



Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 06-Nov-2017 | Report No: PIDISDSA21956



BASIC INFORMATION

A. Basic Project Data

Country Argentina	Project ID P163115	Project Name Northwestern Road Development Corridor Project	Parent Project ID (if any)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date 06-Nov-2017	Estimated Board Date 14-Dec-2017	Practice Area (Lead) Transport & ICT
Financing Instrument Investment Project Financing	Borrower(s) The Argentine Republic	Implementing Agency Dirección Nacional de Vialidad	

Proposed Development Objective(s)

The Proposed Project Development Objective (PDO) is to improve connectivity and road safety along targeted road sections of the Northwestern Corridor and to support corridor development in the Northwest of Argentina.

Components

- Road Infrastructure
- Infrastructure for Development Corridor Management
- Project management
- Front-end fee

Financing (in USD Million)

Financing Source	Amount
Borrower	11.00
Global Facility for Disaster Reduction and Recovery	0.20
International Bank for Reconstruction and Development	300.00
Total Project Cost	311.20

Environmental Assessment Category

B - Partial Assessment

Decision

The review did authorize the preparation to continue



B. Introduction and Context

Country Context

1. The Government has introduced a number of reforms since taking office in December 2015.

The Government unified the exchange rate, ended the dispute with holdouts creditor, abandoned the system of discretionary import licenses, resumed the publication of credible official statistics, significantly lowered export taxes, cut the personal income tax by increasing minimum threshold and reduced energy and transport subsidies. The Government expanded several social benefits such as child allowances and increased unemployment insurance significantly. A comprehensive plan to settle social security lawsuits and to adjust pensions upwards was also introduced. The recent mid-term election primaries results were interpreted as a display of support for the current administration. These results are expected to empower the government to stick to its reform agenda, which will likely include a tax and labor reform, among others.

2. Economic activity expects to continue its recovery in 2018.

Economic activity contracted 2.2 percent during 2016, taking a toll on labor markets, where up to 0.6 percent of formal private sector jobs were lost.¹ However, GDP has expanded for four consecutive quarters (2.7 percent) since the second quarter of 2016, and employment in the formal private sector recovered to its December 2015 level. The economy is expected to grow in 2017 (+2.7 percent) and 2018 (2.7 percent)², for the first time in seven years, on the assumption that the positive impact of policy changes kicks in and the global economy recovers. Inflation in the city of Buenos Aires was 40 percent in 2016, mostly due to currency depreciation and the reduction of energy and transport subsidies. However, inflation has decelerated rapidly and is expected to be 22 percent in 2017³, despite further increases in energy and transport tariffs. The central government overachieved its primary deficit target in 2016 (4.3 vs. 4.8 percent of GDP) and is expected to do so in 2017 (4.0 vs. 4.2 percent of GDP). The target primary deficit for 2018 (3.2 percent of GDP), will require further fiscal consolidation efforts.

3. The Government has made important steps to address the key macroeconomic imbalances with the objective of creating an environment conducive to economic growth and employment creation.

Argentina offers many opportunities in a weak global environment, and there is a strong interest from foreign investors and firms. Going forward, Argentina aims to continue building a growth enabling policy framework to enhance credibility and support broad based growth and quality employment. In particular, the following policies will be important to permanently reduce inflation and put Argentina on a sustainable growth path: (a) increase public spending efficiency as well as its efficacy and reduce the fiscal deficit in line with government targets; (b) continue fostering the credibility of the Central Bank so that monetary policy can further anchor inflation expectations; (c) strengthen competitiveness and productivity through an improved business environment and investments in infrastructure and increasing competition in markets and improving the regulatory framework in sectors; (d) continue strengthening the credibility of official statistics; and (e) continue improving the provision of public goods (including transportation, health, and education) and reducing regional

¹ Source: Ministerio de Trabajo, Empleo y Seguridad Social.

² Source: World Bank Group. 2017. *Global Economic Prospects, January 2017 Weak Investment in Uncertain Times*. Washington, DC: World Bank. doi:10.1596/978-1-4648-1016-9.

³ Source: *Relevamiento de Expectativas de Mercado (REM)*, Banco Central de la República Argentina, August 2017.



disparities.

4. **The Provinces in the Northwest of Argentina⁴ epitomize the marginalization and service availability gaps enduring in parts of Argentina.** While poverty has been falling since 2002, poverty incidence in the Northwest -measured at \$5.5 per person per day (2011 PPP)- has traditionally been among the highest in the country (together with the Northeast), and at 14.3 percent, continue to lag behind the rest of the country. Access to basic services has been improving and indeed converging with the rest of the country, but the region still lags in terms of access to basic services and human development outcomes. The region has an average of 0.04 health centers and 0.09 schools per 1000 population against the national average of 0.14 and 0.19 per 1000 population respectively.⁵ For example, the illiteracy rate (at 3.7 percent) is double the national average, the infant mortality rate (at 16.2 per 1000 live births) is above the national average of 13.3 per 1000, and the proportion of homes with Unmet Basic Needs (*Necesidades Básicas Insatisfechas*, NBI) is 15.9 percent compared to the national average of 9.1 percent. Improved connectivity will help address social service access and human development gaps, as a precondition for ensuring convergence in the lagging regions of the Northwest with the rest of the country. Complementary actions that improve access to markets, stimulate trade and investment, and boost productivity and efficiency can help tackle the challenges posed by high population *densities* and long *distances* to economic opportunities faced by this region.⁶

5. **Climate change vulnerability context.** In recent years, extreme climatic and ecosystemic events have been observed more frequently and intensely in Argentina. Among other events, the intensity and frequency of droughts, frosts, floods, severe storms, and hailstorms have significantly increased, with a significant impact on different sectors of the economy. A recent study by ECLAC (2014)⁷ estimates that climate change related impacts could represent between 4.5 and 7 percent of GDP. The Northwest of Argentina, based on climate projections comparing data scenarios from 1961 to 1999 versus projections to year 2071, shows projected anomalies in the increase of minimum and maximum temperatures, and in increased rainfall, with subsequent floods and landslides.

Sectoral and Institutional Context

6. **While the road transport network in Argentina is the main facilitator for accessibility and trade, the network is constrained in terms of capacity and quality.** Roads are the primary transportation mode in Argentina carrying nearly 90 percent of total long haul goods transported in 2015. In contrast, rail transports slightly over 5 percent of volumes, measured in ton-kilometers, and inland waterways and air transport each have a marginal share (1.5 percent). The National and Provincial road network has a total length of about 240,000 km, of which only 81,355 km (34 percent) are paved. The primary

⁴The Northwest region comprises the provinces of Catamarca, Jujuy, La Rioja, Salta, Santiago del Estero, and Tucumán.

⁵These calculations were obtained as part of an accessibility analysis carried out during project preparation and supported with data from the Ministry of Education and the Ministry of Health.

⁶The WDR 2009 recognizes three types of challenges for the economic development of regions: density, distance, and division. To tackle each challenge, a different instrument is proposed. When density is the main challenge, institutions are posed as the most effective instrument. When distance to economic opportunity is the main concern, connective infrastructure will be necessary. When divisions prevail, targeted interventions may be necessary. The framework presented in the WDR suggests that unity, not uniformity is the key to development, and for that, different challenges must be tackled with different instruments; and where several challenges coexist, several instruments must be used to address them.

⁷Economic Commission for Latin America and the Caribbean (ECLAC), 2014. "La Economía del Cambio Climático en la Argentina".



network, with a length of 40,290 km (of which 90 percent is paved, but only 38 percent in good condition) and an estimated asset value of US\$45.3 billion, concentrates over two thirds of total traffic volumes. As a key lifeline of economic activity, primary roads facilitate trade and enable greater access to both rural and urban areas. Therefore, efficiency gains achieved in the primary road sector are crucial to enhance overall transport sector performance.

7. **While Argentina has achieved important milestones and outcomes in the transport sector, there remains important institutional and governance shortcomings, which are hindering logistics competitiveness.** These challenges require a holistic approach to transport infrastructure planning and management, for which the World Bank can bring state-of-the art expertise, with innovative perspectives on a wide range of issues that are key for the sector, such as climate change adaptation and mitigation, efficiency, inclusion, safety, private sector participation, among others. The NW Corridor is particularly illustrative of many of these shortcomings, and provides an entry point to advance some of these key agendas.

8. **Argentina lags behind in terms of competitiveness and logistics performance and the Northwest of Argentina records the highest logistics costs in the country.** Logistics costs in Argentina are nearly double the OECD average. Argentina dropped from the 89th position in 2010/2011 to the 104th place in the Global Competitiveness Index (GCI) in 2016/2017, but improved slightly in the overall quality of transport infrastructure moving from 89th to 85th place over the same period. However, Argentina still ranks well below its middle-income neighbors in this indicator.⁸ In terms of logistics performance, Argentina ranked 66th among the 160 countries included in the survey in 2016 down from 47 in 2007. Geography is a structural challenge. The great distances that separate the Northwest region from the ports and the country's main centers of consumption is a key driver for elevated transport costs which calls for provision of high quality transport assets and efficient provision of ancillary services. The average cost of transporting one ton of cargo from the Northwest to the country's main ports of Rosario and Buenos Aires averages US\$73 per ton which is between 15 and 20 percent higher than in other regions of the country. The size and development of markets is also determinant of the high logistics and costs of transport services. There are no large population or commercial/industrial centers in the Northwest, and the existing one has limited power. Thus, there is market that can capture the region's production. For the same reasons, there is a conspicuous imbalance of freight flows from the South, region that acts as the main outlet and market for the Northwest production, but provides limited goods and services in exchange, creating empty backhaul mark-ups over transport costs. Finally, the volume of production is limited and scattered when compared to other regions in the country. As a consequence, the sector of logistics services has not fully matured, is precarious and showcasing very low competition, and poor services at high costs.

9. **The Government of Argentina (GoA) has placed priority to transport development and infrastructure service improvement in Northern Argentina as necessary conditions to unlock the economic potential of this lagging area.** The current government adopted the National Transport Plan for the 2015-2019 period, which amounts to about US\$33 billion, including US\$25 billion from public sector funding and strong focus on private sector participation through a Public Private Partnership (PPP) approach, which this Project will support. A more comprehensive poverty reduction and territorial development strategy articulated in the 2016 flagship **Plan Belgrano**, includes addressing persistent

⁸ For example, Brazil ranked 72nd, Mexico 57th, Uruguay 47th and Chile 44th in the Infrastructure Pillar of the GCI.



infrastructure and service availability gaps in the Northern region. The Plan Belgrano envisages over US\$16 billion in road, rail, and air transport investments to: i) integrate the Northern Provinces; ii) make multimodal freight and passengers flows within the North-South and East-West axes (roads but also rail, inland waterways and airports) more seamless and efficient; and iii) ensure adequate accessibility to towns and villages through upgrades in the provincial and local road network.

10. **The proposed Corridor is assigned the highest priority by the GoA in the Plan Belgrano and represents a key opportunity for complimentary initiatives by the Bank and GoA to maximize the territorial development impacts of the Project.** The Plan Belgrano underscores the importance of corridors as potential engines of economic growth through increased trade and job creation, and National Road (NR) N°34 (hereby NW Corridor)⁹, together with the Northwestern branch of the Belgrano Railway, are considered among the main transport interventions in the region (see Map IBRD 43129) playing a central role for regional competitiveness. Nowadays, however, the NW Corridor presents capacity, quality, safety and security challenges: first, existing two lanes are insufficient to support the sharp increase in inter-regional traffic observed in the last decade; second, a non-trivial proportion of road segments along the NR N°34 alignment depict low quality standards as measured by the Level of Service indicator assembled by the National Roads Directorate (DNV by its acronym in Spanish),¹⁰ and third, the NR N°34 has one of the highest rates of fatal crashes of any corridor in Argentina. The upgrade of the Corridor will stimulate investment and industrial activity in the Northwest region facilitating inter-regional trade and growth of traditional exports, notably sugar cane, tobacco, and horticulture, and mining products, but also promoting the establishment of nontraditional ones such as tourism. Technical assistance (TA) activities and logistics initiatives envisioned under the Project will provide an entry point to enhance multi-modality and logistics services to enable economic development along the Corridor, decreasing transportation obstacles to production and helping reduce some cost drivers for sectors that are key in the regional economy.

11. **The design and selection of the Project components aims at tackling physical and logistics binding capacity and safety constraints of the NR N°34 while setting the stage for an integrated spatial development along the corridor that would benefit the poor, foster healthy growth of the fringe of small and currently feeble SMEs, and contribute to an increased economic integration of the Northwest territory with the rest of the country.** As such the NW Corridor is conceived as a development corridor that contributes to a broader effort of achieving spatial integration and convergence in living standards in the country, supporting market access and scale economies for local producers. The proposed development corridor lens aims at: i) improving market integration, ii) supporting the policy environment and the business ecosystem, iii) improving the quality of governance and institutions, and iv) addressing basic service gaps. These four supporting policies are complements and not substitutes among themselves and implicitly acknowledge that for a linear infrastructure project to trigger economy-wide long-term impact, other conditions need to be met. The proposed Project will offer a platform for synergies from regional and provincial development plans and other sector investments along the NW Corridor.¹¹

⁹ The NW Corridor extends along NR N°34 from Salvador Mazza in the Province of Salta to Rosario in the Province of Santa Fe, and its access roads.

¹⁰ The Level of service indicator is a composite index measuring traffic flows, delays, road quality, and other quality parameters between 0 and 5.

¹¹ The proposed approach has been conceptually laid out in the World Bank's World Development Report published in 2009.



C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The Proposed Project Development Objective (PDO) is to improve connectivity and road safety along targeted road sections of the Northwestern Development Corridor in support of regional development in the Northwest of Argentina.

Key Results

- 12. The following PDO level indicators are proposed:

Table 1: PDO Indicators

PDO Indicator	Assessed Aspect of PDO
Travel time savings (cars, trucks)	Improved connectivity
Freight volume transported along targeted road sections of the Northwestern Development Corridor	Improved transport and freight connectivity, regional development
Number of traffic-related fatal crashes per hundred million vehicle-kilometers travelled (vkt) on the targeted road sections of the Northwestern Development Corridor	Improved road safety

D. Project Description

Project Components

Component 1: Road Infrastructure (US\$ 300 million, of which Bank financing US\$292 million)

13. This component will finance infrastructure works to expand the capacity from two lanes to a four-lane access-controlled expressway with grade-separated intersections and returns, and rehabilitation works, along the most congested¹² and deteriorated sections of the NW Corridor on NR N°34, NR N°66, and NR N°1V66, for a total length of 93.1 km.

14. Road safety enhancements and climate resilient infrastructure have been incorporated into Project design. Road crash data obtained from DNV and the National Road Safety Agency (ANSV by its acronym in Spanish) indicates that the fatality rate on the existing road was 7.1 deaths per 100 million vehicle-km for the 2013-2016 period, which is one of the highest in the national road network.¹³ Fatalities caused by frontal impact on the network are more than double those occurring by lateral contact. The foreseen separation of traffic, thanks to a dual carriageway four lane road, should result in a significant reduction in fatalities as frontal crashes will be eliminated.¹⁴ Similarly, in order to adapt the Project’s civil works to climate change events affecting the region, these include the construction and rehabilitation of 127 culverts and river crossings to better respond to temporary or permanent flooding

¹² The targeted Corridor displays traffic levels that vary from 4,122 to 17,004 Annual Average Daily Traffic (AADT) depending on the section.

¹³ Per data from the Provincial Road Safety Observatory of Jujuy and the National Road Safety Observatory at the ANSV, there were 160 road crash related deaths in Jujuy in 2016, of which 18 percent were female and 82 percent were male.

¹⁴ Independent road safety audits have been carried out for final designs to ensure design standards comply with international best practices.



of roads, damage to bridges, increased maintenance costs due to damage, and service disruption resulting from changing climatic conditions.

Component 2: Infrastructure for Development Corridor Management (US\$7,25 million, all financed by the Bank)

15. **This component will finance additional works and TA activities that will improve the Corridor's management and contribute to roadside service and logistics development along the Corridor.** This component is at the core of the MoT strategy to foster regional development in the Northwest of Argentina.

- **Sub-component 2.a (US\$2 million) Corridor Development and Multimodal Logistics Initiatives:** TA and feasibility studies related to logistics, multimodality and roadside service facilities. This component entails i) TA and feasibility studies (including Environmental Impact Assessments- EIAs for prioritized intermodal logistics centers); ii) other initiatives for logistics development and diagnostics to assess needs for corridor development; and iii) an assessment of trucking industry market failures and TA for improved regulatory framework (competition, efficiency, B-double regulation).
- **Sub-component 2.b (US\$1 million) Road Safety Control and Awareness:** This sub-component will finance (i) infrastructure works related to the relocation of the Gendarmerie post in Pampa Blanca, improving existing facilities and access roads; and (ii) road safety mitigation measures identified in the road safety audits, such as road safety awareness campaigns aimed at vulnerable corridor users (pedestrians, motorcyclists, and cyclists).
- **Sub-component 2.c (US\$1 million) Weight Control Enforcement:** Improvement of existing infrastructure and provision of technological equipment for the weight control station in Barro Negro, to perform dynamic and static weight control for freight trucks. This measure is geared at ensuring efficiency, sustainability, and safety in freight movements taking place throughout the Corridor, which would ultimately ensure that the road network can be maintained and operated at a lower cost and preserved in the long term.
- **Sub-component 2.d (US\$3.25 million) Fiscal control enhancement:** Improvement of infrastructure facilities of the fiscal control station of the Province of Jujuy Revenue Directorate (*Dirección Provincial de Rentas* of Jujuy) and the General Directorate of Customs Control (*Dirección General de Control de Aduanas*), located in Pampa Blanca. By relocating the current station, better location and improved building facilities and technology would allow the authorities to strengthen the fiscal control measures being carried out throughout the Corridor and therefore increase tax revenue from Corridor operations.

Component 3: Project Management (US\$3 million, all financed by the Borrower)

16. **This component will finance TA and operating costs for project management and implementation.** The component will finance, inter alia: (i) the installation by DNV of fauna crossings in some of the road works, (ii) the preparation of draft environmental management manuals or guidelines for the works operation and maintenance phase, (iii) the implementation of a monitoring plan to assess the effectiveness of the wildlife crossings during the entire project life-span, (iv) specialized independent technical, environmental and social supervision of civil works; (v) administrative and operational support



to DNV in the administration, monitoring, coordination, and supervision of project implementation; (vi) an assessment of the impact of climate change on the Intensity-Duration-Frequency (IDF) rainfall curve along the NW Corridor, and additional climate resilient solutions ranging from spatial planning to post-disaster risk and recovery support to address the growing climate risks which could impact the entire transport value chain (with co-financing from a Global Facility for Disaster Reduction and Recovery-GFDRR grant); (vii) studies to prepare the PPP bidding documents of the NW Corridor, including a Strategic Environmental and Social Assessment (SESA); (viii) activities included in the Indigenous Peoples Plan (IPP) to reduce the gender gap; (ix) implementation of a road user and citizen engagement platform to close citizens' feedback loop; and (x) technical supervision of works by junior engineers from local universities.

E. Implementation

Institutional and Implementation Arrangements

17. **Borrower and implementing agency.** The Borrower is the Argentine Republic and the implementing agency will be DNV,¹⁵ as autonomous agency of the MoT. Within DNV, the *Subgerencia de Préstamos BIRF* will function as liaison between the Bank and DNV technical areas. At present, DNV is coordinating several programs financed by the World Bank, including the Norte Grande Road Infrastructure Project (P120198, loan 7991-AR), and the Provincial Road Infrastructure Project (P070628, loans 7301-AR and 7833-AR) and its additional financing (P114018), and other multilateral development banks programs. DNV has sound experience in implementing road infrastructure projects financed by development banks and national funds.

18. **DNV will be in charge of overall Project administration and execution.** DNV will coordinate and implement all Project activities, including the handling of procurements, contracts, and payments to contractors. Flow of funds will be centralized; there will be no transfers of funds to provinces. DNV will undertake technical, environmental and social supervision of works. A technical assessment has been conducted and confirms DNV capacity for supervision of works. To coordinate planning and implementation of key priority activities for corridor management, the MoT has established an inter-agency working group including provincial governments, the Ministry of Production, Ministry of Interior, Public Works and Housing, and the Belgrano Cargas railway SOE.

¹⁵ DNV was created by Law 11.658 and Regulated by Decree 14.137 in 1932. From that date, it operates with the autonomy dictated by the law and can act both in the public and private spheres in accordance with what is established by the laws of the network to be built.



F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The Project area is located in the south-east of the Jujuy Province, just by its border with the Salta Province (Northwest of Argentina, near the tropic of Capricorn). The project area spans a wide topographic range, from mid altitude areas in the Andes mountain range, through to river floodplains in low lying valleys. It is subject to seismicity and land-slides, and is part of the “Yungas” eco-region and its ecotones, characterized by a narrow North-South belt of highly bio-diverse cloudy rain-forests lying on the eastern facing slopes of the mountain range, and for which National and Provincial laws have set land use change regulations and conservation measures. To the west of the project area there is a Municipal multiple-use reserve called “Serranías de Zapla”. However, the forests matrix in the landscape where the Project is located is highly fragmented, particularly in the valleys and flat areas, due to the extensive agricultural land use where sugar cane, tobacco, citric, soy, and other beans are commonly produced. Archaeological sites are not known in the area to be directly affected by the project. Nevertheless, there are many in other areas within the province, so chance findings are not unlikely. Present day structures with cultural or religious significance (such as "Gauchito Gil" or "Difunta Correa" altars, etc.) are widespread across the whole Project area, both in rural and urban settings. It was determined that the risks of an eventual failure of any of the two dams operating in the proximities of the project area (Las Maderas and La Ciénaga) over the Project’s investments is negligible. The project does not involve international waters neither disputed lands. From an environmental standpoint, besides the area where the works will be executed, the project area of influence includes the watersheds of the Las Pavas river and the Perico river, as well as the floodplains, the agricultural lands and the forests remnants and towns located in the surroundings of the mentioned network of roads. Areas where works will take place are not densely populated.

G. Environmental and Social Safeguards Specialists on the Team

Santiago Scialabba, Social Safeguards Specialist
Pablo Francisco Herrera, Environmental Safeguards Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	The category assigned to the Project is “B”, as the works to be financed by the Project are not likely to have significant adverse environmental impacts that are sensitive, diverse, or unprecedented. The expected impacts will be mostly site-specific and few are considered irreversible. Environmental Impact Assessments (EIA) and



Environmental Management Plans (EMP) were prepared for all the works to be financed by the Project under Component 1 (which are part of the broader Northwestern Road Development Corridor). It was determined that the Project's main adverse impacts would be related to activities during the short-term construction stage. Such impacts are expected to be essentially soils compaction and pollution, generation of noise, vibration, dust, construction debris and waste of different types; as well as temporal disruption of traffic and other public services. More permanent impacts, such as the alteration of the topography, the expansion of borrow pits and the opening of quarries, are expected to be localized. The widening of the right-of-way for some of the works would require the clearing of small fractions of natural forest in the proximity of the roads and will increase the existing barrier effect between forest remnants. The foreseen works have also risks related to chance archeological findings, labor influx and accidents (e.g. with heavy construction equipment). With appropriate prevention, mitigation and supervision measures, these impacts and risks are considered mostly moderate, temporary, reversible and readily manageable.

Well known mitigation and/or compensation measures were designed to address them.

Reforestation/afforestation, construction of wildlife crossings, protocols to relocate physical cultural resources, have been used in the past in the country to mitigate or compensate the adverse impacts of similar Projects.

Incremental cumulative and longer-term impacts of the eventual upgrade of other segments of the same roads within the wider Northwestern Road Development Corridor, beyond the Project area (e.g. induced impacts from expansion of agricultural and mining activities in the wider region) are, in principle, deemed small, since the involved roads already exist and have been part of an active transport corridor for decades. However, they will be further assessed during project implementation. For that purpose, a Strategic Environmental and Social Assessment will be financed under Component 3.



The DNV will be in charge of the preparation of environmental management manuals for the operation and maintenance phase of the works under Component 1 of the Project.

The overall risk of achieving the project's development objective is assessed as Substantial. This is mainly explained by environmental and social factors. From an environmental perspective, the risk lies mainly on the incremental fragmentation of forests that could result from the works, together with potential induced longer-term and cumulative impacts from the eventual expansion of the works to new areas.

From a social perspective, risk is also rated Substantial but limited and site-specific, given that the works under the Project require land taking that will generate physical and/or economic displacement and there is presence of Indigenous Peoples (IPs) in the Project implementation area (It is important to highlight that IPs present in the Project Area will not be affected by involuntary resettlement).

In addition, this is an area with social conflict that, although is not directly related to Project -since it has neither generated nor is contributing to exacerbate it (conflict situations are linked to third party actions that precede the preparation of this operation), could affect Project implementation (e.g. affected people may protest blocking the Road). These situations are linked to the likelihood that third party actions may cause unintended negative impacts (e.g. economic or physical displacement) to some vulnerable populations in the project area (e.g. there is an associated potential loss of employment - and housing in some cases- for several (about 400) workers from La Esperanza sugar mill, located in San Pedro. Nevertheless, it is important to highlight that the Project may contribute to reduce the social conflict in the area (i.e. by providing new employment opportunities for the period where this is expected to be a challenge). The Project will also include some specific activities with focus on promoting economic development for indigenous women and youth based on positive experiences under the Norte Grande Road Infrastructure Project (P120198) and First and Second Norte Grande Water



Infrastructure projects (P120211 and P125151). This would also help to address some of the issues identified related to youth unemployment and gender based violence (by strengthening youth and women's agency).

On crime and violence prevention, based on its relative proximity to international borders (300km) and that the route is one of the corridors with international border crossing, this is an area that historically has been related to crime. In addition, statistics show that it is an area with high prevalence of gender based violence, in particular regarding domestic violence. Although this affects all local population, the higher incidence is in the area related to Group 2 of works, where there are IP Communities.

Nevertheless, it is important to highlight that further assessment with local authorities and experts indicated that all the activities to be financed by the Project will create new barriers to any kind of illegal activities, in particular through the support of: (i) enhancing road safety awareness and enforcement through improving facilities for a Gendarmerie post in Pampa Blanca (Sub-component 2.b); (ii) enhancing of traffic control through improvement of a weight control station in Barro Negro (Sub-component 2.c); and (iii) strengthening of fiscal control through improvement of the Province of Jujuy Revenue Directorate's station on the corridor (Sub-component 2.d).

In addition, regarding IP Communities, is important to note that the Provincial Government is implementing a series of actions to address the issues identified during the first mission. In this sense, the provincial government has, inter alia: (i) created a community police force of 450 indigenous agents; (ii) trained non-indigenous peoples policemen on culturally appropriate proceedings for action with or in areas with IPs, (iii) promoted an inter-agency dialogue on policies to prevent gender-based violence; (iv) is securing land tenure for indigenous communities through bilateral agreements; and (v) carried out joint actions with SEDRONAR (the national Secretariat of Integral Policies on Drugs) to prevent problematic use of drugs and alcohol among indigenous youth.



It is not expected to have labor influx at a large scale under this Project. An assessment of risks and potential impacts associated to labor influx has been carried out and bidding documents includes clear guidelines for contractors to apply the corresponding mitigation measures, including the need of having a code of conduct for the contractor, management and workers, the advantages of hiring local labor, and measures to avoid or mitigate the potential impacts of workers on the host communities. The project is expected to have a low to medium impact, taking into account both its configuration and activities and the socioeconomic context: (i) there will be a relatively small non-local workforce: It is estimated that for the three groups of works, 720 direct jobs would be generated and an additional 60 percent of indirect jobs (430), during an average period of 22.5 months. Approximately 500 workers would be hired from the project area (Jujuy, Salta and Tucumán), and around 220 people would be brought in (laboratory staff, managers, administrative staff, etc.). The latter would be divided into five lots of works (less than 50 people per contract), with housing costs covered by the contractors in San Salvador and San Pedro de Jujuy, cities with capacity to absorb that number of people; (ii) San Salvador and San Pedro de Jujuy are cities with high capacity to absorb the estimated number of incoming workers and are cities with large labor markets, wide variety of business and industries and relatively high population density; (iii) services and accommodation will be provided by the contractors; and (iv) the risk is not low only because although both the national and provincial governments are intensively working to generate social development at the local level, there is still incidence of crime and violence, poverty and vulnerability in the project area.

Natural Habitats OP/BP 4.04

Yes

No significant impacts to critical or natural habitat have been identified in any road segment. Alternatives were considered to minimize impacts to natural habitats. Under the less impactful alternative, the widening of the right-of-way for some of the works would require the clearing of 5.8 hectares of forests that, under the provincial land use plans, are considered to be of high conservation



value, and 29.1 hectares that are considered to be of mid conservation value. Considering its magnitude and the total area covered by the same type of forests, this impact to the natural habitats is considered not significant.

An evaluation of the conservation landscape surrounding the Project area was conducted and highlighted that some of the works to be financed by the project would add cumulative impacts to those from the existing infrastructure, particularly in terms of increased fragmentation of natural habitats (natural forests remnants under different degrees of legal protection). Mitigation measures, such as the construction of wildlife crossings, compensatory reforestation and signalization of the closest Protected areas (such as Serranias de Zapla Multiple Use Municipal Reserve) were included in the respective ESAs and ESMPs and embedded in project design. A fauna roadkill monitoring program to be managed directly by the borrower (to cover all the three groups of works) will be part of the mitigation measures.

The Strategic Environmental and Social Assessment to be developed under Component 3 will consider long-term potential impacts on natural habitats of the current and future transport corridor investments.

The widening of the right-of-way for some of the works to be financed by the Project (including all the road segments) would require the clearing of a maximum of 40.3 hectares of natural forests (out of which 34.9 hectares are considered to be of mid to high conservation value and are subject to different degrees of legal protection) in the proximity of the roads, which would incrementally increase the existing barrier effect between forest remnants. Considering its magnitude and the total area covered by the same type of forests, this impact to the forests is considered not significant. The ESIA undertaken for each work Group analyzed this issue and specific management and compensation measures were included in the respective ESMPs. Native species will be prioritized for reforestation activities.

The Strategic Environmental and Social Assessment to be developed under Component 3 will consider

Forests OP/BP 4.36

Yes



		potential long-term and cumulative impacts on forests of the current and future transport corridor investments.
Pest Management OP 4.09	Yes	The use of herbicides is expected for managing right-of-way. The standard environmental technical specifications of the bidding documents restrict the type of pesticides that can be used in the Project. Additionally, ESMPs include a brief section on how to store, apply, and dispose of any herbicides used.
Physical Cultural Resources OP/BP 4.11	Yes	The civil works to be constructed by the Project will directly affect physical cultural resources (by relocating present day structures with cultural or religious significance existing within the right of way, if needed to conduct the works or if they pose a road safety risk). Specific protocols are included in the ESMPs to deal with these situations.
Indigenous Peoples OP/BP 4.10	Yes	<p>The Social Assessment confirmed that there are indigenous communities present in the project area. These communities belong to Guaraní and Kolla Peoples.</p> <p>OP 4.10 is triggered to ensure that: (i) indigenous people groups are afforded opportunities to participate in planning that affects them; (ii) opportunities to provide such groups with culturally appropriate benefits are considered; and (iii) any project impact that adversely affects them is avoided, or otherwise minimized and mitigated.</p> <p>To address OP 4.10 requirements, the Borrower prepared an Indigenous Peoples Plan (IPP) to guide processes both in design and implementation phases of each subproject, in order to protect indigenous peoples rights while minimizing any potential negative impact, and in particular, supporting the maximization of positive ones. The IPP will finance activities and works that will enhance the visibility of the IP communities in the Project implementation area, enhancing communitarian facilities and promoting economic development, in particular for indigenous women. The IPP has a strong gender perspective and will promote women participation at different levels of intervention, with special attention to gender rights. In this frame, prevention of gender violence related with road workers, will be</p>



a priority, contributing to reduce the high level of gender violence in the affected communities. Particularly directed to young women, which are especially vulnerable, the project will build/rehabilitate community centers for labor training, sexual educations and gender rights promotion, and access to technologies. Through the three community centers and road signs, the project will promote a Touristic Road for the “Yungas region”, to generate job opportunities for women, valorizing their culture. The IPP ensures informed and culturally appropriate participation of the affected communities, integrating indigenous representatives to the social team, as translators and cultural mediators.

In addition, TA activities and studies under the Project will also need to be consistent with the principles of OP 4.10 to avoid potential downstream impacts.

The IPP was consulted on October 13-24, 2017 to ensure broad community support; and a revised version incorporating comments received during consultations was disclosed both in country and through the WB external webpage on November 6, 2017.

OP 4.12 is triggered since subprojects under this operation will imply involuntary resettlement of direct beneficiaries and involuntary economic displacement and/or loss of assets may be generated for these and/or other stakeholders during the execution of infrastructure works.

To address OP 4.12 requirements, the Borrower prepared two Abbreviated Resettlement Action Plans to address and mitigate any risk linked to the involuntary resettlement processes generated by the project, and to transform these processes in opportunities of development for project affected people by supporting them to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of project implementation.

Involuntary Resettlement OP/BP 4.12

Yes



The ARAPs were consulted with PAPs and other stakeholders during September and October, 2017; and revised versions incorporating comments received during consultations were disclosed both in country and through the WB external webpage on November 6, 2017.

In addition, TA activities and studies under the Project will also need to be consistent with the principles of OP 4.12 to avoid potential downstream impacts.

Although the loan will not finance land acquisition, it is expected that it may finance compensation related with resettlement. All other expenditures related to the resettlement process will be financed by counterpart funds.

Safety of Dams OP/BP 4.37

No

There is a system of linked dams upstream of the Project area (La Cienaga dam, Las Maderas dam, and its appurtenances). According to the EA conducted under OP 4.01, the risk of failure of the dams is very little, as they are not located into riverbeds but the water is rather diverted from the rivers through a network of channels (the intake is regulated, so the dams are not subject to natural spates); and given that they are subject to a periodic (monthly and annual) inspection programs conducted by the Provincial authorities, in addition to which an independent assessment on the conservation status and the structural safety of the dams was conducted in 2015 by the National Regulating Organization on Dam Safety (ORSEP).

Additionally, the EA states that the eventual (unlikely) failure of the referred dams would not cause extensive damage neither failure of the investments to be funded by the Project, as they are located more than 15kms away from the works to be funded by the Project, so the water would reach the Project area through a smooth laminar flow.

Projects on International Waterways OP/BP 7.50

No

The Project will not affect international waterways a defined under the policy.

Projects in Disputed Areas OP/BP 7.60

No

The Project will not affect disputed areas as defined under the policy.



KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The main adverse impacts to be caused by the project are related to activities during the short-term construction stage. Such impacts are expected to be essentially soils compaction and pollution, generation of noise, vibration, dust, construction debris and waste of different types; as well as temporal disruption of transport and other public services. More permanent impacts, such as the alteration of the topography, the expansion of borrow pits and the opening of quarries, are expected to be localized. The widening of the right of way for some of the works would require the clearing of small fractions of natural forest (estimated in 40.3 Ha, plus 1,271 disperse trees) in the proximity of the roads and will increase the existing barrier effect between forest remnants. The foreseen works have also risks related to chance archeological findings, labor influx and crashes (e.g. with heavy construction equipment). These impacts and risks are considered mostly moderate, temporary, reversible and readily manageable with appropriate prevention, mitigation and supervision measures.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

There are plans to duplicate the NR N°34 beyond and to the south of the project area, which could lead to potential cumulative and longer-term impacts (e.g. induced impacts from expansion of agricultural and mining activities in the wider corridor). They are, in principle, deemed small since the involved roads already exist and have been part of an active transport corridor for decades. However, they will be further assessed during project implementation. For that purpose, a Strategic Environmental and Social Assessment will be financed under Component 3.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Alternative locations for the new lanes to be constructed (to one side or the other of the existing one) were evaluated, and the one with less negatives impacts was selected. The works will go beyond the current right-of-way only in a few specific sites.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

The environmental safeguards instruments prepared by the Borrower are EIAs and their respective EMPs for each of the three groups of road works (and their ancillary investments) to be financed by the Project. The Project Environmental Assessment also included three cross-cutting pieces of analysis that cover all the three groups of works. The first analysis determined that the risks of an eventual failure of any of the two dams operating in the proximities of the Project area (Las Maderas and La Cienaga) over the Project's investments are negligible. The second one identified and quantified the area of forests that would be subject to clearing due to the roads construction and rehabilitation, and concluded that the conversion or degradation of forest areas will not be significant (nevertheless, mitigation and compensation measures were included in the EMPs). Finally, an evaluation of the conservation landscape surrounding the Project area was conducted to identify mitigation measures to the incremental fragmentation to be caused by the Project to natural habitats. Findings and specific measures arising from this analysis were also included in the relevant EIAs, their EMPs, and the Project Operational Manual.



The DNV will be in charge of the preparation of environmental management manuals for the operation and maintenance phase of the works under Component 1 of the Project; which will be reflected in the Project's legal documents.

The social safeguards instruments prepared by the Borrower are two Abbreviated Resettlement Action Plans (ARAPs) and one Indigenous Peoples Plan (IPP). In addition, DNV prepared a Social Assessment that provided background information for the three instruments.

The IPP is intended to protect IPs' rights while minimizing any potential negative impact, and to support the maximization of positive ones. This document has been prepared and consulted to get broad community support; and a revised version, incorporating comments received and responses to such comments have been disclosed in country and through the World Bank's public webpage.

The two ARAPs were prepared to address and mitigate all risks linked to the involuntary resettlement processes generated by the Project, and to transform these processes in opportunities of development for Project affected people by supporting them to improve their livelihoods and standards of living or at least to restore them, in real terms, to pre-displacement levels or to levels prevailing prior to the beginning of Project implementation. The ARAPs were consulted with all Project Affected People (PAPs) and the final version of both documents have been disclosed in country and through the World Bank's public webpage.

The proposed operation will be implemented by an existing and well established institutional structure within DNV, through its provincial branch in Jujuy. Implementation arrangements would also include a Project Coordination Unit within DNV's national office that has experience implementing projects financed by the Word Bank. The Borrower already has, and regularly uses, the Environmental Management Manual (MEGA II. DNV, 2007) prepared by DNV under another IBRD loan to guide the implementation of standard mitigation measures usually implemented to manage direct environmental impacts of roadworks, such as the environmental management of construction camps, disposal of construction waste, management of borrow pits, quarries, etc. In addition, although DNV does not have a social management manual, it has successfully prepared and used social safeguards instruments under previous operations and has shown to have experience and capacity in the implementation of similar projects.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The public consultation of the EA for works Group 1 was conducted during the preparation of the engineering design and its EIA (2009-2012), by means of interchange of letters with public entities (such as the Municipalities located in the Project area, Provincial agencies, such as the Tourism Secretariat, Directorate for the Environment and the Natural Resources, Directorate for Water Resources, Directorate for Transport, Roads Safety agency, Tax collection agency, Ministry of Public Health, and the National Parks Administration), as well as private companies operating or providing public services in the area (such as the Jujuy's Tobacco Producers Cooperative, two gas stations, a local concrete factory, two telecommunication service providers, the Belgrano Cargas Railways company, and a gas distribution company), local NGOs (Los Pericos valley Irrigation Consortium and the Jujuy Model Forest), and eight local schools. The public consultations of works Group 2 and 3, took place in July 2017, by sharing (by e-mail) the summaries of the Project profile and the environmental impacts identified with key institutional stakeholders (public entities, NGOs and private sector from the Project area). The public consultations for works Groups 2 and 3 were complemented with face to face meetings, held on October 23 and 24, 2017 with indigenous peoples groups and groups subject to resettlement. The referred summaries, were shared with them, together with the ARAPs and IPP.



B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
27-Sep-2017	06-Nov-2017	

"In country" Disclosure

Argentina
06-Nov-2017

Comments

<http://www.vialidad.gov.ar/participacion-publica>

Resettlement Action Plan/Framework/Policy Process

Date of receipt by the Bank	Date of submission for disclosure
30-Oct-2017	06-Nov-2017

"In country" Disclosure

Argentina
06-Nov-2017

Comments

This corresponds to the Abbreviated Resettlement Action Plan for Group 1 of works and the ARAP for Groups 2 and 3 of works. Both documents were published on: <http://www.vialidad.gov.ar/participacion-publica>

Indigenous Peoples Development Plan/Framework

Date of receipt by the Bank	Date of submission for disclosure
30-Oct-2017	06-Nov-2017

"In country" Disclosure

Argentina
06-Nov-2017

Comments

<http://www.vialidad.gov.ar/participacion-publica>



Pest Management Plan

Was the document disclosed prior to appraisal?

NA

Date of receipt by the Bank

Date of submission for disclosure

"In country" Disclosure

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)

OP/BP/GP 4.01 - Environment Assessment

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP/BP 4.04 - Natural Habitats

Would the project result in any significant conversion or degradation of critical natural habitats?

No

If the project would result in significant conversion or degradation of other (non-critical) natural habitats, does the project include mitigation measures acceptable to the Bank?

Yes

OP 4.09 - Pest Management



Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

No

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

NA

OP/BP 4.11 - Physical Cultural Resources

Does the EA include adequate measures related to cultural property?

Yes

Does the credit/loan incorporate mechanisms to mitigate the potential adverse impacts on cultural property?

Yes

OP/BP 4.10 - Indigenous Peoples

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

If the whole project is designed to benefit IP, has the design been reviewed and approved by the Regional Social Development Unit or Practice Manager?

NA

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.36 - Forests

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?

NA

Does the project design include satisfactory measures to overcome these constraints?

NA

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?

NA

The World Bank Policy on Disclosure of Information



Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

NA

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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APPROVAL

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