pears, cherries, blueberries, table grapes, plums and avocados)[24]. Even with these dynamics in mind, the road ahead remains challenging: Chile has 43 openings to agricultural products out of a total of 636 registered in the export basket by the Agricultural and Livestock Service; 23 from the forestry industry out of a total of 388; and 9 livestock out of a total of 528. Of the 1,105 products negotiated with preferences, Chile currently exports 186 products[25].

Matri-Indo-Brazil Agri-Tech Cross Border Incubation Program: how bilateral cooperation in agriculture and technology can boost a new area of exchange.

Another remarkable milestone in the bilateral relationship between India and the region is the jointly coordinated program with Brazil, with the aim of promoting the incubation and transfer of technology, innovation, research and commercial collaboration between new agricultural companies from both countries. It is supported by the Department of Science and Technology of India, the Embassy of Brazil in India and ICAR - Indian Institute of Millets Research (IIMR) and it is implemented by Pusa Krishi Incubator. The incubation consists of the meeting of five Brazilian and Indian startups from the agritech sector, selected to receive training in India and Brazil for a period of 6 months.

The program went through its first phase in 2019, where dialogues were built between Indian and Brazilian agritech startups. Learning and mentoring sessions were organized, leading to several pilot tests and generation of opportunities for collaboration between the participating companies. In this edition, companies such as the Indian: Naturacropcare (developer of biological and botanical products to meet the demand for products without residues), Satyukt (specialized in data analysis, remote sensing and management of water and agricultural resources) and Aegipan (focused on artificial insemination (AI) in goats for the conservation of good germplasm of native goat breeds) and the Brazilian: TNS Nanotechnology (nanotechnology focused on agriculture), Decoy Smart Control (developer of biological solutions for pest control) and 4milk (development of applications for dairy cattle management) participated, among others[26].

Chile is the leading exporter of edible fruits and nuts from LAC to India. For more than 10 years, the country has consistently accounted for more than 80% of the total fruit exported from the region to India.

The **Giants** of the food industry

A Latin American company is the largest producer of bread in all of India.

42%
of India's exports to Central America were concentrated in Guatemala in 2021.

Among all the Latin American companies with a presence in India, food companies are the ones with the most successful trajectories. Currently, there are four companies in the field in India: Grupo Bimbo (Mexico), Grupo AJE (Peru), Namastrade and Piporé (Argentina).

Among these, the first two have built a strong presence in the Indian market through investments of USD 87 million and USD 20 million, respectively. After having acquired Modern Foods, which concentrated 40 % of the national bread market, Grupo Bimbo surpassed its main competitor, Britannia Industries in 2020, and became the largest bread producer in India. AJE Group, which started operations in India in 2011, is currently a strong player in the industry, with a production capacity of 40,000 bottles per hour at its Patalganga beverage plant, and strong competitiveness due to the significant demand for its flagship product Big Cola. While both companies initially entered because of the size of the Indian consumer market, their expansion in the country has led them to invest in more than 40 manufacturing plants together. All of the above shows that it is not impossible to think of promoting a vibrant industry based on the mutual needs of trading partners.

In the case of special oils, such as avocado and olive, more sophisticated export opportunities can also be opened up, replacing the traditional sunflower, palm and soybean oils. The push for marketing funds that allow companies to enter the Indian retail market–through food chains Reliance Fresh, Big Bazaar and Aditya Birla's More–has to do with a systematic roadmap of commercial diplomacy. Serving the Indian premium market with high value-added dairy products from native breeds, which even have a presence in Brazil and Paraguay (such as Bos Indicus), can open up the opportunity for joint ventures with LAC dairy cooperatives[27].

Although the commercial and investment relationship in traditional food sectors has led to the development of successful business trajectories, there are still products that are currently little traded, as well as new intersections between agriculture and technology that will deepen the LAC-India relationship in this regard.

Make in India launched 7 Mega Food Parks with 5,000 jobs each, benefiting 25,000 farmers, with 135 integrated cold chains, and with a policy of simplifying investment formalization procedures and customs reforms[28].

More Proteins and more Agro-Tech

12,000

personas son empleadas por UPL en Colombia, Costa Rica, Argentina y México.

Peas from an Argentine SME

Namastrade, an SME from the province of Santa Fe, Argentina, which is part of the BYO Alimentos family business, has been able to export yellow peas to India for three years, for use as vegetable protein in food production. The product is sold in bulk to the industry to make sausages and hamburgers. In the initial phase and installation in India, the obstacles they had to go through consisted mainly of the procedures to create a company with only foreign shareholders, which requires relying mainly on Indian law firms and accountants.

This is how Raúl Pastorini[29], director of Namastrade and of the Argentina-India Binational Chapter , details the main practical challenges:

"When it comes to exporting agricultural commodities to India, there are domestic difficulties: forms of withholdings or export duties and local microeconomic problems. From the Indian side, we find challenges such as high import duties and different tariff/para-tariff barriers; as well as volatile and unforeseen opening or closing of the markets due to different variables (of a political type in electoral years to increase the votes of farmers or due to surplus local crops). Fees or quotas are other problems that arise when exporting products in India.

A technical aspect, but of great relevance when it comes to bilateral trade in agricultural products, is the Indian ban on the entry of genetically modified (GMO) products.

This type of measure, to be classified almost as a trade barrier, is registered inconsistently: the importation of vegetable oils - specifically crude soybeans - comes from GMO soybeans.

This product is imported in large quantities by India. However, GMO soybean meal, derived from the same soybean with which oil is produced, is not allowed to enter the country. A problematic inconsistency is detected when exporting agricultural products.

The fundamental role of bi-regional partnerships, initiatives and tools between the Indian industrial sector and LAC is very important.Joint Ventures such as those established between the Chamber of pulses of the Argentine Republic (CLERA, for its acronym in Spanish) and the India Pulses and Grains Association (IPGA) are just one example of initiatives that are advancing successfully in the field related to agricultural businesses.

A global provider entering LAC

It is interesting to review the challenges that are presented from the Indian side to settle in LAC. UPL Ltd. is a global provider of sustainable agriculture products and solutions, with annual revenues in excess of USD 5 billion. As one of the world's top five agricultural solutions companies, its portfolio consists of organic products and traditional crop protection solutions with more than 13,600 registrations. With a presence in more than 130 countries and more than 10,000 employees around the world, it reaches more than 90 % of the global food basket. Its presence in LAC begins with its landing in Mexico in 1994. As of today, they have seven production plants in the region (not counting Brazil): Colombia, Costa Rica, Argentina and Mexico are the market leaders in several of them, employing more than 12,000 people directly and thousands more indirectly.

According to Jagdish Nainwal[30], UPL Latin America regional director and president of the India Mexico Trade Council, the operational challenges are as follows: When it comes to investing, developing and starting businesses and companies in LAC, we are surprisingly faced with a wide spectrum of cultural similarities unheard of for India and LAC. After the language barrier, we managed to introduce ourselves more quickly and easily in the first instance.

In a second instance, new challenges begin, among which are the wide regulatory differences among countries, which implies a very high entry cost for companies due to heavy regulation and the different country to country variations. Although the LAC market is very large, its potential is fragmented with these types of variations. Other difficulties are given by the visa requirements, whose times and conditions vary from country to country, and by the restriction for the free movement of capital.

Flows related to global supply chains were widely affected by COVID. The dynamics in LAC were exposed to a radical change: through friendshoring and nearshoring, the opportunity arose for the region to become a productive/ manufacturing hub. This displacement, with a gradual focus on Mexico due to its proximity to North American markets, combined with the growth of Indian companies and the increase in their demand, generates ample possibilities for synergies for all productive sectors. India's digital transition model in payment methods and its unicorn ecosystem present other opportunities for synergies with the region. The race for digitalization is a pillar in which the Indian ecosystem, along with its expertise, can provide great support to local communities.

Key milestones for the Future

- Build an "acupuncture" of the exchange of goods, with specific and well-focused trade and preferential negotiations that allow trade to be diversified, as has been the case of yerba mate in Argentina or avocados and blueberries in the case of Chile.
- Promote permanent trade missions, not as isolated efforts but as institutional seats in India–following the examples of Pro-Chile, Pro-Peru and Pro-Colombia–that allow promoting investment and access to new products.
- Unlock non-tariff barriers and in turn raise awareness about the importance of reducing tariff barriers that appear unjustified in the general panorama of exchange.
- Deepen scientific synergies in bioagriculture (cotton, biofertilizers, biopesticides, biostimulants), a sector that has a specific weight of 13 % in India within the framework of biotechnology in general, compared to 68 % of the incidence of biopharmaceuticals.
- Deepen actions to integrate scientific and technological systems, taking advantage of the Indian National Biotechnology Development Strategy 2021-2025, and its relationship with similar strategic frameworks in LAC.

Sustainable Mobility

A more environmentally friendly automotive industry

The automotive sector has been a fundamental pillar in the industrialization of both India and LAC. In 2021, the total trade in motor vehicles reached USD 3.67 billion, positioning itself as the main good exported from India to LAC. India, Mexico and Brazil were among the top 10 motor vehicle producers (in fourth, seventh and eighth place, respectively) during 2021. However, the relationship presents dimensions that can be improved, namely: innovating the production and export of auto parts from LAC from the environmental dimension; diversify the commercial partners in the bond, and deepen the insertion of the Indian motorcycle segment in LAC.

Innovating in auto parts through electrification

The auto parts segment, which monopolizes LAC exports to India in the automotive segment, is undergoing strong transformations.

94%

of the exports from the LAC automotive segment to India in 2021 consisted of auto parts.

LAC has positioned itself in recent decades as an important center of international auto parts production. Auto parts exports constituted the third export of the automotive segment of the region to the world, according to value in 2021: they reached USD 33 billion, positioning themselves after motorcycles (USD 44 billion) and vehicles for the transport of goods (USD 36 billion).

This segment becomes even more relevant when it comes to the commercial relationship with India: auto parts accounted for 94 % of automotive exports to the country in 2021, while the remaining 7 % was explained by bodies, trailers, motorcycles and cars. Therefore, it is essential to evaluate the transformations that this segment is going through and will go through once the industry is electrified.

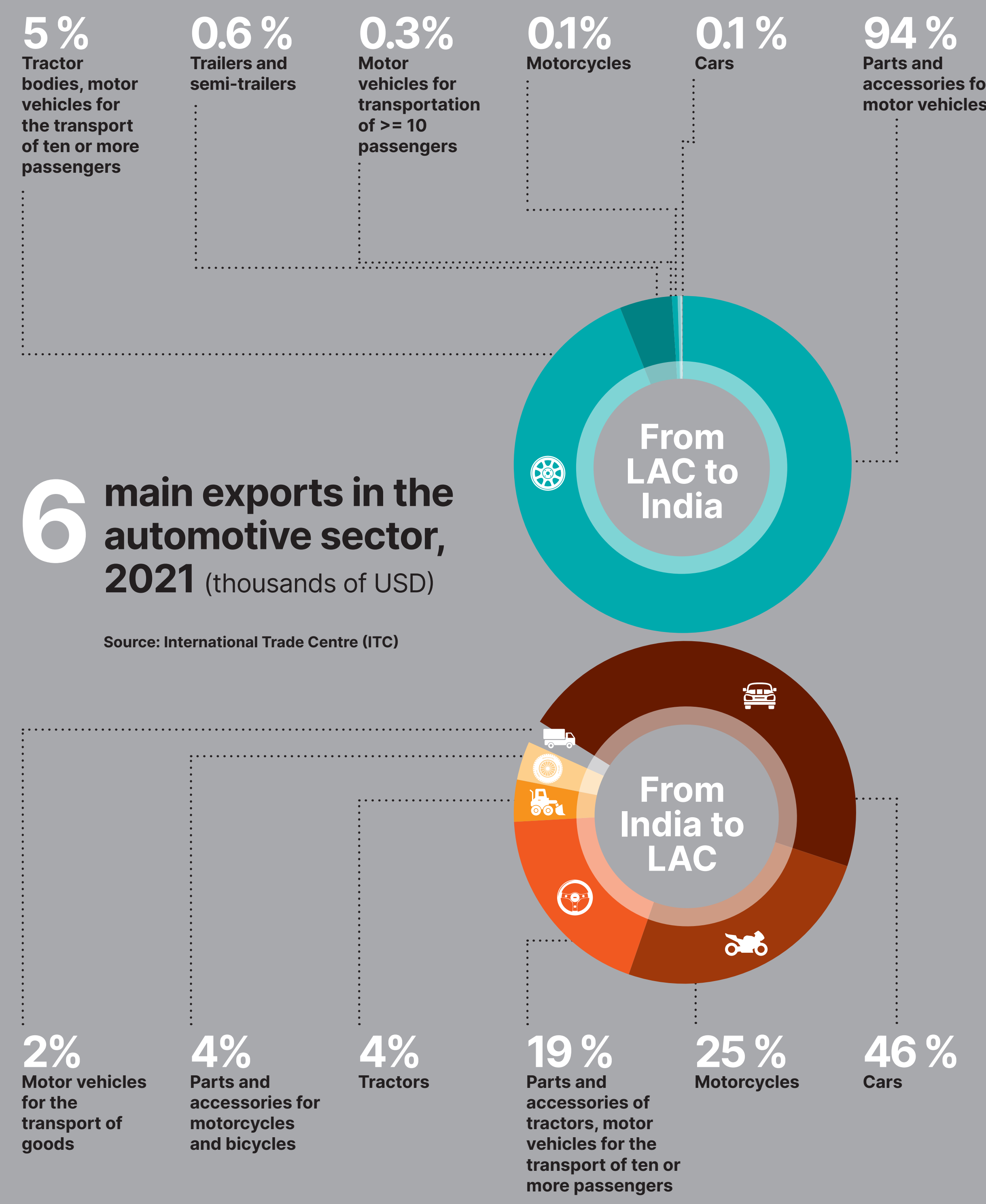
Electric vehicles will have a much simpler architecture than combustion vehicles: it is estimated that they will have 2,000 fewer components[31]. This naturally implies that a large number of engine, transmission and alternator-related parts and accessories produced and exported in the region will be less in demand as electrification in the automotive industry progresses.

Lithium batteries: a key piece to include in the LAC auto parts segment

Despite the above, the Latin American region presents strategic resources that allow it to position itself as a global pole of the energy transition both for the world and for India. In particular, electrification underpins the relevance of the vehicle battery, which constitutes between 30 % and 40 % of the value of the electric car[32] and the main component of which is lithium.

Despite the fact that supply chains are currently concentrated in China, where more than three-quarters of all lithium-ion batteries are produced[33], the largest reserves of this mineral are found in Latin America. Of the 23 countries with proven lithium deposits, 6 are from Latin America and 3 concentrate 53 % of the total reserves: Bolivia (21 million tons), Argentina (20 million tons) and Chile (11 million tons)[34].

This strategic resource, as well as the possible manufacture of other electrical components such as chargers, motors and electrical systems, opens up a set of opportunities for the auto parts segment, with processes that imply greater investment in R&D and the generation of higher-skilled jobs.



More than 9 out of 10 products from the LAC automotive industry exported to India correspond to the auto parts sector. Only 7 % is made up of motorcycles, cars, bodies and trailers. Future digitization will have a decisive impact in this area.

Expand the geography of exchange

The commercial and investment relationship is concentrated in Mexico and Brazil, but decarbonization will allow diversifying new horizons.

95%
of automotive exports from LAC to India in 2021 were concentrated in Mexico and Brazil.

Both trade and investment in the Indian automotive sector in the region are geographically centralized in Brazil and Mexico. This concentration is naturally explained by the level of production in the three countries: India, Mexico and Brazil ranked among the top 10 motor vehicle producers, in fourth, seventh and eighth place respectively, in 2021[35].

In commercial terms, Mexico and Brazil accounted for 57 % of regional vehicle exports to the world and 95 % of exports to India in 2021. Conversely, Mexico captured 38 % of India's exports to the region and positioned itself as the second destination for India's exports to the world. Colombia, Chile and Brazil followed with imports of less than USD 450 million. In terms of investment, the previous pattern of concentration deepens: out of a total of 38 manufacturing plants of Indian companies in the region, 27 are located in Mexico, 10 in Brazil and 1 in Argentina[36].

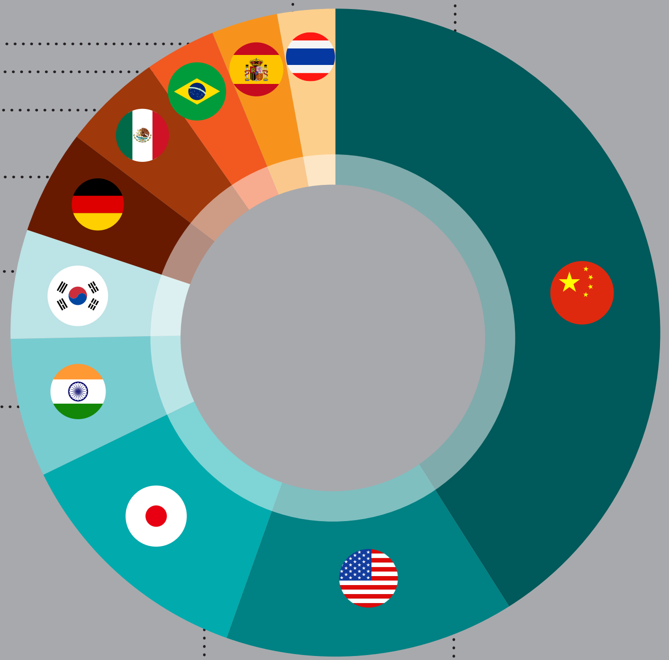
Going forward, the decarbonization of the automotive industry provides opportunities for the deconcentration of trade and investment between India and LAC. The centrality of lithium will allow expanding the relationship to the South, particularly towards the lithium triangle made up of Bolivia, Argentina and Chile. While green hydrogen will offer linkage horizons with countries such as Colombia, Costa Rica, Chile, Argentina and Uruguay, which in 2021 presented 11, 3, 28, 7 and 2 projects under development or in operation, respectively[37].

The opportunities offered by the geographical diversity of the strategic natural resources of the energy transition, nevertheless, must be accompanied by large-scale regional initiatives. In this sense, the report for the Transition of the Automotive Industry in Mexico prepared by the Government of Mexico and the University of California (2022) concludes that it is essential to build a Latin American multilateral alliance, to protect the value and supply chains between countries that produce strategic minerals, used in the production of electric vehicles and promote a proactive foreign policy, in order to develop a governance framework based on the exchange of knowledge, technology and good practices in the region´s mining industry.

Sales of electric two-wheelers and three-wheelers could account for 50 % and 70 % respectively of total sales in India by 2030. Lithium and green hydrogen also offer alternative sources of energy in the mobility industry.

10 main countries manufacturers of motor vehicles, 2021 (units per year)

Source: International Organization of Motor Vehicle Manufacturers (OICA)



5% Mexico
3,145,653
Cars: 708,242
Commercial Vehicles: 2,437,411

4% Brazil
2,248,253
Cars: 1,707,851
Commercial Vehicles: 540,402

3 % Spain
2,098,133
Cars: 1,662,174
Commercial Vehicles: 435,959

2% Thailand
1,685,705
Cars: 594,690
Commercial Vehicles: 1,091,015

41 % China
26,082,220
Cars: 21,407,962
Commercial Vehicles: 4,674,258

5% Germany
3,308,692
Cars: 3,096,165
Commercial Vehicles: 212,527

6% South Korea
3,462,404
Cars: 3,162,727
Commercial Vehicles: 299,677

7% India
4,399,112
Cars: 3,631,095
Commercial Vehicles: 768,017

12 % Japan
7,846,955
Cars: 6,619,242
Commercial Vehicles: 1,227,713

14 % United States
9,167,214
Cars 1,563,060
Commercial Vehicles: 7,604,154

Two-wheel **Electrification**

Automobiles and motorcycles constitute the backbone of India's automotive exports to LAC, although they present different origins and evolutions.

2.5

billion dollars is the value that India's automobile and motorcycle exports to LAC jointly reached in 2021.

India is currently a major hub for the production and distribution of automobiles and motorcycles on a global scale. This pattern is no different when it comes to its relationship with LAC. The country's automobile and motorcycle exports to the region in 2021 reached a value of USD 2.5 billion and accounted for 46% and 25% of the total, respectively.

Regardless of the volume, the origin of the goods presents very different natures: while most of the cars manufactured and exported to the region belong to international brands of American, European or Japanese origin, almost all of the motorcycles exported belong to Indian companies such as TVS Motors, Bajaj Auto, Hero MotoCorp and Royal Enfield[38]. Likewise, while car exports from India to LAC have decreased by 33 % in the last five years, motorcycle exports have increased by 91 %.

The insertion of the motorcycle segment in India can be deepened through the decarbonization of the industry

In addition to exporting, most of the aforementioned Indian companies have invested in the region through assembly and manufacturing plants. Hero Motors, Royal Enfield and Bajaj have production plants in Colombia, Argentina and Mexico, and Bajaj has announced the construction of an assembly plant in Brazil in the near future.

Due to the ultimate cost and affordability to the consumer in India, the electrification of two and three-wheelers is likely to proceed at a faster pace than four-wheelers and large commercial vehicles: sales of the electric version of the former could represent 50 % and 70 % respectively of total sales by 2030, while the latter are estimated to represent between 15 % and 10 % respectively[39]. The similarity between consumers in both areas could offer a similar scenario in the region, where large motorcycle markets, such as Brazil and Colombia, have seen an increase in demand for electric vehicles of the order of 257 % and 69 % in 2021[40].

The level of penetration of these companies in the Latin American region, as well as the presence of strategic resources and the growing demand for sustainable transport in LAC, offer a clear opportunity to expand industrial links hand in hand with innovation and sustainability.

Recycling of batteries, census and reconversion of suppliers, standardization of chargers, installation of charging stations on highways, and installation of 5G networks, are some of the recommendations of the Mexican automotive industry[41].

Obstacles and opportunities when **Investing**

Top 5

Guatemala and Peru are among the top 5 LAC countries that import motorcycles from India.

Motorcycles

Hero Motocorp is India's largest motorcycle and scooter company both in manufacturing and sales volume. The company has a global presence in 40 countries in Asia, Africa and Latin America. In particular, it is based in 14 Latin American countries: Argentina, Bolivia, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Peru and the Dominican Republic. Its first international production plant was in Colombia, which employs more than 2,000 people and has a production capacity of 150,000 units.

Francisco Fonseca[42], regional head LATAM Markets, Hero MotoCorp Ltd., identifies this roadmap to boost production:

Indian motorcycle manufacturing companies exporting and investing in LAC face a number of industry-specific challenges. One of the main obstacles is the limited motorcycle distribution networks in certain countries, which can make it difficult to market the products. Another challenge is the competition from already established national manufacturers (Japanese brands and white brands of Chinese origin). Furthermore, while the region as a whole represents a significant market, individual countries may have relatively small markets that are not attractive to some companies. Companies may also face challenges related to cultural and linguistic differences when trying to do business in the region.

Colombia, Bolivia and Mexico have had the highest growth in terms of motorcycle sales. Some of the key factors in this growth can be attributed to government policies favorable to foreign investment, strong local associations and distribution networks, and a favorable economic climate. Additionally, the popularity of motorcycles in certain regions may be driven by cultural factors, such as a preference for two-wheelers as a more affordable and comfortable means of transportation.

Other factors that can favor growth are:

- Uniform regulations on emissions and other vehicles throughout the region.
- Transparent location policies.
- Incentives to promote electric vehicles (EVs) in order to offset high initial costs and investments, both at the customer and OEM level (lower import duties, lower VAT, etc.).

- Incentives for the deployment of charging infrastructures for original equipment manufacturers.
- Elimination of regulations that only comply with flex fuel in certain countries.
- Easier access to work and business visas.
- The two regions could develop training and education programs that help build the skills and knowledge necessary to support sustainable transport solutions.
- Regarding environmental matters, Hero Motocorp Ltd. will launch the VIDA portfolio in Colombia, Mexico, Costa Rica and Argentina.

64 %

of LAC motorcycle exports to India were accounted for by Colombia.

Auto parts

Motherson is a global auto parts component manufacturer with an annual revenue of USD 12 billion. It operates in 41 countries as a first-tier supplier for the main original equipment manufacturers (OEMs) in the mobility segment. It has a significant presence in the region since 2009. It has 18 manufacturing centers in Mexico and more than 21,000 employees. Together, Mexico, Brazil and Argentina, countries with presence in the region, have 25 manufacturing centers and more than 26,000 direct employees.

For Aditya Jain[43], general manager and head of Chairman's Office Americas, trade negotiations at the country level are decisive:

In terms of growth, Mexico has been the country in the region in which we have developed and grown the most. This growth is mainly associated with the increase in demand in the North American mobility market and the T-MEC/USMCA trade agreement, which allows Mexico to be the preferred manufacturing destination to supply demand from North America. The proximity to the main original equipment manufacturers and high-demand markets, together with the high availability of local skilled labor, has also supported the growth of the manufacturing of automotive products in the country.

From the point of view of the manufacturing industry, we believe that more technological collaborations and bilateral trade agreements, aimed at relaxing tariffs on components and services between India and LAC, would definitely help the automotive industry and its derivatives.

Given the existence of great growth potential for business development between both markets, any tool, government support or strategic partnership in order to simplify and facilitate business for companies, would be welcome and would provide help, generating a direct impact on the entire industrial segment of mobility and its derivatives, such as the manufacture of commercial vehicles, agricultural machinery, construction, as well as public transport systems.

Motherson's business philosophy translates into investment and operation on the ground, from the country in which we provide services to our clients, thus contributing to the development of the community and the regional economy, creating jobs, technological and productive skills for the benefit of the community. Despite certain challenges in the region in recent years (high volatility in the car market, currency volatility) we have been committed to expanding our investments, supporting our customers and the local community with the aim of driving growth.

Key milestones for the Future

- The exploration and processing of new minerals and energy sources, such as lithium and green hydrogen, provide opportunities to diversify India's relationship with LAC, while influencing the global industrial-environmental agenda.
- The requalification of personnel specialized in digital skills applied to the new mobility industry can also give rise to exchange initiatives in bi-regional areas of excellence.
- The decarbonization of the automotive industry in LAC could be led by Indian companies in the motorcycle segment, given their diversified presence in the region, as well as the faster rate of electrification in two- and three-wheeled vehicles.
- The establishment of strategic alliances in the design and development phases of electric vehicles between the private and public sectors of India and LAC is essential for both regions to participate in the higher value-added stages of the process.
- The Indian railway industry, the fourth largest in the world and the country's main employer, also offers opportunities for cooperation with LAC in terms of sustainable conversion (propelled by the commitment to zero emissions by 2030).

Energy Safety

Towards a sustainable and fair transition

Energy security in India and LAC presents markedly similar historical trajectories and future challenges. From the demand side, both regions face the task of guaranteeing affordable and safe access to electricity and simultaneously promoting a healthy lifestyle in populations. From the supply side, the renewability of the energy matrices is combined with the commitments assumed in environmental matters, whose approach is unified in the concept of “common but differentiated responsibilities.” The energy transition centered on the human being is the pillar of climate justice for comprehensive development.

Challenges in the energy demand of a **New Lifestyle**

In addition to coverage: The importance of addressing energy poverty.

60%
of total LAC-India trade was made up of oil in 2013. It decreased to 23 % in 2021.

The main challenge for India and LAC countries is simultaneously to ensure that populations have full and safe access to energy and promote a sustainable lifestyle among them. Both dimensions are necessary for the transition, in addition to being effective, to be fair. Despite the enormous efforts and advances made in the last two decades, both regions still have a debt with their population in terms of energy supply. The mission is no longer just to achieve full energy coverage, but also to make it affordable, safe and sustainable.

In this sense, despite the fact that both regions present an electricity coverage rate of more than 98 %, between 58 % and 73 % of households in five LAC countries did not have access to one or more necessary energy services, while between 1 % and 23 % of households were in a condition of severe energy poverty in 2022[44]. Along the same lines, 65 % of households in India had medium and severe levels of energy poverty during 2020[45]. The above situation implies that the majority of people both in India and in LAC still do not have access to the quantity and quality of energy services necessary to satisfy material and physical needs such as cooking, refrigerating food, lighting or communication.

At the same time, in both regions there is another challenge: promoting the collective action of the population in pursuit of a healthy and sustainable style towards the environment

India is a global beacon on how changing behavioral and consumption patterns can be critical in the fight against climate change. The LiFE (Lifestyle for Environment) initiative launched at COP26 points to this horizon of transformation. According to the modeling of the International Energy Agency – IEA, worldwide adoption of the types of actions and measures proposed from LiFE would reduce annual global carbon dioxide (CO2) emissions by more than 2 billion tonnes (Gt) by 2030.

The Indian economy is 10 % more energy efficient than the world average and the G20 countries[46]: in 2021, it presented a per capita energy consumption of the order of 0.7 toe and a per capita electricity consumption of 920 kWh, accounting for only half and one third of the Asian average, respectively[47], of carbon (CO2), at more than 2 billion tons (Gt) in 2030.

Since 2019, India has supported, together with LAC, the constitution of the Coalition for Disaster Resilient Infrastructure -CDRI, which promotes financial innovation, monitoring metrics and risk management schemes.

Actions proposed by LiFE

When estimated against a business-as-usual scenario by 1 billion Indians in 2022-23 to 2027-28, the impact of LiFE actions can be significant, as demonstrated below with select examples:

Switching off the car/ scooter engines at traffic lights/ railway crossings can save up to
22.5
billion kWh ofenergy

Turning off running taps when not in active use can save up to
9
trillion litres of water

Using a cloth bag instead of a plastic bag while shopping can save up to
375
million tonnes of solid waste from entering the landfill

Discarding non-functioning gadgets in the nearest e-recycling unit can recycle up to
0.75
million tonnes of e-waste

Composting waste food at home can save up to
15,000
billion tonnes of food from going to landfills

Process of climate action from the demand in the fight against climate change

As a global programme, Mission LiFE envisions three core shifts in our collective approach towards sustainability

(I)
Change In Demand.
Nudging individuals across the world to practice simple yet effective environment-friendly actions in their daily lives.

(II)
Change In Supply.
Changes in large scale individual demand are expected to gradually nudge industries and markets to respond and tailor supply and procurement as per the revised demands.

(III)
Change In Policy.
The long-term vision of Mission LiFE is to trigger shifts in large-scale industrial and government policies that can support both sustainable consumption and production.

Source: Ministry of Environment, Forest and Climate Change of India (2022)

Common but differentiated responsibilities, the demand for a **Fair Transition**

Despite being the countries that emit the least CO_2 and consume the least energy per capita, India and LAC are exposed to the most extreme consequences of climate change.

33%
of the LAC energy matrix is made up of natural gas; 30 %, oil; 5 %, coal, and 1 % of nuclear energy.

The share of both India and LAC countries in the cumulative emission of carbon dioxide (CO_2) emissions is remarkably low. Each one, individually, explains 3 % of total per capita emissions from 1750 to date, while the United States, the European Union and China represent 25 %, 22 % and 13 %, respectively[48]. This same differentiated contribution was repeated in 2021: India's per capita emissions were in the order of 1 to 2 tons and those of LAC between 1 and 5 tons. Conversely, a large part of the developed economies present per capita emissions greater than 10 and 20 tons[49].

Despite the above, both are among the regions that suffer the most from the consequences of climate change. Inequality is evident. 17 % of all climate-related extraordinary weather events between 1970 and 2022 occurred in LAC, and 13 of the 50 countries identified as most affected by the climate emergency belong in the region[50]. In the future, moreover, an increase in the frequency and intensity of extreme weather events is expected: this implies higher temperatures, extreme rainfall, droughts, lake acidification, and storm surges that the regional infrastructure will not be able to cope with gracefully.

The joint and forceful position between both regions in the allocation of responsibilities is essential to guarantee a fair energy transition for the Global South. The principle of "common but differentiated responsibilities" included in the United Nations Framework Convention on Climate Change (UNFCCC) offers a central concept for climate negotiations.

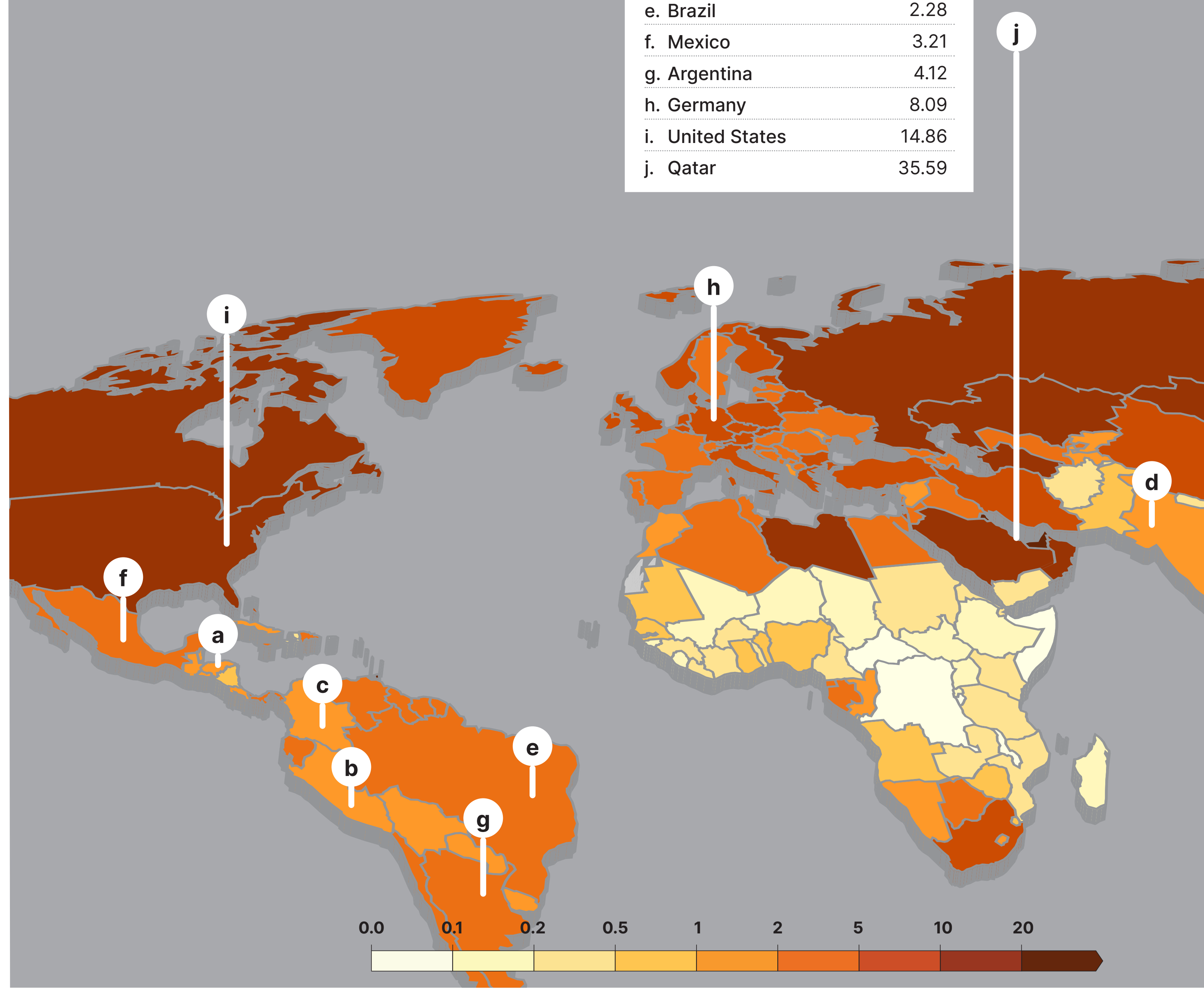
To strengthen the forcefulness of the principle, it is essential that there is a strong and unified voice at the bi-regional level. However, there are currently a multiplicity of international coalitions and forums such as the Coalition for Rainforest Nations (CfRN); Environmental Integrity Group (EIG - GIA); Independent Association of Latin America and the Caribbean (AILAC, by its Spanish acronym), or Small Island Developing States (SIDS) which, despite making enormous contributions to the LAC energy transition, require a higher level of articulation. Going forward, considering both have similar energy trajectories and vibrant economies and populations, the creation of a permanent coordinated climate action between India and LAC could underpin their role in the global environmental discussion.

Ranking

CO_2 emissions per capita, 2021

Source: Our World in Data (2022)

	CO_2 emissions per capita (T), selected countries
a. Honduras	1.06
b. Peru	1.67
c. Colombia	1.78
d. India	1.93
e. Brazil	2.28
f. Mexico	3.21
g. Argentina	4.12
h. Germany	8.09
i. United States	14.86
j. Qatar	35.59



2 trillion tons could be the reduction of global carbon emissions if the measures proposed by LiFE were adopted worldwide. From 1750 to date, the individual contribution of India and LAC to the global cumulative carbon emission is 3 %.

The evolution towards **Green Energy**

The renewability of the energy matrices of both regions is essential for sectoral exchange to regain the caliber it had 10 years ago.

50% of India's installed capacity for electrical power is committed to be based on renewable resources by 2030.

The exchange of fuels and mineral oils and products between India and LAC has been one of the main pillars of bilateral trade. Despite the fact that exports of petroleum oil and other minerals have decreased significantly in recent years, this product continues to be the main individual good exported between India and LAC. India's export of petroleum oils to LAC peaked at USD 5.3 billion in 2012 and fell to USD 1.7 billion in 2021, while LAC reached a peak of USD 24.4 billion in 2013 and decreased to USD 8.2 billion in 2021.

LAC currently has one of the greenest energy matrices globally. The difference between the levels of adoption of renewable energy between LAC and the world is remarkable: while renewables accounted for 13 % of total energy supply globally in 2021[51], the percentage was 33 % in LAC. In particular, renewable sources such as biofuels, solar, wind and geothermal energy constituted 24 % of the total in the region, while hydroelectric represented 9 %, figures well above the 6 % and 7 % respectively worldwide[52].

For its part, India presents a productive profile that is more dependent on fossils. In 2021, coal explained 46 % of the country's energy matrix; oil, 23 %; biomass, 21 %; gas, 6 %, and the rest of the primary sources (such as hydro, nuclear, solar and wind), only 4 %[53]. Taking the above into account, the national energy ecosystem is undertaking major initiatives that accompany one of the objectives stipulated in its NDC (Nationally Determined Contribution) of 2022: to reduce emissions intensity to 45 % below 2005 levels[54].

The energy transition brings opportunities for India and LAC to be international representatives for segments such as lithium, hydrogen or solar energy

Around 60 % of the lithium identified in the world is found in the "lithium triangle" made up of Bolivia, Argentina and Chile, and its demand is expected to multiply by 40 in the next two decades, in response to the progress of electrification in the automotive industry[55]. Regarding the production of green hydrogen by 2030, although they are in different degrees of progress, there are already 13 operational projects in the region and more than 70 in development[56].

Fossil resources are strongly concentrated in Venezuela: LAC has 19 % of the world's proven oil reserves and 4 % of natural gas, and Venezuela individually accounts for 17% and 3% of these, respectively[57]. On the contrary, renewable sources such as hydropower or biofuels present a much more diverse composition, where countries such as Brazil, Argentina and Colombia stand out.

In the case of India, the country is promoting the climate agenda in solar energy from the creation of the International Solar Alliance (ISA), an international collaborative platform whose goal is to mobilize investment to provide access to clean energy to 1 billion people by 2030, and install 1,000 GW of solar power capacity[58].

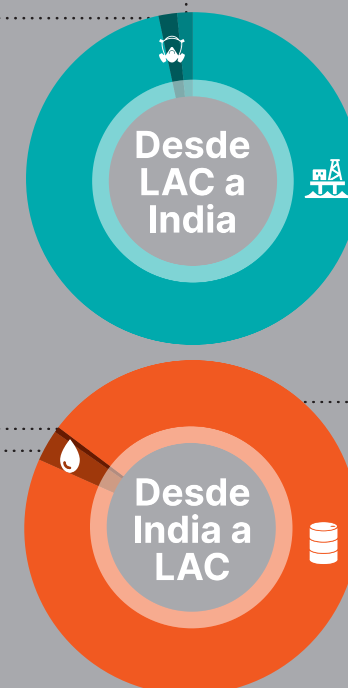
53 % of the world's lithium reserves are found in three Latin American countries: Bolivia, Argentina and Chile, which are promoting initiatives to add value to this strategic raw material, key to the mobility transition.

3

main mineral fuels traded between India and LAC, 2021

(thousand of USD)

Source: International Trade Centre (ITC)



Desde LAC a India

2 % Coke and semi-coke of coal, of lignite or of peat
153,831
2020: 109,876
2019: 126,023
2018: 169,307

1 % Petroleum gas and other gaseous hydrocarbons
129,719
2020: 162,547
2019: 53,968
2018: 166,628

97% Petroleum oils and oils obtained from bituminous minerals, crude
8,283,808
2020: 6,383,206
2019: 10,661,071
2018: 13,225,452

Desde India a LAC

1% Petroleum jelly, paraffin wax, micro- crystalline petroleum wax
9,358
2020: 3,074
2019: 3,623
2018: 7,058

3% Coke and semi-coke of coal, of lignite or of peat
53,397
2020: 0
2019: 11,423
2018: 0

96% Petroleum oils and oils obtained from bituminous minerals (excluding crude)
1,694,996
2020: 1,099,159
2019: 796,549
2018: 186,218

Energy to promote Work and Production

24.7
billion dollars was the value of exports of petroleum oils and fuels from LAC to India in 2013; the total value of LAC exports to India in 2021.

Kalpataru Power Transmission Limited (KPTL) is one of India's leading engineering, supply and construction (EPC) companies for power transmission lines and infrastructure, mostly oil and gas. In the last three decades it has developed initiatives in more than 63 countries, and in LAC it promoted projects for more than USD 600 million. According to its president Ramesh Bhootra[59], these are the main challenges to address in order to deepen the relationship:

The success stories of Indian companies doing business in LAC show that once the barriers to entry are overcome, the business potential is within the grasp of entrepreneurs. We have experienced the greatest growth in Chile: it is a relatively stable, open, and highly connected economy, with a fair, transparent, and business-friendly environment. The country is on its way to becoming a leader in renewable energy. 45 % of Chilean energy comes from green sources and Chile has the goal of reaching 70 % renewable energy by 2030. Chile has the advantage of strong winds and reliable sunshine. We have invested five years to understand the country and its needs, and aligned our efforts to succeed in due diligence. We also find huge growth opportunities in Brazil, which is investing heavily in the power transmission sector over the next decade. Peru has great potential, once the political instability has been overcome. The next expansion opportunities may also arise in Venezuela, when it opens up and economic sanctions are lifted.

Other important points to boost the exchange are:

- Relaxation of visa and travel restrictions, which today generate delays in many countries.
- Agreement to avoid double taxation.
- Social Security/Pensions Treaty, so that workers who must make contributions but do not receive social security benefits are not harmed.
- Allow rupee-based trade to boost bilateral business.
- Barter agreements (without the use of money), for example, oil for gold, metal for energy projects, etc.
- Expansion of product coverage under the Mercosur agreement. Currently, the main products on the Indian supply list are meat, organic and inorganic chemicals, dyes and pigments, rawhides, leather articles, wool, cotton yarn, glass and glassware, iron and steel articles, machinery and its articles, electrical equipment, optical, photographic and cinematographic devices.
- Advance in the establishment of Free Trade Agreements as has been done recently with Australia. The Government of India has held three rounds of preliminary negotiations with Peru. There have been some initial talks with Ecuador about trade preferences and free trade. It is also necessary to deepen free trade with Brazil, Chile, Colombia and Mexico.
- Extend the Line of Credit and the Credit to the Buyer of Eximbank, in the financing of the key sectors of Energy and Infrastructure projects.
- Generate competitive conditions in public tenders without excessive collateral charges or local content.
- Promote India's entry into the LAC regional development bank, so that Indian companies can participate in international tenders and competitions for infrastructure works.
- Promotion agencies can help correct market failures and serve as catalysts by facilitating contacts between business people and consumers from these distant regions and cultures.

Key milestones for the Future

Prioritize the climate agenda with social justice, through joint technological ventures that add technology to strategic natural resources. More than 58 % and 68 % of the population of India and LAC experienced some type of energy poverty in recent years.

Strengthen the International Solar Alliance (ISA) and the Initiative to Address Natural Disasters promoted by India and with the adhesion of several LAC countries, through green financing from the development banks of both regions, CAF in the first place, in line with the environmental commitments assumed in the context of the climate summits.

Promote a common environmental and energy policy action at the level of international forums, which enhances the impact in negotiations as the Global South. Despite being the countries that emit the least CO_2 and consume the least energy per capita, India and LAC are exposed to the most extreme consequences of climate change.

Technologies 4.0

Innovation for social and productive inclusion

The exponential and transversal growth of information and communication technologies has directly impacted trade and investment between LAC and India. The Asian country is the third largest startup ecosystem in the world and the second country in innovation quality. Of the top 10 companies that offer IT services in the world, five are Indian and one is Argentine: Tata Consulting Services (3rd); Infosys (4th); Wipro (5th); HCL (6th); Tech Mahindra (7th); and Globant (10th). In turn, LAC also promotes quality investments in India through regional unicorns and presents opportunities to access new markets from said insertion.

“INN” Policies

Industrialization + Innovation translated into proactive public agendas that leveraged private initiative to take advantage of exponential technologies.

x15

multiplied the Indian startup system in the period 2015-2022.

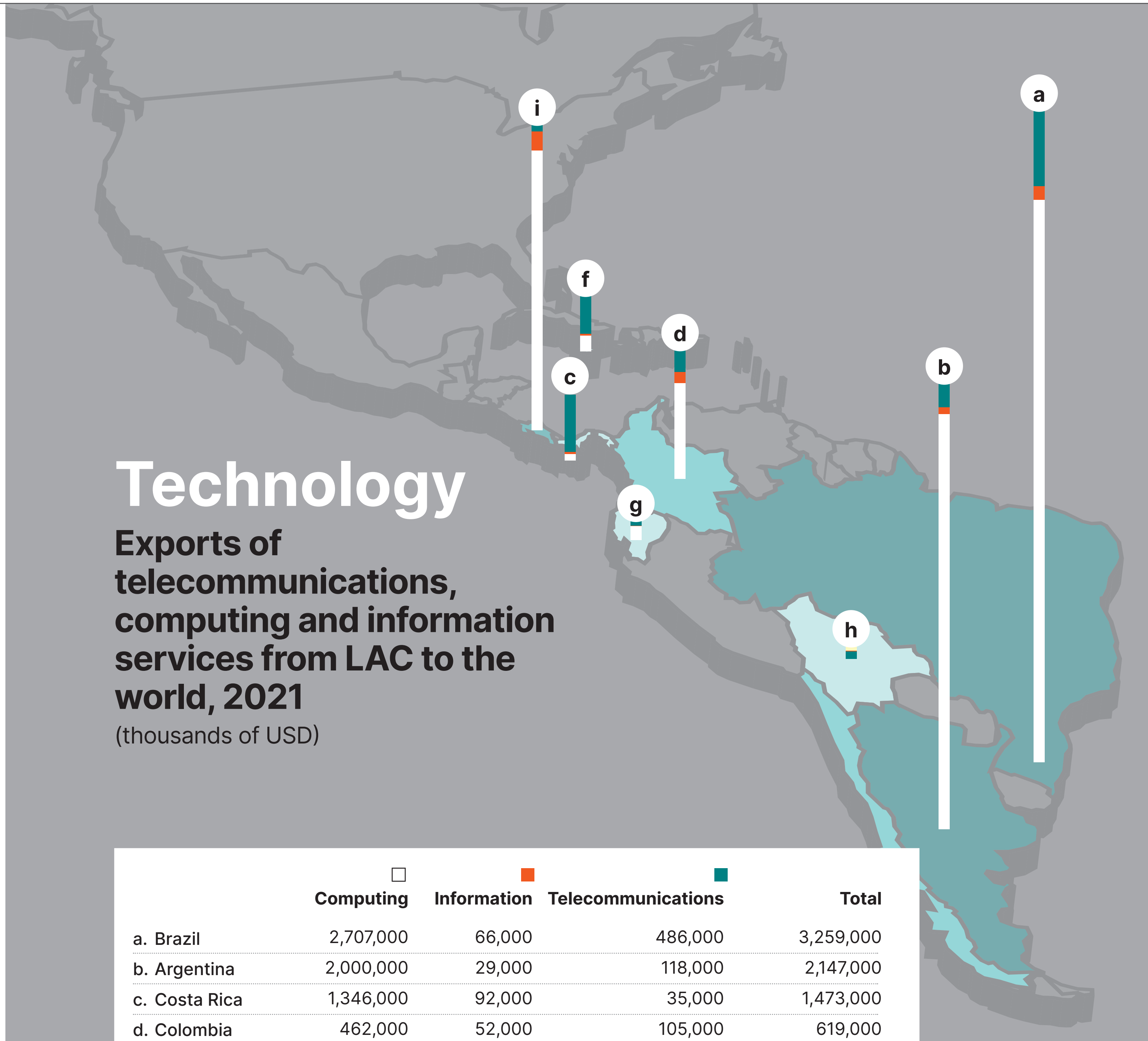
Cost competitiveness, skilled labor and industrial policies in proactive information technologies by governments are some of the common points that distinguish the innovation nodes present both in India and in LAC. Due to these factors, as well as the time complementarity of both regions, the commercial and investment relationship between India and LAC in the IT sector developed early in the 2000s with its core in software factory services. That path started two decades ago, now presenting several windows of opportunity.

Investment flows have been one of the pillars in the relationship. Among all the Indian companies to settle in the region, technology companies were among the first to land, and are currently the sector that employs the most personnel, even above the automotive or energy industries: 38,000 people[60].

The bilateral trade relationship is hard to estimate due to the absence of rigorous statistical data that affects trade in services globally and the difficulty that the countries’ own national accounts present when faced with the dynamic record of technological changes. But it can be affirmed, in general terms, that the exchange during the last decade has increased its volume considerably and has presented a negative trade balance for LAC, except for Brazil. With reference to the export basket of each region, while India has mostly exported IT services, LAC has exported IT-enabled business services, mostly[61]. This past trend coincides with the composition of the current Latin American innovation ecosystem: of the 32 unicorns created by 2022 in the region, 44 % of them corresponded to the Fintech sector, while the proportion worldwide is 22 %[62].

In the context of the strategic relationship between both regions, it is also important to emphasize the intersection between exponential technology, venture capital investment and the climate agenda, an area where the Indian startup universe has considerable space to deepen its attention. In the 2016-2021 period, investment in this area was USD 1 billion in the country, compared to USD 15 billion in Europe, USD 20 billion in China and USD 50 billion in the United States[63]. Financing institutions–both in LAC and in India–could promote strategic associations that contribute to closing these gaps and improving global public goods.

“It’s raining Unicorns!” was the expression in India before the emergence of 44 technology companies of these characteristics in 2021, in areas such as digital payments, precision agriculture, smart networks and energy efficiency.



Technology

Exports of telecommunications, computing and information services from LAC to the world, 2021

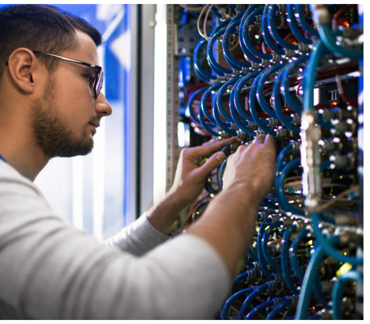
(thousands of USD)

	Computing	Information	Telecommunications	Total
a. Brazil	2,707,000	66,000	486,000	3,259,000
b. Argentina	2,000,000	29,000	118,000	2,147,000
c. Costa Rica	1,346,000	92,000	35,000	1,473,000
d. Colombia	462,000	52,000	105,000	619,000
e. Panama	32,000	9,000	276,000	317,000
f. Jamaica	77,000	8,000	183,000	268,000
g. Ecuador	65,000	2,000	29,000	96,000
h. Bolivia	36,000	1,000	21,000	58,000
LAC	**8,846,000**	**259,000**	**2,782,000**	**11,887,000**

Source: International Trade Centre (ITC)

World Class entrepreneurial talent

The competitiveness of border business human resources allowed a vibrant export insertion.



10

USD billion is the value of global companies called Decacorns. India owned 4 of the 46 global companies in such status, as of July 2022.

The share of the IT-enabled services sector in India's GDP was 8 % in 2022. The country exported more than USD 178 billion in the same year, including IT services (USD 95 billion); business process management (USD 39 billion); engineering and R&D (USD 36 billion) and software products (USD 7 billion). The sector employs five million skilled professionals in India alone, and boasts one of the highest female participation rates in the industry: 36 %[64]. The country has consistently been the second largest exporter of IT and telecommunication services in the world in the last five years, surpassed only by Ireland. India's exports in this segment have grown at a rate of 30 % in said period.

All of the above is not unrelated to the increase in the qualification of its job offer, which has also spread to other corners of the planet. In the United States, for example, about 70 % of work permits issued to foreigners are for Indian software engineers. It is estimated that India concentrates 25 % of the university graduates of the entire planet, which gives it a leading role in exponential technologies that can contribute to reducing social and geographical gaps, promoting industry 4.0 and innovation in multiple sectors[65].

An example of this expansion in LAC is Tata Consultancy Services (TCS), which landed in Uruguay in 2002. Today, it has offices in 16 Latin American cities in nine countries (Argentina, Mexico, Brazil, Ecuador, Guatemala, Peru, Colombia, Uruguay and Chile), and has 25,000 local employees, almost 5 % of its global workforce. An idea of the dimension of this business sector is expressed in the fact that TCS has more than 446,000 employees in 46 countries.

As an element to consider, the need for India to improve its levels of investment in R&D should also be noted. Located at 0.7 % of its GDP, it shows a low participation of the private sector and a high concentration of public investment: 46 % goes to 9 % of central government institutions[66].

LAC also has numerous innovation hotspots in the ICT sector. In 2021, approximately USD 20 billion in venture capital went to 952 digital businesses in Latin America[67]. In the region, Brazil and Argentina stand out. The two countries reach a technological ecosystem valued at USD 50,000 million, concentrating 59 % of the startups, 68 % of the invested capital and 86 % of the accumulated value of the region[68].

Information technology and telecommunications services exports from LAC to the world reached USD 11.9 billion in 2021, expanding at a compound annual growth rate (CAGR) of 25 % in the last five years. Brazil, Argentina and Costa Rica accounted for 57 % of total exports, contributing USD 3.2 billion, USD 2.4 billion and USD 1.4 billion, respectively.

The link between technological innovation and the climate agenda is a very important element when it comes to identifying spaces for improvement in the venture capital investment system, among startups in India.

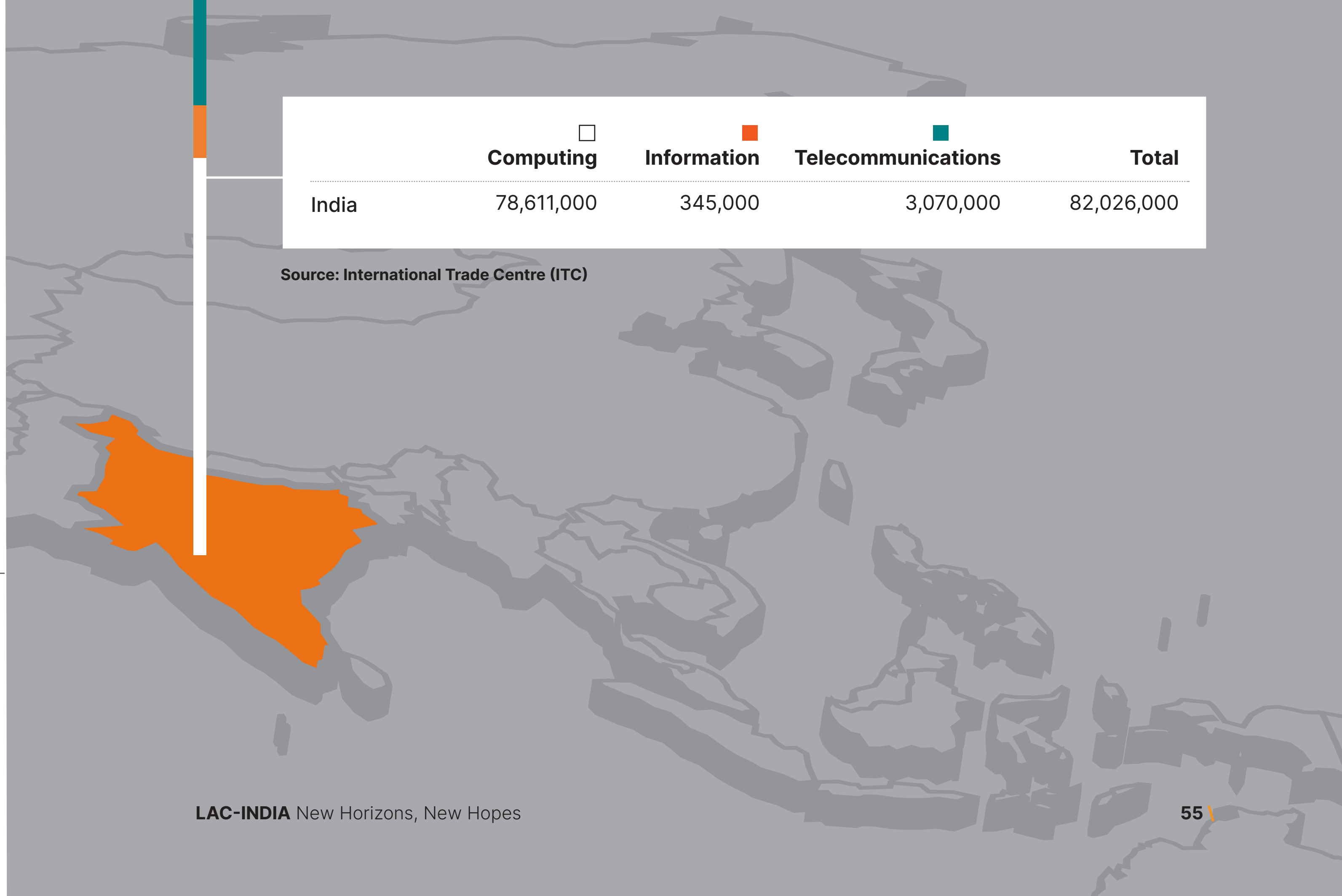
Technology

Exports of telecommunications, computing and information services from India to the world, 2021

(thousands of USD)

	Computing	Information	Telecommunications	Total
India	78,611,000	345,000	3,070,000	82,026,000

Source: International Trade Centre (ITC)



Unicorn ecosystem

Confluence of creativity to transform the production system.

7,3 hours a day are spent by an average indian connected to his smartphone.

India represents the third largest startup ecosystem in the world, with more than 77,000 companies recognized in 656 districts of the country, in 56 industrial sectors, including information technology (13 %), life sciences and health care (9 %), education (7 %), professional and business services (5 %), agriculture (5 %), and food and beverages (5 %)[69].

The pandemic and post-pandemic period meant a dizzying increase in initiatives in the country. The annual growth rate of unicorns as of the 2017-2018 period was 66 %. As of September 2022, India was home to 107 unicorns with a valuation of USD 340.79 billion. In the context of this innovative process, 44 unicorns were created in 2021 with a valuation of USD 93 billion. Until the period 2016-2017, only one unicorn was born each year in India. Considering the period 2015-2022, the number of investors was multiplied by 9, and the number of technology incubators, by 7. Bengaluru is the capital of the Indian unicorns, followed by Delhi and Mumbai.

The factors that explain this impressive phenomenon are given by the growth of the digital payment system, the widespread use of smartphones, the digital first business model, digital stores and fintechs. A change in the traditional mode of financing was also evidenced, with the system currently evolving towards microfinancing (crowdfunding), bank loans, risk debt and profit-based financing.

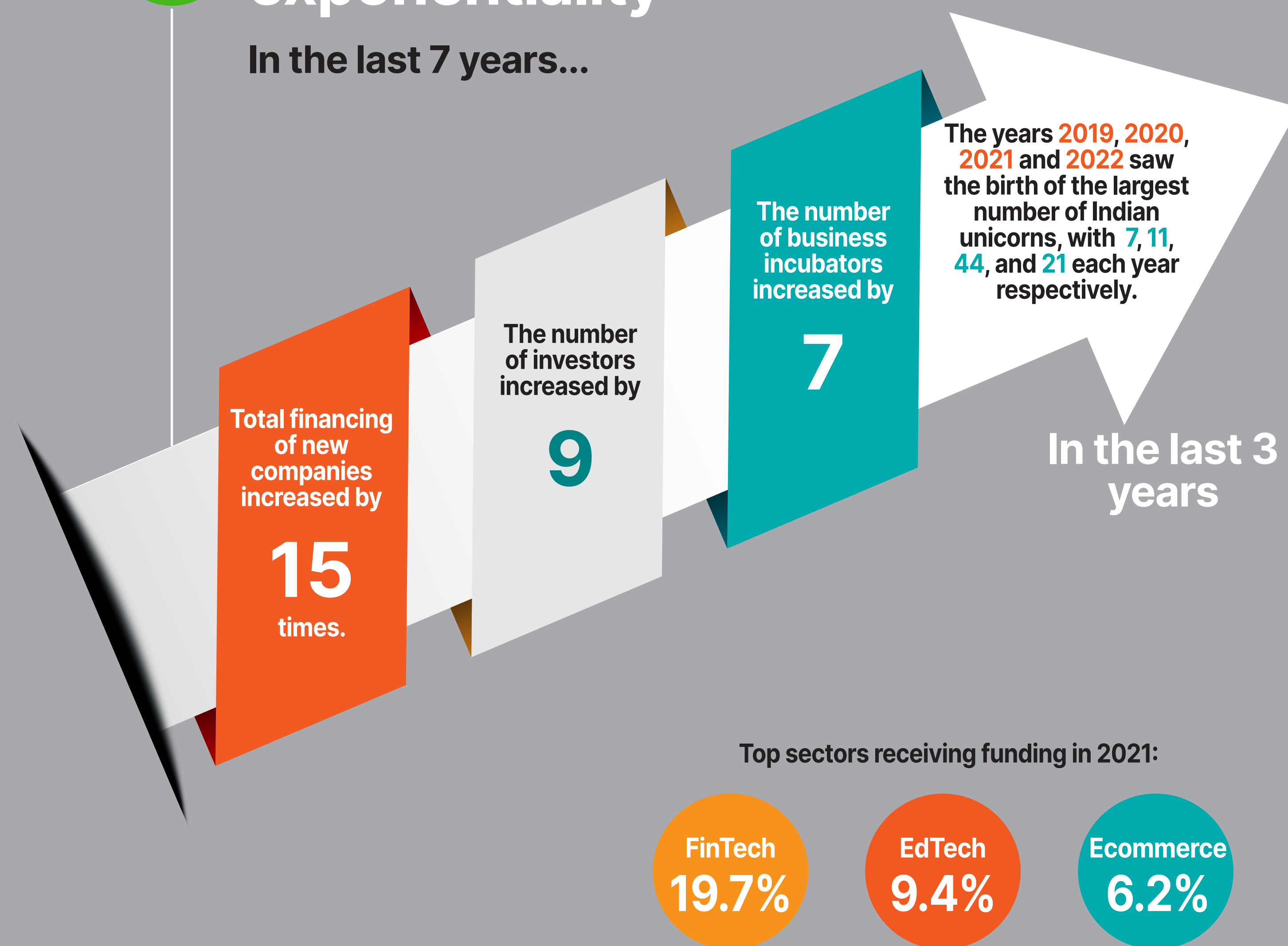
As part of the path to celebrate 100 years of Indian independence, the private sector has carried out a foresight exercise between now and 2047, which proposes nine strategic innovation clusters: clean energy, smart mobility, water adaptation, life sciences, digital frontiers (metaverse, artificial intelligence machine learning), electronics, space technology, new generation materials, and quantum computing[70].

A paradigmatic case that links technological change and social welfare is given by the application of artificial intelligence in the health sector. India plans to invest USD 11,780 million by 2025, integrating predictive algorithms for the diagnosis of diseases such as cancer, diabetic retinopathy and heart disease. The strategy primarily targets the rural population (65 % of the country in 2021, according to the World Bank) as a way to alleviate the deficit in infrastructure and human resources. India has an average of 64 doctors for every 100,000 inhabitants, while the world average is 150[71]. Synergy with LAC in this field is also very important to consider in the framework of both technical cooperation and bi-regional investment.

India, Brazil, Mexico and Argentina, together with the European Union and the United States, among others, make up the Global Partnership on Artificial Intelligence (GPAI), that promotes the practical and ethical use of artificial intelligence for small and medium-sized companies, the world of work and social welfare.

Innovative exponentiality

In the last 7 years...



Source: Invest India (2022)

Unicorns born in 2019, 2020, 2021 and 2022 in the Indian ecosystem

Source: Invest India (2022)

In 2022:
amagi, CredAvenue, darwinbox, DealShare, elasticrun, fractal, GAMES 24x7, HASURA, LEAD, leadsquared, LIVSPACE, one card, OPEN, oxyzo, PW, purplle, Shiprocket, TATA 1mg, uniphore, XPRESSBEES, 5ire

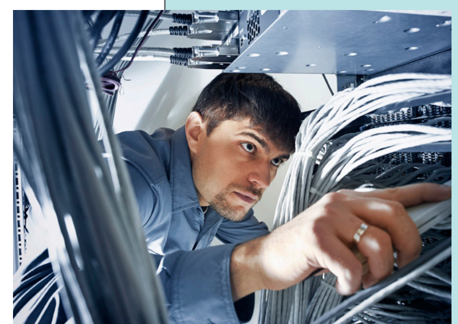
In 2021:
acko, apna, BharatPe, BLACKBUCK, blinkit, BrowserStack, CarDekho, Chargebee, CoinDCX, COINSWITCH KUBER, CRED, cure.fit, digit, droom, EaseMyTrip, ERUDITUS, GlobalBees, The Good Glamm Group, Groww, gupshup, INFRA.MARKET, innovaccer, Licious, mamaearth, MapmyIndia, meesho, MENSA, mindtickle, MobiKwik, MPL, moglix, NOBROKER, ofbusiness, PharmEasy, Pristyn Care, REBEL FOODS, ShareChat, slice, Spinny, upGrad, Urban Company, Vedantu, zeta, ZETWERK

In 2020:
CARS24, firstcry, glance, NYKAA, Pine Labs, POSTMAN, Razorpay, unacademy, dailyhunt, zenoti, ZERODHA

In 2019:
bigbasket, DELHIVERY, DREAM11, druva, Icertis, lenskart, OLA ELECTRIC

Knowledge Economy and Artificial Intelligence

The dynamism of the technology sector and economy 4.0 in terms of generating job opportunities is even above the more classic manufacturing and industrial sectors, such as the automotive or energy sectors. The transversal effort to mobilize highly qualified human resources is a common challenge both in India and in all LAC countries.



3rd.

Costa Rica was the third largest exporter of IT, telecommunications and computer services in LAC in 2021[72].

Softtek

Softtek is one of the first LAC companies to provide IT services locally. Born in Mexico in 1982, the company was the first to introduce the nearshore model. Today, it is present in more than 20 countries and employs more than 15,000 professionals globally. It currently offers services such as Business Process Outsourcing (BPO), application development, digital transformation, DevOps, automation and IT security in all productive sectors. The company has a leading position in India, where it announced an expansion of its digital and quality assurance capabilities, as well as the addition of 5,000 people to its Bangalore office by 2025.

National Payments Corporation of India (NPCI)

The National Payments Corporation of India (NPCI), an initiative of the Reserve Bank of India (RBI) and the Indian Banks Association (IBA), is a not-for-profit public-private partnership encompassing the retail and settlement payment system in India in innovative ways.

In 2016, NPCI launched UPI, Unified Payments Interface, a system that allows citizens to have multiple bank accounts in one application. Thanks to that, in 2022, 40 % of all payments are digital (50 % of them classified as micro or small payments)[73] and the value of digital transactions in India (USD 1.5 trillion) is four times greater than the combined transactions of the US, Great Britain, Germany and France[74].

Manipal Technologies

Manipal Technologies Limited (MTL) is a leading Indian fintech, business solutions, digital media and financial inclusion company. It has more than 28 patents in various technological areas and millions of daily users due to its development of physical and virtual bank and non-bank cards, secure payment transaction methods and risk and fraud detection solutions. In 2008, the Indian company teamed up with the Colombian firm Thomas Greg & Sons and the Thai Chanwanich Security Printing Co to create MCT Cards Technology, a company that has positioned itself as one of the largest manufacturers of bank and smart cards in India[75].

4X

The value of India's digital transactions is 4 times greater than that of the US, Great Britain, Germany and France combined.

VENG Argentina

VENG is a high value-added technological development and services company specializing in space activity whose majority shareholder is the National Commission for Space Activities (CONAE, by its Spanish acronym) of Argentina. In recent years, it has expanded internationally due to the demand for satellite images from the SAOCOM 1A and SAOCOM 1B radar satellites. In February 2023, the company signed an agreement with the Indian startup Suhora Space Analytics to commercialize the satellite images in India, Africa and other Asian markets, which will provide data for infrastructure, monitoring of natural disasters and agriculture.

INVAP

INVAP is an Argentine public company that develops advanced technology in different fields of industry, science and applied research in areas such as nuclear, space, defense, security and environment, and medical systems. The company, having won an international tender, commissioned a Radioisotope Production Facility for the Board of Radiation and Isotope Technology (BRIT) of the Department of Atomic Energy of India, with the goal of producing molybdenum-99, an essential tool for medical care for diagnostic purposes in nuclear medicine.

Tech Mahindra

The India-based company is one of the world's 15 fastest-growing entities in the computing industry. It has 158,000 employees in more than 90 countries and offers a multiplicity of IT services, from network and mobile solutions to telecommunications infrastructure and project planning. In Latin America, the company has more than 4,000 employees, located in Argentina, Brazil, Bolivia, Colombia, Costa Rica, Ecuador, Guatemala, Mexico, Panama, and Peru. Export promotion agencies in Brazil, Mexico and Colombia have been very receptive to Tech Mahindra and have offered a variety of benefits to establish their operations in these countries.

HCL Technologies

HCL Technologies is an Indian multinational focused on IT consulting and services with offices in 52 countries and more than 210,966 employees globally. In LAC, the company has 4,066 employees in Brazil, Guatemala, Colombia and Mexico. HCL key operations are in Guatemala, where it has more than 2,230 employees and focuses on innovating a wide range of business services to improve organizational processes throughout the region.

Wipro

Wipro is one of the leading IT companies in India and focuses on providing IT services such as Software-as-a-Service (SaaS), cloud storage, telecommunication infrastructure, and business processing outsourcing (BPO), among others. LAC has been a key market for Wipro since 2007, when it began operations in the region with a strategic delivery center in Monterrey, Mexico. They currently have a strong presence in LAC through multiple offices with more than 2,500 employees in Brazil, Colombia, Mexico, Costa Rica, Peru, and Colombia.

Infosys

Infosys is a leading global Indian consulting and digital services company for firms across various industries. It has 40 years of experience and is present in more than 50 countries. Infosys BPM, the business process management arm of Infosys, announced in 2022 the incorporation of 400 skilled workers in customer services in Costa Rica, the third exporting country of telecommunications, computer and information services in LAC. In addition, the company has more than 2,000 employees in Brazil, Mexico, Chile and Peru.

SalaryFits

Salary Fits is a Brazilian company that seeks to financially include workers around the world through the integration of individual salaries into systems of financial institutions. This model is 20 years old and has reached more than five million people in Brazil, Mexico, Italy, the United Kingdom, Portugal, India and other countries. The company maintains a strong presence in India, where it was nominated for the 2017 India FinTech Awards (IFTA) and partnered with Indian startup WishFin to launch innovative credits in 2019, as well as joining the Confederation of Indian Industry (CII).

Key milestones for the Future

- Train digital talent at the base of the social pyramid as a way to incorporate the most disadvantaged sectors, and deepen exchanges on fintech and social inclusion, based on India's universally recognized experience on the National Payments Corporation of India (NPCI).
- Deepen shared efforts for the training of the best human resources in the field of artificial intelligence applied to initiatives for the common good.
- Promote joint actions in multilateral arenas such as the World Trade Organization, to make the use of patents more flexible and universal, in terms of technological innovations that have to do with global health and care for the environment, as was promoted in the field of vaccines during Covid-19.
- Cooperatively finance startups based on public-private initiatives, which call for the participation of national and regional development banks, in strategic sectors such as climate change, the satellite industry, the peaceful use of nuclear energy, and educational and financial inclusion.

Life Sciences

Smart medicine to promote well-being

Total bilateral trade in pharmaceuticals reached USD 1.5 billion in 2021, representing a 253 % growth in the last 10 years. The sector, intensive in capital and in activities related to R&D, still has great horizons to conquer. The mass use of biosimilars may increase the accessibility of certain medical treatments. Traditional medicine can offer ancestral and local solutions to contemporary and global problems. Expanded trade and investment in vaccines can contribute to the prevention of local diseases and epidemics. As a transversal axis, artificial intelligence and technological innovation permeate the entire scenario.

Biosimilars to increase accessibility to health

India and LAC still account for a small percentage of the global supply of biosimilars, but are both significantly endorsing them.

127 and 94

is the number of biosimilars that have been approved in India and LAC, respectively, up to 2022.

A biosimilar is a biological drug that is equivalent in structure, function, and quality to a certain biological medicine. This segment of the pharmaceutical industry is essential to consolidate inclusive and effective health systems: biosimilars represent greater accessibility–and sometimes the only way to obtain–particular medicines and treatments for a large part of the world's population. While India and LAC account for 8.1 % and 6.5 % of current biopharmaceutical manufacturing, respectively[76], both have structural factors that could underpin their position in this segment.

Currently, both the consumption and production of biosimilars in LAC offer a remarkable prospect of scaling into the future. A total of 94 biosimilars have been approved across the continent: 44 in Argentina, Mexico and Brazil; 17 in Chile, Uruguay and Paraguay; 14 in the Andean Community and 19 in Central America[77,78]. This level of adoption is remarkable considering that, as of October 2022, 39 and 73 biosimilars have been approved in the United States and the European Union, respectively[79]. In addition, several local actors produce and distribute biosimilars. This is the case of companies such as Grupo Insud and Bagó in Argentina, which export biosimilars in the region and in Asia; or Libbs and Bionovis in Brazil, which provide biosimilars at much lower prices than the original[80].

The biosimilar ecosystem in India is further developed with Indian companies producing between USD 500 million and USD 600 million in the segment, and more than 127 biosimilars have been approved in the country[81]. Leveraging on a nationally dominant position in the generics segment, several industry leading companies such as Biocon, Instas Pharma and Zydus Cadila, together with others, have launched a total of 98 biosimilars locally. However, given the regulatory difference at the international level, India only supplied 1.5 % of the global demand for biosimilars in 2021[82].

Given the effectiveness of biological drugs in certain particular treatments, as well as the increased affordability of biosimilars, the global biosimilars market is expected to be worth approximately USD 66.2 billion by 2030, and grow at a CAGR of 17.5 % from 2021 to 2030[83], positioning itself as the component with the greatest growth expectation in the entire biopharmaceutical sector. In addition, the launch of new biosimilars in the next decade could save consumers up to USD 250 billion by 2025[84].

India is estimated to have the potential to supply 15 %-20 % (USD 5 billion) of the biosimilars market in the next decade.

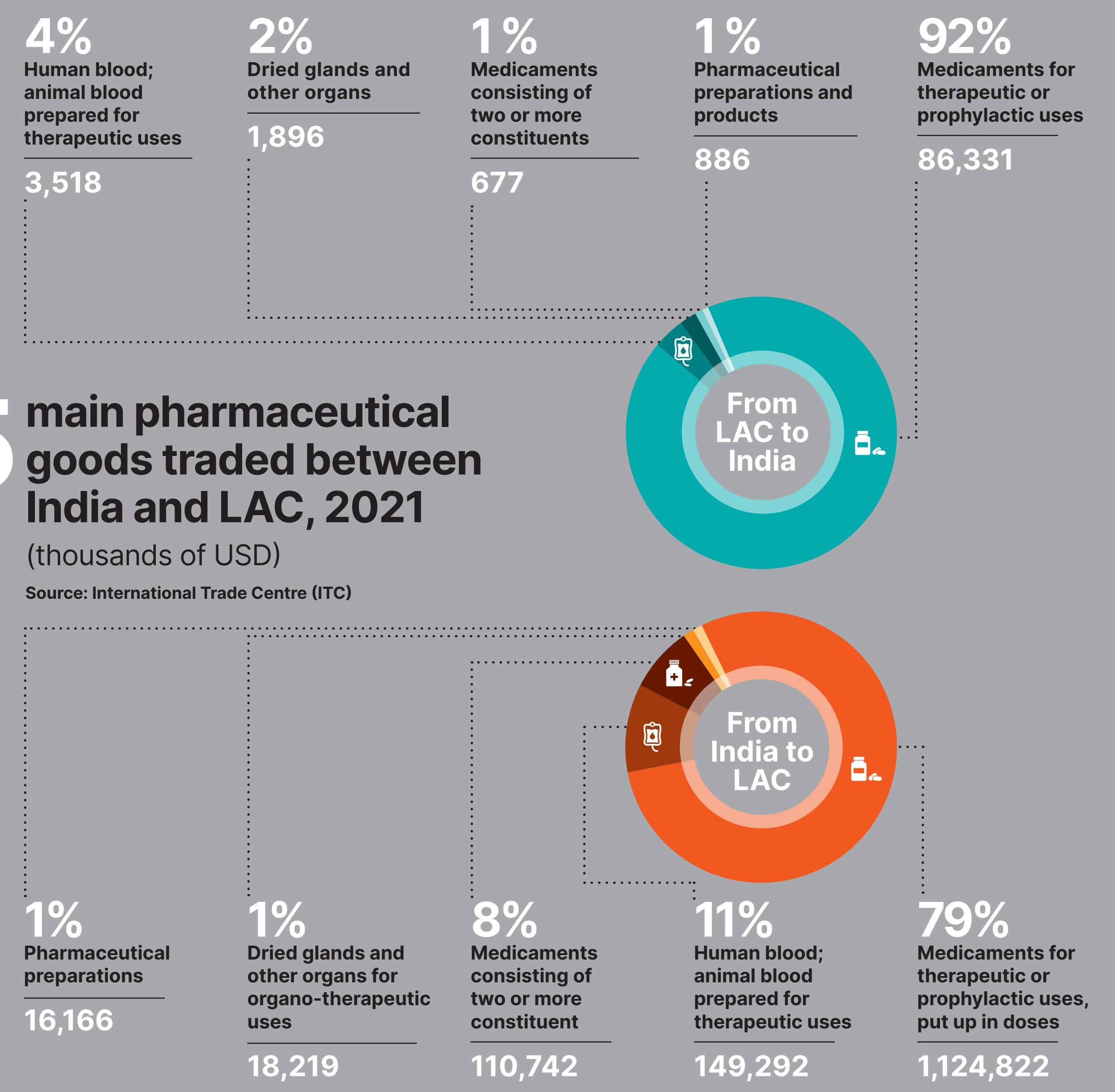
Based on the structural comparative advantages of both economies, greater ties through joint ventures, technology transfer cooperation, and bilateral tariff reductions in biosimilars could advance the positioning of both India and LAC internationally. A demonstration of the virtues of a greater rapprochement is the link built between the Indian company Biocon and the Cuban Center of Molecular Immunology (CIM, by its Spanish acronym), which in 2010 jointly developed the biological drug Nimotuzumab, a monoclonal antibody against cancer, and was later approved by its respective regulatory authorities as a treatment against COVID-19.

With full respect for ethical principles and rigorous experimentation, India and LAC can become global hubs for the production and distribution of biosimilars, a component projected to reach USD 66.2 billion by 2030.

5 main pharmaceutical goods traded between India and LAC, 2021

(thousands of USD)

Source: International Trade Centre (ITC)



Traditional Medicine with impact from the global south

Ayurveda in India and the ancient medical traditions of native peoples in LAC represent two beacons for the underpinning of traditional medicine.

17%

is the expected annual growth rate for the global biosimilars market by 2026.

In the last decade, interest in the implementation and regulation of traditional medicine has increased. The global healthcare and life sciences ecosystem is increasingly embracing medicines, treatments, practices and styles from traditional and non-Western healthcare systems. The WHO estimates that around 80 % of the world's population uses some form of traditional medicine, such as herbal mixtures, acupuncture, yoga, Ayurvedic medicine and indigenous therapies[85], which have been reported by 170 of the organization's 194 member states.

Both India and LAC have a vast universe of knowledge to contribute in this area. Ayurveda, an ancestral traditional medicine system in India, represents a beacon for the development of this area internationally. The practice, which is a person-centered medicine focused on disease prevention, early diagnosis and personalized treatment, already has more than 40,000 registered doctors in India[86].

In the same vein, all the LAC countries have a large volume of ancestral medical practices originating from the indigenous populations of the continent. The practices of the Qaquidores and Milluris in Bolivia; the figure of Yachac in Ecuador; the practice of the Temazcal in Guatemala and practitioners of traditional medicine such as midwives, bone makers, herbalists and "yerbateros" throughout the Latin American continent, are only a small portion of the accumulated knowledge in traditional medicine.

The first and main challenge of traditional medicine is to build a critical mass of evidence and data regarding its procedures and benefits. In this sense, the new Global Center for Traditional Medicine created by the World Health Organization – WHO in 2022, with a USD 250 million investment from the Indian government in the state of Gujarat, represents a first step. The study, scientific validation and dissemination of traditional medicine from both India and LAC represent an area full of synergies and opportunities for the future, with broad social impact.

India and LAC account for 8.1 % and 6.5 % of current biopharmaceutical manufacturing, respectively. If traditional medicine can be promoted from this installed capacity, the opportunities for transformation are most promising.

80 % of the world's population uses some form of traditional medicine, such as herbal mixtures, acupuncture, yoga, Ayurvedic medicine and indigenous therapies

Vaccines for timely prevention

They are the third largest pharmaceutical good traded bilaterally and the exchange could scale significantly.

40%

of the vaccine products prequalified by the World Health Organization (WHO) worldwide are supplied by India.

Vaccines are a relevant segment of the pharmaceutical investment and trade relationship between India and LAC. In 2021, India presented exports of vaccines to the region in the order of USD 107 million, and imports from LAC of USD 3 million, ranking as the third pharmaceutical good traded bilaterally.

However, there is still a long way to go. The exchange could scale significantly, considering that Indian vaccine manufacturers contribute to 40 % of World Health Organization (WHO)[87] prequalified vaccine products in the world, and Indian vaccine imports in the region accounted for 16 % of the total in 2021. This pattern is also explained by the pharmaceutical import basket of LAC countries: almost two thirds correspond to synthetic drugs, a quarter to biological drugs and only 10 % is explained by active pharmaceutical ingredients (APIs) and vaccines together[88], a segment in which India has the largest presence.

The possibility of deepening the bond has been demonstrated during the pandemic. At one of the most critical moments caused by the global lack of vaccines against COVID-19, India was a key player in the vaccination campaigns of low-income countries and LAC countries: two Indian pharmaceutical centers of excellence, Serum Institute of India and Bharat Biotech, sent more than 14 million doses during 2020 to the region.

Covishield, developed by the Serum Institute of India, was essential in vaccination campaigns in Argentina, Bolivia, Brazil, Honduras and Nicaragua, where the vaccine was approved[89]. Brazil was the first country in the world to use the Covishield vaccine outside of India, in March 2021, when the Asian government sent a total of two million doses to the Latin American country. In addition, India demonstrated its commitment to solidarity with the region by donating a total of 1.6 million vaccines to 20 LAC countries, reaching a total of 500,000 doses for Jamaica, 600,000 for Guatemala, Nicaragua, Guyana and Barbados, and 200,000 for Paraguay[90].

Both India and LAC project promising and fertile ground for joint initiatives in the vaccine segment

After biosimilars, vaccines are the second product with the

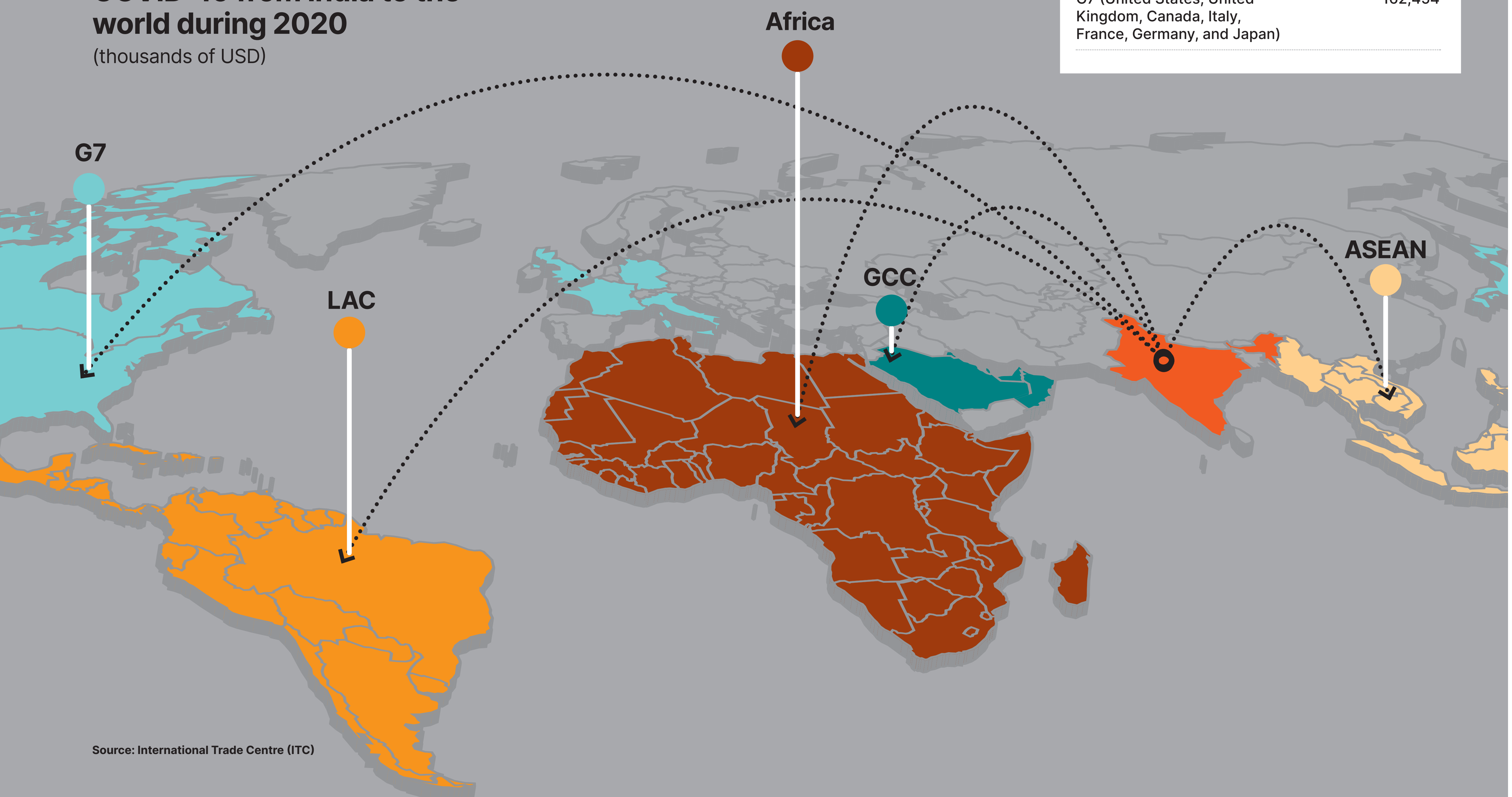
Artificial intelligence also brings exchange opportunities with India. Tata Medical Center and the Indian Institute of Technology launched a Cancer Image Bank. NITI Aayog, a government-linked think tank, promotes the use of AI for diabetic complications.

Mobilization in the emergency

Exports of vaccines, tests and instruments against COVID-19 from India to the world during 2020

(thousands of USD)

	India's exports to the bloc or region during 2020 (thousands of USD)
Africa	373,934
LAC	227,283
Gulf Cooperation Council (GCC)	30,970
Association of Southeast Asian Nations (ASEAN)	100,575
G7 (United States, United Kingdom, Canada, Italy, France, Germany, and Japan)	162,454



Source: International Trade Centre (ITC)

highest growth expectation in the biopharmaceutical industry, with a CAGR rate of 10.5 %[91] by 2026. Underpinned by the pandemic, vaccines are now at the center of the government agendas and the biopharmaceutical industry. Likewise, local production capacities both in India and in several LAC countries have increased significantly, due to the extraordinary efforts brought about by the pandemic.

As Indian and global pharmaceutical startups include vaccines as a key part of their portfolios, and thanks to the increased acceptance of mRNA platforms, the Indian vaccine industry could grow from USD 2 billion to USD 5 billion by 2026[92]. In LAC, the scenario is also promising: there are currently more than 70 vaccines in different stages of development, most of them first and second generation, although nucleic acid vaccines are also being developed in Mexico, Brazil, and Argentina[93].

The cooperation between Bharat Biotech and the governments of Costa Rica and Paraná for the execution of the Phase II/III clinical trial of a vaccine against chikungunya is a clear demonstration of how the deepening of the bilateral bond could substantially improve the quality of life of populations through the prevention of local diseases and epidemics. Actions like this, joint ventures, bilateral technology transfer agreements by companies and R&D institutes in the industry and preferential trade agreements in this segment are possible and desirable paths for India-LAC deepening in a fundamental area of life sciences.

The global Pharmaceutical sector has India and LAC as key players

3rd. / 4th.

Cuba and El Salvador were the third and fourth largest exporters of medicines in doses from LAC to India in 2021.

Dr. Reddy's Laboratories is a chain of Indian capital pharmacies with a wide presence in LAC. According to Deepak Sapra[94], CEO of the company's API and Pharmaceutical Services, opportunities for expansion may continue:

The industry has experienced significant growth in the last decade, with strong national and regional demand coupled with rising healthcare expenditure. There is ample room for collaboration. One of the main areas is the production of generic drugs and active pharmaceutical ingredients (APIs). India has a strong manufacturing base and is able to produce high-quality medicines and ingredients at lower costs, which has enabled Latin American countries to reduce their healthcare costs. LAC patients consume different types of medicines produced in India, including intensive care medicines. Also, Indian-made active ingredients serve a large number of pharmaceutical companies that produce drugs locally in LAC.

Dr Reddy's Laboratories acquired an API manufacturing facility in Cuernavaca, Mexico in 2005, and has also developed marketing, regulatory and quality capabilities throughout the continent, with direct presence in Brazil, Chile, Colombia and Venezuela, as well as manufacturing centers in Mexico. To overcome barriers and improve collaboration, greater cooperation between regulatory authorities is necessary. Both India and LAC have their own regulatory frameworks. By working together, both regions can develop a unified approach to drug development and approval of both innovative and generic medicines. This can help streamline approval processes and reduce associated time and costs.

Expanding the scope of trade agreements, such as the Mercosur-India Free Trade Agreement, which is currently being negotiated, could provide an opportunity to increase trade and investment between India and Mercosur countries. The Pacific Alliance has also expressed its interest in strengthening ties with India in the health field. The Pacific Alliance is a regional integration that represents the eighth largest economy in the world. With a population of 225 million inhabitants, this bloc represents 38 % of the region's GDP, 50 % of its total trade, and also attracts 45 % of foreign direct investment (FDI).

Trade between India and LAC faces procedural delays that significantly increase the cost of doing business. The reduction of taxes on imports and the easing of customs and tariff barriers would generate a cascading impact. Logistics is another aspect requiring improvement. Direct air connectivity between India and Latin America is essential to allow a more fluid movement of people and goods, which would give an additional boost to trade. Today's trade between the continents is growing, but the potential for growth remains enormous. Many of the barriers can be overcome with the right motivation, will and openness on both sides.

Key milestones for the Future

Biosimilars and vaccines are the two biopharmaceutical segments with the greatest growth prospects in the next decade. India and LAC present biotechnological ecosystems of excellence that can participate in the entire value chain of both products. A greater association between both regions would make it possible to shore up the position of each one in this market.

The pandemic has shown that the capacities for the production and exchange of pharmaceutical products between both regions are available for use. The exchange of vaccines, medicines, and pharmaceutical supplies could scale significantly, if there is an initiative like the one seen during 2020.

The high percentage of the world population that practices some type of traditional medicine, as well as the avidity of the global health ecosystem to scientifically address this ancestral knowledge, offers a clear horizon of linkage between India and LAC, as well as a possibility of joint leadership in the matter.

GLocal Diplomacy

Global + Local: the South also exists

The dynamics of political dialogues and trade agreements between LAC and India have gained new momentum in the post-pandemic, ratifying a trend that had already been taking shape in the immediate past. The next G-20 summits, during 2023 and 2024, with India and Brazil as presidents, respectively, constitute a platform to influence the agenda of structural changes at a global level. In parallel, local instances of exchange present challenges where the continuity of the links, the focus on details to overcome barriers, the systematization of relationships and “soft power” take on singular importance.

Geoeconomic forums

Invigorating trade agreements in tariff and labor, bureaucratic and tax aspects.

114%
The number of Chilean companies exporting to India increased by 114 %, after the signing of the 2007 trade preferences agreement.

In terms of trade agreements, the outlook is uneven depending on whether one looks at it from the perspective of bilateral or regional relations, appearing in all cases the pre-eminence of the private sector to advance in exchange relations, beyond the various state initiatives[95].

The India-Mercosur trade preferences agreement was signed in 2004, entering into force in 2009, but it has a low level of scope and coverage, not exceeding 500 tariff lines for each party, with no tariff reduction schedule[96]. In 2021, its relaunch and negotiations for its expansion were agreed.

The relationship with Brazil is not only significant in terms of trade, but also constitutes a point of reference in multiple geopolitical dimensions. Brazil will follow India in 2024 as the G-20 Presidency. In turn, Brazil and India are part of the BRICS, along with Russia, South Africa and China. And more specifically, India, Brazil and South Africa make up the IBSA group, established in 2003 as the trilateral development initiative of the world's three largest democracies.

Relations with Central America through SICA began in 2004, through the establishment of a Mechanism for Cooperation and Political Dialogue, which continued with the second meeting of foreign ministers in 2008 in New Delhi, where cooperation ties were deepened in agriculture, small and medium-sized enterprises, tourism, renewable energy and natural disaster management. For example, centers of excellence in information technology and vocational training for peasant women in Guatemala were created, promoting their graduation as engineers in the use of solar energy and facilitating fair trade in coffee and cocoa[97].

Mexico is India's most important strategic and commercial partner. After a 25 % decrease in trade during the pandemic (2020-2021), Indian exports to Mexico increased by 50 % and exports from Mexico to India grew up by 67 % (2020-2021)[98]. Mexico is the main LAC investor in India, in the auto parts sectors (Nemak, Tremec, Metalsa and Katcon), information technologies (Softek), industrial products (Mexichem and Ruhrpumpen), services (Kidzania and Cinépolis), processed foods (Bimbo), and energy[99].

In recent years, five rounds of negotiations for a Free Trade Agreement have been held with Peru, which includes goods, services, and investments, in an effort to diversify the export basket. The Andean country exports gold as an essential raw material, through a 2012 joint venture between MMTC, an Indian public company, and PAMP, based in Switzerland. The year-on-year increase in export volume was 15.5 % between February 2021-2022, India being the main destination (34.3%). In 2018, Peru became the second largest supplier of grapes to India, and was among the top 10 sellers of cocoa beans.

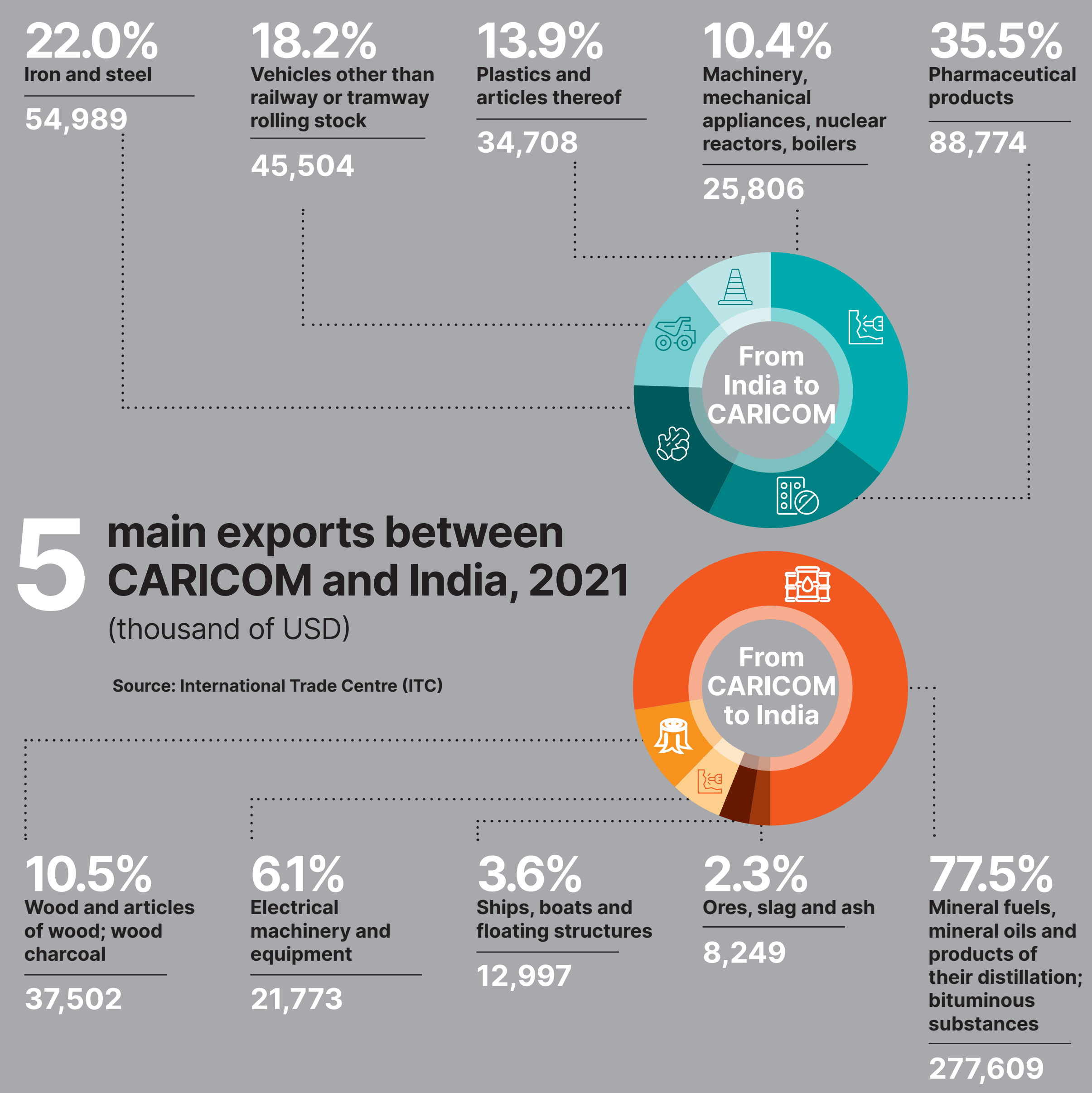
Regarding Chile, the trade preferences agreement was signed in 2006 and renewed in 2017. Among other achievements, the following stand out: 92.8 % of the country's exports to India have some tariff preference; the increase in non-copper exported products from 115 to 194 in the period 2007-2017, with an expansion of 4.9 times the value exported between 2007-2019; the average annual increase of 18.1 % in forestry, agricultural and fishing shipments. Even allowing for these dynamics, the road ahead remains challenging: Chile has 43 openings to agricultural products out of a total of 636 registered in the export basket[100].

Trade relations between LAC and India have two distinctive characteristics. They have been carried out more at a country-to-country level than at a regional level, and they have a strong driving force from private companies, surpassing state efforts.

5 main exports between CARICOM and India, 2021

(thousand of USD)

Source: International Trade Centre (ITC)



Financing with improvement opportunities

The Eximbank, CAF and the National Development Banks as crucial actors.

69%

of exports of wood and wooden articles from Central America to India in 2021 were accounted for by Costa Rica.

Between 1997-2019, with the creation of FOCUS-LAC, India sought to promote a higher level of financing for the region. The IDEAS (Indian Development and Economic Assistance Scheme) program was created to share experiences with other developing countries, particularly in the areas of infrastructure, building national capacities and promoting bilateral trade in goods and services. Concessional credit lines are mainly channeled through Eximbank, which granted a total of USD 269.72 million in the 2005-2015 decade, standing for only 3.8 % of what was lent in said period, having channeled the resources mainly to Nicaragua (25 %); Honduras (21 %) and Cuba (5 %).

Among the most emblematic projects, it is worth highlighting the construction of a milk processing plant in Cuba; works for the East Bank-East Coast route, the cricket stadium and a hospital, in Guyana; the development of electrical substations, in Nicaragua, and a project to improve the productivity of agriculture and the purchase of medical equipment, in Honduras. Cuba received 160 million dollars in credit in 2016 from India for the development of biotechnology, pharmaceuticals and energy. Thermoelectric, wind, and hydroelectric power projects were also financed in countries with historical, cultural, and linguistic affinities (Guyana, Suriname, and Jamaica)[101].

Since 2006, with the support of UNCTAD, Eximbank led the formation of the World Network of Export-Import Banks and Development Financing Institutions – G-NEXID, including CAF, the IDB and the BNDES of Brazil among its members. It also joined the Latin American Association of Financial Institutions for Development – ALIDE in 2017, becoming a strategic partner aiming to articulate and leverage future ventures with greater volume. The instances of agreements with various national counterparts such as the aforementioned BNDES (Brazil), Bancomext (Mexico), BICE (Argentina), and Mercantil (Venezuela) mark a point to take into account in order to strengthen financing.

Special Economic Zones (SEZs)– there are 358 approved areas across India–are another tool to attract foreign investment and promote partnerships with local companies, offering benefits to resident companies, through building quality infrastructure, duty-free exports, tax incentives, administrative simplification and other measures designed to make it easier to do business in India and promote its value-added exports. It includes a wide range of productive sectors, such as electronics, automotive, chemical and pharmaceutical, food processing, white line appliances, solar panels, semiconductors, batteries and steel variants[102].

The Network of Central Banks and Supervisors for a Green Financial System (NGFS) offers a platform to innovate in climate finance, between India and LAC, together with the Regional Development Bank, which has also committed to lending metrics to the sector.

5 main exports between the Central American Common Market (CACM) and India, 2021

(thousands of USD)

Source: International Trade Centre (ITC)

21.2% Pharmaceutical products — 163,657

17.9% Cotton — 138,450

12.6% Tanning or dyeing extracts; tannins and their derivative — 97,104

7.5% Machinery, mechanical appliances, nuclear reactors, boiler — 57,838

40.9% Vehicles other than railway or tramway rolling stock — 316,462

20.7% Iron and steel — 21,111

11.6% Machinery, mechanical appliances, nuclear reactors, boilers — 11,900

10.8% Pulp of wood or of other fibrous cellulosic material — 11,058

8.8% Electrical machinery and equipment and parts — 8,958

48.1% Wood and articles of wood; wood charcoal — 49,127

LAC as a "Concentric Fourth Circle"

The great themes of the post-pandemic and the reality of war offer bridges for greater multidimensional integration.

1st.

India was the first destination for Latin American exports of vegetable oil, the third for gold and the fourth for crude oil.

On the new horizons of exchange, an interesting approach calls for continuing to overcome India's past "benign negligence" towards the region[103], which means thinking of a "fourth concentric circle" in terms of the country's foreign relations with respect to LAC[104]. In this framework of analysis, the first circle is made up of South Asia; the second, East Asia, Southeast Asia, Central Asia, the Middle East and the Indian Ocean, seeking to contain the influence of China; the third is made up of the rest of the world, involving the United States and Russia[105]. Likewise, the concepts of autonomy and diversification[106], as well as the evolution from non-alignment to multi-alignment[107], offer a theoretical framework that updates the profound changes that have taken place in Indian foreign policy since the 1990s, when the first steps towards a greater opening were taken.

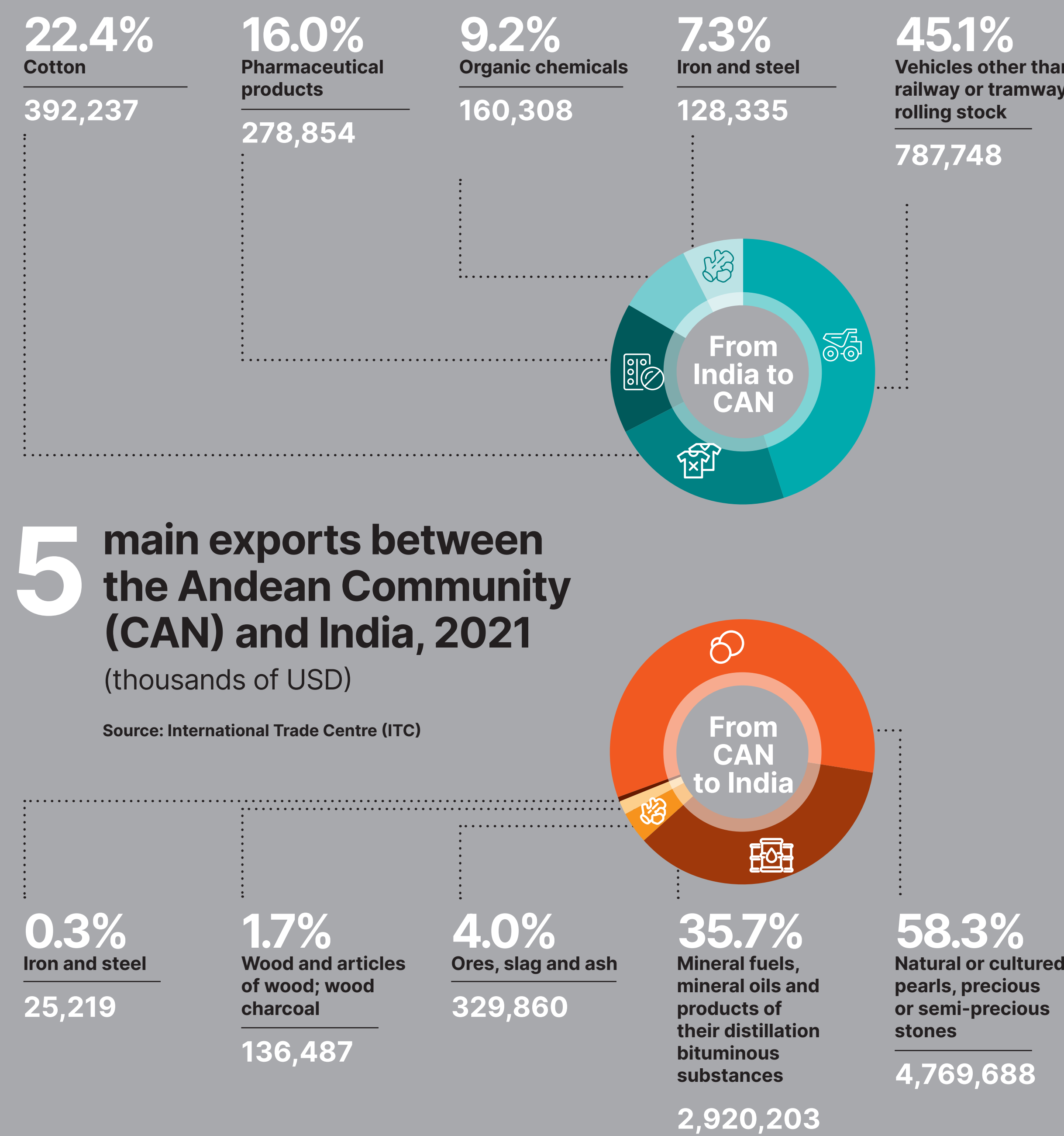
The CELAC-INDIA Dialogue began in 2012 with the First Meeting of the Troika of Foreign Ministers of CELAC-India in New Delhi. Since then, several meetings have taken place (2014, 2015, 2016, 2017). The Quito Action Plan (approved at the IV CELAC Summit, January 2016) determined that "CELAC should establish a prioritization of the issues on the bilateral agenda with India, highlighting the interest in enhancing this relationship through the Forums proposed by India in Business, Energy, Science and Technology". Likewise, the Joint Declaration established the Permanent Mechanism for Political Dialogue and Cooperation between CELAC and the Republic of India, which contemplates: political dialogue on regional and global issues; cooperation in areas of mutual interest; boost to increase, diversification of trade and bi-regional investment in the areas of pharmaceutical industry, tourism, agriculture, mining and energy, among others. Under the Pro-Tempore Presidency assumed by Argentina in 2022, this permanent mechanism was relaunched, with the purpose of working on post-pandemic social recovery; science, technology and innovation for development and inclusion; food and energy security, and cooperation in multilateral forums.

The Raisina Dialogue is India's leading conference on geopolitics and geoeconomics organized by the Ministry of Foreign Affairs of India and the ORF Foundation. Since 2016, every year, leaders from politics, business, media and civil society meet in New Delhi to discuss and explore opportunities for cooperation on a wide range of issues. The Dialogue is structured as a multi-stakeholder, cross-sectoral discussion, involving heads of state, cabinet ministers and local government officials, joined by opinion leaders from the private sector, media and academia. In the 2023 edition, under the trigger slogan "Provocation, uncertainty, turbulence: A lighthouse in the storm?", the topics addressed focused on five pillars: i) insurgency, geographies, domains and ambitions; ii) amoral mosaic: protest, cooperation or cancellation; iii) chaotic codes: sovereignty, security and society; iv) harmful passports: climate, common, citizens, and v) gray rhinos: democracy, dependency and debt traps.

The incorporation of India as a CAF member country could leverage financial resources and knowledge from LAC to promote relations in productive sectors of mutual interest, and open up opportunities for greater insertion for private companies in both countries.

5 main exports between the Andean Community (CAN) and India, 2021

(thousands of USD)



Source: International Trade Centre (ITC)

Biodiversity
as a common treasure

In strategic diplomatic dialogue, this issue is key to a multidimensional concept of development that provides new productive opportunities based on respect for nature.

800 million

LAC has 800 million hectares of virgin forests, and 700 million hectares of potentially arable land.

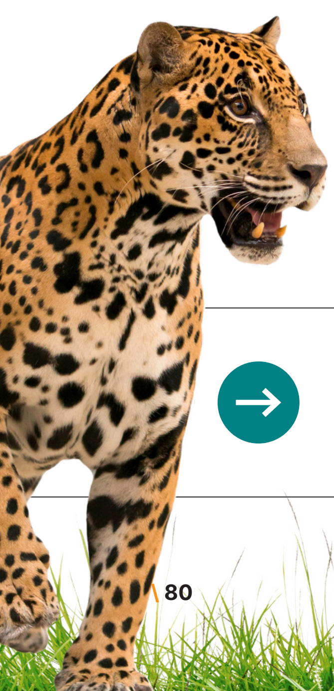
LAC and India are natural allies when it comes to directing similar actions in terms of biodiversity preservation. Which allows promoting a joint work agenda that gains glocal relevance, taking due account of the recent steps taken in this matter at a universal level.

The most appropriate framework to deploy this confluence is given by the results of the United Nations Conference on Biological Diversity -COP 15-, which brought together 188 world governments in 2022, and signed a historic agreement to guide global actions in favor of nature by 2030, giving rise to the Kunming-Montreal Global Biodiversity Framework, whose four general objectives are: i) halt human-induced extinction of endangered species and, by 2050, reduce the rate and risk of extinction for all species by one-tenth; ii) use and manage biodiversity sustainably and value, maintain and enhance nature's contributions to people, such as ecosystem functions and services; iii) Fair and equitable sharing of all benefits from the utilization of genetic resources and digital sequence information on genetic resources; and iv) adequate means of implementation to fully implement the Framework are equitably accessible, especially to developing countries and small island developing States[108].

On that occasion, BIOCAF was launched, a CAF initiative that seeks to support climate action and biodiversity preservation in LAC, focusing -among other things- on financing MSMEs for nature-based businesses; productive clusters and landscape for food security; blue economy and ocean health; and sustainable cities. Likewise, CAF will allocate USD 25,000 million to green financing for new projects that seek to preserve the region's biodiversity in the next five years.

Properly used, the potential for development in this area is immense. LAC terrestrial and marine biodiversity encompasses approximately 60-70% of all known species; 11 of the 14 biomes on earth; about 25% of the planet's tropical forests; the largest wetlands in the world that provide 30% of available fresh water; and the Amazon jungle, the habitat with the greatest biodiversity on the planet.

India, for its part, also has an enormous natural heritage. With only 2.4% of the land area, the country is home to about 8% of the species in the world. Reaching more than 96,000 animal species and 47,000 plant species, India is one of the 17 megadiverse countries on the planet[109]. Among the remaining 16, 6 megadiverse countries are in Latin America and the Caribbean: Peru, Brazil, Colombia, Ecuador, Mexico and Venezuela. The region represents more than 40% of the world's biodiversity[110].



With an adequate preservation strategy, India doubled the number of felines registered since 2006, when it had 1,411; fulfilling the objective set at the Global Tiger Summit in 2010. The task was possible, thanks to public-private partnerships and a strong awareness campaign.

Birds and Felines, a common task

Taking all of the above into account, convergent actions can be found in two particular areas: initiatives for the protection of felines and birds, as priority issues.

Felines are an essential part of both ecosystems. In the case of LAC, a fundamental milestone in the regional preservation strategy was the presentation of the 2030 Jaguar Conservation Roadmap for the Americas, at the 14th Conference of the Convention on Biological Diversity, with the aim of ensuring 30 jaguar routes and ecosystems from Mexico to Argentina. In 2023, Brazil will host a meeting between all the countries with the presence of the feline to outline new steps in the Roadmap and develop a platform for intergovernmental cooperation.

Along the same lines, the Indian government launched the International Big Cats Alliance (IBCA) in April 2023 with the aim of fighting for the preservation of seven big cats around the world: the tiger, the lion, the leopard, the snow leopard, the cheetah, the jaguar and the puma. Through cooperation between governments, experts, the private sector and civil conservation associations from around the world, this platform will function as a convergence of knowledge and best practices, in pursuit of the preservation of these feline species in the 97 countries where they are located[111]. India has historically been the quintessential home of tigers and felines: the country has 70% of the world's remaining wild tiger population[112].

Birds, as well as the routes they travel, are also a fundamental piece of the ecosystems of LAC and India. The American continent is home to three of the eight main bird migratory routes in the world and there are at least 559 endangered species of LAC birds: the importance of the region in the preservation of birds worldwide, has led BirdLife International, the National Audubon Society and CAF - development bank of Latin America - to come together in 2022 to identify and conserve more than 30 terrestrial and marine migratory routes of birds in the Americas[113].

1/8

One in every 8 bird species worldwide is in danger of extinction.

In the same direction of preservation, in 2022 India assigned the category of international importance to 26 new wetlands. Some of them, such as Pallikaranai, Suchindrum and Yashwant Sagar, individually house more than 100 bird species, and are strategically important for breeding and nesting for migratory birds[114].

Both due to the great biodiversity in its ecosystems, as well as the caliber of the projects currently under development, the preparation of joint initiatives between India and LAC at the aforementioned points of convergence would represent a substantial advance for the preservation of biodiversity in the Global South.

Soft Power is a great creator of wealth

+200

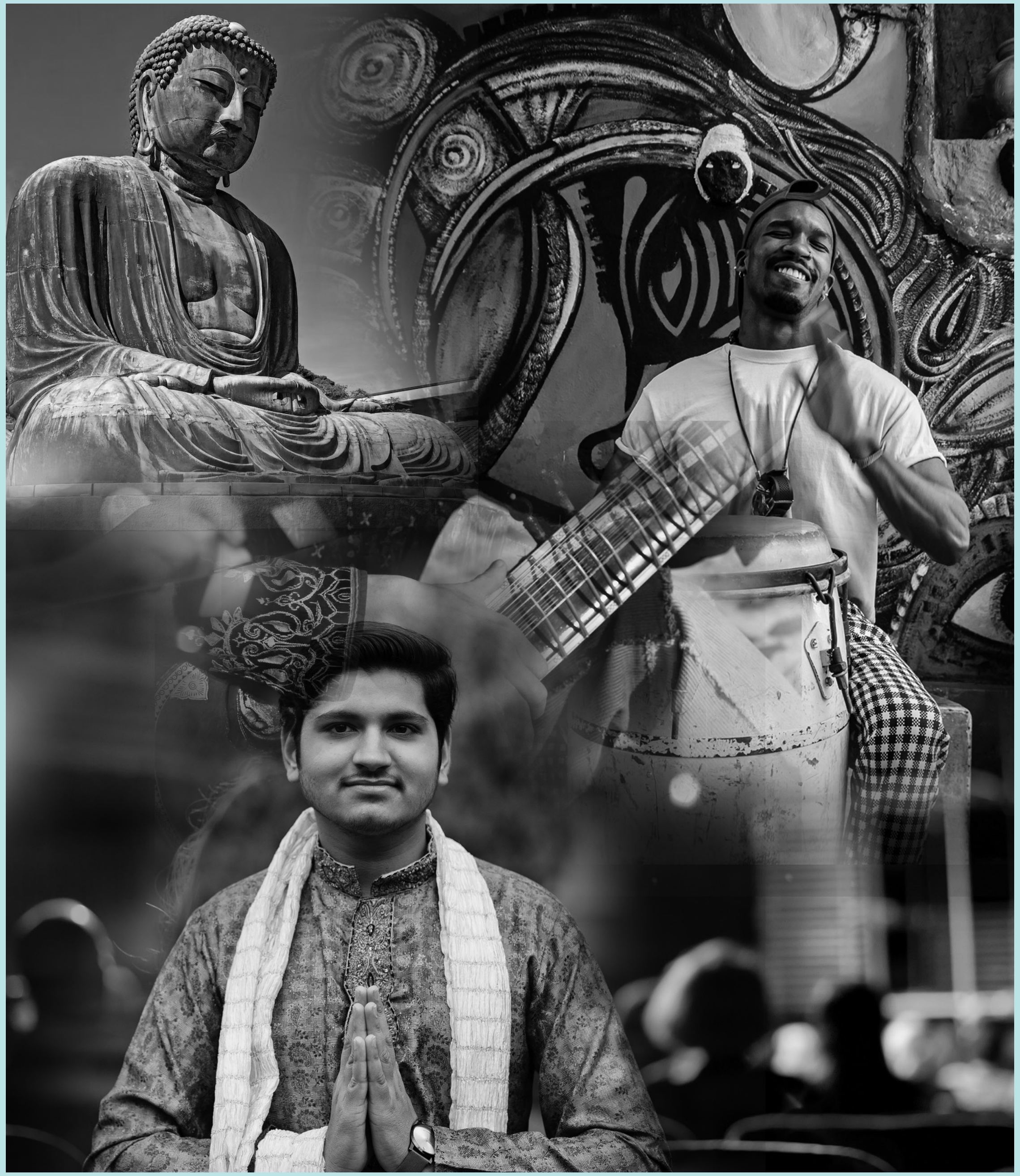
million dollars has been the investment of Cinépolis in India, where it has more than 5,000 collaborators.

"One Earth, one Family, one Future"

India's slogan in front of the G-20 2023 has a dual dimension, since it not only refers to the agenda related to substantive issues of foreign policy hardware[115] (financial crisis, food security, climate crisis, terrorist violence and war in Ukraine), but also includes cultural and philosophical issues related to yoga, Ayurveda medicine, the Indian diaspora and the Hindu religion as transversal axes. Soft power and the culture of integration also include emotional issues and reciprocal friendship. For example, almost 100 LAC soccer players play in Indian teams, and there is interest in developing South American academies in the country.

Entertainment industry

Cinépolis is a Mexican company dedicated to the exhibition of films founded in 1971, operating in 19 countries, positioning itself as the largest film exhibition company in Mexico and Latin America, occupying the third place in the world in number of theaters, the second place in tickets sold and the chain that sells the most tickets per theater in the world. The company entered the Indian market in 2007, opening its first cinema in 2009. Its decision to start operating in the Indian subcontinent is due to its position as the world market volume leader, both in number of films produced and number of tickets sold. The supply of modern theaters in India was extremely low, making the identified business potential even more valuable.



India was and continues to be among the 20 largest economies in the world, the country with the fewest rooms per inhabitant and, ironically, at the same time, one of the countries with the highest cinema consumption, and the largest per capita ticket in the world.

Few theaters, great fans of cinema, a young population and a stable and growing economy were the main ingredients identified to motivate the landing of Cinépolis in India.

According to sources of information specialized in the entertainment industry, it is estimated that Cinépolis has invested more than USD 200 million throughout its presence in India, creating a staff of 5,000 collaborators plus thousands of indirect jobs generated over the past 16 years.

The work challenges identified by Javier Sotomayor[116], general director for Asia and the Middle East - Cinépolis Corporativo, are:

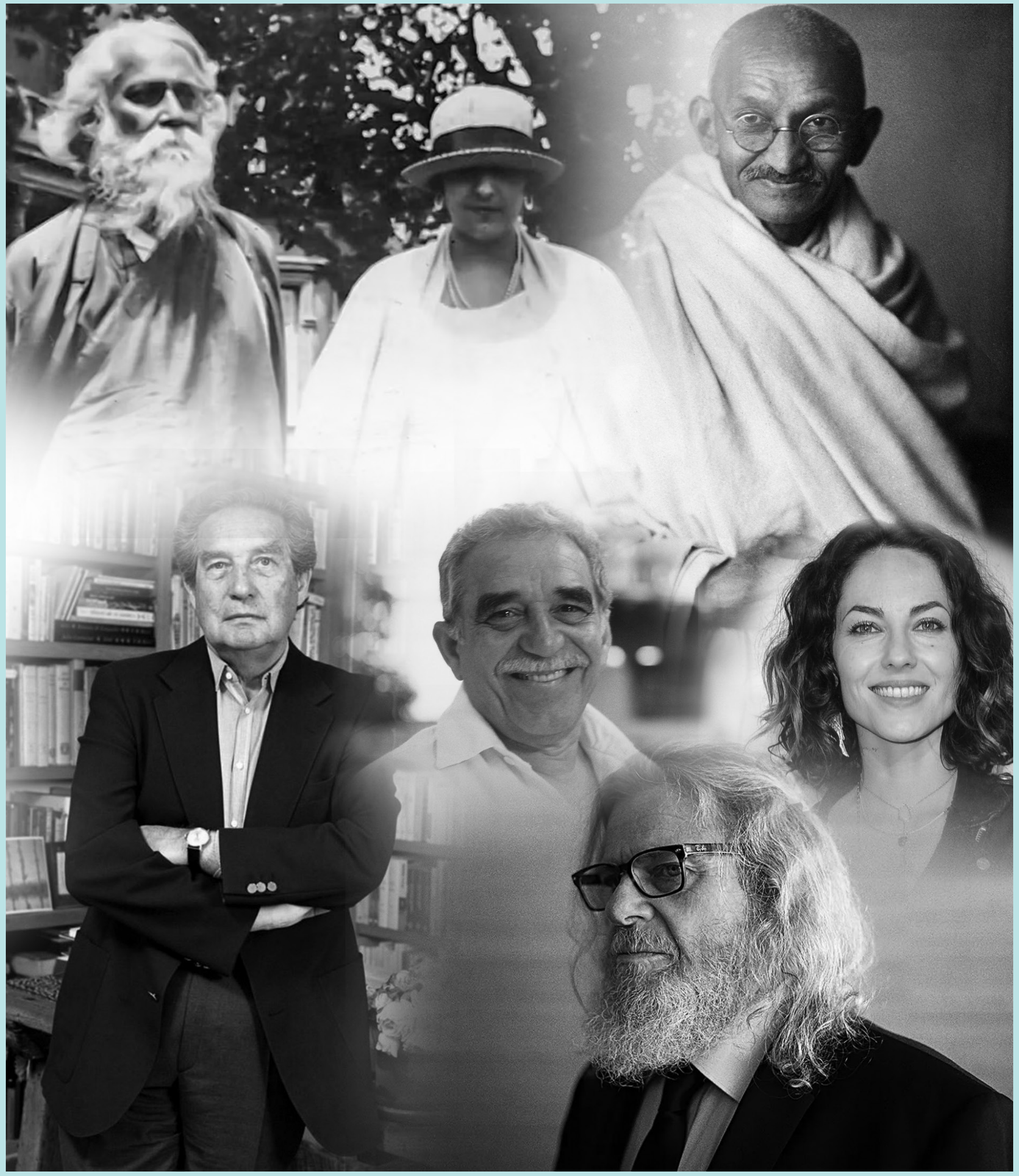
- "The multiculturalism of the country. Consumer habits vary greatly across different regions of India. The business model to be adopted must in such a way not only consider the country, but also the different regions of the country.
- Bureaucracy and qualifications. Each cinema must comply with more than 30 permits or licenses at different levels of national, subnational, and municipal administration, with different duration times, which supposes a highly complex bureaucratic obstacle.
- Difficulties with tax authorities and slowness of the judicial system, which generate a large amount of expenses, time and additional investment.
- Immense Opportunities – The Indian market can sound far away, unnatural and exotic to a company wanting to expand. However, it is a highly relevant market today and growing in the future, with potential for most industries. When it comes to investment analysis and business projection, it is essential that it be considered as a priority option. This recommendation is also replicated for LAC governments and decision makers. It is necessary to give India a priority space in its bilateral agendas.
- Of the 19 countries where the company is operating, India shows the highest occupancy rates in its movie theaters; this variable is maintained over time. Movie theater occupancies more than double those in Latin America."

Artistic production

Bollywood, in the field of Indian film production, is a key tool of foreign policy and also of productive culture. The country is the world's largest film maker, with the highest profit margins in the global industry[117]. In 2019, industry revenue exceeded USD 2.5 billion in the country, impacting the service sector, which represents 50 % of the national economy and generating post-pandemic growth of 196 %[118]. The industry has spillover effects not only in Mumbai, where it is based, but also in other local economies such as Chennai, Hyderabad, Karnataka, Kolkata and Kerala[119].

Rengaraj Viswanathan, India's retired ambassador to Brazil, Venezuela, Argentina, Uruguay and Paraguay, details some of the most notable cultural exchanges between India and LAC over the past two decades:

- The Mexican actress Bárbara Mori performed as the heroine in the Bollywood film Kites, released in 2010. Six Brazilian actresses have also starred in Bollywood movies.
- Mathew Kodath, from Kerala, based in Honduras, produced the Spanish film Amor y Frijoles (2009), and Quién paga la cuenta (2013). His company, Guacamaya Films, also produces television content, such as series and soap operas, for two of the most important television channels in Honduras.
- Prabhakar Sharan, based in Costa Rica, starred in the Costa Rican film Enredados, la confusión. It is the first Spanish Bollywood-style film. Encouraged by his success, Sharan plans to perform in and produce more movies in Spanish.



- Toonz Animation Ltd, from Trivandrum, in collaboration with Illusion Studios, from Buenos Aires, has co-produced the animated film Gaturro, based on a cartoon character created by Argentine cartoonist Nick. The film released in September 2010 was a box office success. Team Toon Studio, from Barranquilla (Colombia), made a cartoon movie for an Indian producer in 2017.
- The Argentine director Pablo César co-produced with India the feature film Unicornio, el jardín de las frutas in 1996. His new film Thinking of him, based on the romantic story of Tagore's meeting with Victoria Ocampo in Buenos Aires premiered in 2017 at the Goa Film Festival.
- Argentine musician Gustavo Santaolalla composed the music for Amir Khan's film Dhobi Ghat, released in January 2011. Alfonso Cuarón, Mexican film director and Oscar winner, supported and advised the Indian filmmaker, Chaitanya Tamnahne, on the shooting of the movie El discípulo. Indian TV channels have aired Latin American soap operas such as Ugly Betty, Second Chance and Total Dreamer. Zee TV has a Spanish channel, ZeeMundo, with Bollywood movies for Latin American viewers.
- Cien años de soledad, the novel by Gabriel García Márquez, was a bestseller in Kerala. The book had several editions in Malayalam. There is scope for the business of publishing translations of Latin American books in Indian languages and of Indian books in Spanish and Portuguese[120].

Key milestones for the Future

- Overcoming "hard" and "soft" barriers to promote work and the exchange of goods and services is strategic. For instance: simplifying the granting of work visas, removing bureaucratic customs obstacles, promoting single exchange windows and improving the infrastructure, establishing direct flights between the main LAC capitals and New Delhi.
- Academic cross-fertilization and the generation of a network of specialists in LAC-India links constitutes a fundamental tool to provide scientific evidence to the relationship.
- Taking advantage of cultural aspects in terms of music, cinema, religion, sports, literature and the wide range of affinities that can be promoted regionally from the Indian diaspora.
- Credit lines that promote technological innovation, improve logistics and food preservation processes, and open retail marketing doors in Indian regions are decisive tools for a new business impulse.
- The constitution of a Permanent Integration Platform, which convenes tripartite Government-Business-Civil Society dialogues and implements a Strategic Plan with goals and actions aimed at simplifying processes, mobilizing public-private financing and promoting cooperation in sectors with a high level of complementarity.

A new Sunrise?

HARSH V PANT.
Vice president of Foreign Policy and Studies at the Observer Research Foundation (ORF), and professor of International Relations at King's College London.

The recent boost in India-Latin American ties shows New Delhi's growing interest in a region long seen as auxiliary in its strategic calculation. Relegated to the last of the three concentric circles of Indian foreign policy, Latin America has traditionally received scant attention from India as a region of geopolitical and geoeconomic importance. However, foreign minister Dr. S. Jaishankar's visits to Mexico, Argentina, Brazil, Paraguay, Panama, the Dominican Republic, Guyana, and Colombia are emblematic of a serious recalibration.

The recent revamping of the Indian diplomatic machine has meant that India's relations with Argentina, Brazil and Mexico have come to be managed directly by the minister of foreign affairs, unlike previously. This is due to these countries' membership of the G20 and India's presidency of the G20 in 2023, but also a desire to deepen economic ties with the region. This is demonstrated by the growth in trade between India and Latin America since the beginning of the 21st century, which has gone from barely 2 billion dollars to a maximum of 50 billion in 2022. This has led to underlining the importance of making Latin America a major business hub for India through more engagements, contacts and meetings with stakeholders from the vast region.

However, India's political engagement with the region has often lagged behind that of its private sector. It has neither signed free trade agreements with any Latin American country nor shown any inclination towards them despite the significant presence of Indian companies in the region. Even the preferential trade agreements that India has with Chile and Mercosur are limited in scope, covering a small percentage of bilateral trade and still retaining certain tariffs.

Until recently, Indian companies have taken responsibility for deepening India's economic ties with the region. The Indian private sector, albeit with a limited presence, has prospered in Latin America, both through trade and investment. Indian investment in the region is estimated at USD 16 billion, most of it in value-added sectors such as pharmaceuticals, automobiles, information technology (IT), energy and power transmission, and manufacturing, which, as a consequence, are creating many more jobs in the region. Latin America remains one of the main destinations for Indian exports of automobiles, motorcycles, pharmaceuticals, organic and inorganic chemicals, and textiles. The fact that India's exports to Brazil are higher than those it makes to Japan, South Korea, Australia or Thailand–countries with which India enjoys free trade agreements–is indicative of the strength of its private sector in the region. In certain sectors, such as pharmaceuticals, IT and automobiles, Indian companies are so entrenched that they often outcompete even China, the largest trader and investor in many Latin American countries.

With market regulation less than that of more developed markets and a GDP per capita similar to that of Southeast Asia, Latin America is one of the main emerging markets on the world scene. India may discover that many of Latin America's problems (poverty alleviation, infrastructure development and constant election cycles) are very similar to its own. South-South cooperation between the two countries in these areas may open the door to a greater economic commitment in the future. It is also vital to note that Latin America is the source of imports of essential commodities: about 15 % to 20 % of India's crude oil imports come from the region, as well as significant amounts of minerals such as copper, silver and gold, and vegetable oils.

Overcoming these obstacles, outlining a clear policy toward Latin America, and leveraging engagement with its Latin American G20 partners are tools that New Delhi can use to unlock a new level of economic engagement with this region as a whole.

Indian investment in LAC is estimated at $16 billion, most of it in value-added sectors which, as a result, are creating many more jobs in the region.

A hundred billion dollar trade in the Next Five Years?

AMBASSADOR R. VISWANATHAN
Independent director of Caplin Point Ltd., consultant to Kalpataru Power Transmissions Ltd

In their search for strategic market diversification and reduction of excessive dependence on China, Latin Americans look to India not only as a large and growing market, but also as a benign market in which they feel comfortable and secure.

Indians find it easy to bond with Latin Americans, who have emotional and cultural similarities. Both parties, who have common development challenges, are learning from each other's success stories and best practices, as well as their failures. Inspired by the pioneering story of Brazil's fuel ethanol program, India has begun blending ethanol into gasoline. HAL, the Indian aircraft manufacturer, has a lot to learn from Embraer's success.

What India needs to do

- India should consider opening embassies in Bolivia, Ecuador, Costa Rica, Honduras, El Salvador and Nicaragua.
- India needs to sign free trade or preferential agreements with Mexico, Colombia and Peru, where Indian exporters are at a tariff disadvantage to LAC's competitors with these countries. India needs to broaden and deepen the preferential agreement with Mercosur.
- The Ministry of Commerce of India should proactively consider reactivating the Focus-LAC program.
- The India-Latin America Business Caucus should be organized every year with adequate resources and greater participation from both parties.
- India should consider becoming a member of the Regional Development Bank so that Indian companies can bid for such institutions.
- India needs to increase its credit lines to LAC. At present, the cumulative amount is less than USD 1 billion.
- India's Eximbank should open an office in Latin America. Indian banks should open branches in Sao Paulo and Mexico City.
- China has more than 60 centers for Latin American studies, but India only has one. Around 80 Chinese universities have Spanish departments, while less than six Indian universities offer Spanish courses.
- The Chinese hold annual meetings of the Academic Forum and the Forum of Reflection Groups, in addition to various other meeting forums with Latin America. India has not established these exchange channels.
- The China-Latin America Forum, and China-Latin America Business Summit are held every year on a large scale with systematic planning and activities. The India-CELAC Forum and the India-LAC Business Summit are inactive.

Latin America and its long way to go

While Indian companies have been exploring and entering the Latin American market with more vigor and seriousness, Latin American companies have not shown the same enthusiasm and initiative.

Latin American embassies in India should focus on economic diplomacy and have more business-savvy diplomats to reach out to private sector companies.

The business visa is the biggest hurdle for Indian businessmen who want to visit Latin America. Some Latin American embassies have complicated and unnecessary bureaucratic procedures. For example, some embassies insist on requiring criminal record certificates even for top executives of reputable Indian companies that have hundreds of millions of dollars in turnover. Instead, India has introduced easy e-visas for Latin Americans, along with most other nationalities in the world.

- Honduras and Nicaragua should open embassies in India.
- There is a need for greater Latin American participation in Indian trade fairs and business events. More Latin American business delegations should visit India.
- Latin American governments should push for a preferential or free trade agreement with India to obtain tariff advantages for their export products.
- Latin American organizations such as ECLAC, CAF and IDB should hold business events and seminars in India and prepare market studies on opportunities in India for Latin American companies.
- Latin American MBA schools should pay attention to India and include the study of the Indian market. They should organize exchange programs with their Indian counterparts.
- Latin American companies should take advantage of booming consumption and demand for diverse products from India's large and growing middle class.

India has two preferential trade agreements with Mercosur and with Chile, but no free trade agreement with a Latin American country.

Ten beacons for the Navigation Chart of the Future

More Financial Resources
Leveraging LAC regional development banks with the Eximbank and credits from India, prioritizing an infrastructure resilient to natural disasters and the climate transition agenda in its multidimensional perspective.

More Humanitarian Technology
Uniting national biotechnology, artificial intelligence, sustainable mobility and green hydrogen plans, based on the development of shared skills between the national technology and research systems of both regions.

Smarter Integration
Negotiating commercial agreements without unjustified tariffs or bureaucratic obstacles in visas, taxes, standards, health and authorization and operation of companies.

More Geopolitics and Geoeconomics
Strengthening the G20 forum in a climate agenda of "common but differentiated responsibilities" with a focus on preserving biodiversity and joining efforts for the new international financial architecture.

More Community Health
Promoting biosimilars, traditional medicine, vaccines and artificial intelligence for better healthcare accessibility in rural populations and the most disadvantaged sectors.

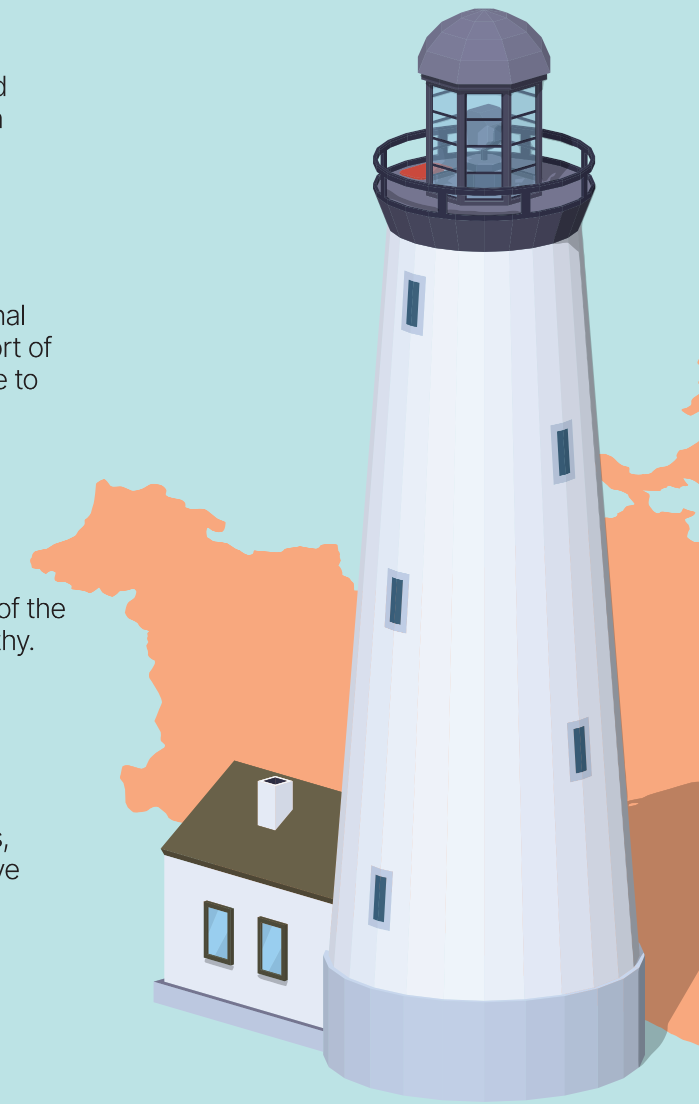
Healthier Foods
Improving nutritional components and transferring technology that allows increasing the productivity and training of small farmers in sustainable practices, both ecologically and socially

More Green Energies
Coming together in a common effort in the International Solar Alliance for renewable sources and in the support of startups for climate solutions and the addition of value to commercial exchanges.

More Cooperative Culture
Increasing artistic, film, sports, literary, language and religious exchange, taking advantage of the richness of the Indian diaspora in LAC and traditions of mutual empathy.

More Public-Private Dialogues
Building platforms for the exchange of good practices, commercial opportunities and generation of productive alliances between large, small and medium-sized companies and national and regional States.

More Permanent Experts
Dynamizing the opening of India-LAC ties in multiple territorial spaces: embassies and diplomatic delegations, offices of investment agencies, headquarters of financial institutions and academic centers of excellence.



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