Turismo Cuida

Sustainable Trout Farming

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Objective

Sustainable Trout Farming

To design a sustainable trout farming system in Ollantaytambo using natural ponds and organic feed. This initiative aims to improve access to high quality protein and reduce malnutrition rates in the local communities. Additionally, it includes training the local community in sustainable aquaculture techniques, water quality and waste management.

Challenges

Sustainable Trout Farming

- Trout farmers face weak organizational capacity, market disconnection and limited knowledge of efficient and profitable commercial management.
- Additionally, there is a lack of public policies that support the development of small-scale farmers.
- 20% of the entire population of Ollantaytambo suffers from chronic malnutrition. In Patacancha, this figure rises to 45%. According to INEI, this affects 417 people in Patacancha across 107 families.
- Only 1 in 4 residents consumes protein daily.

Beneficiaries

Sustainable Trout Farming

- Community members that do not have fish farms or those that have very low production or inactive farms.
- Community members in vulnerable conditions due to anemia and malnutrition.
- Priority sectors in Ollantaytambo: Yanamayo, Huilloc Alto, Piscaycucho, Patachancha y Quellccanca y Tastayoq.
- Food and beverage establishments that need fresh, high-quality protein.

Commercialization

Sustainable Trout Farming

- Non-intensive systems: For local consumption within the community, direct sales to community members and/or schools, mothers' clubs, milk programs, or community dining halls.

- Semi-intensive systems: For restaurants in Ollantaytambo and Urubamba, based on 4 units per kilo, with each unit weighing 250 grams. Sold at a competitive price of 13 to 15 soles per kilo.

Activities

Sustainable Trout Farming

- Construction of basic infrastructure (ponds, storage facilities, and warehouses).
- Procurement of equipment (motors, aerators, nets, air measurement tools, and signage).
- Purchase of fingerlings and feed.
- Hiring of technical and operational staff.
- Training on trout management.
- Legal formalization.
- Production of products and commercialization.

Minimum Viable Product

Infrastructure

- Pond: 5m x 5m x 2m
- Water inlet and outlet system: 5 liters per second.
- Shading to maintain a temperature of 10 - 16ºC
- Construction of a tool room

Supplies

- Trout fingerlings: 500
- Feed: 2-3% of the trout's body weight

Minimum Viable Product

Equipment

- Water oxygenator
- Harvesting net
- Pond cleaning equipment

Success indicators

- Fingerling survival rate: no less than 80%
- Total production: 1000 kilos per cycle

Results

Sustainable Trout Farming

- Increase in production: A significant rise in the number of trout produced within the community.
- Improvement: in family income: Direct economic benefits for the families involved.
- Increase in food security: Vulnerable populations with the opportunity to include protein in their diet.
- Availability of trout-derived products for sale in local and international markets.

Business Structure

Sustainable Trout Farming

- Initial investment: $8,000 - $12,000 (infrastructure and fingerlings).
- Monthly operating costs: $1,000 - $ 1,500 (feed and maintenance).
- Estimated income: $15,000 - $18,000 per cycle (selling trout at S/ 15/kg).

Indicators

Sustainable Trout Farming

- % of malnutrition and anemia in the community.
- Income earned by the community from the sale of trout.
- Production of fish farms measured in tons.
- Number of direct and indirect jobs generated.
- Physical and chemical parameters of the water used.
- Number of food and beverage establishments that buy sustainable trout.

- 1 fish farm.
- 4 ponds (1 for fingerlings, 1 for juveniles, and 2 for adults) measuring 5m x 5m x 2m deep.
- Production capacity: 1000 kilos (1 ton) per cycle.
- 9 months per cycle (3 months for fingerlings, 3 months for juveniles, and 3 months for adults).
- The break-even point is approximately 750 kilos.
- Recommendation: At least 3 years.

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Budget

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Concept	Amount
Basic infrastructure	$11,000
Equipment	$3,500
Technical training	$2,000
Supplies	$5,000
Labor	$5,000
Marketing and social media	$2,000
Legal formalization	$2,000
Smokehouse	$5,000
Product development	$2,000
Commercial link	$2,000

Total estimado: $39,500

Technical Advisory

1. Management of Good Aquaculture Practices
2. Disease Control and Prevention
3. Health and Regulatory Standards
4. Certification and Export Procedures
5. Traceability Systems
6. Environmental Management in Aquaculture
7. Improvement of Feeding Techniques

SANIPES
Organismo Nacional de Sanidad Pesquera

State Competitive Fund

The **National Program for Innovation in Fisheries and Aquaculture (PNIPA)** offers non-refundable funding (NRF) for innovation subprojects in the aquaculture sector. The amounts and funding percentages vary depending on the type of applicant:

Individual with a Business:

- **Maximum NRF amount:** Up to S/ 80,000.
- **Co-financing percentage:** Up to 75% of the total project value.

Legal entity:

- **Maximum NRF amount:** Up to S/ 400,000.
- **Co-financing percentage:** Up to 70% of the total project value.

PNIPA
PROGRAMA NACIONAL DE INNOVACIÓN EN PESCA Y ACUICULTURA

Partner in Technical Assistance

- **Aquaculture development:** Increase in trout production through partnerships and financing.
- **International Export:** Certified Peruvian companies gain access to US and European markets.
- **Innovation:** Advanced technologies improve the efficiency and sustainability of farming.
- **Support for Small Producers:** Training enhances farming practices and business management.
- **Infrastructure Improvement:** Development of modern infrastructure in key regions
- **Market diversification:** Growth in exports and international recognition of the quality of Peruvian trout.

Partner in commercialization

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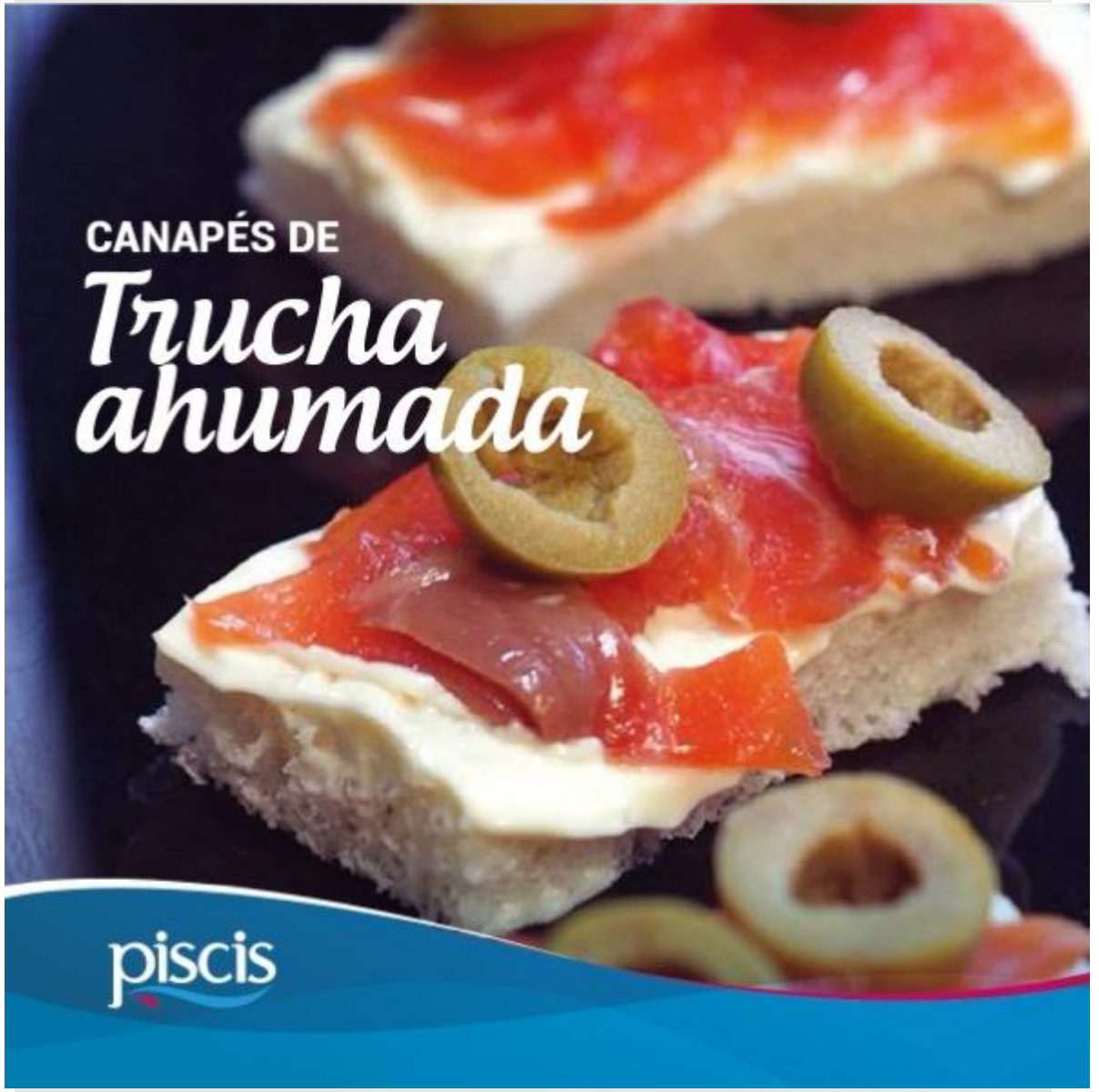
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