

FROM TRASH TO LUXURY





PROBLEM

Problem 1

In Brazil, new regulation of basic sanitation is more demanding in relation to the correct disposal of sludge, which should make disposal in landfills more expensive - an option currently most used for these liabilities - encouraging other solutions;

Problem 2

The Manaus Industrial Pole - PIM produces about 5,000 tons per day. This number will increase considerably with the new regulation;

Solution

The application of sludge to obtain organomineral fertilizers and ecological bricks is a highly sustainable alternative.

THE UTOPIA



PRODUCT 1

SECTOR: INFRASTRUCTURE



Organomineral fertilizers

Market with CAGR of 7.6%;

The Brazilian fertilizer industry's turnover was R\$ 7.1 billion in 2019;

The segment increased by 19.5%, with soybean and coffee crops being the largest consumers;

Sludge can be applied as a source of mineral, nitrogenous and phosphate compounds that are essential for plant growth and development.

PRODUCT 2

SECTOR: AGRICULTURE



Eco Briks

Demand for sustainable bricks in Brazil has grown 150%;

The sludge replaces the clay and soil used in the manufacturing process;

It does not emit polluting gases, as it does not require burning in the manufacturing process;

More resistant bricks durable and at a lower cost. It also provides a thermal and acoustic environment;

EcoBricks result in savings in materials such as wood, iron and concrete, as they do not require plastering and columns;

INSTITUTION

Amazon Biotechnology Center
CBA

Manaus - Amazonas - Brazil

AREA OF ACTUATION

DELIVERIES

1

Development of a methodology for stabilizing solid waste to maintain the compounds of interest;

2

Characterization of sludge from different PIM treatment plants;

3

Development of organomineral fertilizer from sludge for application in different cultures;

4

Manufacture of ecological bricks replacing clay with sludge.

FUTURE ROADMAP - 2 YEARS



1
4 months

Stabilizing solid waste (sludge) to maintain the compounds of interest;



2
6 months

Sludge's characterization ;



3
14 months

Development of organomineral fertilizer and/or eco brik from sludge.



BUDGET



US\$ 395,000

Organomineral fertilizers

US\$ 238,000

Eco Briks

THE TEAM

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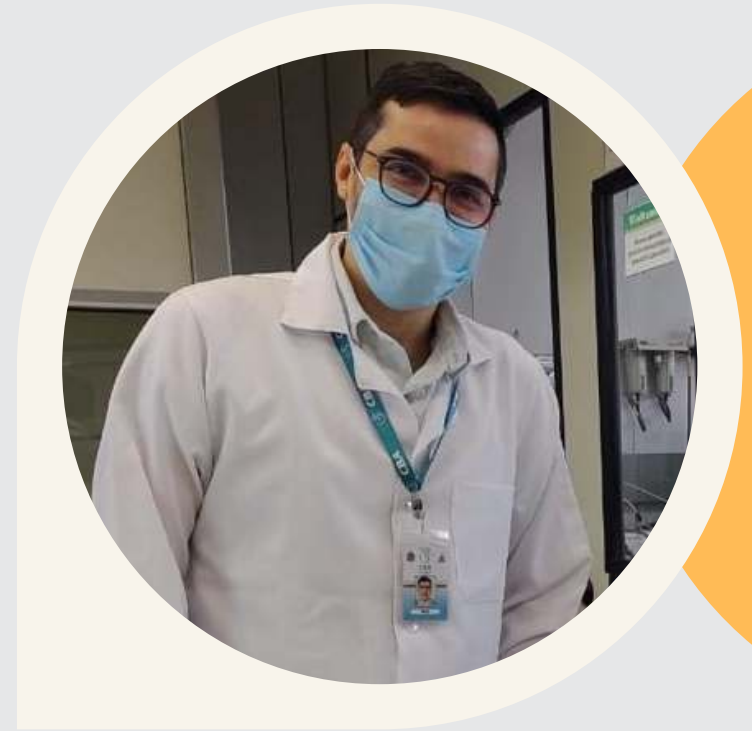
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SUFRAMA

MINISTÉRIO DA
ECONOMIA



PÁTRIA AMADA
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GOVERNO FEDERAL