



instituto brasileiro
de agroecologia

Soil Environmental Accounting

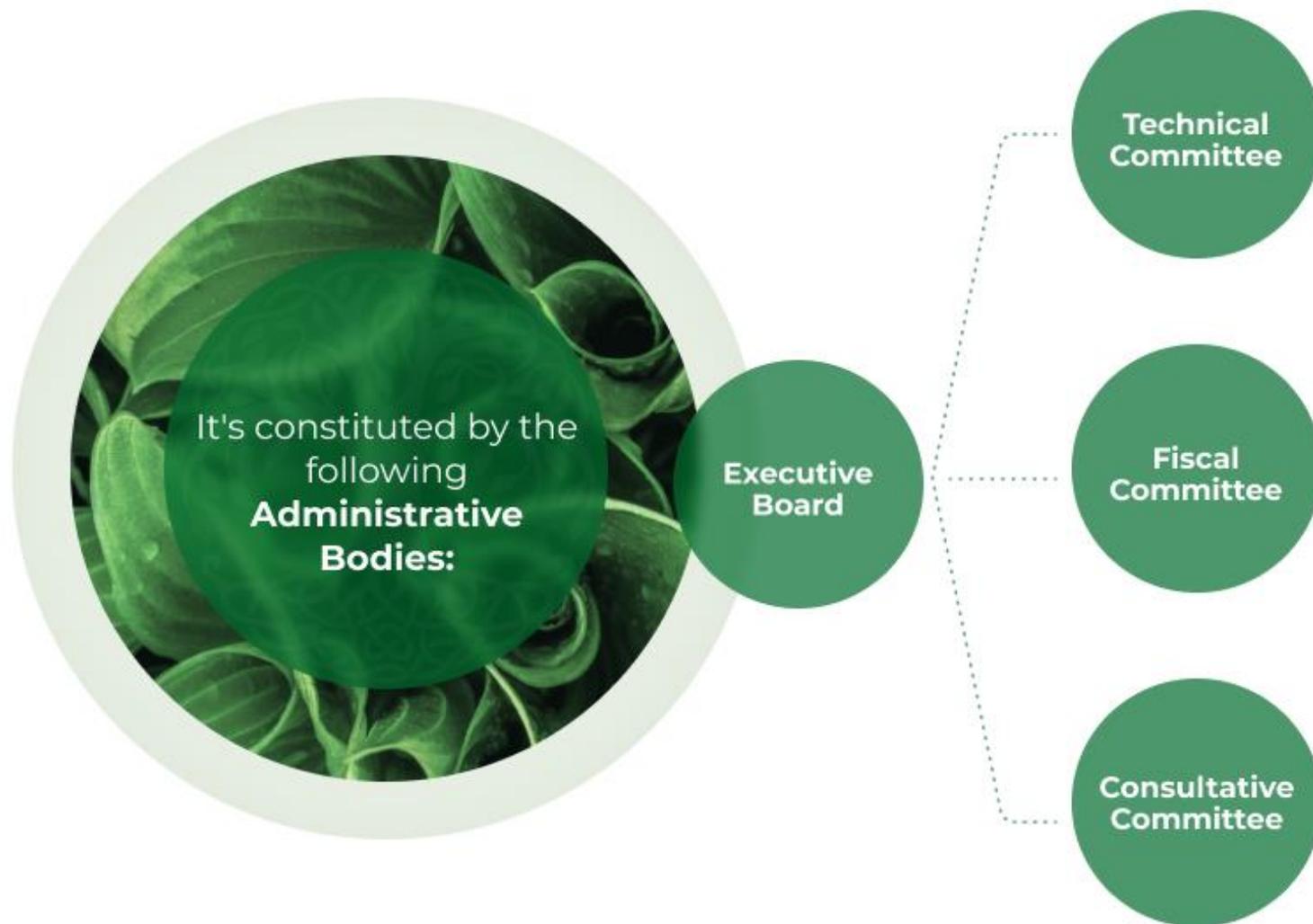
BRAZILIAN INSTITUTE OF AGROECOLOGY

Brazilian Institute of Agroecology

ABOUT US

Get to know us

- IBA - Brazilian Institute of Agroecology is a **non-profit organization**.
- It was founded in February 2018.
- The idea came from the need to **facilitate the implementation of Agroecology** in a practical and scientific way, on a large scale, in Brazil.



PURPOSE

Objectives and Strategy

Promote the construction and development of technical-practical models for food production, compatible with human and environmental values, and with society's wishes for more health and quality of life.

Our focus is sustainable food production based on science.



Research and produce data with reliable evidence



Organize and create procedures to enable the implementation



Share quality information and find engaged people





Mission

Promote sustainable agriculture in Brazil.



Vision

To be a reference in the consolidation of sustainable models for tropical agriculture.



Values

- Respect for the Environment
- Commitment to Results
- Make it happen
- Truth, Integrity and Transparency

TIMELINE

Get to know our history



IBA is born!

After almost two years of structuring the idea and doing bureaucratic procedures.

2018

Warming up the engines

Beginning of the first projects and partnerships.

2019

Strengthening our base

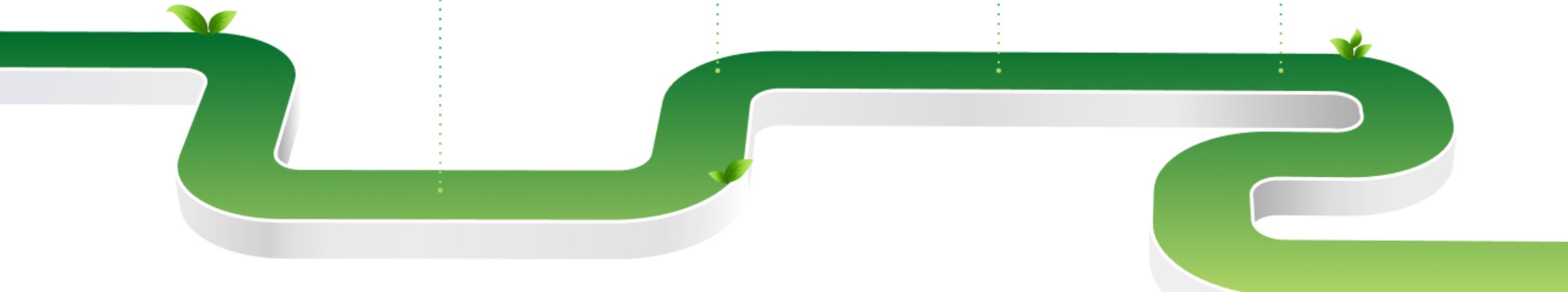
Time to review our projects, restructure our pillars and renew our identity.

2020

Ready for takeoff!

Consolidation of projects and new partnerships.

2021



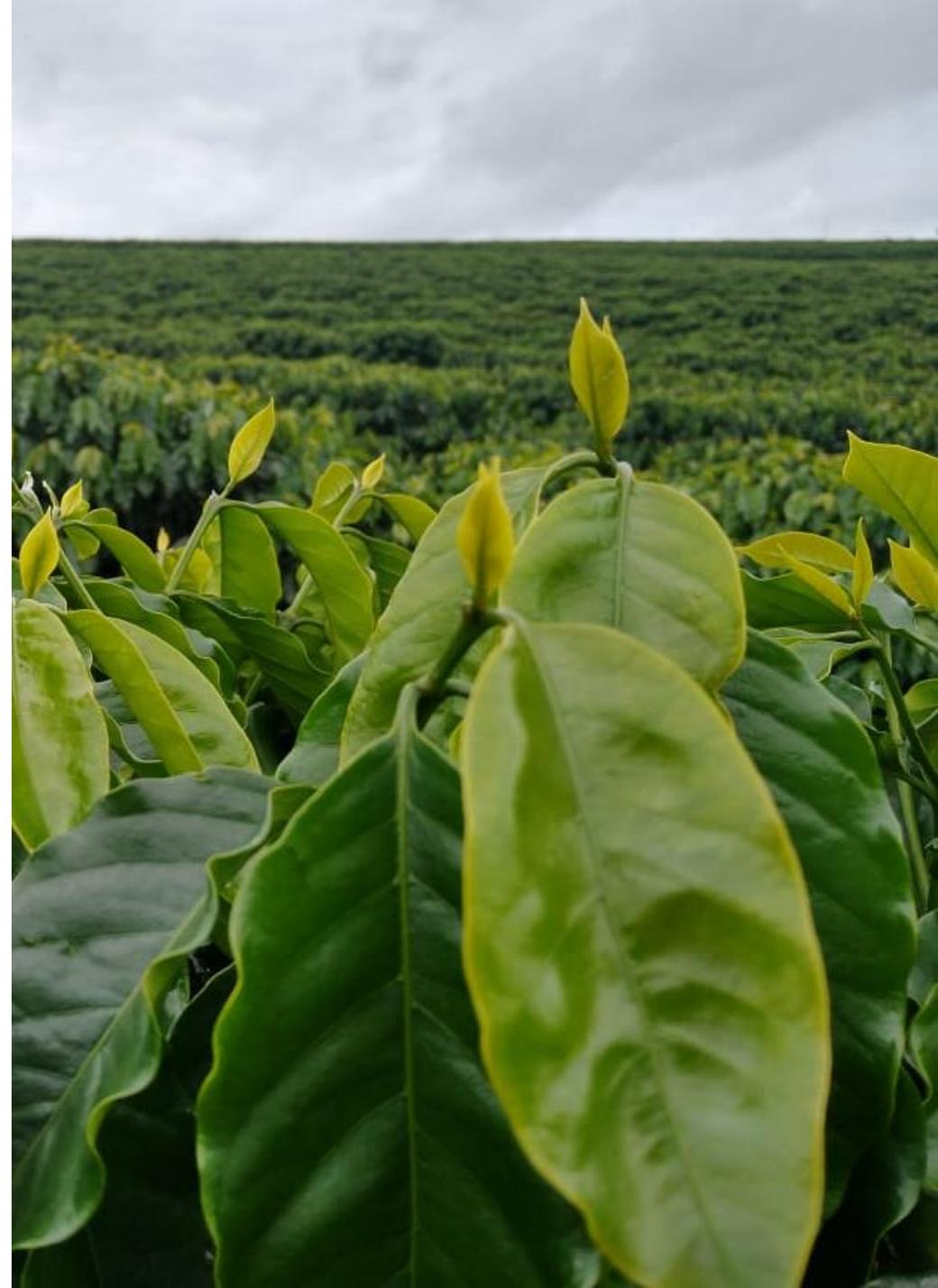
Soil Environmental Accounting

CURRENT SCENARIO

The need to reduce greenhouse gas emissions in the world is evident and urgent.

In Brazil, land use change and agriculture are responsible for 44% and 28% of the emission of these substances, respectively*.

Soil management is known to have a major impact on the increase and decrease of the greenhouse gases concentration in the atmosphere. Some agricultural practices can be adopted to reduce the emission of these substances and also increase carbon sequestration, raising organic matter in the soil.



*Source: 8th report of the Estimate System of Greenhouse Gases Emissions and Removals (SEEG) - November/2020

OUR MOTIVATION

We believe that a way to encourage the farmers to follow **good practices** is by measuring and monitoring the soil quality of their property, and consequently, raising their **recognition and remuneration** for the commitment to use these practices.

This is the reason why we have developed the

SOIL ENVIRONMENTAL ACCOUNTING.



Soil Environmental Accounting: our contribution to a regenerative agriculture



What is the **Soil Environmental Accounting (CAS)**?

- It is the annual measurement and recording of **physical, chemical and biological parameters** of the soil that, unequivocally, indicate the consequences of the productive system used, in the **degradation or recovery** of that agroecosystem, as well as on the whole environment, including people.



How does CAS work?

- From the evaluated parameters, an index (developed by IBA) of the plot is calculated, which unifies all parameters into a single value. From the annual comparison of this index, the Soil Environmental Accounting of that production system is determined, which can be positive or negative, according to the pre-established rules.

What are the benefits?

- The Soil Environmental Accounting has generated information that promotes the development of smarter and cleaner production systems. In addition, another goal is to stimulate the market to better pay producers who are making a more sustainable food production.

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Some clarifications:

- The parameter group was divided into three classes (biological, physical and chemical) for didactic purposes only. Because actually these characteristics/properties are just different faces from an indivisible whole that is the soil.
- As a living system, the soil can be described as a meta-organisms, containing thousands of different being species that interacts with minerals, organic materials and the gaseous phase that composes it. Therefore, the change of a single parameter, can have other changes, to a greater or lesser degree, in several others, consequently. Thus, it is necessary to **evaluate these parameters together**, not isolated, for a better understanding of the effects caused by the types of management.
- Therefore, **our goal is not to classify a data as "low" "medium" or "high", but rather to detect, objectively, whether that soil is deteriorating or regenerating, by each year of use.** This analysis can contribute, in a concrete way, to choose the right actions to be applied to the soil, aiming a truly sustainable food production.

Project overview:



Locations

Currently, the project is being developed in three Brazilian states: São Paulo, Minas Gerais and Goiás



Achievements

Since the project was started, we have had a 70% growth in the number of plots sampled.



Results

We have developed a complete dashboard with different types of data analysis.

Get to know more:



- Video: The Future Soil Analysis



- Video: Soil Environmental Accounting

- Sample Dashboard:



OUR

Sponsors



OUR

Partners



**We are very thankful for the
trust in our work.**

We are certain that together we will go further!

