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RESTORING THE CAATINGA IN AGRARIAN REFORM SETTLEMENTS: more vegetation, food, and jobs in Rio Grande do Norte

With 95% of its territory covered by the Caatinga biome¹, Rio Grande do Norte is among the Brazilian states most vulnerable to the risk of desertification in the semi-arid region and, consequently, is also vulnerable to declining water availability and food production.

In a new study in its series on the benefits of the productive restoration of deforested areas, Instituto Escolhas shows that, in agrarian reform settlements in Rio Grande do Norte, the implementation of agroforestry systems (AFSs) in permanent preservation areas (PPAs)² can help address this situation. Restoring PPAs through agroforestry systems contributes to the preservation of water resources, since most of the areas suitable for restoration are located around water sources.

At the same time, it enables the biodiverse production of healthy food, with a variety of fruits and vegetables, generating jobs and income for settlement residents.

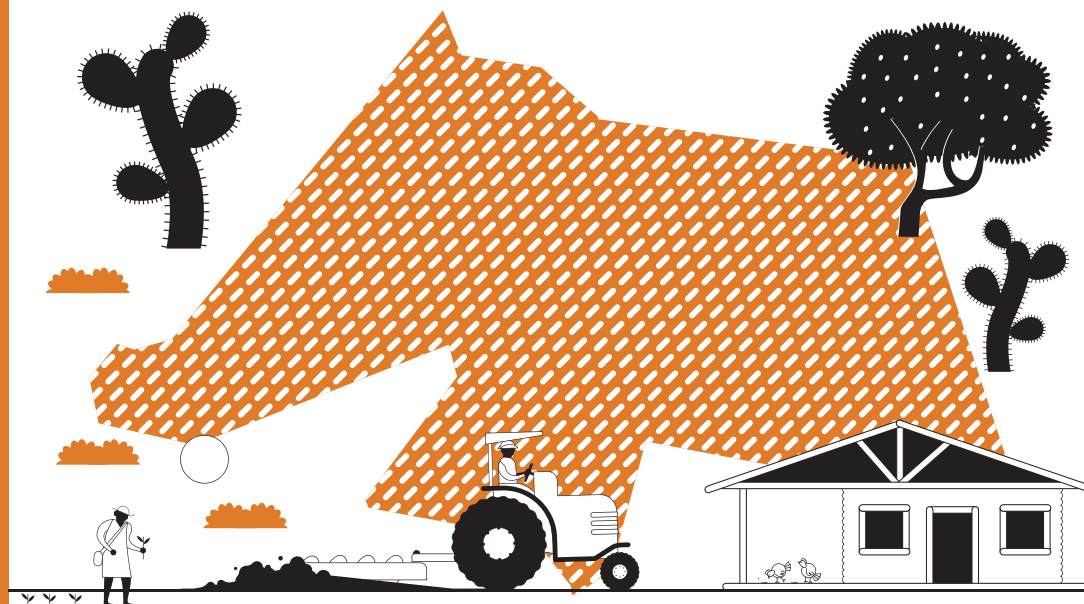
PPAs IN SETTLEMENTS CREATED BY THE LAND REFORM IN RIO GRANDE DO NORTE

THERE ARE
275
FEDERAL
SETTLEMENTS³

HOUSING
18,430
FAMILIES.

THE AREA OF THESE
SETTLEMENTS COMPRISES
487,873
(9.2% OF THE TOTAL AREA
OF THE STATE),

WITH
33,389
HECTARES CLASSIFIED
AS PPAs.



11,509
HECTARES OF THE PPAs ARE
DEFORESTED AND CAN BE
RESTORED PRODUCTIVELY
USING AGROFORESTRY
SYSTEMS (AFS).

THE RECOVERY OF THESE
AREAS THROUGH AFS HAS
THE POTENTIAL TO:

GENERATE **50.4**
THOUSAND JOBS



REMOVE **843.5 THOUSAND**
TONS OF CO₂ FROM
THE ATMOSPHERE



PRODUCE
3.04 MILLION
TONS OF
FOOD



PRODUCTIVE
RECOVERY OF
11.5 THOUSAND
HECTARES OF PPAs

USD 590 MILLION
NET REVENUE
(2.9 X THE
AMOUNT
INVESTED)

USD 51 MILLION IS
THE INVESTMENT
REQUIRED IN THE
FIRST 3 YEARS

USD 200 MILLION
IS THE TOTAL
INVESTMENT
NEEDED DURING
THE 30 YEARS OF
THE PROJECT

1. According to data from the Brazilian Institute of Geography and Statistics (IBGE). Available at: <https://brasilensintese.ibge.gov.br/territorio.html>. 2. The Forest Code (Law 12.651/2012) allows the restoration of PPAs using agroforestry systems combined with natural regeneration on small properties, including rural settlements. In this study, the minimum widths established by Article 4 of the Forest Code were considered for the delimitation and analysis of land cover in riparian PPAs, even when these exceed the minimum widths for compulsory restoration widths required for consolidated areas, as provided in Article 61-A. (the "ladder rule"). 3. Considering federal settlements and a cocoon settlement project.

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