Non-Reimbursable Technical Cooperation Document

PE-T1603

I. Basic Information for TC

▪ Country/Region:	Perú
▪ TC Name:	Support for the intelligent transport systems implementation on subnational roads Apoyo a la implantación de sistemas inteligentes de transporte en las carreteras subnacionales a la implantación de sistemas inteligentes de transporte en las carreteras subnacionales
▪ TC Number:	PE-T1603
▪ Team Leader/Members:	Capristan Miranda, Rafael (INE/TSP) Líder del Equipo; Ferro Briceno Paula Vanessa (INE/TSP); Bonilla Merino, Arturo Francisco (LEG/SGO); Lee Jieun (INE/TSP); Lazaro Diaz Maryori Amanda (CAN/CPE); Illacanchi Guerra Patricia Karen (INE/TSP)
▪ Taxonomy:	Operational Support Apoyo Operativo
▪ Operation Supported by the TC:	PE-L1252.
▪ Date of TC Abstract authorization:	21 Apr 2025 21 Abr 2025.
▪ Beneficiary:	Provias Descentralizado – Ministry of Transport and Communications
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donantes que proveerán financiamiento:	Korea Fund for Partnership of Knowledge Building on Technology and Innovation (KPK) Fondo Coreano de Alianza para el Conocimiento en Tecnología e Innovación(KPK)Innovación(KPK)
▪ IDB Funding Requested:	US$400,000.00
▪ Local counterpart funding, if any:	US$0
▪ Disbursement period (which includes Execution period):	36 months
▪ Required start date:	August 2025
▪ Types of consultants:	Firms and consultants
▪ Prepared by Unit:	INE/TSP-Transport INE/TSP-Transporte
▪ Unit of Disbursement Responsibility:	CAN/CPE-Representation Peru CAN/CPE-Representación Perú
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	No
▪ Alignment to the IDB Group Institutional Strategy: Transforming for Scale and Impact:	Sustainable, resilient, and inclusive infrastructure; Regional integration; Gender equality; Diversity; People with disabilities; Supports digital transformation Infraestructura sostenible, resiliente e inclusiva; Integración regional; Igualdad de género; Diversidad; Personas con discapacidad; Apoya la transformación digital

II. Description of the Associated Loan

2.1 This Technical Cooperation (TC) is associated with two operations currently under implementation: PE-L1252 Road Infrastructure Program for Regional Competitiveness (Proregion 1), approved in April 2021, and PE-L1279 Road Infrastructure Program for Regional Competitiveness (PROREGION 2), approved in November 2023. The objective of Proregion is to contribute to improving the country's regional connectivity through the rehabilitation, improvement, and maintenance of roads in the departmental road network. These interventions aim to enhance access to logistics corridors, the movement of people, regional integration, and the resilience of infrastructure to the effects of climate change.

2.2 Proregión is one of the prioritized interventions in the National Infrastructure Plan for Competitiveness (PNIC), which identifies and prioritizes infrastructure projects to reduce gaps in basic access and promote the modernization of public management. Proregión, currently being implemented under both programs, intervenes in Feeder Road Corridors (CVA) to improve the connection between production centers and national logistics corridors or collection centers, supporting the country's efforts to enhance infrastructure and promote non-traditional economic products[1].

2.3 Regarding the scope of Proregión, the programs propose interventions in CVAs composed of prioritized routes from the Departmental Road Network (RVD), with an estimated goal of 6,656 km across Proregión 1 and Proregión 2. The interventions include road improvement and maintenance, which will enhance access to logistics corridors, strengthen resilience to natural disasters and climate change impacts, expand coverage of roads with adequate quality for the transit of people and goods, reduce logistics costs for products using the targeted roads, and support the reduction of inequalities through job creation. The Program includes institutional strengthening actions for Regional Governments (RGs), which have jurisdiction over the RVD, as well as for Provías Descentralizado (PVD), which acts as the Executing Agency (EA) of the Program. In addition, the operation will support the planning and implementation of road safety standards, management of interventions, and monitoring and digitalization activities, ensuring safe mobility along the improved corridors.

III. Objectives and Justification of the TC

3.1 This Technical Cooperation (TC) is an operational support initiative, as it directly complements the implementation of the Proregión programs financed by the IDB, especially Proregión 1. The objective of this TC is to improve the sustainability of the maintenance activities of the Feeder Road Corridors (CVA) executed by Provías Descentralizado (PVD) and to support the future transfer of these corridors to the Regional Governments (GORE). This TC aims to develop institutional frameworks, strengthen regional capacities, and introduce Intelligent Transportation Systems (ITS) on subnational roads as tools to enable more efficient, safer, and data-driven management throughout the road maintenance lifecycle.

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[1] Include agricultural, chemical, and other products. Source: Ministry of Foreign Trade and Tourism, 2019.

3.2 Although Proregión 1 has made significant progress in the execution of works, there are still areas for improvement related to the institutional framework, technical capacities, and financial sustainability of the GOREs to manage the CVAs under performance-based maintenance schemes. The TC will help close this gap by developing operational and monitoring tools, management methodological frameworks, and training processes that will support the transition toward a more resilient decentralized model.

3.3 The TC is aligned with the IDB Group's Country Strategy with Peru 2022–2026 (GN-3110-1) across its three priority areas by contributing to: i) productive development, with an emphasis on infrastructure and integration into value chains by strengthening the improvement and maintenance of subnational road infrastructure and its operational sustainability; ii) environmental sustainability and climate change, with a focus on adaptation and risk management through the promotion of technological innovation for more efficient and preventive maintenance management; and iii) institutional strengthening and basic service delivery at the regional level, with interventions aimed at strengthening subnational governments that face significant gaps in technical and operational capacities. Additionally, cross-cutting themes are addressed, such as gender, diversity, institutional capacity, and climate change, incorporating an inclusive approach in the formulation of maintenance strategies and technical capacity-building activities. The participation of women and people with disabilities is considered in road maintenance and conservation activities and in the training programs associated with the TC.

3.4 The TC is consistent with the IDB Group Institutional Strategy: Transforming for Scale and Impact (CA-631) and is aligned with the objectives of: i) addressing climate change, by developing technological and institutional solutions for more resilient and adaptive road management in the face of climate risks; and ii) bolster sustainable regional growth, by contributing to more efficient, better-connected, and higher-impact subnational road infrastructure. The TC is also aligned with the operational focus area(s) of: i) gender equality and inclusion of diverse population groups, ii) institutional capacity and citizen security, and iii) sustainable, resilient, and inclusive infrastructure.

3.5 The TC is also aligned with the objectives of the Korea–IDB Partnership Korea Knowledge Partnership Fund on Technology and Innovation (KPK), by promoting the transfer of technological knowledge, innovation applied to the road sector, and institutional strengthening through the adoption of ITS in decentralized contexts. The knowledge dissemination programs planned under the TC represent strategic opportunities to adapt international best practices to Peru's institutional and operational reality.

3.6 The analyses and studies described in the TC components will primarily focus on the Feeder Road Corridors (CVA) of Proregión 1, with a total of 4,190,503 beneficiaries as the direct area of influence.

IV. Description of activities/components and budget

To achieve the objective described, the Technical Cooperation (TC) is composed of the following four components:

4.1 **Component I: Analysis of Road Maintenance Management with ITS Technology.** This component aims to identify opportunities for the use of Intelligent Transportation Systems (ITS) in the management of subnational road maintenance. It will finance: i) a diagnostic study and identification of necessary ITS systems for subnational roads; and ii) the conceptual and methodological design of ITS technologies for departmental roads in Peru.

4.2 **Component II: Design and Pre-Investment Study for ITS Implementation.** This component seeks to structure a pilot intervention at the design level to implement ITS technologies along two selected CVAs from the PROREGIÓN 1 program (equivalent to approximately 200 km of road). The following studies will be financed: i) development of ITS pre-investment studies; and ii) conceptual design of a management, monitoring, and tracking system for the future planning and digital development by Provías Descentralizado (PVD). This subsequent stage would be handled by the beneficiary outside the scope of this TC.

4.3 **Component III. Support for the Road Maintenance Lifecycle for Regional Governments.** Implementing ITS on subnational roads requires strengthening routine maintenance and road conservation activities within the Regional Governments (GOREs). To support this, the TC will finance: i) preparation of operational guidelines for routine road maintenance aimed at GOREs, including a management model, budget allocation strategies, approaches to engage microenterprises, and promote the participation of women and people with disabilities throughout the maintenance lifecycle; and ii) conceptual design of monitoring and tracking methodologies to assess the service level performance of the Feeder Road Corridors (CVAs).

4.4 **Component IV. Institutional Strengthening and Knowledge Dissemination.** This component seeks to foster institutional learning and knowledge transfer on ITS technologies and road maintenance management. It will finance: i) a study visit to Korea, where ITS technology has been successfully implemented and operated; and ii) programs to strengthen the capacity of regional governments in road maintenance management and ITS technologies. These programs will include specific sessions to promote digital inclusion and address the technological gaps faced by women and people with disabilities working in regional governments.

4.5 **Expected Results:** As a result of this Technical Cooperation, it is expected to have the necessary inputs to strengthen the execution capacity and sustainability of the Proregión programs through the incorporation of Intelligent Transportation Systems (ITS) in the subnational road network. In particular, the expected results for Component 1 include (i) the preparation of the diagnostic and identification of ITS systems and equipment required for departmental roads, and (ii) the generation of technical documentation with the conceptual and methodological design of ITS, as well as the basic design for selected feeder road corridors. For Component 2, the expected results include (iii) the preparation of pre-investment studies and the conceptual design of a data management, monitoring, and traceability system for use by Provías Descentralizado and the Regional Governments. As for Component 3, the results comprise (iv) the design and strengthening of methodologies for routine maintenance management. Finally, Component 4 includes (v) the delivery of training workshops and study visits for the Regional Governments, focused on road

maintenance management and ITS implementation, thus promoting institutional strengthening and knowledge dissemination.

4.6 The indicative budget for this TC is US$400,000, which will be financed by the Knowledge Partnership Korea Fund for Technology and Innovation (KPK). There will be no local counterpart funding. The cost breakdown is presented in the following table:

Indicative Budget

Activity / Component	Description	BID/Funding by KPK	Total Funding
Component I	**Analysis of Road Maintenance Management with ITS Technology**	**US$120,000**	**US$120,000**
	1.1 Diagnostic study and identification of ITS systems and equipment needed for subnational roads	US$30,000	US$30,000
	1.2 Conceptual and methodological design of ITS technologies for Peruvian departmental roads	US$90,000	US$90,000
Component II	**Design and Pre-Investment Study for ITS Implementation**	**US$130,000**	**US$130,000**
	2.1 Preparation of ITS pre-investment studies	US$70,000	US$70,000
	2.2 Conceptual design of data management, monitoring, and tracking system for PVD and the Regional Government	US$60,000	US$60,000
Component III	**Support for the Road Maintenance Lifecycle for Regional Governments**	**US$70,000**	**US$70,000**
	3.1 Development of an operational guide for routine road maintenance aimed at Regional Governments (GOREs)	US$30,000	US$30,000
	3.2 Design of monitoring and tracking methodologies to assess service level performance	US$40,000	US$40,000
Component IV	**Institutional Strengthening and Knowledge Dissemination**	**US$80,000**	**US$80,000**
	4.1 Study visit to Korea	US$40,000	US$40,000
	4.2 Programs to strengthen the capacities of regional governments in road maintenance management	US$40,000	US$40,000
TOTAL		**US$400,000**	**US$400,000**

4.7 The IDB's Transport Division (TSP), with support from the Bank's Country Office in Peru (CAN/CPE), will be responsible for the technical and operational supervision of this Technical Cooperation (TC). This arrangement will enable close monitoring of the execution of scheduled activities and promote fluid communication with national counterparts, particularly with Provías Descentralizado (PVD).

V. Executing agency and execution structure

5.1 The Executing Agency for this Operational Support Technical Cooperation (TC) will be the Bank, through the Transport Division of the Infrastructure and Energy Department (INE/TSP), at the request of the Government of Peru. In accordance with Annex II, OP-619-4, the Bank will serve as the Executing Agency for this TC given its institutional capacity to provide and manage services efficiently and in a timely manner, aligned with the milestones of the ongoing Proregión 1 program. Furthermore, the Bank's technical expertise in supporting the proposed activities, as well as its track record in accompanying and supervising other operations, demonstrates its ability to execute this TC and ensure the achievement of its results.

5.2 The Bank will be responsible for preparing and publishing requests for expressions of interest, developing shortlists, drafting and distributing requests for proposals, evaluating and selecting consultants in accordance with the criteria established in the RFPs, and negotiating the respective contracts. In addition to the components described above, Bank staff are expected to provide specialized, hands-on technical knowledge in the activities to be implemented across all components. The output of this support will materialize through reports, studies, workshops, study visits, and other deliverables. This is essential for the correct application of the TC and to guarantee the proper execution of its funds.

5.3 The Bank will endeavor to ensure the timely completion of all required studies, in accordance with TC deliverable guidelines. The Bank's added value lies in its extensive experience in the subject areas covered by this TC such as transport infrastructure, innovation, climate change, and more. Moreover, many of the elements envisaged in this TC are value-added features that the Bank actively promotes incorporating into its programs.

5.4 All procurements to be carried out under this Technical Cooperation have been included in the Procurement Plan (Annex IV) and will be conducted in accordance with the Bank's applicable policies and regulations as follows: a) Engagement of individual consultants, pursuant to the Complementary Workforce Policy (AM-650); and b) Procurement of services from consulting firms in accordance with the Institutional Procurement Policy (GN-2303-33) and its Guidelines.

5.5 All knowledge products derived from this Technical Cooperation will be the intellectual property of the Bank and may be made available to the public under a creative commons license. However, at the request of the beneficiary, in accordance with the provisions of AM-331, the intellectual property of said products may also be licensed

through specific contractual commitments that shall be prepared with the advice of the Legal Department.

VI. Major issues

6.1 The main risk identified for the implementation of this Technical Cooperation (TC) is the challenge of effectively coordinating with the Regional Governments (GOREs) during the development of the TC's deliverables, as they are located across different regions of the country. GOREs are responsible for the maintenance of the Feeder Road Corridors (CVAs) once the implementation period of Proregión concludes. This could affect the technical validation and follow-up of the products developed under the TC, as well as the application of its results in their management. To mitigate this risk, Provías Descentralizado (PVD) will establish coordination mechanisms with regional focal points and maintain a schedule of regular meetings for early validation of the TC's deliverables. The Bank will support this process through active inter-institutional coordination.

6.2 A second risk relates to the varying levels of technical capacity among the GOREs to adopt technologies and performance-based maintenance models. To address this, the TC includes a dedicated component for institutional strengthening and training programs that promote digital inclusion and technological adaptation in subnational contexts. Additionally, the TC's deliverables will be designed with a practical approach to ensure their operational relevance and sustainability after the project's conclusion, as well as to promote diverse participation among regional teams.

VII. Exceptions to Bank policy

7.1 No exceptions to the Bank's policies are considered.

VIII. Environmental and Social Strategy

8.1 This Technical Cooperation is not intended to finance pre-feasibility or feasibility studies for specific investment projects, nor environmental and social studies associated with them. Therefore, this TC has no applicable requirements under the Bank's Environmental and Social Policy Framework (ESPF).

Required Annexes:

Solicitud del Cliente_47736.pdf

Matriz de Resultados_8209.pdf

Términos de Referencia_92549.pdf

Plan de Adquisiciones_94570.pdf