

AGROECOLOGICAL AGROFORESTRY SYSTEM DESIGNED FOR MORE EFFICIENT USE OF IRRIGATION WATER BY FAMILY FARMERS

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INTRODUCTION

Family farmers often face limited water availability for food production. Agroforestry systems offer a promising strategy to enhance food security, generate income, and conserve biodiversity and natural resources.

Aim
To design agroecological agroforestry systems that reduce water use and optimize irrigation management strategies.



METHODS

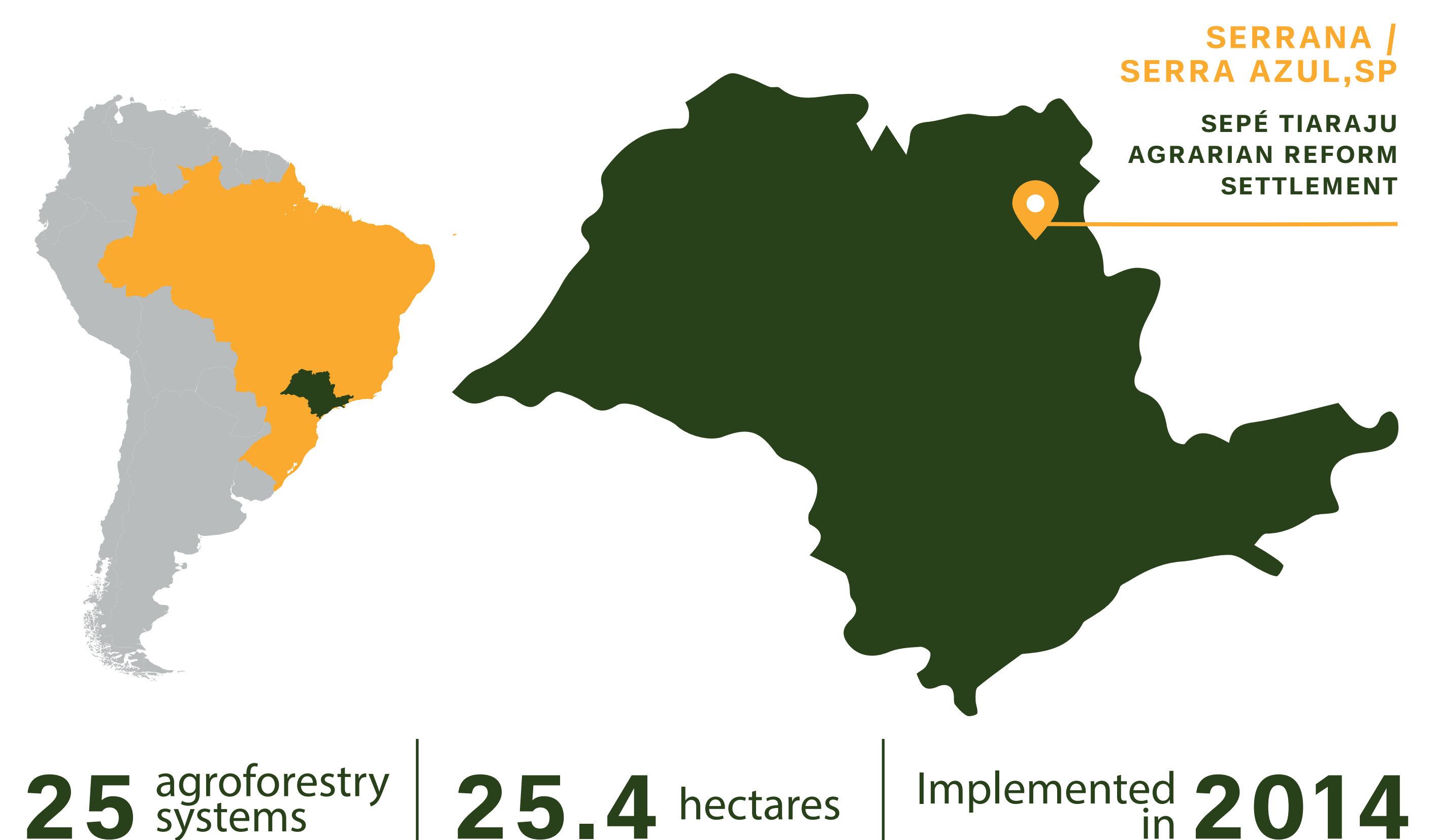


Figure 1 - Location of the Sepé Tiaraju Agrarian Reform Settlement, São Paulo state, Brazil



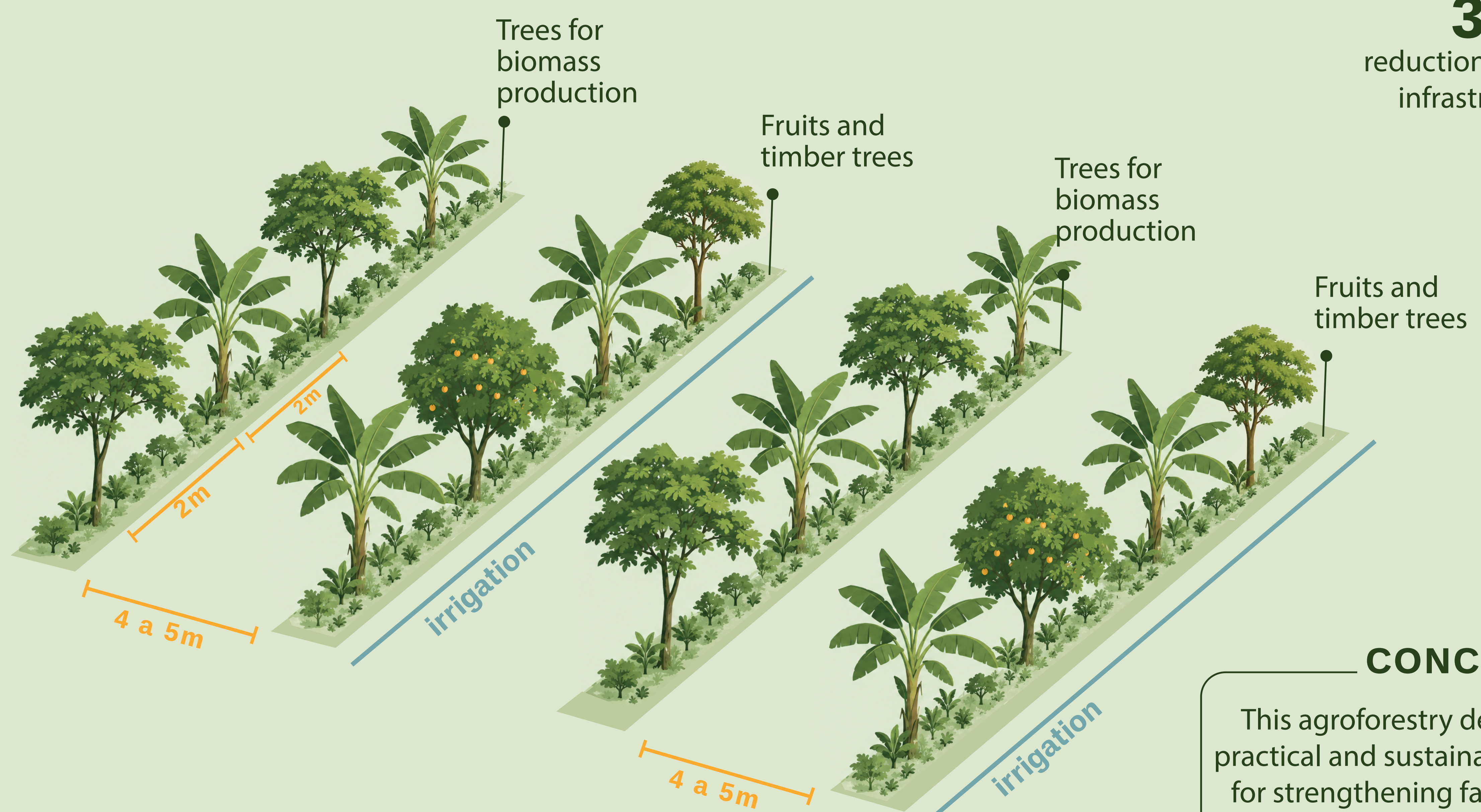
Figure 2. Definition of the design, implementation and management of the implemented agroforestry systems.

RESULTS

50%
reduction in water consumption

Improved soil moisture conservation and nutrient cycling

Reduction in erosion, weeds, and reliance on external inputs



37,6%
reduction in irrigation infrastructure costs

CONCLUSION

This agroforestry design offers a practical and sustainable solution for strengthening family farming under water-limited conditions

Figure 3. Illustrative diagram of an agroforestry system designed for more efficient water use.

ACKNOWLEDGEMENT

The farming families from Sepé Tiaraju Agrarian Reform Settlement for their collaboration in defining this design and partnership and hospitality.