

SIERRA DE TAPALPA LANDSCAPE

Investment needs

Jalisco, Mexico



February 22, 2023



Prepared by Gustavo Rojas and Sarah Lupberger of Rainforest Alliance for the "Investing in Landscapes: A Challenge for Finance Innovation, A Wealth of Opportunity," virtual event convened by the 1000 Landscapes for 1 Billion People initiative, Laudes Foundation and IKEA Foundation on February 22, 2023.

SIERRA DE TAPALPA LANDSCAPE

Region

Southern Jalisco, México

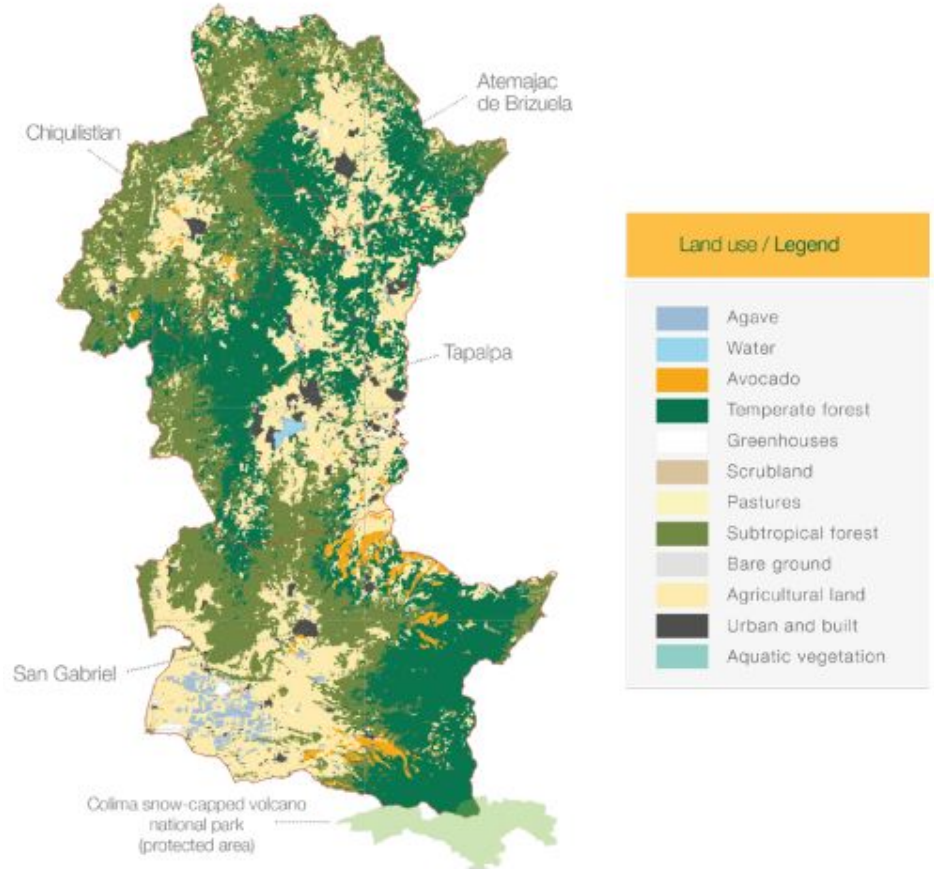
198k has. (4 municipalities)

48k pop. (5 urban / 185 rural loc)

Pine/oak forest 57%

Tropical forest 13%

Agriculture 28%



Priorities and main challenges



Most inhabitants have basic services and conditions for social development. However, even though the population living in poverty has decreased, it is a region with generally good welfare conditions, and it has an active economy, **access to social security and health services continue to have important shortcomings**. Therefore, social deficiencies must be addressed in order to improve development opportunities for everyone.

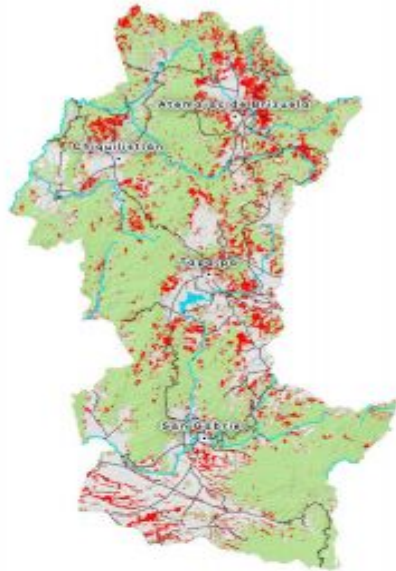
It has a great potential for agriculture, forestry, and services as well as to promote organized tourism. However, **the Sierra de Tapalpa faces natural resource degradation due to the negative impacts of poor production practices**, threatening sustainability of the region and putting economic production at risk



Priorities and main challenges

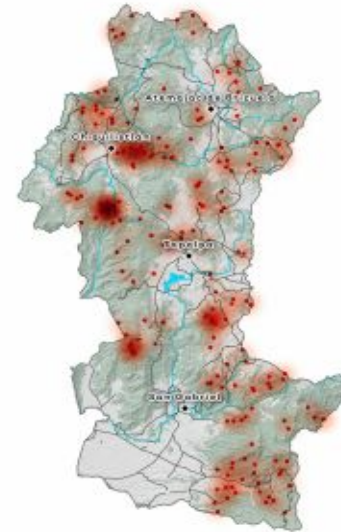
From 1970-2019, the expansion of cultivation of avocado, agave, and other crops has contributed to >41,000 hectares of deforestation, driving habitat fragmentation, soil erosion landslides, and overuse of water resources..

Deforestation



- 13,753 hectares of forest and jungle were deforested between 2016 and 2019.
- Avocado cultivation has increased by 170% in the region from 2000 to 2019 contributing to deforestation.
- Greenhouses increased their area by 34% in the same time period.

Fires



- From 2014 to 2019, **8,804 hectares were burned by fires** in the Tapalpa region.
- 61% of the affected area is due to agricultural burning and 33% by fires set by passers-by.

SIMBOLOGÍA
■ Bosques y selvas 2016 ■ Pérdida de bosques y selvas de 2016 a 2019

SIMBOLOGÍA
● Incendios (2014 - 2019) ■ Bosques y selvas (2014)

Priorities and main challenges

Water resource scarcity



- All aquifers in the region have a water deficit of up to hm2/year.
- The **growing demand for water from intensive agriculture** is the main cause of this deficit.



Real estate development



- The landscapes urbanized area increased 60% in average from 2005 to 2020 alone. One of the municipalities, Tapalpa, increased 92%.
- Urban expansion and use of forest space are affecting the ecological function of ecosystems





Landscape Partnership

Landscape partnership



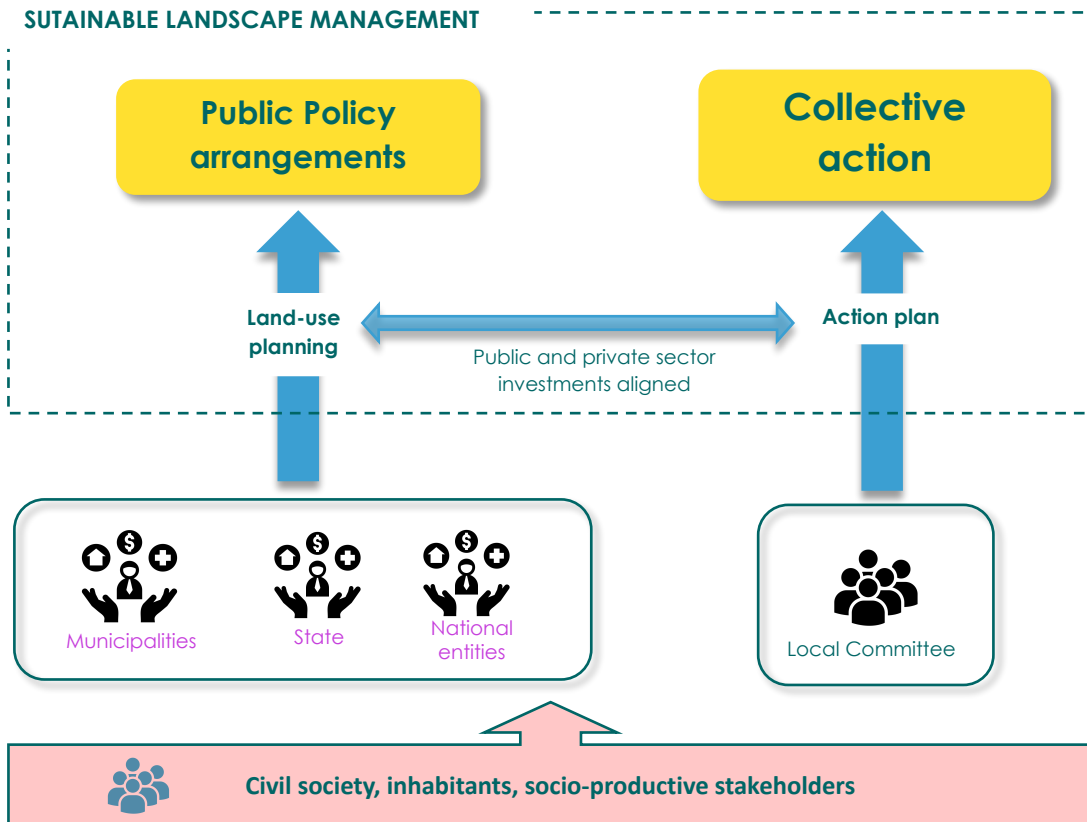
Local Committee

The landscape partnership is made of local actors on the conditions and expectations about regional development through a LandScale Action Plan, which promotes ecosystem protection, human well-being, improved governance, and optimized productivity. **Local actors represent different sectors, such as civil, public, productive, and academic.**



Our vision and transformation strategy

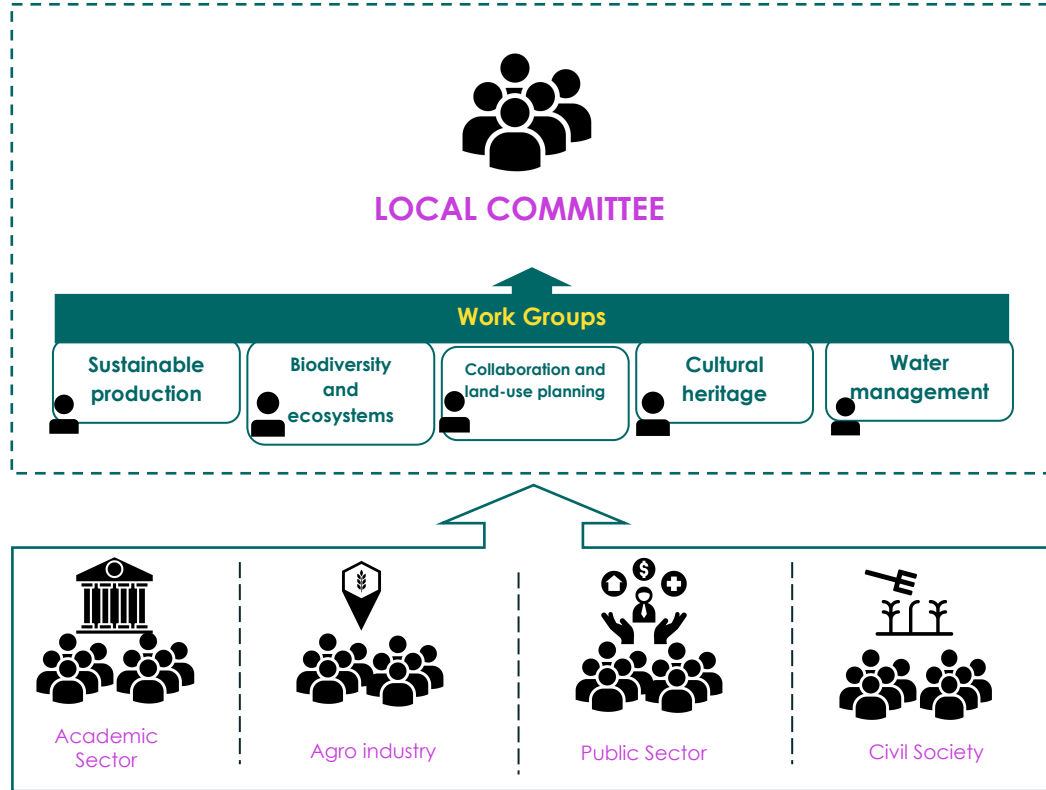
Sierra de Tapalpa Partnership - LandScale



Based on a land-use planning exercise promoted by the government of the State of Jalisco, a regional exercise was carried out in 2018 to identify the main landscape problems.

Starting in 2019, the process of identifying the main landscape problems and the establishment of a Local Committee (2021) as well as the development of an Action Plan is initiated by Rainforest Alliance. The Committee is now developing an Investment Plan for the Action Plan, with specific, investible opportunities.

Local Committee



The Local Committee is the decision-making structure established at the landscape level. The main partners are the Environmental Secretariat of the State of Jalisco, agro-industry actors, especially avocado and berry exporters, as well as local universities such as the University of Guadalajara and, of course, representatives of Farmer and civil organizations of the territory.

Our vision and transformation strategy

Developed by and with the Local Committee.



To promote a **harmonious rural development** of **agro-industrial productivity** considering the **preservation of natural heritage**, which ensure **sustainability, equity and justice in commercial and environmental relations**.



To promote the **sustainable management** of **ecosystems** and their biodiversity, as well as the **valuation of the goods and**



To promote the **well-ordered use of the landscape** and build **collaborative relationships in favor of social well-being** and improvements in the quality of life.



To promote the **appreciation** of the **local collective identity** and **cultural heritage** that makes the landscape an exceptional territory.



To promote **effective governance and management of water** with a basin approach, considered a priority element for sustaining the landscape.

Example of researched synergies at the landscape scale

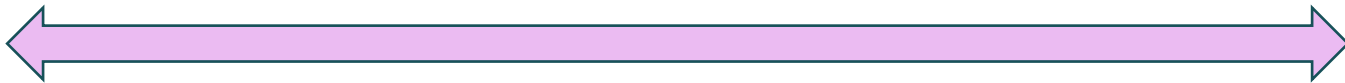


To promote a **harmonious rural development** of **agro-industrial productivity** considering the **preservation of natural heritage**, which ensure **sustainability, equity and justice in commercial and environmental relations**.

Strengthening and development of markets that recognize the value of sustainable landscape production

Capacity building and promotion of best practices in agricultural production practices

Public-private financing for the transition to sustainable production



The work of actors such as the public sector (capacity building) is required to promote best practices but also with active support from the agroindustry sector (avocado, berries, agave) which is interested in promoting and communicating about implementing better practices to access better markets and contractual terms. The support from this sector can come in form of innovations and technologies for a better use of natural resources (microdrip systems, waste management, etc..), changes of practices (Integrated pest and pollinator management IPPM), or investment in carbon offset projects. Other actors, such as Rainforest Alliance, would contribute to these efforts by promoting a market that values initiatives and products from sustainable landscapes.



Building a landscape investment portfolio

WHERE WE ARE?

Currently performing a high-level assessment of the investment needs and opportunities for the landscape, based on the landscape strategy. The Landscape will then formulate specific investments and projects and mobilize the right stakeholders.



**Local
Committee
Sierra de
Tapalpa**

**Objectives
and
strategic
sectors**

Action Plan
Financial flows
assessment

**Investment
needs and
opportunities**

High level
quantitative needs
of the landscape

High level project
identification

**Attracting
private
investment**

Business model
for investments
projects

Investment
strategy

**Landscape
brand**

Biocultural
landscape

Pledges and
attributions
(LandScale)

Landscape
marketplace

**Sustainable
Landscape**



Results of landscape financial flows analysis

- There is an important variety of sources in the landscape. However, their **alignment to landscape sustainable goals is very low, in some cases, adverse**. They currently respond to individual or sector needs.
- Savings and credit cooperative societies have a dominant position and penetration.
 - **At least 80% of the business units in the landscape prefer non-banking organizations** to access finance (friends, cooperatives, input suppliers). However, most finance is used mainly for businesses for domestic markets.
 - Development banks and commercial banks have little or no presence in rural areas.
- **Most grants are offered by the public sector**
- In terms of total value, **most of the financial demand comes from the agroindustry sector** (berries specifically) **and real estate development**.
- **Risk profiles:** from **higher to lower risk tolerance** there the landscape have:
 - (a) the public sector and development banks
 - (b) civil society organizations, and
 - (c) commercial banks and cooperatives.

Financed projects

Examples of projects financed in the landscape in previous years. Although these projects contribute to the action plan, they were not developed by the landscape initiative:

Previously financed projects 2021-2022

500 has reforestation	1,000 Ha water efficiency (mainly avocado innovation and technology)	1,000 Ha forest carbon markets (Jazmín project)	1,000 ton agroplastic recycling (agro industry)
US\$ 125,000	US\$ 500,000	US\$ 200,000	US\$ 200,000
Public sector: US\$62.5K Private sector: US\$50K Civil society: US\$12.5K	Public sector: US\$250K Private sector: US\$250K Civil society: US\$0K	Public sector: US\$30K Private sector: US\$160,000K Civil society: US\$10K	Public sector: US\$0K Private sector: US\$200K Civil society: US\$0K
Own capital, Grants, Donations	Own capital, Grants, Small Loans, Bank credits	Own capital, Grants, Loans, Carbon credits	Own capital, circular economy

Current sources of funding

There is an important variety of sources in the landscape. However, their alignment to landscape sustainable goals is very low, in some cases, adverse. They currently respond to individual, or sector needs.

Private and agroindustry funds to drive investment

TYPE	MODALITY	VEHICLE	DISPERSING INSTRUMENT	MINIMUM AMOUNT USD	MAXIMUM AMOUNT USD	Alignment with Landscape goals
ESG Budgets	investment labeling	Current accounts	ESG business fund	\$5,000	\$500,000	Medium
Operational saving	circular economy	Current accounts	Department of processes	\$5,000	\$500,000	high
Investment earnings	Index Investments	ETF	Bank account	8-15% on investments		Low

Current sources of funding

There is an important variety of sources in the landscape. However, their alignment to landscape sustainable goals is very low, in some cases, adverse. They currently respond to individual, or sector needs.

Other sources of funding to drive investment

TYPE	MODALITY	VEHICLE	DISPERSING INSTRUMENT	MINIMUM AMOUNT USD	MAXIMUM AMOUNT USD	FINANCIAL INSTITUTION	Alignment with Landscape goals
Loans	Microcredit	SOFOM/ SOCAP	Savings account and loan	\$2,500	\$60,000	Local solidarity savings banks	Low
Business debit	ESG Credit	National Bank	Bank account	\$13,000	\$120,000s	First and second floor banks	High
Public subsidies	Calls for promotion	State and federal treasury	Direct labeled payments	\$1,300	\$50,000	Federal, state and/or municipal government	Medium
Crowdfunding	Donations	Civil association	Digital Bank account	\$50	\$500,000	Fintechs	Low

Current sources of funding

Other sources of funding to drive investment

TYPE	MODALITY	VEHICLE	DISPERSING INSTRUMENT	MINIMUM AMOUNT	MAXIMUM AMOUNT	FINANCIAL INSTITUTION	Alignment with Landscape goals
International grants	Specific calls	Entidades habilitadas	Specific funds	\$500,000 pesos	\$20,000,000 pesos	BID / GEF / IKI	Low
Private equity funds	Venture capital / Private equity	SAPI	Assets and tagged values	\$250,000 pesos	\$25,000,000 pesos	Corporativos	Low
Collective capital funds	Trust	Fintech	Assets and tagged values	\$100,000 pesos	\$100,000,000 pesos	Snowball	Low
Debt	Green bonds	Fixed income coupons	Assets and tagged values	\$100,000 pesos	\$100,000,000 pesos	ICMA / CBI	Medium
Forest Carbon Market	Emission reduction certificates	CO ₂ emissions market	Bank account	\$1,000,000 pesos	\$10,000,000 pesos	Mexico2 / Verra	High



Financing needs

Financing needs 2023 - 2025

The financial needs below are derived from a high-level analysis of the activities identified to achieve the goals of the 2023-2025 action plan. Some of the specific needs identified at this stage are:

Core operating costs

- Local Committee operation
- Coordination with institutions

Project development support

- Strengthening capacities and technical support for smaller business to structure investable projects
- Carbon offsets

Innovation and technology for sustainable agriculture

- Investments to implement regenerative technological packages (silvopasture, agroforestry, forestry)
- Investments to improve ag practices in priority areas (GAP, to certify, to access new markets)

Water fund

- Data for planning
- Technical support
- Research to determine feasibility

Financing needs 2023 - 2025

Summary of financial needs identified to date are:

Landscape strategy	Budget	KPI
Sustainable productivity	US\$ 705,000	500 additional certified hectares 4000 has - payment for environmental services
Ecosystems and biodiversity	US\$ 2,188,750	4000 has - Environmental Compensation 1000 has as Area Voluntarily Destined for Conservation 500 has - reforestation 4000 has – Forest inventory
Governance and collaboration	US\$ 97,500	1 Local Landscape Committee functioning 1 citizen landscape observatory 4 events and multisectoral fairs in the landscape

Landscape strategy	Budget	KPI
Identity and heritage	US\$ 177,500	1 inventory/directory of tourist attractions 200 producers/actors of the tourism sector trained 4 emblematic sustainable tourism experiences designed 10 companies in the tourism sector promoted 1 communication strategy for the Local Committee
Water management	US\$ 470,000	4 high-impact works for the conservation of water or soil in the Landscape 4 ordinances that regulate the administration and efficient use of water 1 Water Fund at the Sierra de Tapalpa Landscape 100 has drip irrigation installed to increase crop efficiency 4 protocols for attention to contingencies due to contamination of aquifers
Budget 2023-2025	US\$ 3,628,750	

Landscape Finance: Lessons Learned

1. In the dialogue with stakeholders to identify finance project ideas, it is important to consider the actions that have been carried out and that are aligned with the landscape strategy. This makes it possible to identify installed capacities and opportunities for future projects.
2. In a landscape where financial flows exist, but are not aligned with the landscape strategy, the challenge is to develop stakeholder ownership so that these investments are redirected. This is a process that takes time and a solid governance framework.

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Visit our website: <https://sites.google.com/view/landscalemexico>