



MOVING FORWARD WITH FARMING – THE BIGGEST JOB ON EARTH

Let's move forward together

While farming is the biggest job on earth, farmers are not facing the challenge alone. We support productive, sustainable agriculture, allowing farmers to protect the land they hold in trust for future generations while meeting the demands of modern society.

We pledge to:

- Invest in the right solutions to enable farmers to grow more quality food, more efficiently.
- Share our expertise to help farmers to make a better life for themselves and their communities.
- Never compromise on safety to allow farmers work in a safe environment and produce safe, healthy food.

In everything we do, we will play our part in leaving a positive environmental inheritance.

We stand shoulder to shoulder with farmers. Together, we will move forward on our journey.

BASF and Cooxupé support environmental education and conservation in Brazil

■ Education – the catalyst for long-term change

What started as a small mission back in the 1980s has evolved into a successful environmental education program. In 2008, building on the success of the long-established Mata Viva® environmental initiative, our team collaborated with Cooxupé, the world's largest coffee co-operative to restore a forest area, located on the land belonging to some co-operative members.

A special bond developed with both organizations realizing they shared a common commitment to the environment. This was the starting point for a long-term collaboration.

Inspired by the success of the restoration program, BASF and Cooxupé decided that education was the catalyst for long-term change.

■ Center for Social and Environmental Education

Both organizations decided to develop a permanent Center for Social and Environmental Education, complete with a nursery and a nature trail for visitors. Our shared goal is to train teachers, promote awareness amongst students, and strengthen the broader local community by making it a center of excellence for environmental conservation.



Cooxupé

- World's biggest coffee co-operative
- Exported 3.2 million bags of coffee in 2014
- Involved in the production chain from planting through to marketing
- 12,000 members and 2,000 employees
- 96.8% of the cooperative members are family farms and smallholders
- Passionate supporter of sustainable programs



Cooxupé – the world's biggest coffee co-operative – works with BASF to support environmental education in Brazil.

Practical training to inspire teachers

Teachers participate in hands-on training workshops at the center and are provided with educational resources for use in the classroom. They visit the renewed forest areas of Cooxupé and learn about the process of restoration, hearing how technicians identified and mapped the degraded areas, prepared the soil, and planted the seedlings.

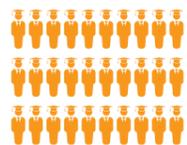
Teachers listen to the birdsong, go for a hike on the nature trail, visit the nursery and become totally immersed in the forest environment. From a practical perspective, they learn what they and their students can do every day to conserve water, recycle waste, and protect the environment.

This education program is accredited, independently monitored, and evaluated on an ongoing basis.

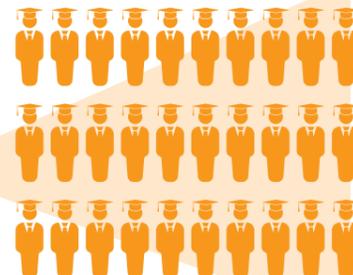
Education and environmental conversation by Cooxupé and BASF



During 2014, 4,532 students visited the Center



1,000 trained teachers have the capacity to reach 100,000 students.



More than 30,700 seedlings planted



About 80 native species grown.

Community engagement

To extend community outreach and ensure staff engagement, a specially-trained educational team within Cooxupé welcomes visits from elementary local school students in the region, and conducts environmental awareness sessions.

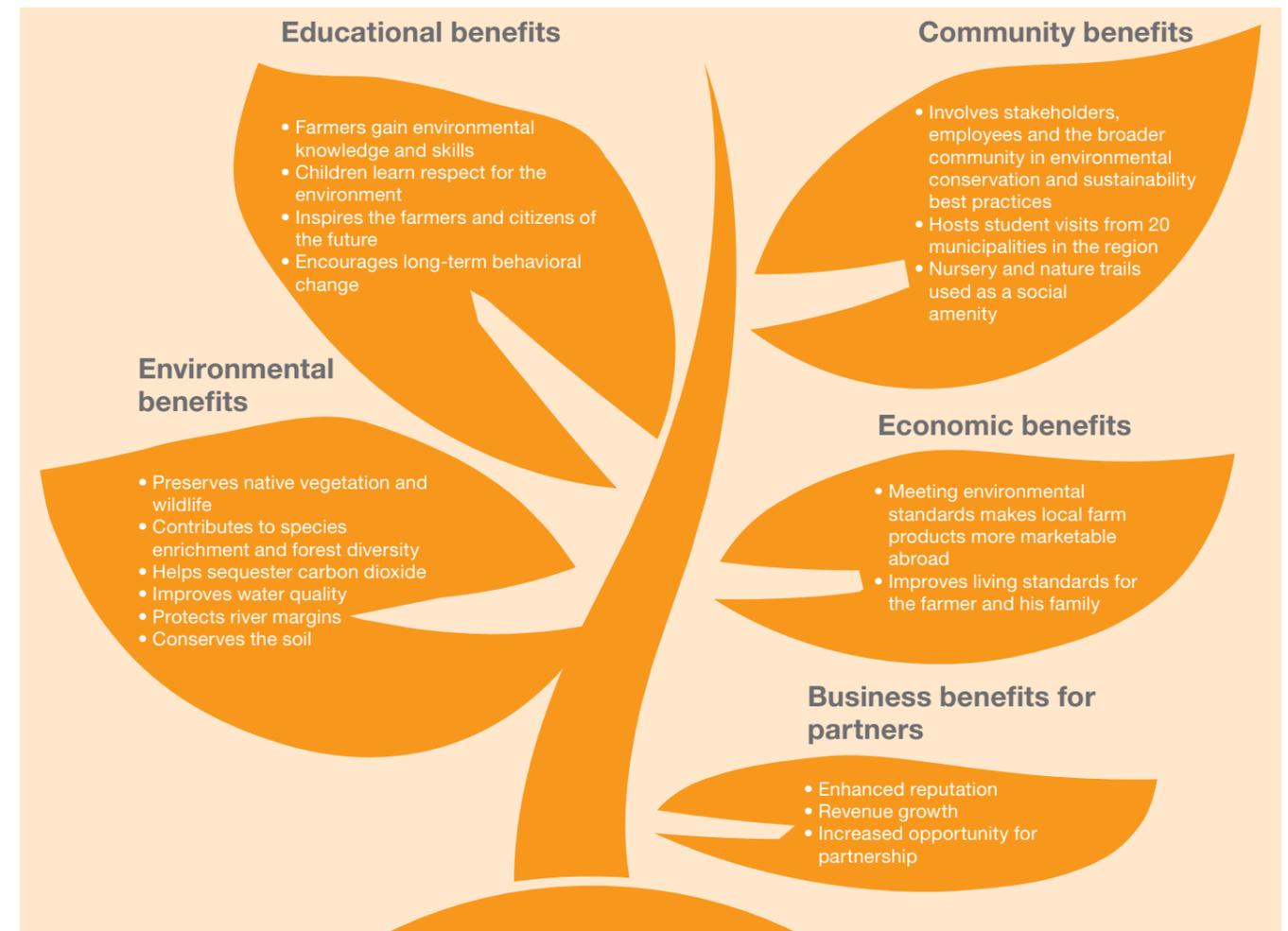
Together is better

The results show the power of partnership, fresh inspiration, and joined-up thinking. Combining theory with practice, the BASF Cooxupé program is all about educating our young people that sustainable farming is not only possible but efficient and that we all have an individual responsibility to protect our world. The message is clear – farming is not the enemy of biodiversity – rather the two can live together in mutual harmony.

Today, the BASF Cooxupé educational program in Brazil continues to inspire thousands of teachers and students.

Main partners

- BASF Crop Protection
- Espaço ECO Foundation, established by BASF and GTZ – a German Government agency – to promote sustainable development in Latin-America. The foundation is responsible for the strategic management of Mata Viva.
- Cooxupé, the world's largest coffee co-operative



A co-operation built on BASF's Mata Viva success

- Success breeds success. The best ideas always spark inspiration in others.
- Mata Viva was established by BASF to protect water quality, conserve soil, and create areas to preserve native vegetation and wild life. This work laid the foundation for our subsequent collaboration with Cooxupé.
- In 2008, the story evolved further when the Mata Viva team and Cooxupé teamed up to restore a forest area to meet environmental regulations. This, in turn, led to the current environmental education and conservation program.



■ Assessing the sustainability of the coffee value chain with AgBalance™

In addition to joint environmental education and conservation activities, BASF and Fundação Espaço ECO (FEE) also conducted an AgBalance™ study on behalf of Cooxupé to examine sustainability performance in the coffee supply chain. Using data collected on the farms, we created a database to continue improving crop productivity and quality over the next few years.

The Cafe Japy Processing and Storage Complex made a major contribution during the industrial phase and is considered to be a major AgBalance™ highlight. Situated in the municipality of Guaxupe, this complex has been equipped since 2011 to store coffee beans in bulk. This has helped to increase storage capacity and improve logistics. As a result, the environmental impacts associated with each bag processed has reduced significantly. This is the latest in a whole series of improvements adopted in recent years, including the optimization of packaging material used to transport coffee (use of big bags rather than gunny sacks).

AgBalance™ -Study with Cooxupé:

Sustainability in the coffee value chain – technological developments from 2008 to 2013



A welcome downward trend in environmental impacts

per bag processed:

- Improvements achieved with the construction of the Japy industrial complex
- Logistical optimization (use of big bags and bulk)



Emissions: Savings equivalent to the emissions associated with 1,850 trucks making a round trip between the Japy Complex and the Port of Santos.



Energy savings

equivalent to the annual consumption of 34,500 homes per year.



Recommendation:

use of drip irrigation and rainwater collection to improve yields.



In systems combined with BASF's AgCelence® products:

- Productivity + 8%** **Reduction of 81.3 millijoules/bag.** Equivalent to the electricity power supply of 58,207 homes in one year.
- Productivity + 8%** **CO₂ avoided.** Equivalent to 55,187 trucks travelling to and from the Japy Complex to the Port of Santos.

*AgBalance™ is a scientific methodology developed by BASF and implemented in Latin America by the Fundação Espaço ECO®. AgBalance™ is used to measure and assess social and ecological efficiency in agriculture. For more information, visit: www.agbalance.agro.basf.com.

“The partnership between BASF and Cooxupé has been in place for many years and has already resulted in a range of important activities that have made a difference not only for coffee growers, but for agribusiness in the entire country. The AgBalance™ study was a major contribution that confirmed how sustainable Cooxupé's supply chain actually is. It proved that our Brazilian coffee is not only of the highest quality, but is also sustainably produced. Our Japy Industrial Complex is a huge project that has brought entrepreneurship to the industry with coffee stored in bulk. As a result, we managed to reduce the environmental impact per processed bag, reduce CO₂ emissions, and also save energy, equivalent to the annual consumption of 34,500 households. The AgBalance™ study also provides a solid basis for us to further improve our social and environmental programs.”

Carlos Alberto Paulino da Costa
President Cooxupé

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