Overview

This road corridor plays a crucial role in national development, as it is part of the E20 axis, which is a very fluid road in the State Road Network. It is also a road connecting the provinces of Pichincha and Napo, with a permanent and constantly growing flow of traffic, especially heavy transport that moves essential products. The Pifo - "Y" de Baeza road corridor is approximately 76.4 kilometers long.

Deteriorations such as longitudinal cracking, potholes, constant landslides, deformations, and cracking of the roadway can be observed along the corridor. These deteriorations may have been caused by mass movement of the slopes and water seepage due to rainfall. Intense rains have been observed along the road corridor; this climatic condition influences the infiltration of water into the soil and erosion weakens the upper layers of soil and structure of the road, causing deterioration of the road, which is manifested in constant landslides.

In addition, snow has fallen on the provincial border between Pichincha and Napo, affecting the safety of road users, conditions that are aggravated due to the deficient presence of adequate vertical and horizontal signage,.This has caused an increase in travel times.

Project Type

Brownfield

Fundamental Criteria.

Priority project of the Delegating Entity and duly aligned with the objective, policy and goal of the National Development Plan and strategic planning at the sector level.

Compensation Model

Payment per Users

Potential Demand-Study 2021

Based on information available from MTOP from a 2021 study:

Year	2021	2023	2030	2035	2040	2045	2051
Pifo - Papallacta Section	12.148	12.875	15.781	18.267	21.159	24.505	29.227

Growth Rate: 2,98%

Components

Alternative 1.

- Rehabilitation of the 4-lane Pifo-Papallacta section and widening to flexible pavement, from 2 to 4 lanes, Papallacta-Baeza section.

Alternative 2.

- Rehabilitation of the 4-lane Pifo-Papallacta section and widening to rigid pavement from 2 to 4 lanes, Papallacta-Baeza section.

* (km 0+000 at the beginning of E20 and ends at km 76+400).

START: Abscissa: 0+000, East (longitude): 797,130.10, North (latitude): 9,973,423.60. END: Abscissa: 76+400, East (longitude): 176,682.90, North (latitude): 9,948,892.80.

Delegation Model

Public-Private Partnership (PPP)

Location

Provinces: Pichincha and Napo **Cantons:**

Quito and Quijos



Socioeconomic Information

Positive Impacts of the Project

- * Improved road safety.
- * Reduced vehicle maintenance costs.
- *Improved transportation efficiency.
- *Promoting economic development.
- *Access to essential services
- *Development of local infrastructure.
- *Increased property values.
- * Improved access to emergency services.
- *Reduced congestion.
- * Reduced vehicular wear and tear.

Beneficiaries

Located in the area of affluence

- * Direct Beneficiaries: 2'686,194 inhabitants.
- * Indirect Beneficiaries: 3'221,148 inhabitants.
- * Induced Beneficiaries: 7.561 inhabitants.

Environmental Benefits of the Project

- * Emissions reduction.
- * Reduction in the use of non-renewable resources.
- * Minimization of Impacts on Sensitive Ecosystems

Comparative Analysis of Alternatives

Detail	Alternative 1	Alternative 2
Advantages	Lower investment costs, construction time, travel, higher capacity and road safety.	Reduced operating cost, environmental impact, travel, increased capacity and road safety
Disadvantages	Higher operating costs.	Higher investment cost and construction time.
Preliminary Decision Justification	Alternative I proposes to widen the road if the studies show that the traffic meets the 2003 Geometric Design Standard for Roads, with more than 8,000 vehicles. This would ensure road safety and optimal travel times. The CAPEX strategy reduces costs to avoid cost overruns and maintain an acceptable toll rate, possibly reducing the state funding required.	In this alternative, the participation of state contributions is higher than that foreseen in alternative 1.

Suggestion: It is concluded that Alternative No.1 best meets the project objetives and selection criteria.

Financial Information

Alternative i			Altern	Alternative 2			
	CAPEX (Referential)	\$ 73'032.713	millions	CAPEX (Referential)	\$ 89′191.212	millions	
	OPEX (Referential)	\$ 115′985.210,40	millions	OPEX (Referential)	\$ 98′352.212,40	millions	
	Total Project Value	\$ 189 017.923	millions	Total Project Value	\$ 187′543.424,40	millions	

NOTE: It is important to point out that the investment amounts shown in the diferent alternatives are referential, since they come from an initial project profile. These amounts will be updated as the $phases \ of \ the \ PPP \ cycle \ progress, \ i,e, \ prefeasibility \ and \ feasibility, \ respectively.$

Implementatión time in reference years

Alternative 1 Alternative 2 **CAPEX:** 6 years CAPEX: 4 years

Current Status of the Project

Phase: Structuring

Registered in the National Registry of Public Private Associations - Source Registry, on 04

Potential Jobs Generated

3.766 approx.

Type of Infrastructure

Road Infraestructure



