

TC Document

I. Basic Information for TC

▪ Country/Region:	NICARAGUA
▪ TC Name:	Enabling environment for the diversification of school lunches
▪ TC Number:	NI-T1330
▪ Team Leader/Members:	Naslund-Hadley, Emma Ingrid (SCL/EDU) Team Leader; Le Pommellec, Marion (CSD/RND) Alternate Team Leader; Lopez Gelb Loren Viviana (SCL/EDU); Suarez Sandoval, Andres Fabian (VPC/FMP); Olivares Greta (SCL/EDU); Blasco, Ivana (SCL/EDU); Selva Delgado, Alma Reyna (CID/CNI); Canete Romero, Shirley Margarita (CID/CNI); Landazuri-Levey, Maria C. (LEG/SGO)omero, Shirley Margarita (CID/CNI); Landazuri-Levey, Maria C. (LEG/SGO)omero, Shirley Margarita (CID/CNI); Landazuri-Levey, Maria C. (LEG/SGO)
▪ Taxonomy:	Client Support
▪ Operation Supported by the TC:	n/a
▪ Date of TC Abstract authorization:	16 May 2024.
▪ Beneficiary:	Nicaragua Ministry of Education (MINED)
▪ Executing Agency and contact name:	Inter-American Development Bank
▪ Donors providing funding:	AgroLAC 2025 Multidonor Trust Fund(MAG)
▪ 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:	15 February 2025
▪ Types of consultants:	Firms and Individuals
▪ Prepared by Unit:	SCL/EDU-Education
▪ Unit of Disbursement Responsibility:	SCL/EDU-Education
▪ TC included in Country Strategy (y/n):	Yes
▪ TC included in CPD (y/n):	Yes ¹
▪ Alignment to the Update to the Institutional Strategy 2024-2030:	Social inclusion and equality; Productivity and innovation; Indigenous People; Gender equality; Diversity

II. Objectives and Justification of the TC

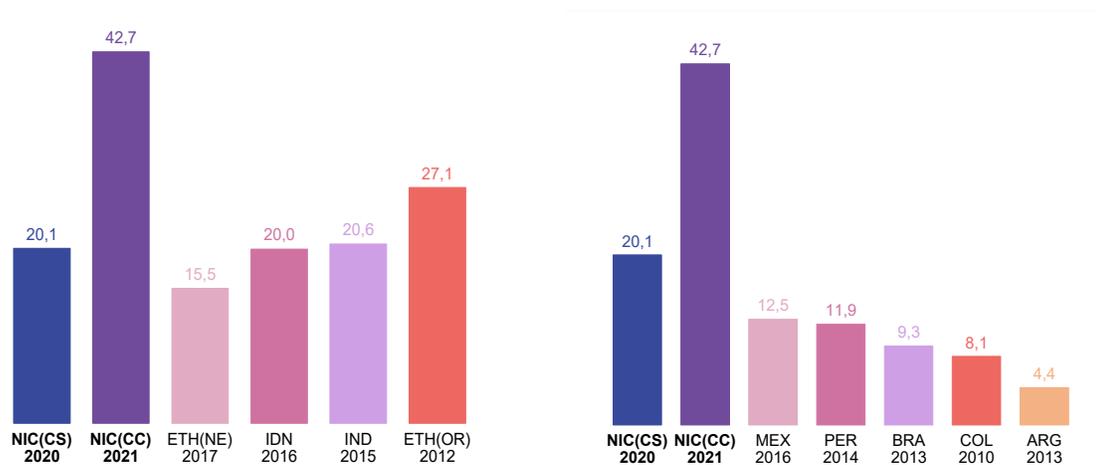
2.1 School feeding is a vital tool to address interconnected challenges of child nutrition, education, learning, and socio-economic inequality. School feeding programs have been shown to combat hunger and malnutrition, particularly in vulnerable communities where children rely on school meals as their primary or only source of daily nutrition. The quality and diversity of these meals directly impact children's physical health, cognitive development, and academic performance, laying the foundation for their future potential. In regions where poverty and food insecurity are prevalent, improving school lunches can also act as a catalyst for economic empowerment by creating opportunities for local food producers and fostering community-driven solutions. Moreover, investing in nutritious, locally sourced meals aligns with sustainable

¹ The TC was included as an IGR under a different # but was later changed to a TC.

development priorities, addressing inefficiencies in food systems, reducing environmental impacts, and strengthening resilience against climate change. By enhancing the nutritional quality and sustainability of school lunches, governments and stakeholders can make a transformative impact on the well-being of children and the broader development of their communities ([IDB, 2023](#)).

- 2.2 Leveraging local food producers in school feeding programs amplifies these benefits by creating a symbiotic relationship between education, nutrition, and local economies. By sourcing food locally, schools can provide fresh, culturally relevant meals that not only enhance dietary quality but also strengthen connections to local food systems. This approach generates stable income opportunities for small-scale farmers and food producers, helping to alleviate rural poverty and reduce barriers to market access. Additionally, engaging local producers fosters community ownership and participation in school feeding initiatives, creating a sense of shared investment in children's well-being. Importantly, local sourcing minimizes the environmental costs associated with long-distance food transportation, reducing greenhouse gas emissions and promoting more sustainable food systems. Together, these outcomes highlight the potential of locally sourced school feeding programs to address both immediate nutritional needs and long-term development goals, building stronger, more resilient communities ([IDB, 2023](#)).
- 2.3 In Nicaragua the Comprehensive School Nutrition Program (PINE) is universal for all public and subsidized schools (98.5%), from preschool through secondary education, mobilizing 28,000-30,000 parents who, prepare lunches daily for 1.2 million students in 12,000 schools. For many children, the lunch represents the only food of the day (WFP, 2018). In spite of PINE, the prevalence of anemia in students aged 6 to 14 years is high. The IDB with the Ministries of Health and Education have carried out representative surveys with students from two of Nicaragua's most vulnerable geographical areas, finding that the prevalence of anemia among children of primary school age in the Dry Corridor region (20.1%) reaching the levels of countries with low socioeconomic status, such as Africa and Asia (see Graph 1). Children aged 6 to 14 years in the Caribbean Coast region doubles the levels of anemia observed in these countries (42.7%) (Näslund-Hadley, Zanoni and Alonzo, 2025). The same study concludes that the health and nutrition of students could be improved by diversifying school lunches to include more protein, fruit, and vegetables. Introducing locally sourced, nutritious foods into school feeding programs enhances the diversity and nutritional quality of students' diets. This can have long-term benefits on children's health, cognitive development, and overall well-being.
- 2.4 PINE predominantly relies on large agricultural companies for the provision of food. This reliance on larger entities limits the diversity, local sourcing, and community engagement of the program. Small food producers have difficult access to markets, and school cafeterias represent a local market currently untapped by local producers. The World Food Program (WFP) has detected inefficiencies in the PINE food transportation and distribution chain with an additional cost of approximately 20%. Food is transported from rural areas to central warehouses around Managua and then back to schools across the country. Research suggests that it is more cost efficient and environmentally sustainable to deliver food directly to schools by purchasing from local producers (FAO, 2014; IDB-WFP, 2023).

Graph 1. Prevalence of anemia in countries of low socioeconomic development and in Latin America, 6 to 14 years of age (%)



Note: NIC(CS) - Nicaragua (Dry Corredor); NIC(CC) - Nicaragua (Carribbean Coast); MEX-Mexico; PER - Peru; BRA - Brazil; COL - Colombia; ARG – Argentina; ETH(NE) - Ethiopia (NorthEast); IDN - Indonesia; IND - India (Mangalore); ETH(OR) - Ethiopia (Eastern).

- 2.5 **Objective.** The objective of this Technical Cooperation (TC) is to improve the supply chain and distribution model of the Nicaragua Comprehensive School Nutrition Program (PINE) through a pilot program to diversify school lunches.
- 2.6 **Lessons Learned.** The Bank brings extensive operational experience and knowledge around school feeding. School feeding is one of two Bank focus areas in the education sector in Nicaragua. In addition to the knowledge work together with MINED, mentioned above, in collaboration with the WFP and the MINED, a series of studies are about to be launched that seek to develop and validate opportunities to improve the PINE ([ATN/OC-20421-NI](#)), as well as piloting a model for training caregivers in healthy eating ([ATN/JO-20422-NI](#)).
- 2.7 Regarding the creation of school feeding systems based on the purchase of local producers, the Bank contributes experience from other countries. This model has been used successfully in IDB operations and the study of locally produced food for school feeding programs is part of the IDB’s knowledge agenda. The Bank also provides experience in promoting entrepreneurship and associations of agricultural producers through the Agri-Food Productive Support Program “APAGRO” ([2055/BL-NI](#)). Likewise, the Bank provides learning from a study of low-carbon livestock farming for small and medium-sized livestock producers in the expanded lactose area of Nicaragua ([ATN/OC-19309-NI](#)). By connecting small local farmers to the school-feeding market, the TC creates opportunities for income generation. Increased market access can lead to higher revenues, contributing to economic stability at the individual and community levels. This shift represents an opportunity to create a more inclusive, sustainable, and community-driven school feeding program that aligns with broader goals of economic development and food security.
- 2.8 **Distribution Chain.** In the area of logistics for food transportation and delivery, a study of school feeding systems in Latin America recommends a purchasing system that allows local producers to deliver food to educational centers (FAO, 2014). This is a model that has been used successfully in operations financed by the Bank in Ecuador

and Haiti ([3726/OC-EC](#); [HA-L1077](#); [3355/GR-HA](#)) for the purchase of grains and vegetables. A lesson learned from Haiti is that it is preferable to mix local purchases of fresh foods with dry foods. In Nicaragua, the Bank has successfully used this model to provide fresh food to child development centers ([1729/SF-NI](#) and [NI-L1056](#)).

- 2.9 **Animal protein and fresh produce.** In the area of animal proteins and fresh produce, the Bank has experience from operations in Nicaragua, Guatemala, and Haiti ([1729/SF-NI](#); GU-M1044A; HA-M1014). The operation will seek to bring a focus on non-perishable items, for example, milk and eggs. The milk production model that does not require refrigeration from the award-winning “Competitiveness and Profitability of Milk Processing Plants Lèt Agogo” operation in Haiti will provide a basis for the low-tech innovative solution of this project as it has been tried and tested in the harshest of environments. The production of poultry as a strong supply of eggs has also been successful in operations in Guatemala and Nicaragua. The operation in Guatemala was focused on training communities on implementing poultry production and learning how to maintain vaccinations, give basic first aid, and understand ways to scale up their poultry production. This led to an increase in weight and height by 27% and 23% respectively by a third of girls in the region due to a healthier consumption of plant and animal protein. Moreover, poultry production and eggs are areas generally handled by female producers, which helps increase their training in agriculture and nutrition.
- 2.10 **Climate change.** PINE is currently vulnerable to the impacts of climate change, particularly due to its reliance on food imports and long-distance transportation of non-perishable goods. Prolonged droughts, increasing temperatures, and extreme weather events disrupt agricultural production and supply chains, making it difficult to ensure consistent and reliable access to food for schoolchildren. Additionally, climate-related shocks can lead to food shortages and higher prices, straining the program’s ability to meet nutritional demands. The dependence on external sources for certain food items exacerbates this vulnerability, as disruptions in international supply chains caused by climate events can further hinder the program’s effectiveness. Strengthening local food production and diversifying the types of food provided through PINE is essential to reducing these vulnerabilities and building resilience to the increasing risks posed by climate change.
- 2.11 Internationally, school feeding programs play a crucial role in building resilience to climate change by ensuring food security, especially for vulnerable populations, during and after climate-related shocks ([IDB, 2023](#)). In Nicaragua, strengthening MINED’s capacity to implement a diversified school feeding program will enhance resilience in communities increasingly vulnerable to the impacts of climate change. The proposed TC will specifically contribute to both climate change mitigation and adaptation by shifting the focus to local farmers as food suppliers. This approach will reduce the population’s vulnerability to climate-related challenges, such as prolonged droughts, by improving the nutritional quality of school lunches through fortified micronutrients. In terms of climate change prevention, the project will optimize logistics to reduce the need for long-distance food transport, thereby minimizing emissions associated with food distribution. Additionally, the project will promote the use of energy-efficient cooking methods, leading to a reduction in the reliance on fossil fuels and contributing to the overall reduction of greenhouse gas (GHG) emissions. By sourcing food locally and adopting sustainable practices, the project not only improves the nutritional outcomes for students but also strengthens the resilience of agricultural communities to climate-related shocks.

- 2.12 **Gender and agriculture.** The proposed TC draws on knowledge work on gender and agriculture by the Bank and others. Gender gaps in agriculture in Latin America pose significant challenges to achieving equitable and sustainable development. Women make up 43% of the agricultural workforce in the region ([IICA, 2020](#)), yet they face systemic barriers, including limited access to land ownership, credit, technology, training, and markets. Women face systemic barriers, including limited access to land ownership, credit, technology, training, and markets ([Schling et al, 2023](#)). These disparities hinder their productivity and reduce their ability to contribute fully to food security and economic growth ([FAO, 2023](#)). Cultural norms and gendered divisions of labor often exacerbate these inequalities, leaving women disproportionately responsible for unpaid domestic and care work alongside agricultural tasks ([Hernandez et al, 2023](#)).
- 2.13 **Strategic Alignment.** The TC is consistent with the IDB Group Institutional Strategy: Transforming for Scale and Impact (CA-631) and is aligned with the strategic objective of: (I) reduce poverty and inequality by enhancing the quality and efficiency of human capital development services through the strengthening of the PINE school feeding program. This TC also aligns with two areas of operational focus under the before mentioned strategy: (i) gender equality and inclusion of diverse population groups; (ii) social protection and human capital development. Furthermore, the TC is included in the Nicaragua 2024 CPD (NI-O0008) as part of the 2024 Operations Program Report and is based on the most recent country strategy with Nicaragua (2012–2017) and its extension to 2019. The operation aligns with the strategy for a Social Policy that Promotes Equality and Productivity (GN-2588-4) due to its focus on education. It is consistent with the Skills Development Sector Framework (GN-1312-4) by supporting primary education. The program aligns with the Gender and Diversity Sector Framework (GN-2800-13) and the IDB Group's Gender and Diversity Action Plan 2022–2025 (GN-3113-1). From a gender perspective, it contributes to the training of women farmers. Regarding diversity, it will be implemented in geographical areas with high proportion of indigenous population. Finally, the proposed project is aligned with the AgroLAC 2025 Multidonor Trust Fund (MAG), coordinated by the Bank, which focuses on enhancing agricultural productivity and sustainable management of natural resources in Latin America and the Caribbean.

III. Description of activities/components and budget

- 3.1 The proposed “Enabling environment for the diversification of school lunches” project aims to connect local producers with the national school feeding program through a pilot program to diversify school lunches.
- 3.2 **Component I: Diversification of School Lunches Pilot.** This component will finance the contracting of a consultancy firm to design and implement a pilot program to diversify school feeding through fresh produce (e.g. proteins, vitamins, and fibers) from local producers, which covers nutritional requirements, establishing supply chains that connect farmers with PINE. The diversification of school lunches will be conducted through the introduction of non-perishable fresh produce and animal protein to complement dry produce already supplied by PINE. The implementation steps for this pilot program to diversify school feeding with local fresh produce and animal protein are as follows:

- 3.3 *Step 1: Project Planning.* (i) Collaborate with PINE-MINED and the Instituto Nicaragüense de Tecnología Agropecuaria (INTA),² to identify schools and local farmer organizations (possibly farming cooperatives) for the pilot; and (ii) Assess the current food supply chain in the identified schools, nutritional gaps in school meals, and the capacities of local farmers to provide fresh produce and animal protein. The planning should build on an analysis of local indigenous crops and feeding practices.
- 3.4 *Step 2: Establish Supply Chains by Connecting farmers with PINE.* Dialogue and technical assistance to facilitate that local producers are integrated into the school feeding logistics and certified according to food safety standards.
- 3.5 *Step 3: Design and introduce Diversified School Meals.* (i) Design different models of low-tech processing of food, including the low-tech, innovative milk production model introduced in Haiti³ of using sterilized milk bottles that can be preserved without cold chain for up to six months; fortifying the milk with macronutrients, such as iron, to increase nutritional value for students; and introducing canned fruit and eggs. (ii) Begin the introduction of non-perishable fresh produce and fortified animal protein in school lunches, including coordination with school administrators, teachers, and kitchen staff to ensure proper preparation and distribution of the new meals.
- 3.6 *Step 4: Monitoring.* (i) Qualitatively track the performance of the diversified school meals in terms of food quality, and the sustainability of the supply chains. Collect feedback from schools, students, and local producers; and (ii) Based on the results, make any necessary adjustments to the pilot, making the model ready for scaling to more schools and regions.
- 3.7 **Component II: Capacity Building to Access School Lunch Market.** This component will finance the contracting of a consultancy firm to build capacity of small local producers to access the school lunch market. The aim is to support the insertion of local food producers into the school feeding logistics chain which will strengthen small producers/farmers' ability to increase their production in an environmentally sustainable manner. The activities related to this goal will also strengthen the capacity of the local and national government of Nicaragua to develop and implement sustainable agricultural plans that emphasize the promotion of public goods, such as school feeding. This will be done through a range of activities such as: (a) capacity building to meet school-feeding safety market standards; (b) support in obtaining PINE certifications; (c) non-reimbursable support (small investments in equipment for a maximum of 10% of the contract of the WFP) to increase local producers' capacities to access the school lunch market, prioritizing female producers, and including support to produce minimally processed foods; (d) establish supply chains connecting farmers with PINE; (e) networking with PINE administrators; and (f) the development of a sustainability framework that extends beyond the 36-month disbursement period. These activities are aligned with the Agro LAC logic model and indicators as suggested below, given that small local producers will be trained to increase their capacities and enter new local markets.

² INTA is a government entity in Nicaragua. It operates under the supervision of the Ministry of Agriculture and Livestock (MAG), focusing on agricultural research, technological innovation, and the dissemination of improved practices to support the country's agricultural sector.

³ This model was introduced in the ECLAC award-winning "Competitiveness and Profitability of Milk Processing Plants Lèt Agogo" operation in Haiti (HA-M1014). Using this model in this project will also allow for South-South collaboration with the small farmers from Haiti.

- 3.8 **Funding.** The total cost of the TC is US\$400,000, to be financed through the AgroLAC 2025 Multidonor Trust Fund, MAG.

Indicative Budget (US\$)

Activity/Component	Description	IDB/MAG	Total Funding
Diversification of School Lunches Pilot	This component will finance the direct contracting of WFP to pilot the diversification of school lunches	200,000.00	200,000.00
Capacity Building to Access School Lunch Market	This component will finance the direct contracting of WFP to build capacity of small farmers.	200,000.00	200,000.00
Total		400,000.00	400,000.00

- 3.9 **Monitoring.** The Project Team will be responsible for the review of all technical and financial reporting. The Team Leader will be responsible for monitoring activities in the field and continuous progress meetings with WFP.

IV. Executing agency and execution structure

- 4.1 The Inter-American Development Bank (IDB) through the Education Division (SCL/EDU) in collaboration with the country office (CID/CNI) will execute this TC. The Government has requested that the IDB execute the TC. This is consistent with Appendix 10 in the Operational Guidelines for Technical Cooperations (as modified Annex 2 of OP-619-4), which identifies the need of a strong institutional, operational, and technical capacity for the execution of the contemplated activities in technical cooperations. The Team Leader from SCL/EDU in collaboration with the project team from CID/CNI will carry out the supervision and monitoring of project implementation through biweekly meetings with MINED, the WFP, and INTA.
- 4.2 **Execution and disbursement period.** The TC will be executed through the UDR SCL/EDU over a period of 36 months and disbursed over a period of 36 months as of the date of approval.
- 4.3 **Procurement.** All procurement to be executed under this Technical Cooperation have been included in the Procurement Plan (Annex IV) and will be hired in compliance with the applicable Bank policies and regulations as follows: (a) Hiring of individual consultants, as established in the regulation on Complementary Workforce (AM-650) and (b) Contracting of services provided by consulting firms in accordance with the Corporate procurement Policy ([GN-2303-33](#)) and its [Guidelines](#).
- 4.4 All deliverables and any other material prepared under this TC are the sole and exclusive property of the Bank, and as such, the Bank has title, rights (including copyrights) and exclusive interests in the ownership of said products.
- 4.5 **Direct Contracting. Single-source selection.** Direct contracting is foreseen of the World Food Program (WFP) in the amount of US\$400,000 to implement activities under Components I and II. As per GN-2303-03 (Section III) this is a single source procurement because “it can be objectively demonstrated that only one firm is qualified or has experience of exceptional worth for the assignment, and it presents a clear

advantage over competition.” The WFP is the only agency in Nicaragua the on-the-ground infrastructure needed to undertake the proposed activities under Component II. The WFP has a central office in Managua and four field offices, supporting 182,000 students across educational centers. This established network of resources and experience will be leveraged to implement the project efficiently, ensuring the inclusion of fresh, locally produced food in school meals and the strengthening of supply chains connecting local farmers to the national feeding program. The WFP operations in Nicaragua are highly flexible, with the ability to scale and adapt to evolving has a long-standing legal agreement between Nicaragua and the WFP, allowing for seamless collaboration and collaboration in relation to PINE. Since its involvement in the PINE beginning in 1994, the WFP has consistently demonstrated its capability to deliver essential food assistance to vulnerable school children, managing both logistics and distribution across the country.

V. Major issues

- 5.1 There is a risk that local producers closest to the schools will not have the capacity to provide the supplies required for the fresh food pilot, particularly in terms of volume, consistency, and quality of produce. To mitigate this situation, the WFP will be contracted for the implementation of the TC. The WFP has extensive experience working with small farmers and farm cooperatives in Nicaragua, including capacity-building initiatives to strengthen production, logistics, and market access. Likewise, with several actors involved, there are always risks of inter-institutional coordination in the territory, including potential delays or misalignment of objectives. To mitigate this risk, regular coordination meetings will be held with MINED and the WFP to ensure consistent communication, alignment of roles and responsibilities, and prompt resolution of any emerging challenges. This approach will help foster collaboration and accountability among all stakeholders.

VI. Exceptions to Bank policy

- 6.1 There are no exceptions to Bank policies.

VII. Environmental and Social Aspects

- 7.1 This Technical Cooperation is not intended to finance pre-feasibility or feasibility studies of specific investment projects or environmental and social studies associated with them; therefore, this TC does not have applicable requirements of the Bank's Environmental and Social Policy Framework (ESPF).

Required Annexes:

[Request from the Client_70615.pdf](#)

[Results Matrix_17456.pdf](#)

[Terms of Reference_93629.pdf](#)

[Procurement Plan_24993.pdf](#)