# Brazil's fund for low-carbon agriculture lies fallow

Farmers remain sceptical of programme to reduce agricultural carbon emissions.

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#### BRASILIA

The Brazilian government is providing US\$1.7 billion this year for a programme aimed at addressing the country's second-highest source of carbon dioxide emissions: agriculture. The Low-Carbon Agriculture (ABC) programme was launched in 2010 to help Brazil meet a pledge made at the 2009 Copenhagen climate conference. The country wants to cut carbon emissions so that by 2020, they are up to 38% lower than they would have been if nothing had been done. Now the government just needs to convince farmers to buy into the idea.

The ABC funds low-interest loans for activities such as agroforestry, improving soil uptake of nitrogen and rehabilitating degraded pastureland. By 2020, that basket of initiatives should mean that Brazilian agricultural sector emits 160 million tonnes less CO<sub>2</sub> equivalent than if nothing was done.

"It's the world's most ambitious mitigation plan on agriculture," says Eduardo Assad, a climate scientist at the Brazilian Agricultural Research Corporation (Embrapa) in Campinas, who helped to create the ABC.

P. Whitaker/Reuters

Rice cultivation has received a boost in Brazil but it is a net source of greenhouse-gas emissions.

Because the credit offered by the ABC would help to increase productivity and profit across the board, government officials thought that farmers would be eager to apply. But in its first year, the programme didn't manage to lend a single penny of its initial US\$1-billion endowment, says Assad. The government blames that on bad marketing: "Word of the

programme wasn't spread far enough; it didn't reach producers as well as it should," says Erikson Chandora, head of the ABC at Brazil's Ministry of Agriculture.

### Slow uptake

Assad, however, says that poor publicity is only part of the reason for the tepid response. He says that some producers didn't take up the money at first because the ABC had stricter environmental requirements than other agricultural loans. To be eligible, a farmer needed to prove compliance with environmental laws such as the Forest Code, which protects native vegetation on private property and was in the process of being revised by Congress to be less strict. Some farmers, Assad says, probably decided to wait and see whether they could comply with the looser standards.

The ABC itself was later stripped of some of its environmental character. As of 2011, low-carbon agriculture money could be used to fund activities that caused emissions of other greenhouse gases, such as growing paddy rice — a net methane source, which is responsible for 7 million tonnes of CO2 equivalent

emissions in Brazil each year — or had nothing to do with carbon sequestration, such as organic agriculture. Farmers and ranchers can currently use ABC loans to buy cattle and remove tree stumps from recently deforested land.

It is unclear what effect, if any, the relaxed rules have had on the overall performance of the programme with respect to the uptake of loans. However, the amount of ABC money given out has shot up from none in 2010–11 to almost 50% in 2012.

Chandora says that the funding for paddy rice was a one-off offer — an emergency response to flooding in southern Brazil last year. But the other relaxed rules are permanent. "If I'm lending money to recover pastureland, why shouldn't I allow the rancher to have more heads of cattle per hectare as well?" asks Chandora. Assad says it is "regrettable" that the ministry is using the programme to fund irrelevant projects.

Persuading farmers that going low-carbon is good for business will be difficult in a country where, this year, US\$57 billion in credits has been given to traditional agriculture, which involves legal deforestation. And even that is only the first step. Once the plan is in motion, the government has to be able to assess how well it is working to reduce carbon emissions, and Assad says that the infrastructure to take the necessary measurements is not in place. He points out, for example, that "Brazilian soil labs simply aren't prepared to measure total soil carbon content".

Assad's team has sampled several sites around the country and already has a rough idea that in central Brazil, one hectare of recovered pasture could store four times as much carbon as one hectare of degraded pasture. He could produce better figures with input from regular soil analyses by ABC farmers. "But that would demand a lot of oversight," he says, "and no one wants to be overseen."

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