



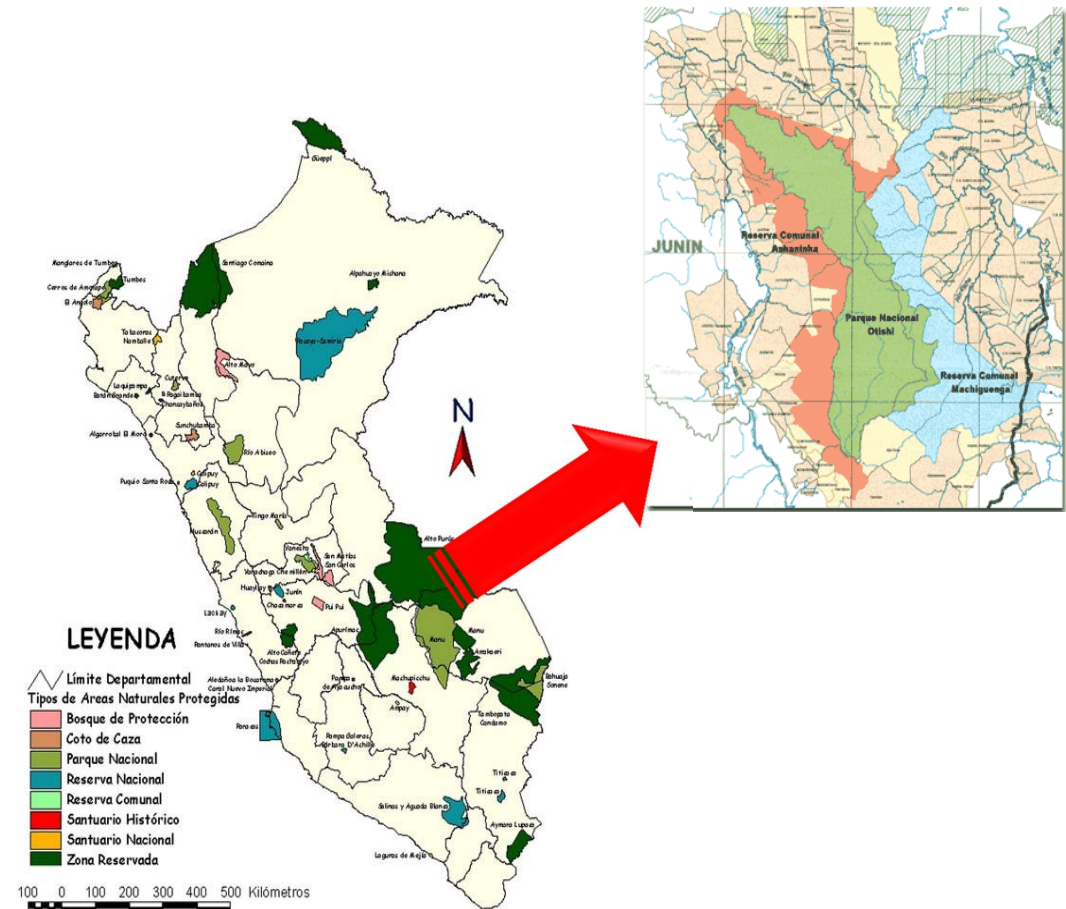
**ENVIRONMENTAL MANAGEMENT IN PIPELINE CONSTRUCTION FOR
PRESERVATION OF THE BIODIVERSITY**

SERPETBOL PERÚ CONSTRUCCIONES SEPCON S.A.C

BACKGROUND

The Sagari Flow line (Gas) Project was executed in the Block 57 of the Camisea Gas Reservoir, in an environmental sensitive area in the southern jungle of Peru, in the indigenous community territories of Porotobango, Kitepampani and Nuevo Mundo, in the Echarate district, of La Convencion Province of the Cusco region.

The Project main scope of Works included the engineering and construction of two gas flow lines (19 Km 14" & 19 Km 8", carbon steel pipe) and surface facilities for 3 wells with a production capacity of 268 MMSCFD.



ENVIRONMENTAL SENSITIVITY

The Camisea reservoir and specifically the Block 57, comprises in its integrity the buffer zones of the Machiguenga communal reserve (RCM), the National Park Otishi and the Ashaninka natural reserve. This three protected natural areas (ANP) are part of the influence area of the Vilcabamba complex, considered as one of the most bio diverse sites in the world, mainly due to its climatological, edaphological, species diversity and geographical conditions.

The enormous complexity of such area and the potential impacts from the execution of the Sagari Flow line Project, generated the need to plan and manage the mitigation strategies and actions in order to control and reduce the potential environmental impacts of the construction activities. Therefore, the Company successfully implemented the: ENVIRONMENTAL MANAGEMENT PLAN FOR THE BIODIVERSITY PRESERVATION .



INITIATIVE: ENVIRONMENTAL MANAGEMENT PLAN FOR BIODIVERSITY PRESERVATION

ENVIRONMENTAL MANAGEMENT PLAN FOR BIODIVERSITY PRESERVATION

Reduce the width of the RoW by 40% in order to minimize the total area of impact to flora and fauna



Establish a continuous process of erosion control and RoW maintenance



Develop and implement the early alert management plan and the HERBACEOUS, ORCHIDS and BROMELIAS identification and rescue management plan.



Design and Implement fit for purpose nurseries to grant the provision of new and healthy plants for the reforestation process of the RoW





RESULTS AND ACHIEVEMENTS

Reduce the width of the RoW by 40% in order to minimize the total area of impact to flora and fauna.

RoW deforestation area was reduced by 64%, preserving an area of 300 Km2.

Establish a continuous process of erosion control and RoW maintenance

Description	Unit	QTY
Containment trenches for silty soils	m	2415
wooden trenches	m	4655
bio blankets	m2	8825
matting	m2	2730
hydro blocks	m3	1589
Barriers in trenches	Und	806
Water flow diverters	Und	1272

Develop and implement the early alert management plan and the HERBACEOUS, ORCHIDS and BROMELIAS identification and rescue management plan

Species	Rescue	Relocation
Cyathea sp.	97	97
Costus cf. Productus	1152	1143
Calathea cf. Pseudoveitchiana	1977	1976
Bauhinia cf. Prophyrotricha	1974	1971
Astrocaryum sp.	7	7
Asplundia df. Ulei	1	1
Abuta sp.	412	411
TOTAL	5620	5606

Design and Implement fit for purpose nurseries to grant the provision of new and healthy plants for the reforestation process of the RoW

