

Sagari Project

Social & Environmental Challenges

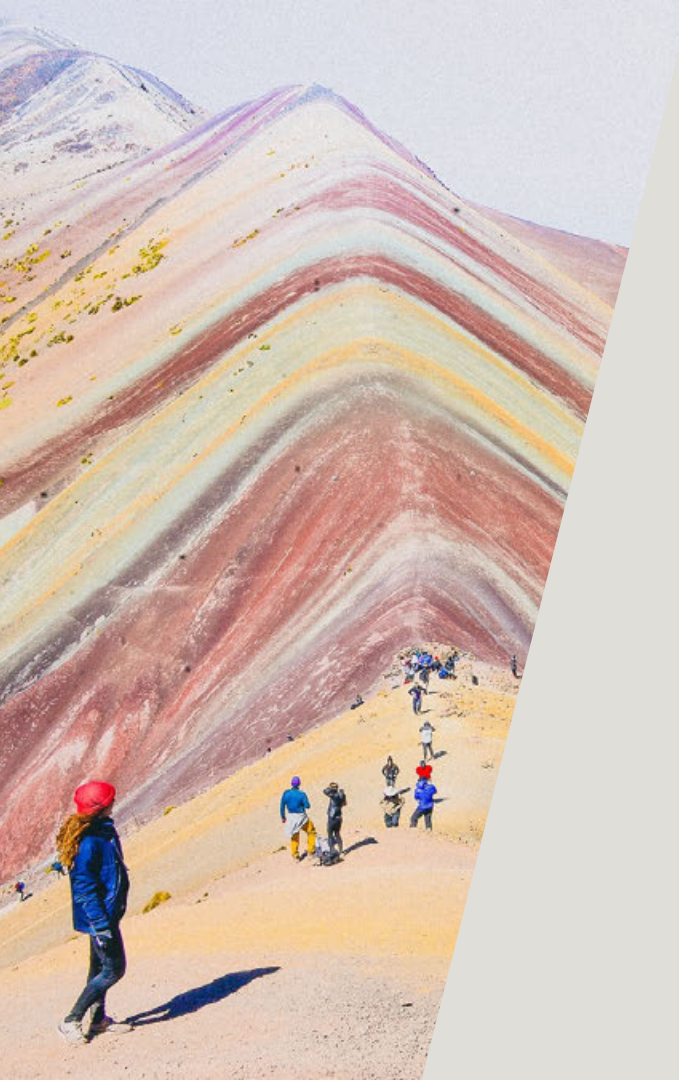
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D.G. E&P

Sustainability Day 2019





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1. **Peruvian Context**
2. **Challenges of Sagari Project**
 - **Environmental Performance**
Mitigation and Enhancement Measures
 - **Social Performance**
Social Opportunities and Shared Value Approach
3. **Strategic Alliances and Scientific Contributions**

Country and Industry overview



Country and Industry overview



- **Population:**
32 million
- **GDP 225 BUS\$, main drivers:**
 - Manufacturing [13%]
 - Mining and Hydrocarbons [13%]
 - Trade [11%]
 - Construction [6%]
 - Agriculture [5%]
- **Inflation:**
2.2%
- **Main IOC's in Peru:**
Repsol, Shell, Pluspetrol, Hunt, Tecpetrol
- **Main NOC's:**
CNPC, Sonatrach, Petrovietnam
- **Debt ratio [debt/GDP]:**
25.8%
- **Trade Balance:**
+7.2 BUS\$

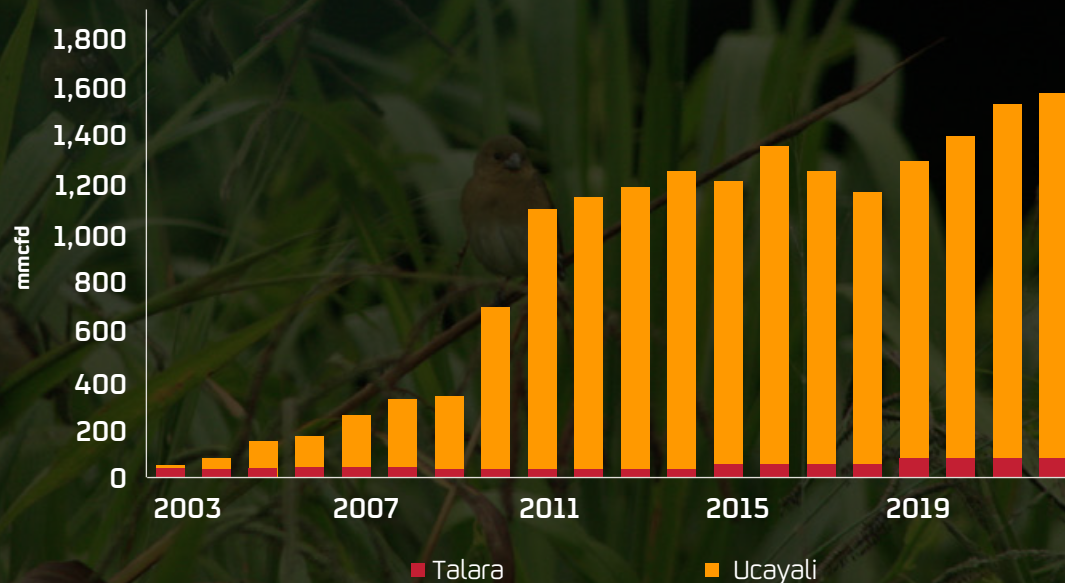


Country and Industry overview

Activity highlights

Hydrocarbons - activity highly driven by Prior Consultation Law, creation of National Protected Areas on top of existing licensed areas

Gas Production

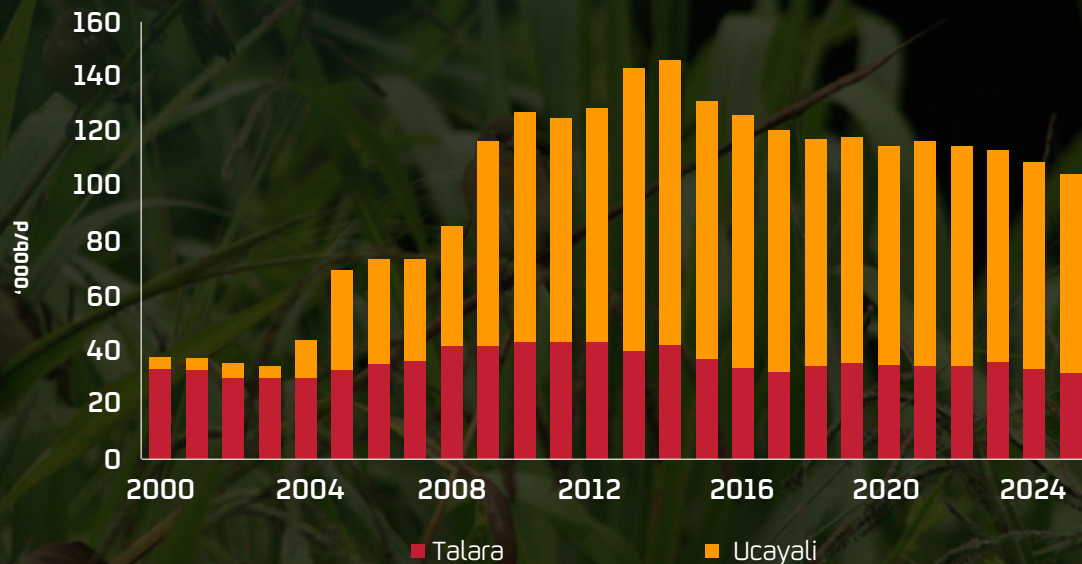


Country and Industry overview

Activity highlights

Hydrocarbons - activity highly driven by Prior Consultation Law, creation of National Protected Areas on top of existing licensed areas

Liquids Production

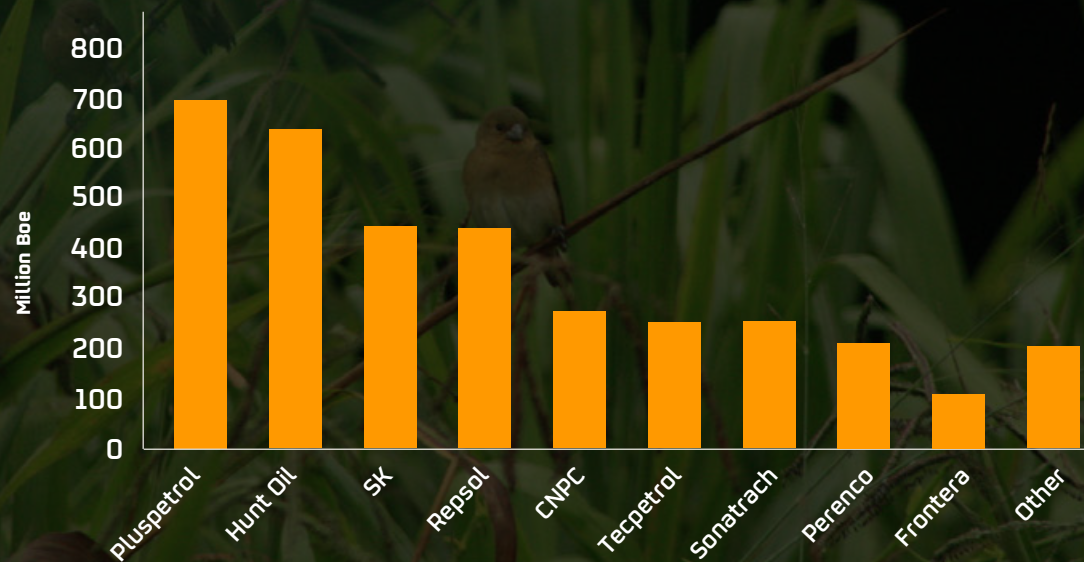


Country and Industry overview

Activity highlights

Hydrocarbons - activity highly driven by Prior Consultation Law, creation of National Protected Areas on top of existing licensed areas

Reserves @ 2018.12.31



Repsol in Peru

Asset Map

- Repsol Operated / Non operated
- Repsol Technical Evaluation Agreements



Repsol in Peru

Asset Map



Machiguenga Community Reserve

- Tropical Andes
- One of the 34 biodiversity hotspots
- Presence of **natural areas protected** by the Government
- **Ancestral area** of continuous use by **Native communities**
- Area of international and national concern

Sagari

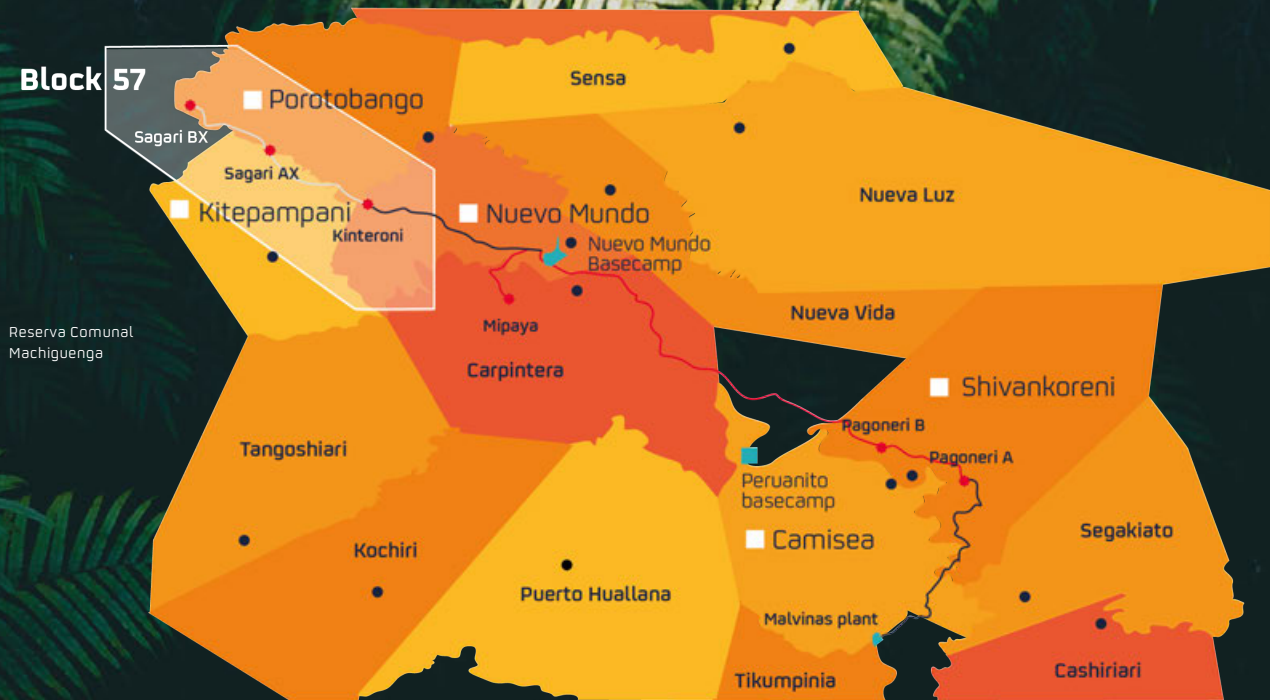
Camisea

57

56

88

Communities Map



Context

Sagari

Project

Sagari is one of the two gas and condensate fields in Block 57, operated by Repsol

Block 57 represents for Peru:

- **Production:** 200 Mscfd & 14,000 Bpd (2019)
- **Royalties:** 27.1 MUS\$ (in 2018 only)
- **CAPEX:** >1,000 MUS\$

Sagari facts



CAPEX
353 MUS\$



HSE
1 minor accident
& 0 environmental
incident



Gathering system
19 km of flowlines, 2 production
pads and interconnection
in Kinteroni



Term
4 years



Drilling
2 new production wells,
1 workover, 1 Cutting
Reinjection well



Logistics
Tons: 16,587
Flight Hours: 3,784
Personnel: 17,660







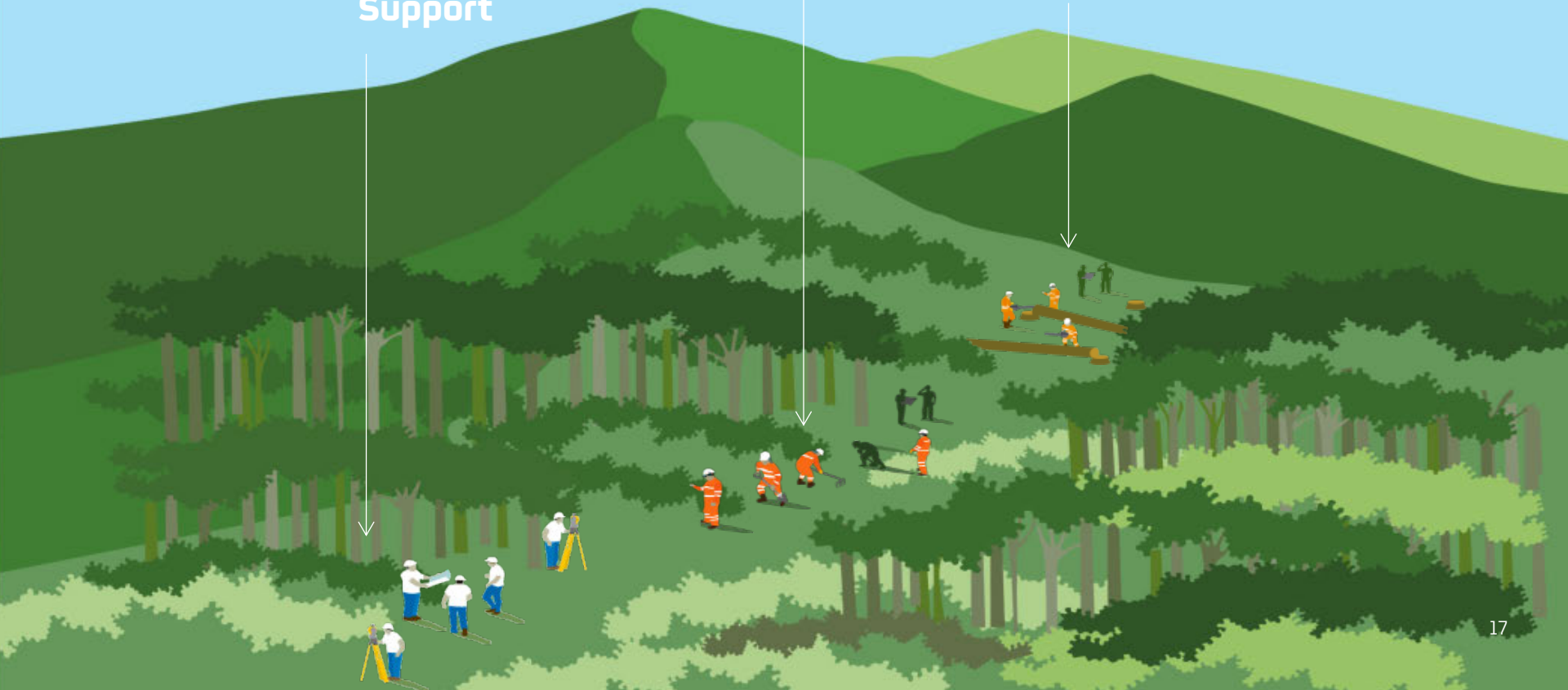




1. Topography, Forest Inventory and Social Support

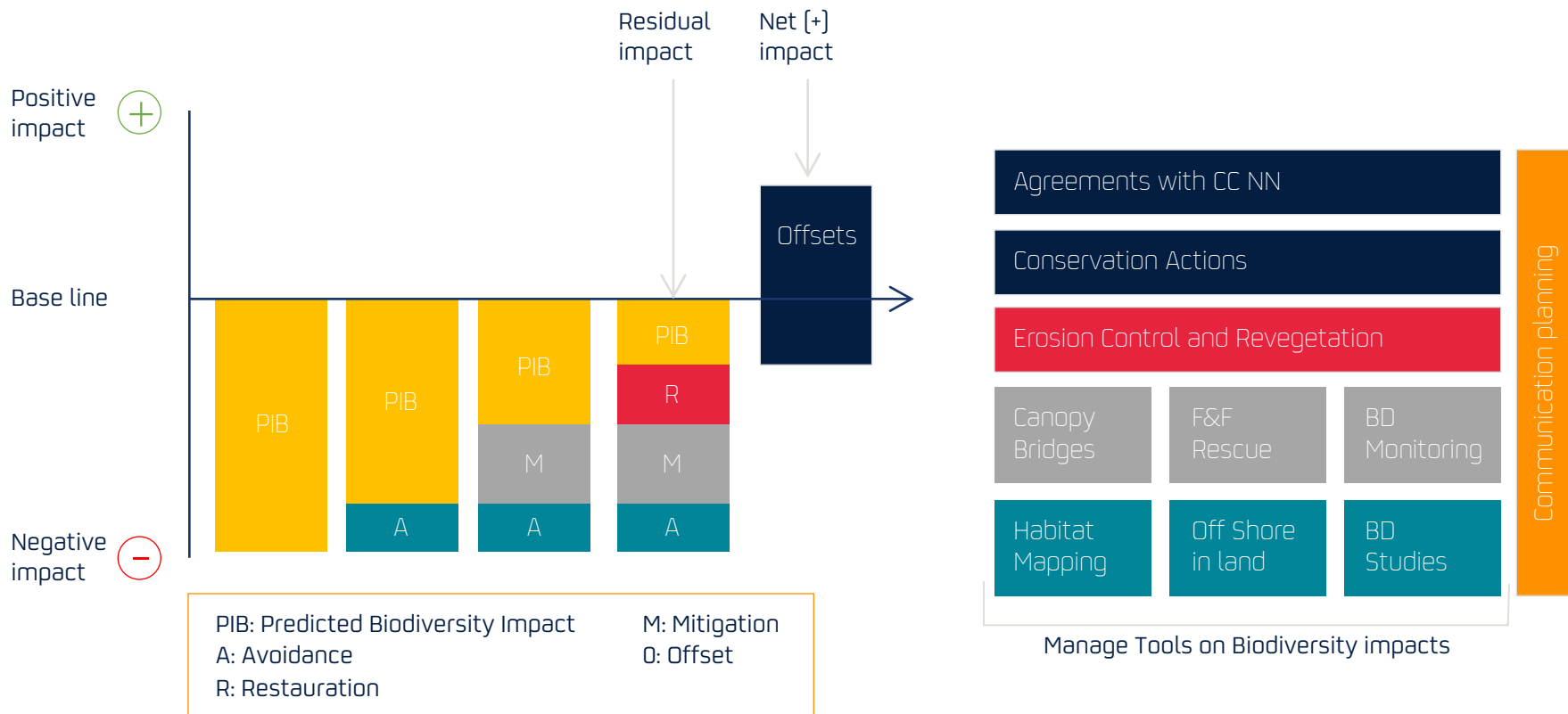
2. Clearing

3. Directed Felling

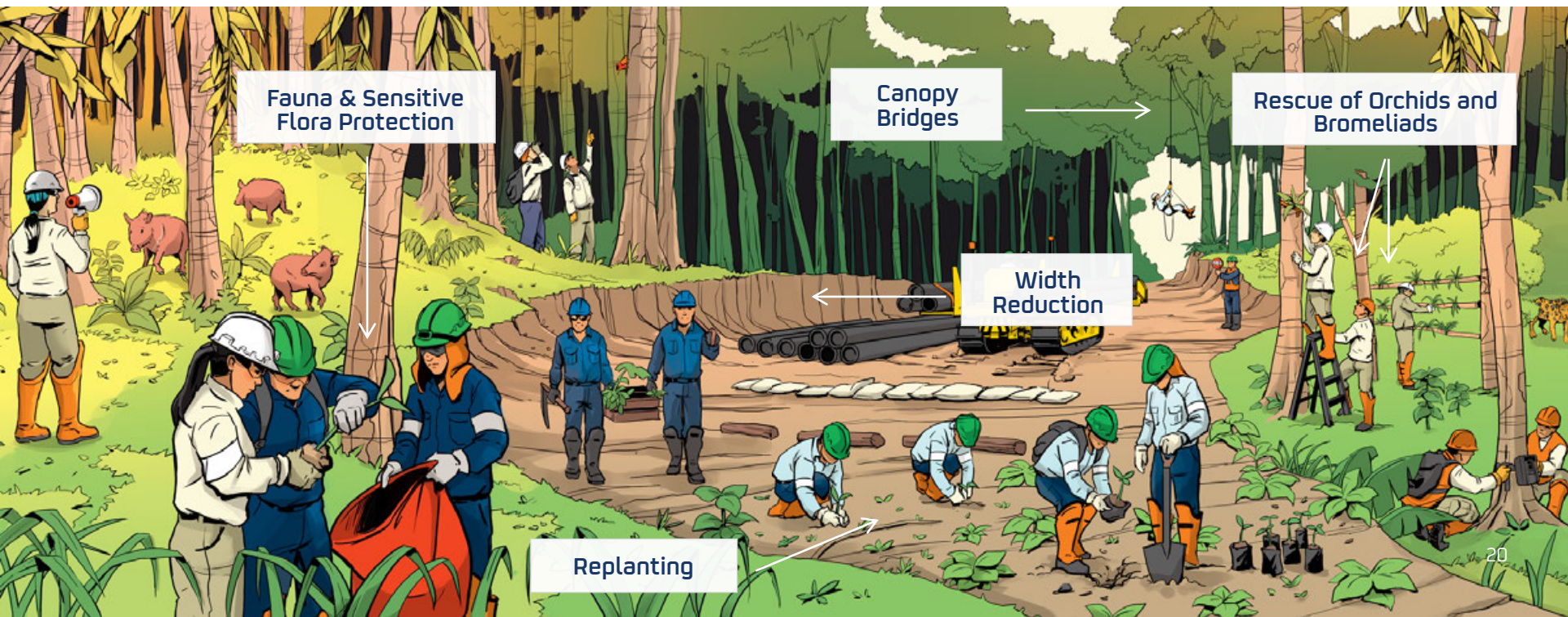




Mitigation Hierarchy



Actions to Mitigate Impact on Flora and Fauna



Project Footprint Reduction [Avoid]

**43 ha of ROW projected 40% of the
forest area Preserved [18.4 ha]**

Rescue and Relocation of Orchids and
Bromeliads [Mitigate]

82% orchids and bromeliads rescued
77% survival rate



Preservation of Seed Trees and
Sensitive Trees [Mitigate]

**60% of sensitive trees
preserved (12 of 20)**



Wildlife Protection (Mitigate)

367 protection activities in the ROW



Canopy Bridges [Mitigate]
**6 natural canopy bridges
preserved and 1 liana bridge**



2. CHALLENGES OF SAGARI PROJECT



Replanting with Native
Species (Restore)
100% surface replanted



Social Performance Approach

Maximize Social Opportunities

Local Content

100 local employees during
construction phase

Strengthening skills

Technical and management
training

Citizen Surveillance

20 monitors from 14
Communities



Local workers in operations



Technical skills for communities



Public Management for leaders



Local monitor in place

Social Performance Approach

Local Development Contribution

Shared value

Access to energy for
200 families

Urban improvement – 6
km of community roads

SDG oriented

24 community
development agreements

Multi-stakeholder approach



17 PARTNERSHIPS FOR THE GOALS



Governance



Electrical interconnection



Road Improvement



Government-
Community-Repsol



Alliance for development

3 GOOD HEALTH AND WELL-BEING



Health prevention



Remote ultrasound
More than 1,200 beneficiaries

4 QUALITY EDUCATION



Skills strengthening



University scholarships
3 students

12 RESPONSIBLE CONSUMPTION AND PRODUCTION



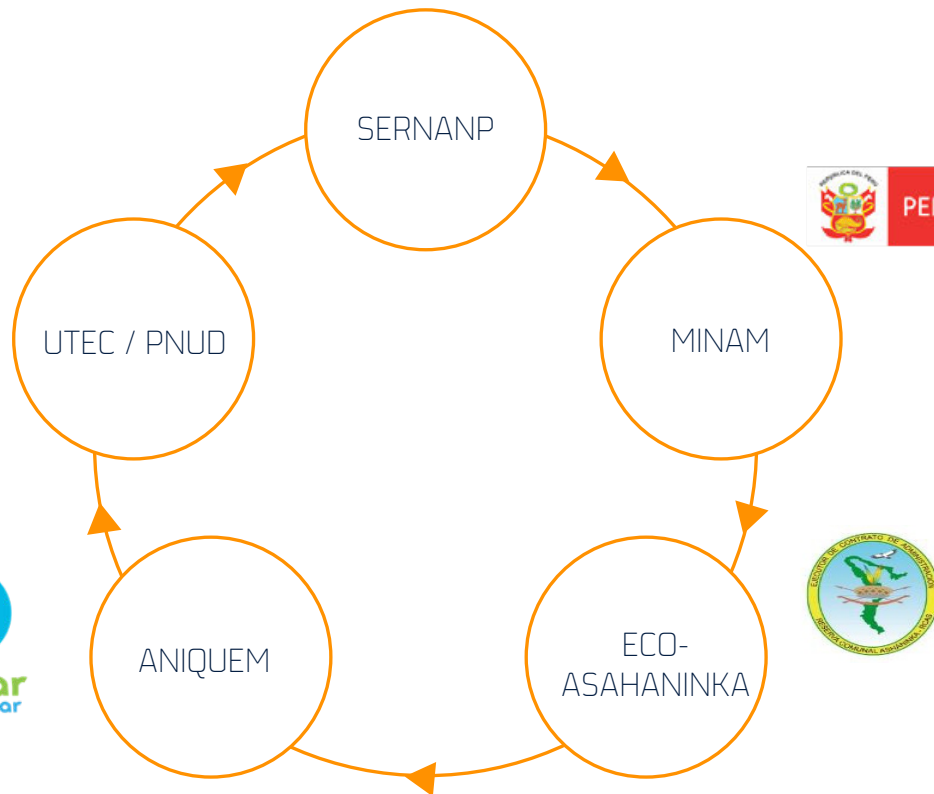
Productive Initiatives



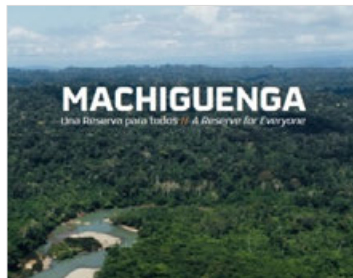
Productive Projects

300 Has Cocoa Plantation /160
Has Reforested /Handicraft
promotion

Alliances



Publications



Machiguenga “A reserve for everyone”

In collaboration with:
Sernanp, Peru Ministry of Environment

Link for download
<http://sis.sernanp.gob.pe/biblioteca/?publicacion=1542>



Orchids and Bromeliads

In collaboration with:
Sernanp

Link for download
https://www.repsol.pe/imagenes/repsolporpe/es/orquideas_bromelias_tcm76-121332.pdf



Looking for the Giant Armadillo

Link for download
https://www.repsol.pe/imagenes/repsolporpe/es/Armadillo%20Gigante_tcm76-166975.pdf



Protecting our Biodiversity, Building the Future In collaboration with: Sernanp, Peru Ministry of Environment

Link for download
https://www.researchgate.net/publication/327607466_Sagari_Protegemos_nuestra_Biodiversidad_Construimos_el_Futuro



REPSOL