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# CHARTING NEW 'SUSTAINABLE AGRICULTURAL PATHWAYS' IN BRAZIL

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BLOG POST

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## CHARTING NEW 'SUSTAINABLE AGRICULTURAL PATHWAYS' IN BRAZIL

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Brazil is a large country spanning several climatic zones. Its bountiful supplies of fresh water, abundant solar radiation and rich biodiversity have enabled it to become one of the world's largest producers of food, feed, fibers and renewable fuels. But it is not these natural endowments alone that put Brazil decisively on this pathway: it is also the country's advanced capacity in technology development, put to use over decades.

Now, that same capacity is being directed towards a sustainable future. Charting new 'sustainable agricultural pathways' will revitalize Brazil's landscape and serve as a model for countries facing similar challenges across the planet's tropical belt.

## MORE THAN FORTY YEARS OF ACHIEVEMENTS

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The Brazilian experience of combining public policies, institutional and human development, and a science-based strategy to promote agricultural innovation in challenging tropical environments took off in the 1970s. At that time, faced with massive food insecurity, the country prioritized alleviating hunger and malnutrition. With the help of innovation, Brazil met these food security challenges and more. It continued to improve food production to become one of the largest exporters of agricultural products to over 150 markets around the world.

Despite contributing greatly to global food security, Brazil still faces enormous challenges – its agriculture systems are now required to focus on solutions to the environmental as well as the economic and social dimensions of sustainability. The United Nations' 2030 Agenda and its Sustainable Development Goals indicate the need for policies, science and capacity building to conserve natural resources – including Brazil's soils, water, forests and biodiversity – and to deal with the negative effects of global climate change on agricultural production, food and environmental security. These are complex challenges throughout the planet's tropical belt, and not least in Brazil.



Credit (including banner image above): Gabriel Faria / Embrapa

## PATHWAYS FOR A NEW DECADE

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Responding to this challenge, Brazil has launched public policies to protect biodiversity, preserve water sources and drive down carbon emissions. Sustainable agriculture intensification practices, promoted through low-impact innovations and rational land use, are reducing deforestation and the degradation of other natural resources. Meanwhile, the [2018 Brazilian Forest Code](#) is an audacious public policy that ensures protection of natural forests and water resources within private land. And, the [Low Carbon Agriculture Plan](#) promotes technologies and agronomic practices that can reduce greenhouse gas emissions, raise productivity, enhance climate resilience and preserve the environment.

In support of these policies, the Brazilian Agricultural Research Corporation ([Embrapa](#)) is leading the development of a systemic mode of farming, and promoting innovation in sustainable agriculture intensification and [low carbon emission technologies](#) in large agricultural areas of the country. Innovative approaches such as integrated crop–livestock systems, sometimes [combined with forestry](#), already cover more than 15 million hectares of agricultural land in Brazil. This is a win–win solution – creating new opportunities for diversification and economic development while also lowering negative impacts on the country's rich natural resource base.





Credit: Gabriel Faria / Embrapa

To drive forward the adoption and scale-up of these integrated production systems, leading players in the agricultural sector are forming innovative public–private partnerships. One example is the Integrated Crop–Livestock–Forestry Network Association, funded by the private companies Bradesco, Ceptis, Cocamar, John Deere, Soesp and Syngenta, which have partnered with Embrapa since 2012.

The design of innovative financing mechanisms is also under way. For example, in 2020, [the Sustainable Agriculture Finance Facility](#) (SAFF) was launched to promote the adoption of crop–livestock–forestry integration strategies on Brazilian farms. Farmers are given access to credit lines according to the sustainability level of their rural properties. In its first year, SAFF will provide funding of approximately USD 68 million: USD 62 million in credit for producers, and USD 6 million to finance certification programs, research, technology transfer and technical assistance. The value of the fund will increase each year and could reach USD 1.4 billion by 2026.

In looking at all these new efforts, what can we learn about successful and sustainable agriculture intensification? That is one of the big questions now, and it is being asked this year by the Commission on Sustainable Agriculture Intensification (CoSAI). CoSAI is [commissioning a major study](#) in Brazil and two other countries – India and Kenya – with transformative success in agricultural intensification to see what lessons can be learned. The study will look at cases of sustainable agriculture intensification in small-scale, medium- to large-scale, and urban and peri-urban agriculture, to find out what makes them work – and how they manage trade-offs between economic, environmental and social goals.

If research like this can demonstrate what makes sustainable agriculture intensification succeed, practitioners and investors will know how to move forward in the future. And so, shared stories of positive investments can guide the powers of agricultural innovation towards a sustainable future for Brazil, the tropics and the world.

*The views expressed in this blog are those of an individual Commissioner and are not necessarily supported by CoSAI.*

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