

The Payment for Ecosystem Services (PES) *Juçara*

1. Scope

The PES *Juçara* is part of a comprehensive program named “*Juçara* Palm Conservation Program (Pro-*Juçara*)”, which has two components: the PES itself and the *Juçara* Palm Reforestation Program. These programs were implemented by the Fundação Florestal to ensure the repopulation of the *Juçara* palm (*Euterpe edulis*), which is considered vulnerable to extinction (IUCN, Portela et al., 2025). The first edition of the PES *Juçara* dates back to 2021, with actions developed starting in 2022, completing, therefore, 3 years of execution in 2025.

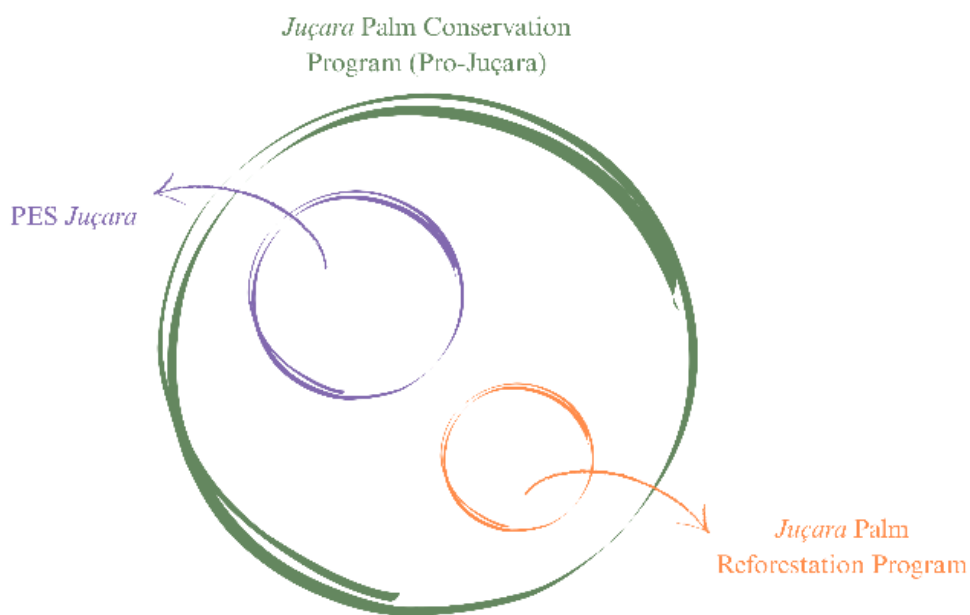


Figure 1. Programs included within the scope of Pró-*Juçara*. Source: Prepared by the authors.

2. PES *Juçara*

2.1 Coverage Area and Eligibility

Rural properties located within Conservation Units or in their buffer zones are eligible (Environmental Protection Area Quilombos do Médio Ribeira, Sustainable Development Reserves (SDR) Lavras, SDR Barreiro-Anhemas, SDR Pinheirinhos, and SDR Quilombos de Barra do Turvo – equivalent to the International Union for Conservation of Nature (IUCN) classifications of Protected Areas with Sustainable Use of Natural Resources (category VI) and Protected Landscape or Marine (category V), respectively (CNUC, 2024). Each participating producer must be a family farmer or a member of a traditional community and reside in the areas outlined in the public call. The interested parties must also commit not to cut any palm trees for heart of palm extraction for approximately 7 years. However, during the project, they may harvest and sell the fruit in various forms, such as seeds, pulp, and ice cream.

In the first public call (2021), 100 spots were available (50 beneficiaries for EPA Quilombos do Médio Ribeira and 50 for the SDRs), with a waiting list for those who were interested but could not participate. Participation was voluntary and had to be formalized through a Contract for the Provision of Environmental Services between the property owner or possessor and the Fundação Florestal (i.e, Forest Foundation).

Once confirmed as beneficiaries, participants received technical visits from Fundação Florestal to assist in developing action plans for the proposed activities. The teams from Fundação Florestal, sometimes supported by technicians and consultants from partner institutions or hired by the project, assisted the property owner or possessor in identifying priorities and defining an action plan. However, technical visits for activity monitoring were not provided, and the maintenance and care of the plantations were the participants' responsibility. Seeds and/or seedlings were also not provided.

2.2 Activities

The mandatory activities established by the program are: (i) Planting a minimum of 600 *Juçara* palms per hectare; (ii) Removal of açaí or hybrid palms between *Juçara* and açaí; (iii) Participation in training sessions promoted by Fundação Florestal; (iv) Installation of native bee hives. Elective activities are also encouraged: (i) Environmental education with schools; (ii) Peer training among farmers; (iii) Establishment of native seedling nurseries; (iv) Enrichment of Permanent Preservation Areas with *Juçara* palms; (v) Donation of seeds or seedlings to other farmers; (vi) Participation in environmental task forces within Protected Areas; (vii) Processing and commercialization of *Juçara* fruits.

Elective activities are worth points and must add up to 2 points per year, starting in the second year. Examples: hosting students for environmental education (2 points); creating a nursery for native seedlings (1 point), among others.

2.3 Payment

Payments are made monthly over 60 months (5 years). However, upon signing the contract, the farmer received an initial amount to start activities that required investment. The amount received varies according to the planted area (2 or 3 hectares¹) and can reach up to R\$ 38.300 (US\$ 204.905). Payments and verifications are carried out by Fundação Florestal. Immediately after the action plan commences, an initial installment is paid: R\$ 2,000 (approximately US\$ 10,700) for 2 hectares and R\$ 3,000 (approximately US\$ 16,050) for 3 hectares. Monthly payments begin six months after the start of the project and decrease each year, reflecting the transition from planting to maintenance. If all requirements are met, an additional final payment is made at the end of the project: R\$ 2,000 for 2 hectares, R\$ 3,000 for 3 hectares. All payments are made through monthly deposits into a Banco do Brasil account in the name of the beneficiary.

Project Year	Monthly Payment (2 hectares)	Dollar (based on January 2022)	Monthly Payment (3 hectares)	Dollar (based on January 2022)
Year 1	R\$ 800	US\$ 4,280	R\$ 1,200	US\$ 6,420
Year 2	R\$ 600	US\$ 3,210	R\$ 900	US\$ 4,815
Year 3	R\$ 300	US\$ 1,605	R\$ 450	US\$ 2,407
Years 4 and 5	R\$ 200	US\$ 1,070	R\$ 300	US\$ 1,605

¹ 1 hectare (ha) = 10.000m²

Table 1. Adapted from Fundação Florestal, 2022.

2.4 Conditions for payment

If the beneficiary does not carry out the mandatory activities or does not reach 2 points/year in elective activities, a 10% deduction will be applied to the monthly PSA payments for up to 12 months. Payment is only made if the action plan goals are met and verified during inspections. If the density of *Juçara* planted is below the required minimum (600 plants/ha), the payment will also be proportionally reduced, or even suspended if it falls below 300 individuals/ha. Additionally, inspections are conducted every six months throughout the five-year contract to verify whether the beneficiary is complying with the activities outlined in the Action Plan. The public notice establishes that the Fundação Florestal may conduct additional inspections whenever deemed necessary. The inspections verify: (i) whether the planting was carried out correctly (minimum of 600 *juçara* palms per hectare); (ii) maintenance of the activities; (iii) implementation of mandatory and elective activities; and (iv) conditions of the native beehives and other requirements of the program.

3. Additional information

For more details:

- <https://fflorestal.sp.gov.br/programa-de-conservacao-da-palmeira-jucara/>
- <https://fflorestal.sp.gov.br/programa-de-conservacao-da-palmeira-jucara/psa-jucara/>
- https://smastr16.blob.core.windows.net/fundacaoflorestal/sites/243/2021/12/chamada-publica-psa-jucara_005_2021_versao-2.pdf

4. References

CNUC (2024). Curso à distância sobre o Cadastro Nacional de Unidades de Conservação. Módulo 1. Retrieved from <https://www.gov.br/mma/pt-br/assuntos/biodiversidade-e-ecossistemas/areasprotegidas/plataforma-cnuc-1/GuiaSNUCCNUCmdulo1.pdf>. Accessed June 2024.

IUCN. Portela, R., Mendes, E. T. B., de Lima, T. M., Oda, G. A., & dos Santos, A. S. (2025). *Euterpe edulis* (Green Status Assessment). *The IUCN Red List of Threatened Species 2025*. Retrieved from <https://www.iucnredlist.org/species/111457556/161421095#green-assessment-information>