ecociencia

ANNUAL

ACTIVITY REPORT

2023

EcoCiencia

THE ECUADORIAN
FOUNDATION OF
ECOLOGICAL STUDIES

Annual Activity Report
2023

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What and who we are

EcoCiencia is an Ecuadorian foundation established in 1989 with the aim of generating information for making the best decisions in favor of biodiversity conservation and the well-being of the population.

Our mission:

"To conserve biological diversity through scientific research, the recovery of traditional knowledge, and environmental education, promoting harmonious ways of life between humans and nature."

Letter from the Executive Director

During 2023, EcoCiencia grew from a staff of 13 to 22 people, in addition to increasing the number of technical collaborators associated under other forms of labor relations. This growth was, of course, driven by the expansion of projects and activities we carry out as a civil society institution.

This expansion highlighted the need to initiate an institutional strategic planning process, which was developed over the past year with the following results: a theory of change that defined our strategic vision for the next five years—the conservation of Ecuador's biological and cultural diversity to ensure the provision of ecosystem services and the well-being of the population—as well as a roadmap to achieve this vision, composed of four strategic objectives (list them).

This vision and the outlined plan are the result of contributions from everyone who is part of EcoCiencia, shaped by an institutional culture characterized by:

The production of high-quality information that serves as evidence for territorial management, evaluation, and decision-making.

A deep commitment to those who inhabit and use forests and ecosystems, respecting their traditions and strengthening their capacity to manage and govern vast areas that must be sustainably managed.

Leveraging technology and national and international collaboration to drive innovation in the production and dissemination of information, as well as in monitoring tools that facilitate the work of public sector, academic, and civil society users.

I believe the challenges we have set for ourselves are significant for a national, mid-sized organization. However, they are precisely what the environmental sector needs in the current national and global context, which demands an integrated vision that connects human socie-ty with the nature that sustains us.

Carmen Josse

Letter from the President

EcoCiencia works in Ecuador, one of the world's most biodiverse countries. This biodiversity is represented and sustained by various ecosystems found in regions as diverse as the Ecuadorian Amazon basin, itself part of the regional Amazon basin; the tropical Andean highlands with their páramos, wetlands, and cloud forests; the coastal mangroves; and the seasonal ecosystems of the coast. This megabiodiversity sustains the country thanks to the countless environmental services it provides, from the benefits of its water resources to carbon sequestration in its forests.

Unfortunately, numerous and persistent threats and pressures are looming over this megabiodiversity. The alarming levels of deforestation, the expansion of mining and oil activity, the proliferation of hydroelectric dams, the opening of roads through forests and jungles, the expansion of the agricultural sector, among many others, are anthropogenic pressures that are advancing rapidly and jeopardizing the sustainability of life in its biological, social, and economic sense.

This trend is present at the regional and global levels, with numerous and extensive territories affected, experiencing extreme environmental degradation, bringing us closer to the point of no return.

In Ecuador and the region, the management of ancestral Indigenous populations as guardians of jungles and forests has been key to slowing the degradation of ecosystems and biodiverse areas. This important work involves the participation of many other actors, including civil society organizations, which support comprehensive conservation initiatives that respect biological and cultural diversity in threatened territories where protection is a priority. This includes governance and bioeconomy, all supported by strategic alliances.

Miguel Vazquez

Why we do it

Ecuador is one of the world's megabiodiverse countries. Its countless species are found in an equally remarkable variety of ecosystems in the Amazon basin, the highlands and foothills of the tropical Andes, the mangroves and forests of the coast, the Galapagos archipelago, the wetlands, and the ocean.

The ecosystem services of this biodiversity sustain the country through such fundamental benefits as food and water security, climate change mitigation, natural hazard control, and ecotourism. They also underpin the culture and spirituality of many peoples and nationalities.

But the threats and pressures on this profusion of life and resources are great and growing. Deforestation, the expansion of mining and oil activities, the proliferation of hydroelectric dams, the opening of roads in forests and jungles, and the uncontrolled expansion of agriculture, among others, are pressures that are advancing rapidly and putting the sustainability of life, society and the economy at risk. This trend is regional and global: we must do something to counteract it.

How we do it

In Ecuador and throughout the region, indigenous ancestral populations - inhabitants of forests and jungles - have been a key factor in halting the degradation of biodiverse areas and ecosystems. Their significant work calls for the participation of many other actors, among which civil society organizations such as EcoCiencia provide support for comprehensive conservation initiatives, respectful of biological and cultural diversity in threatened territories whose protection is a priority.

This is precisely how EcoCiencia responds to this critical juncture, and it does so through a proposal based on four interlaced lines of work:

- geospatial monitoring and analysis
- indigenous community monitoring;
- governance and bioeconomy, and
- strategic alliances.

Our goal is to promote conservation on several fronts and at different levels of action:

- work with peoples and nationalities, as well as their community and grassroots organizations
- alliances with local and national authorities and governmental agencies
- collaborations with local civil society organizations, and
- scaling up to international networks of scientific, advocacy and financial collaboration.

This comprehensive approach has allowed us to contribute to the search for solutions to Ecuador's socio-environmental problems through important advances and achievements that we present here for the period 2021 - 2022. We want to share and disseminate our work and invite you to join these initiatives and be part of this urgent struggle to build a more sustainable, just, and diverse Ecuador, region, and world.

Where we work

EcoCiencia is active at the national level and lead the implementation of conservation initiatives from the Andean glaciers to the eastern limits of the Amazon basin, covering more than 130,000 square kilometers. We also work in the mangrove forest of the province of Guayas (109,927 hectares), the reserves in the northwest of the province of Pichincha and the Chocó-Andes Corridor (657 hectares), and the province of Imbabura (4,588 square kilometers). EcoCiencia plans to expand over the entire continental Ecuador through its geospatial analysis products, based on annual maps of land cover change over a period of 37 years (1985-2022), and strategic alliances with State institutions and local governments.

Strategic Alliance

To achieve true sustainable development at scales that transcend the local, inter-institutional collaboration and strategic alliances have become key tools. These tools, which respond to goal 17 of the SDGs, may be the key to overcoming the most urgent and complex challenges we face as a society, from climate change to poverty and inequality.

At Fundación EcoCiencia we see in this way of working the possibility of a shared regional vision; a true inclusive participation, the empowerment of resources and investments; the complementarity of skills and resources; the advantage of taking long-term approaches; the opportunity that implies assuming innovative and creative processes to respond to environmental problems; and mainly, communication and continuous collaboration.

International networks

Regional and international institutional and scientific coalitions for the collaborative production of scientific knowledge and methodologies, as well as financing, aimed at environmental conservation initiatives at the local and regional level.

- Amazon Network of Georeferenced Socio-environmental Information (RAISG)
- Global MapBiomas Network
- Mapping Andes Amazon Project
- SERVIR Global and SERVIR Amazonia
- Scientific Panel for the Amazon
- Alianza NorAmazónica
- Amazonia for Life: protect 80% by 2025

International institutions and organizations

Scientific, technical and logistical collaboration ties for the generation of capacities, as well as the transfer of information, technology and methodologies, and the search for financing, that favour implementation of environmental conservation initiatives at the regional level.

- Coordinadora de Organizaciones Indígenas de la Cuenca Amazónica (COICA)
- Amazon Conservation Association (USA)
- Global Americans (USA)
- International Organization of Bamboo and Rattan INBAR (Latin America Office, Ecuador)
- Food and Agriculture Organization - FAO (Ecuador Office)
- Iniciativa de las Cuencas Sagradas Amazónicas: Territorios para la Vida - ICS (Ecuador y Peru)
- International Union for Conservation of Nature – IUCN
- Alliance of Bioversity International and CIAT (Colombia)
- Environmental Systems Research Institute ESRI
- Hivos
- Fundación Gaia Amazonas (Colombia)
- Fundación Natura (Colombia)
- Instituto Socioambiental - ISA (Brazil)
- IUCN Brazil
- Instituto de Manejo e Certificação Florestal e Agrícola – IMAFLORA
- Imazon – Instituto do Homem e Meio Ambiente da Amazônia
- Instituto de Pesquisa e Formação Indígena - Iepé (Brazil)
- Fundación Amigos de la Naturaleza - FAN (Bolivia)
- ECO REDD (Peru)
- Instituto del Bien Común - IBC (Peru)
- Provita (Venezuela)
- IPAM y Solved (Guyana, Guyana Francesa y Surinam) Instituto de Pesquisa e Formação Indígena - Iepé (Brazil)
- Fundación Amigos de la Naturaleza - FAN (Bolivia)
- ECO REDD (Peru)
- Instituto del Bien Común - IBC (Peru)
- Provita (Venezuela)
- Wataniba (Venezuela)
- IPAM y Solved (Guyana, Guyana Francesa y Surinam)

Academic and scientific institutions

- Arizona State University (USA)
- BYU Hydroinformatics Lab (USA)
- Applied Sciences Team (NASA AST)
- Spatial Informatics Group (SIG)

National networks

Institutional and civil society coalitions in Ecuador for dialogue, monitoring and participation in advocacy processes at the national environmental public policy level.

- REDD+ (Reducing emissions from deforestation and forest degradation)
- Coordinadora Ecuatoriana de organizaciones para la Defensa de la Naturaleza y el Medio Ambiente (CEDENMA)
- Observatorio de Bosques y Cambio Climático (OBCC)
- Red de comunicadores ambientales del Ecuador

Government institutions and local governments

Inter-institutional agreements for the transfer of capacities and scientific information to state and local government actors to facilitate synergies between scientific research instances at the national and international level, supporting access to state-of-the-art technology for state and local government institutions.

- Ministerio del Ambiente, Agua y Transición Ecológica (MAATE)
- Ministerio de Agricultura y Ganadería (MAG)
- Centro Internacional para la Investigación del Fenómeno de El Niño - CIIFEN (Ecuador)
- Instituto Nacional de Meteorología e Hidrología (INAMHI)
- Instituto Nacional de Biodiversidad (INABIO)
- Consorcio De Gobiernos Autónomos Provinciales Del Ecuador (CONGOPE)
- Prefectura de Pastaza
- Prefectura de Imbabura

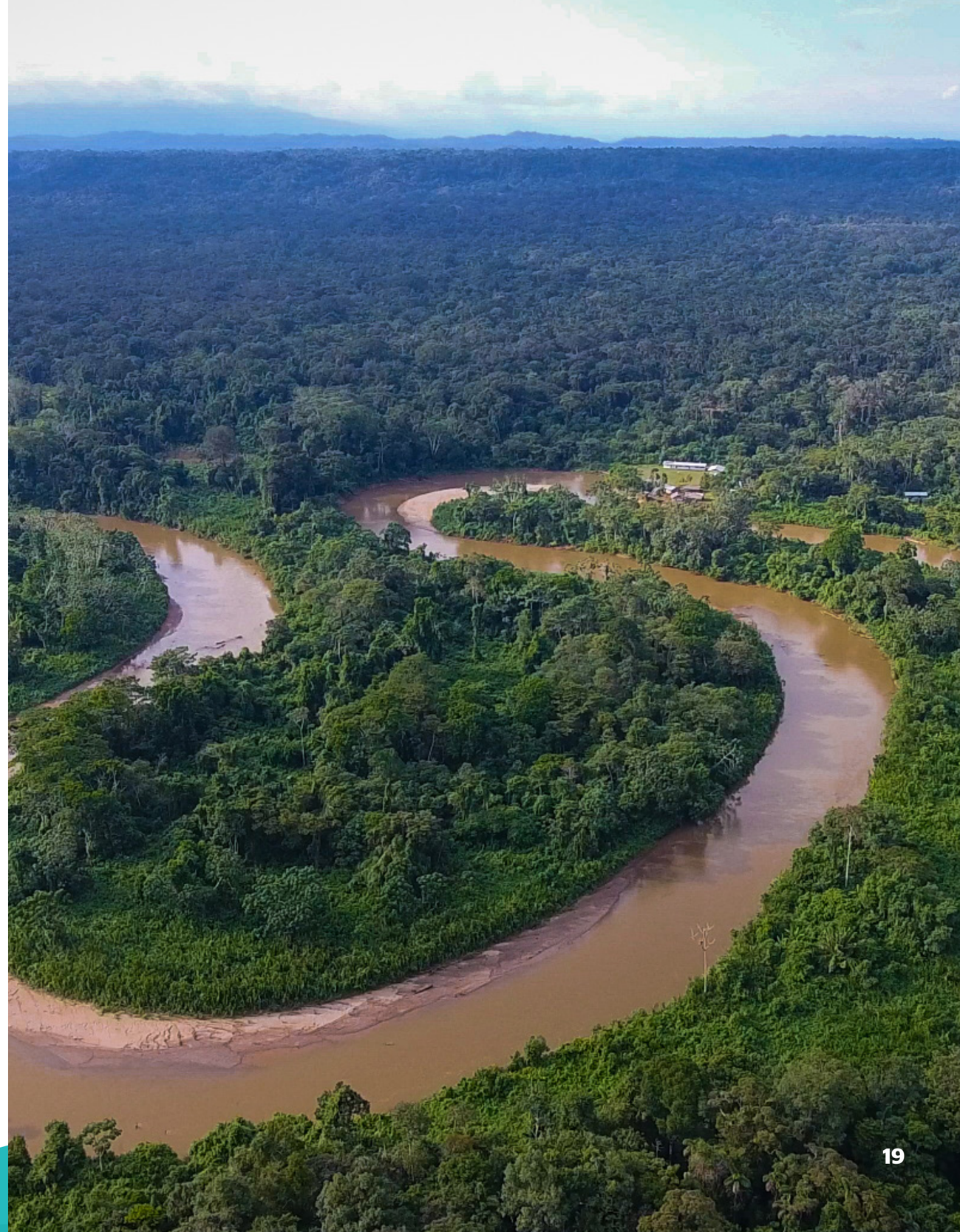
Indigenous organizationss

Agreements for the generation of technical capacities and organizational strengthening of grassroots indigenous actors, for the consolidation of conservation initiatives and sustainable land management models at the local and regional level.ales.

- Confederación de Nacionalidades Indígenas de la Amazonía Ecuatoriana (CONFENIAE)
- Nacionalidad Waorani del Ecuador (NAWE)
- Asociación de Mujeres Waorani de la Amazonía Ecuatoriana (AMWAE)
- Organización Waorani de Pastaza (OWAP)
- Organización de la Nacionalidad Waorani de Orellana (ONWO)
- Organización de la Nacionalidad Waorani de Napo (ONWAN)
- Nacionalidad Achuar de Ecuador (NAE)
- Pueblo Shuar Arutam (PSHA)
- Nacionalidad Sapara del Ecuador (NASE)

We work directly with four Amazonian indigenous peoples and their territories:

GROUP	POPULATION	AREA (hectares)
Waorani Nationality	3,500	950,000
Sapara Nationality	1,300	400,000
Shuar Arutam People	10,000	230,000
Achuar Nationality	7,000	2,259,000



What we do

Geospatial analysis for sound decision-making

In a context of increasing threats to Amazonian ecosystems, access to accurate and up-to-date information is key to strategic decision-making. Fundación EcoCiencia has embraced geospatial analysis as an essential tool for understanding territorial dynamics, strengthening environmental governance, and supporting natural resource management. Satellite data science enables us to detect land cover changes, monitor deforestation in real time, and generate useful information for communities, governments, and key stakeholders.

The SERVIR-Amazonia program has demonstrated how collaboration between institutions and the use of tools like Collect Earth Online can improve the accuracy of forest cover mapping, facilitating data validation and compliance with international commitments. At the local level, these tools have enabled subnational governments, such as the Provincial Government of Imbabura, to enhance territorial planning by integrating satellite imagery to optimize environmental and productive management.

At the same time, MapBiomas has become a reference platform for monitoring land use changes in the region. EcoCiencia's participation in initiatives such as MapBiomas Ecuador and MapBiomas Amazon has allowed for the mapping of Amazonian landscape evolution over nearly four decades, providing key data on deforestation, mining, agriculture, and aquatic ecosystems. This knowledge not only highlights the scale of environmental changes but also provides a solid scientific foundation for developing conservation policies and land-use planning.

Geospatial analysis is also a crucial ally in the fight against forest crimes. Integrating satellite monitoring technologies with forest governance strategies has been key to detecting illegal activities and strengthening the response capacity of Indigenous communities and state institutions. Initiatives like the MAAP project have produced public and confidential reports that influence decision-making and promote transparency in Amazonian forest management.

EcoCiencia reaffirms its commitment to generating and disseminating geospatial information as a pillar of Amazon conservation. The integration of science, technology, and inter-institutional cooperation is essential to ensure that decisions regarding Amazonian territories are based on rigorous and accessible data.

The geospatial data and information generated and permanently updated are available in three platforms and portals of free public access:

MapBiomas Amazonia Plataform:
https://plataforma.amazonia.mapbiomas.org
https://amazonia.mapbiomas.org/

MAPBIOMAS [AMAZONIA]

RAISG Virtual Plataform:
https://www3.socioambiental.org/geo/RAISGMapaOnline/
https://ama.raisg.org/

RAISG

MAAP Portal :
https://maaproject.org.

Monitoring of the Andean Amazon Project

Geospatial data generated by EcoCiencia are distinguished from those produced by other public or private institutions in Ecuador by:

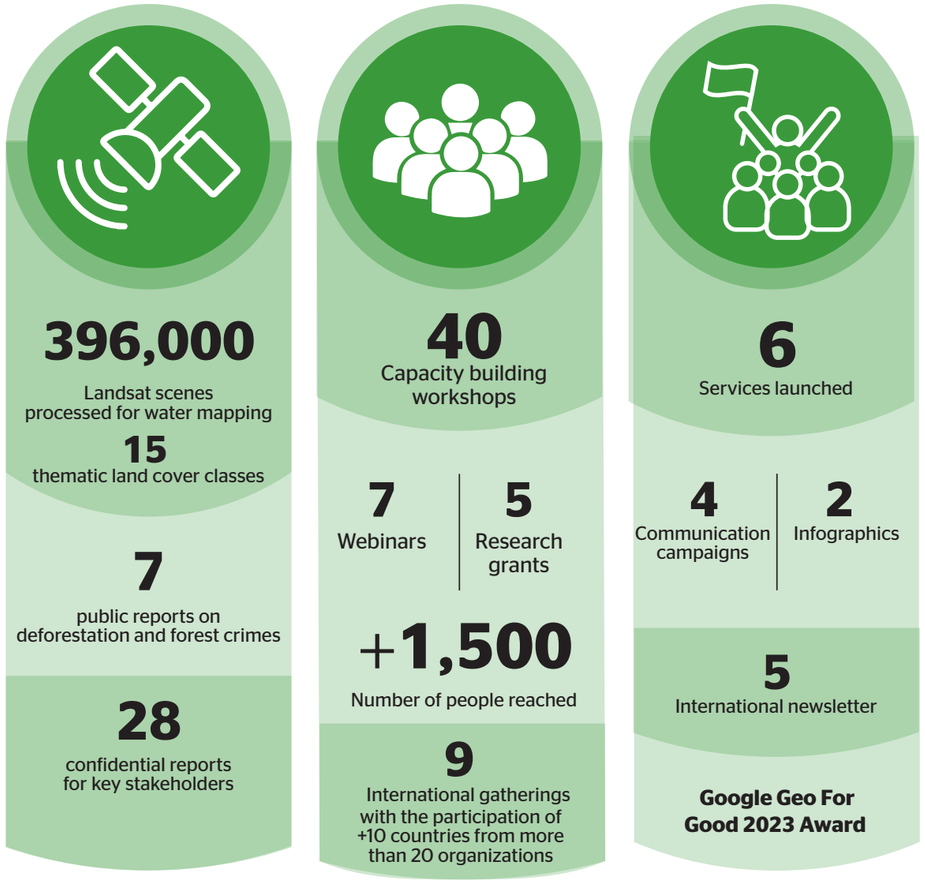
Geospatial data generated by EcoCiencia are distinguished from those produced by other public or private institutions in Ecuador by:

- the use of state-of-the-art technologies (high-resolution satellite imagery, GEE processing and machine learning);
- the work with cutting-edge scientific and inter-institutionalnetwors;
- constant methodological and conceptual development, and
- the unprecedent complex and historical analysis of annual land cover (from 1985 to 2022).

The data include:

1. land use and land use change;
2. land cover and deforestation;
3. degradation and fires;
4. carbon emissions;
5. urban infrastructure and roads;
6. mining;
7. oil industry;
8. glaciers;
9. indigenous territories and protected areas;
10. Amazon forest carbon density;
11. gain and loss of forest biomass, and
12. forest biomass net change.

The following chart presents the type and relative number of different products generated at the national and regional levels:



Governance: supporting political advocacy processes for conservation

2023 marked an important milestone as EcoCiencia's office was established in the Amazon. This link in Puyo allows us to be close to local actors, beneficiaries, allies, and strategic partners. It also provided the opportunity to generate spaces and trust to contribute to conservation and environmental management in the Amazon, particularly through the implementation of projects to strengthen governance, management, territorial planning, and territorial control and defense with Indigenous nationalities and community organizations. The approach to these topics, the learning, and the lessons learned promoted the creation of the Strategic Line of Governance and Territorial Management, within which the achievements described below are framed

We supported the Sapara, Achuar, Shuar Arutam - PSHA, and Waorani nationalities in building their Territorial Management and Governance Plans, which contain actions or projects for land use and management with an indigenous approach that is culturally appropriate. These plans are the foundation for constructing multi-level territorial planning and land use management with an indigenous territorial focus.

They also serve as the instruments to enable the implementation of their Life Plans. We supported the design, creation, and implementation of their Monitoring Plans focused on territorial Control and Surveillance to reduce socio-environmental pressures and threats. This included strengthening technical and logistical capacities and developing technological platforms to register, report, and act promptly. The lessons learned from these monitoring processes led to significant advances in the appropriation, empowerment, and support of the governance councils of these organizations, enabling them to take action based on monitoring information.

14

Documents for good governance

Statutes, regulations, mandates and protocols of indigenous nationalities

3

International gatherings

With the participation of 10 countries from more than 10 organizations

9

Workshops with indigenous communities

321

People reached

One meeting with wise elders to exchange ancestral knowledge

Indigenous monitoring for territorial empowerment

Territorial monitoring in the Amazon is an essential tool to ensure the sustainable management of natural resources and defend the territory. In 2023, the establishment of EcoCiencia's office in the region marked a milestone in strengthening ties with local communities, allies, and strategic actors, enabling significant progress on key projects. Through these efforts, territorial governance and management plans were developed that not only recognize the cultural particularities of each nationality but also strengthen autonomy and indigenous territorial planning processes.

One of the most significant achievements was the design and implementation of Territorial Monitoring Plans with a focus on control and surveillance. These plans are crucial for reducing socio-environmental pressures threatening the region's biodiversity. Additionally, technical and logistical support to indigenous organizations has enabled the creation of technological platforms that facilitate data collection, analysis, and prompt response to gathered information. This information empowers communities to make informed decisions and act efficiently against threats such as illegal mining, deforestation, and territorial invasion.

Monitors are indigenous human talent in the territory

6

Training workshops for indigenous monitors

+100

Amazonian monitors trained and empowered to coordinate monitoring activities in the northern and southern areas of the Ecuadorian Amazon.

One checkpoint and surveillance of the Nushiño-Toñampare road

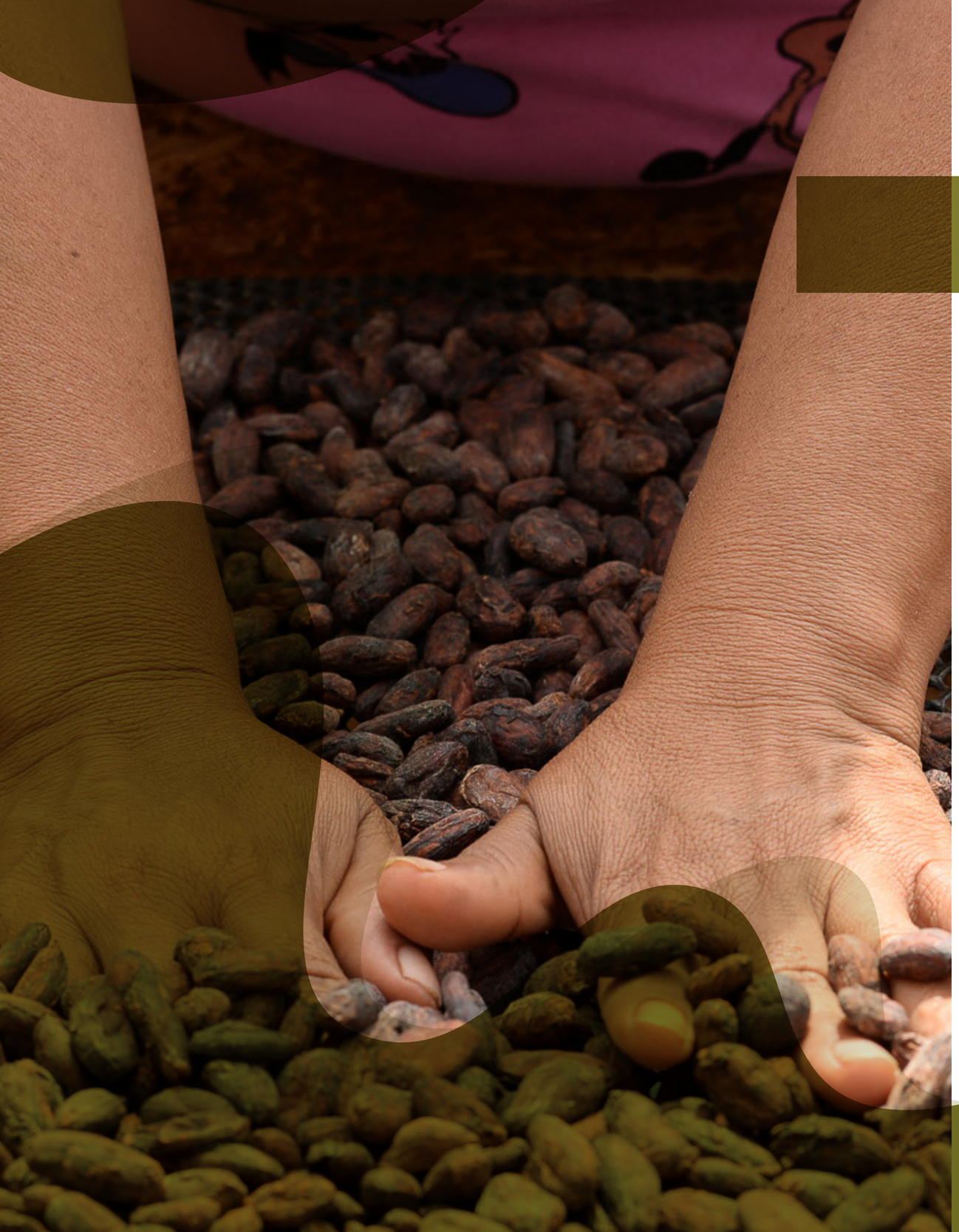
Two booklets:
*Territorial control and surveillance
*Information management of the GIS Platform – CONFENIAE

Organizational strengthening has also been a key aspect of the process. The creation of new bylaws, regulations, and protocols for the Waorani, Sapara, and Shuar Arutam – PSHA nationalities has not only improved internal governance but also allowed for greater coordination with entities like the Confederation of Indigenous Nationalities of the Ecuadorian Amazon (CONFENIAE).

This coordination has facilitated information management and established clear protocols for the actions of monitors and paralegals, consolidating a structure that supports territorial monitoring in the region.

The success of these processes lies in the creation of territorial governance and management models that are not only aligned with the indigenous vision but also promote respect for ancestral knowledge.

A relevant example is the meeting with Sapara elders, whose wisdom contributed to a binding declaration that reinforces the actions of the Sapara nationality. This integrative approach shows that territorial monitoring is more than just a technical tool: it is a bridge for territorial defense and the consolidation of a sustainable development model based on respect and collaboration between local communities and global conservation policies.



Sowing the seeds of biodiverse sustainability

Bioeconomy involves processes of conservation and management of biodiversity with local indigenous communities in their territories. It covers the planning, design, and execution of productive activities that promote the sustainable use of natural resources in the territory within a framework of protecting biological and cultural diversity.

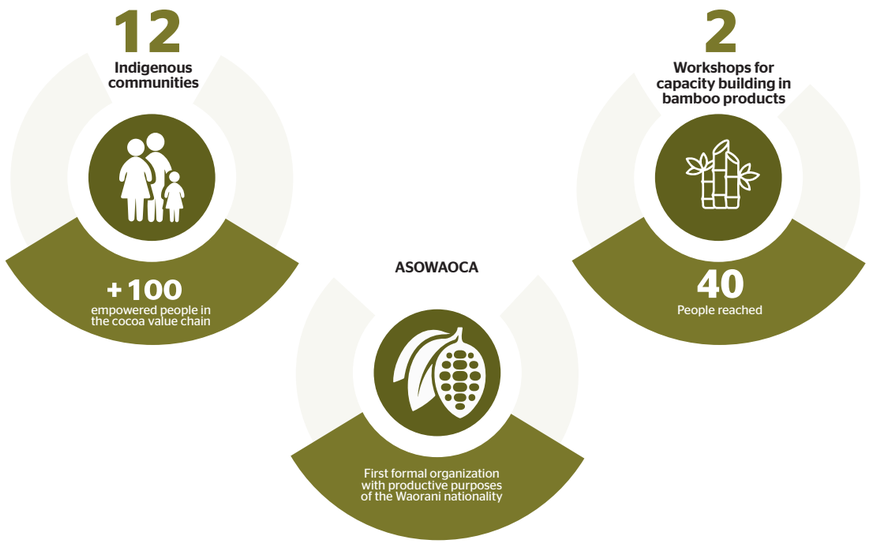
In the period 2023 our work on bioeconomy initiatives, together with our strategic partners, includes:

- strengthening cocoa production in biodiverse farms, aiming for financial and commercial sustainability through capacity building, technical advice and connection to markets;
- enhancing food and economic security of indigenous families, and
- diversification and replication of bioeconomy initiatives in Amazonian territories of high biological and cultural diversity.

We also supported the first association for productive purposes in the Waorani territory (ASOWAOCA), which was formally registered with the Institute of Popular and Solidarity Economy (IEPS)

The graph below shows the number of workshops per product and the percentage of men and women who attended.

Scope



Value chains

By 2023, two value chains based on forest products have been built and strengthened: cocoa and bamboo. In terms of human talent, more than 100 people in 12 communities have strengthened their capacities in cocoa production.

Indigenous human talent in the territory

2
Gatherings for the exchange of experiences

One international gatherin with 5 countries and 7 organizations

One national gathering with local organizations

Infrastructure

The infrastructure built and equipped for these enterprises includes two cocoa collection centers with post-harvest treatment facilities which process about 16 tons of cacao annually, and one multi-purpose bamboo workshop-center in Waorani communities.
All the cocoa production is sold to niche markets.

Communication for the strengthening of processes and knowledge management

During 2023, at Fundación EcoCiencia, communication and advocacy were fundamental pillars of our work to create a positive impact on conservation in Ecuador. Through a clear and focused communication strategy, we positioned ourselves as a reliable source of information on sustainability, climate change, and territorial management. We focused on strengthening our presence in key decision-making spaces, both locally and nationally, aligning our actions with the most relevant political and environmental processes. The development of technical reports, active participation in forums, and the creation of accessible communication products allowed us not only to inform but also to influence public and private policies that contribute to the preservation of our ecosystems.

Moreover, our ability to build strategic alliances with key actors in the region, such as indigenous communities, the government, and other conservation organizations, was crucial. 2023 witnessed intense collaboration that allowed us to strengthen our advocacy, creating an action agenda that enhanced governance and territorial management. Through these efforts, we not only consolidated our mission but also advanced the strengthening of capacities at both institutional and community levels, highlighting the importance of local and ancestral knowledge in managing natural resources. Without a doubt, our communication and advocacy strategy in 2023 has been a driving force for transformation, giving visibility to the needs of the Amazon and promoting concrete actions for its conservation.

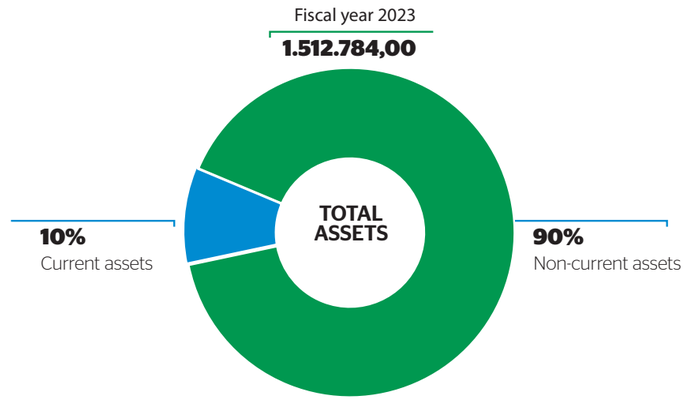
Knowledge Management

At Fundación EcoCiencia, knowledge management is key to improving our conservation initiatives. By collecting, organizing, and sharing knowledge efficiently, we learn from past experiences, refining strategies and adapting to changing environmental conditions. This process ensures we avoid repeating mistakes and enhance the impact of our efforts in Ecuador and the Amazon.

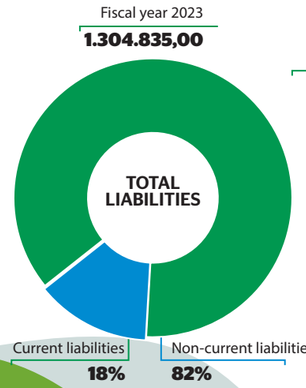
Additionally, knowledge management drives innovation by fostering creativity and novel solutions to conservation challenges. It also strengthens collaboration within our organization and with external partners, creating a network of expertise that leads to more effective, sustainable actions for protecting biodiversity and promoting sustainability.

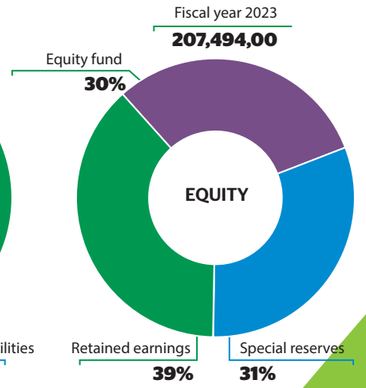
EcoCiencia in figures

In 2023, Fundación Ecociencia carried out an accounting process in accordance with accounting and tax standards and complied with the schedules for the presentation of financial information to the Internal Revenue Service (SRI) and the Ministry of Environment and Ecological Transition (MAATE).
Below, we present a comparison of the financial information for the last 2 years:

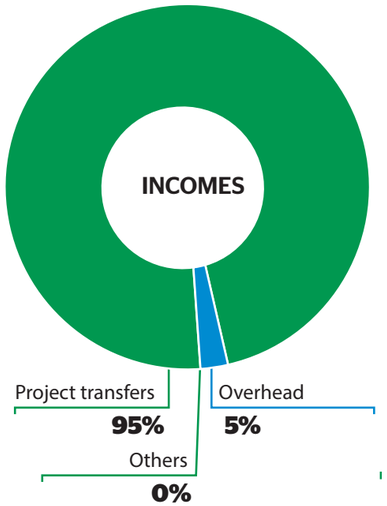


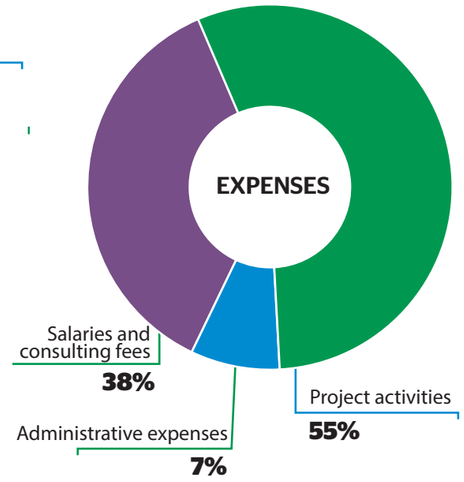
The information presented corresponding to assets, liabilities and equity presents a decrease for the year 2023, this is due to the operational income (projects) being executed as budgeted.





Income and expenses had a significant increase due to the high percentage of project execution during the 2023 period.





An execution similar to the one presented in 2023is projected for the following years 2024 nd 2025, this due to the continuity of the projects that are in execution.

Who is funding us

We are honored and proud to have gained the trust of several development agencies and institutions leading support for environmental and rights-based conservation around the globe that have found our work to be effective and impactful:

- Agence Française de Développement - AFD (France)
- Belgian Climate Fund - FFIC (Belgium)
- Bezos Earth Fund (USA)
- BOS+ TROPEN VZW (Belgium)
- Diputación de Zaragoza - DPZ (Spain)
- Directorate General for Cooperation of Belgium - DGD
- European Union (EU)
- Flemish Tropical Forest Fund - FFBT (Belgium)
- Fonds Français pour l'Environnement Mondial - FFEM
- Good Energies Foundation (Switzerland)
- Hivos (Latin America Office)
- Norwegian Agency for Development Cooperation - NORAD (Norway)
- Quadrature Climate Foundation - QCF (United Kingdom)
- Skoll Foundation (USA)
- Swedish International Development Cooperation Agency - Sida (Sweden)
- United States Agency for International Development - USAID (USA)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