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Project Information Document/ Integrated Safeguards Data Sheet (PID/ISDS)

Concept Stage | Date Prepared/Updated: 11-May-2017 | Report No: PIDISDSC20468

**BASIC INFORMATION****A. Basic Project Data**

Country Argentina	Project ID P162316	Parent Project ID (if any)	Project Name Integrated Management of Agricultural Risk (P162316)
Region LATIN AMERICA AND CARIBBEAN	Estimated Appraisal Date Aug 22, 2017	Estimated Board Date Oct 03, 2017	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) Argentine Republic, Ministry of Finance	Implementing Agency Ministry of Agroindustry	

Proposed Development Objective(s)

The objective of the project is to contribute to strengthen resilience of the agroindustrial sector, particularly among the most vulnerable producers. This objective will be achieved through reduction of producers' vulnerability and exposure to climatic and market risk.

Financing (in USD Million)

Financing Source	Amount
Borrower	37.50
International Bank for Reconstruction and Development	150.00
LOCAL: BENEFICIARIES	0.00
Total Project Cost	187.50

Environmental Assessment Category B-Partial Assessment	Concept Review Decision Track II-The review did authorize the preparation to continue
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Other Decision (as needed)

B. Introduction and Context

Country Context

1. **After taking office in December 2015, the new Argentine Government moved with significant speed to implement reforms.** The Government has rapidly implemented various macroeconomic reforms and initiated a program of structural reforms. These include *inter alia* (a) the elimination of export taxes on major crops, beef, and most industrial manufacturing products and the reduction by 5 percent of export taxes on soy; (b) unification of the exchange rate, effectively ending most foreign exchange restrictions; (c) moving from a system of discretionary to automatically provided import licenses in line with World Trade Organization procedures; (d) resolution of the dispute with holdout creditors; and (e) measures to enhance public transparency and accountability. In addition, the National Institute for Statistics launched a new inflation index and improved the overall quality of statistics. Electricity tariffs and transport fees were increased to reduce subsidies, while protecting low-income users with a social tariff. Broader efforts to reduce energy subsidies (which account for a large portion of fiscal deficit) are under way.

2. **Economic activity contracted in 2016, but growth is expected in 2017.** Economic activity contracted 2.3 percent during 2016, taking a toll on labor markets, where up to 0.9 percent of formal private sector jobs were lost in the first semester¹. However, GDP expanded in the second half of 2016 (0.6 percent), and employment in the formal private sector recovered to its previous peak level (October 2015). The economy is expected to continue to grow in 2017 (+2.7 percent²) on the assumption that the positive impact of recent 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 is expected to decrease to 21 percent in 2017³, despite further increases in energy and transport tariffs. The central government primary deficit in 2016 was 4.6 percent of GDP, below the official target (4.8 percent). The target primary deficit for 2017 (4.2 percent), though higher than originally planned, will require further fiscal consolidation efforts.

3. **The Argentine 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 disparities.

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, April 2017.



4. **Because of its geographical characteristics, Argentina is exposed to a variety of natural hazards.** According to the Third National Communication (2015) by the Government of Argentina to the United Nations Framework Convention on Climate Change (TNC, 2015)⁴, the projections of climate models during this century generally indicate that the extremes of high temperatures and extreme precipitation will continue to increase in most of the country, although the precise quantification of this change presents considerable levels of uncertainty. For example, droughts and floods during the last decades have increased due to the influence of stronger El Niño Southern Oscillation (ENSO) events and due to climate change.⁵ The natural disaster loss per capita in Argentina is high and relates predominantly to hydro-meteorological hazards, which represent 58 percent of the total economic losses over the last 50 years.⁶ According to Swiss-Re, Argentina is among the 10 emerging economies with the highest flood hazard exposure, with potential losses in excess of US\$ 3 billion a year (0.5% of GDP). Drought, hail, and frosts are other hazards that significantly affect the economic performance of the country.

Sectoral and Institutional Context

5. **Argentina is one of the world's leading food exporters, enjoying vast farmlands and favorable natural conditions. Despite these advantages, the country's agricultural sector is at a point of inflection.** Over much of the past decade, the sector enjoyed high global prices but was buffeted by public policies that narrowed profit margins and stifled investment. The new administration made a major shift in taxes and regulation towards supporting economic incentives for development and investment, but global commodity prices have weakened over the past two years and prospects over the medium term are uncertain (World Bank, 2016). Lower commodity prices and slower growth in China, the major commodities consumer, seem to be here to stay. Argentina and other major agricultural exporters face a difficult transition to a new equilibrium, a "new normal."

6. Despite a boom in global commodity prices, from 2002 to 2013 investment in agriculture/agribusiness fell and the rate of total factor productivity growth slowed compared to its neighbors. The Agriculture Production Index of the United Nations Food and Agriculture Organization (FAO) for Paraguay, Brazil and Uruguay was between 20 percent and 30 percent higher than that of Argentina in 2013. This trend was closely associated with domestic policies that imposed export tariffs, quotas and exchange rate controls. In December 2015 the new administration eliminated most of the tariffs and quotas, unleashing new potential. Simulations that only look at the potential benefits from the removal and lowering of agricultural export tariffs and controls suggest a significant gain in both production and employment. By 2019 grain and oilseed production may increase to 137 million tons, cattle stocks to 56.8 million head, and employment by 500,000 new jobs.

7. **While the sector prognosis is positive, there remain a number of important challenges that will determine the quality of sector growth and sustainability going forward.** The main challenge the sector faces is the low and volatile productivity growth with a yield gap reaching 20 percent in selected crops. Dilapidating infrastructure and inadequate transportation and logistics networks further hurt the sector competitiveness, and can account as much as 35 percent of the total cost of a ton in the case of soy. Environmental degradation contributes further to significant losses, estimated to be in the range of 1 to 8 percent of GDP⁷. Because of these rising costs and accumulating underinvestment, export

⁴ Its Executive summary is available at: <http://ambiente.gob.ar/wp-content/uploads/3Com.-Resumen-Ejecutivo-de-la-Tercera-Comunicacion-Nacional.pdf>

⁵ Caprioli (2010): Extreme Hydrologic Events in North Area of Buenos Aires Province (Argentina)

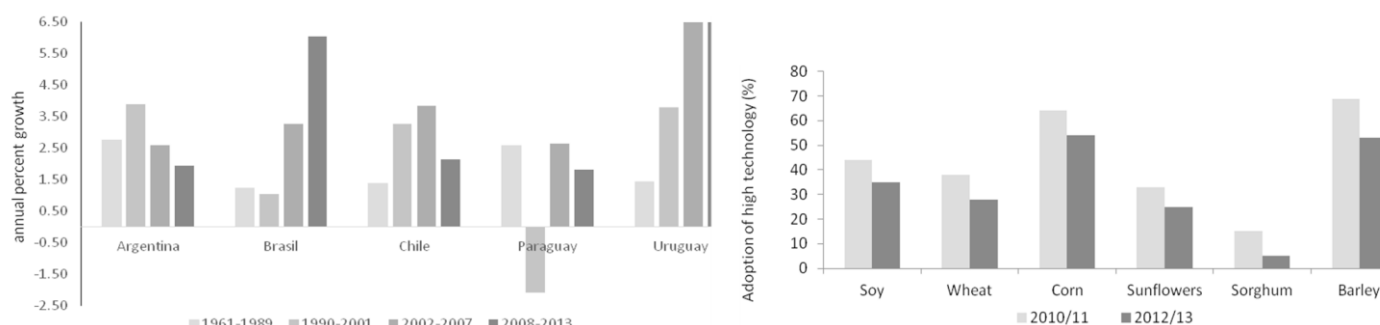
⁶ 'Staying afloat: Flood Risk in Argentina', Swiss-Re, 2016, http://media.swissre.com/documents/Swiss_Re_Argentina_Flood_Risk_Publ_long.PDF.

⁷ Country Environmental Analysis: <https://openknowledge.worldbank.org/bitstream/handle/10986/25775/109527-ENGLISH-PUBLIC-ARG-CEA-Country-Environmental-Analysis-English.pdf?sequence=1&isAllowed=y>



product diversification equivalents fell from 2.1 to 1.7 from 1995 to 2009. Going forward, a key role for public policy will be to enable a conducive business environment (both for investments and cost competitiveness) as the private sector shifts gears from extensive to intensive production systems, and promote diversification towards higher price and value markets.

8. **Furthermore, given that agriculture is one of Argentina's core economic activities, the country appears to be quite vulnerable to risks, in particular to more intense heat and extreme precipitation events.** Given the geographic extension of Argentina, the country faces a large set of natural hazards that have adverse economic impacts on a regular basis. The hazards that are most reported to cause systemic losses in the agriculture sector are floods, extreme precipitation, droughts, hail, frosts and volcanic eruptions. These macro and sector-level constraints and the sector risks outlined above have led to the Agriculture Sector of Argentina to show a drop in Total Factor Productivity (TFP) in relation to neighboring countries in recent years, as well as a drop in the adoption of agriculture technologies (see graphs below). These risks will likely intensify with rising climate variability and change.



9. **Agriculture production losses in Argentina during the past 20 years due to extreme weather events are estimated to amount to US\$12 billion (current value)**⁸. Extreme losses⁹ in agriculture production between 1993/94 and 2014/2015 have been estimated at US\$8.7 billion for soy, US\$2 billion for maize, US\$860 million for wheat and US\$493 for sunflower. The worse years in terms of agriculture production losses in the past two decades have been 2008/9 and 2011/12 due to an extreme drought in the central “key” agriculture region (*zona núcleo*) of the country, which reached losses of more than US\$9 billion. Unfortunately, farmers in Argentina, especially family farmers, do not have access to financial instruments that would allow them to cover themselves against such systemic events. Agriculture insurance in Argentina is concentrated on covering hail, with very few insurance policies being sold to cover for rainfall risks (excess rainfall, drought, and floods).

10. **Flood is the hazard that has caused the largest losses to the Argentinean economy historically. It is estimated¹⁰ that the accumulated losses between 1950 and 2015 from the 10 worst floods were US\$8.77 billion throughout the entire economy.** Many of these events have been linked to El Niño (ENSO) events, such as the floods of 1982/83, 1992, 1997/1998, and 2015. In relation to the most vulnerable areas, the La Plata Basin is one of the most affected given its level of exposure. It is estimated that 80 percent of the Argentinean population lives in this basin, and it concentrates the main industrial (including agroindustrial) investments of the country.

11. **Within the Argentinean economy, the agriculture sector is the most susceptible to losses due to flooding.** In 2000, for example, approximately 1.85 million hectares (4.5% of total cultivated area) were flooded due to extreme rainfall. Losses to the sector amounted to US\$187 million. In 2001, a similar area was affected, producing losses of up

⁸ Agriculture Risk Management Policy Note for Argentina, World Bank, 2016.

⁹ By extreme we refer to deviations in yields of more than one standard deviation.

¹⁰ EM-DAT, 2016.



to 70 percent of pastureland, a 15 percent drop in milk production, and between 50 and 60 percent drop in maize and wheat production, respectively¹¹.

12. **The second most important hazard in terms of agriculture losses has been extreme drought. The events of 2005, and 2007-2009 have been very damaging for the livestock sector.** In 2009 the National Meteorological Service (SMN) reported that 90 percent of the national territory was under some type of drought situation; with the most severe droughts being recorded in the North of La Pampa and South of Buenos Aires and Cordoba Provinces¹². Because of these events, the number of cattle dropped considerably from 58.7 million in 2007 to 49.9 million in 2012 (15 percent)¹³.

13. **Price volatility has also increased for international agriculture commodities since 2006/2007. This has had a negative effect on Argentinean farmers.** From the beginning of the cropping seasons for grains (October), local prices in Argentina have had a tendency to drop until harvest, which highlights the need for Argentinean farmers to hedge their positions before planting. Although Argentina has one of the oldest agriculture commodity exchanges globally, with futures and options for several grains, family farmers do not have access to such financial instruments to allow them to hedge against drastic price movements.

14. **Public policies and programs in Argentina that look towards the management of agriculture risks are concentrated in responding to agriculture emergencies.** This is quite different from other countries in the Region and other developed economies, which have a wider set of instruments and tools to manage agriculture sector risks in a more integrated fashion. In Argentina, the main public policies and programs for agriculture risk management are in the area of agriculture emergency response, agroclimatic information systems (including price), and animal and plant health. From the private sector side, the main agriculture risk management instruments are the development and marketing of climate smart technologies (improved seeds, fertilizers, software and machinery, etc.), animal and plant health products, storage facilities, and agriculture insurance and commodity price derivatives.

Relationship to CPF

15. **The project is fully aligned with the FY2015-18 World Bank Group's Country Partnership Strategy (CPS) for Argentina.** The CPS identifies maintaining Argentina's position as one of the world's top food providers through adapting to climate change and addressing the needs of small farmers as one of the country's development challenges for sustained poverty reduction and shared prosperity. Argentina's high potential in agriculture is at risk due to the increasing number of severe climate events such as droughts and floods.

16. The CPS focuses on reducing poverty and promoting shared prosperity.¹⁴ It is organized around nine results areas within three broad strategic pillars. **The proposed project is aligned with Strategic Pillars I--"Sustaining Employment Creation in Farms and Firms"--and III--"Reducing Environmental Risks and Safeguarding Natural Resources"**. Additionally, the proposed project is also aligned with the recently widened focus to unlock long-term productivity growth and job creation under Pillar I, in response to the reorientation of policies by the new Administration.¹⁵ The project would contribute strongly to "Raising agricultural productivity of small- and medium-size farms in low income regions" (Result Area 3 of the CPS). It may also support outcomes included in two other CPS result areas: "Reducing exposure to extreme flooding in the Province of Buenos Aires" (Result Area 7), and "Improving natural

¹¹ Occhiuzzi and Mercuri, 2011.

¹² Sousa, 2009.

¹³ FAOSTAT.

¹⁴ Country Partnership Strategy (CPS) for the Argentine Republic for the period FY15-FY18 (Report No. 81361-AR).

¹⁵ Performance Learning Review (PLR) of the Country Partnership Strategy (CPS) for the Argentine Republic for the period FY15-FY18 (Report No. 11546-AR).



forest cover in the Chaco Eco Region” through the development of an agriculture and climate change information system that facilitates producers’ access to climate-related data.

17. **This project builds on previous work in Argentina and in the region on the improvement of the management of agriculture risks.** The Bank has provided support to Argentina in 2016 through the development of an Agriculture Risk Management Policy Note (P156197) and a technical assistance program for building the institutional capacity for managing agriculture risks and preparing for ENSO events (P159720). This project also builds on the information systems and farm-level climate resilience technology adoption experiences of the ongoing Project for Increasing Climate Resilience & Enhancing Sustainable Land Management in the Southwest of the Buenos Aires Province (P125804) funded by the Adaptation Fund and executed through the Ministry of Environment, and the study on “*Agricultura y ganadería. Impacto y vulnerabilidad al cambio climático*” (2015)¹⁶ funded by the GEF Argentina Third National Communication UNFCCC (P116974) project. The project will also work alongside ongoing and future IFC advisory services and investments financing green technologies for agribusinesses in Argentina through commercial Banks. Furthermore, the Bank has provided support to the Ministry of Agroindustry in the past years, helping in the design of agriculture risk transfer instruments for the livestock sector in Buenos Aires Province and cotton producers in Chaco Province. Finally, this project is based on the Bank’s approach towards an integrated management of agriculture risks, promoting resilience and sector competitiveness, focusing on the most vulnerable farmers¹⁷.

18. The project would contribute to poverty reduction by ensuring the inclusion of the most vulnerable farm households in the risk management strategies and subsequent activities, as these households tend to be among the poorest in the country. Reduction of agricultural output volatility and improvements in emergency response times would also benefit firms and employees along the value chains benefitting from project interventions, mitigating income shocks and variations, which disproportionately affect the poorest sectors of society, and thus contributing to shared prosperity.

19. **Climate change co-benefits.** By increasing the resilience of the sector, the project would contribute to climate change adaptation. While the focus of agriculture risk reduction strategies and plans to be supported by the project is on retrospective risk, they will also consider climate change impacts. Project investments in infrastructure and technology adoption can be considered as “no regrets”, given that key future climate change hazards would likely manifest through increased frequency and intensity of current trends.¹⁸

20. **Nutrition co-benefits.** The Project is expected to contribute to improvements in food security by its focus on: (i) improved information for planning and response to production and climate-related hazards in agriculture; (ii) mitigation of risks of vulnerable small farmers, who depend on their output for daily sustenance; (iii) mitigation of risks in high-value sub-sectors, which provide permanent and temporary employment to significant numbers of people up and downstream agriculture value chains; and (iv) improved recovery of agricultural systems and thus reduction of volatility of food prices, which affect disproportionately the poor, nationally and globally.

¹⁶ Full document can be found at: <http://ambiente.gob.ar/tercera-comunicacion-nacional/>

¹⁷ See Agriculture Sector Risk Assessment Methodology: <http://documents.worldbank.org/curated/en/586561467994685817/Agricultural-sector-risk-assessment-methodological-guidance-for-practitioners>

¹⁸ World Bank, Argentina, Cambio climático proyectado y su impacto en la agricultura 2050-2100, Policy Note, 2016.



C. Proposed Development Objective(s)

Note to Task Teams: The PDO has been pre-populated from the datasheet for the first time for your convenience. Please keep it up to date whenever it is changed in the datasheet.

The objective of the project is to contribute to strengthen resilience of the agroindustrial sector, particularly among the most vulnerable producers. This objective will be achieved through reduction of producers' vulnerability and exposure to climatic and market risk.

Key Results (From PCN)

- i. Adoption of technologies and/or instruments for increased resilience (measured by number, type and gender of farmers; and area that has adopted production/market resilient technologies/instruments). [CORE SD INDICATOR: Farmers adopting improved agricultural technology]
- ii. Number of farmers (and/or area cultivated) that are part of an improved agriculture emergency system, by type of farmer and segregated by gender. [CORE SD INDICATOR: Farmers reached with agricultural assets or services]
- iii. Number of Provinces that have adopted an integrated agriculture risk management plan.
- iv. Number of farmers participating in international value chains, among beneficiaries, by type and gender.¹⁹

D. Concept Description

21. **Beneficiaries.** The project will have as direct beneficiaries the most vulnerable small and medium-sized agricultural producers and small and medium-sized agricultural enterprises, located in the provinces where activities are carried out. It would reach about 70,000 small and medium producers and a number (TBD) of small and medium agribusiness firms. Small and medium farms, in particular those outside the main cereal production zones, are among the most vulnerable and have the lowest capacity to recover from negative impacts caused by external factors like extreme weather or market shocks. Small and medium-sized farmers conform mostly family-based units. Agriculture plays a varied role in these households, mostly depending on size and location, along a continuum of situations. Agriculture in small farms in marginal areas may function as a safety-net, part of a set of multiple activities in their livelihood strategies (close to 70 percent of the family members also work outside the farm, in other farms or sectors²⁰). Many medium farms are well-integrated into markets, deploying advanced agriculture techniques and using wage labor.

22. **Gender.** Women occupy a variety of roles in this continuum, from farm management to farm workers and are slightly over-represented in the smallest farms' workforce. There are important gaps related to gender equality in the agroindustrial sector, though data is scant. Migration from poor rural areas may disproportionately affect both single and married women. Nevertheless, some young women are changing this trend by deciding to stay in rural areas in order to develop opportunities for themselves. Project preparation will explore gender aspects of vulnerability in order to determine if there is a need for specific support to women's livelihood strategies.

¹⁹ This indicator would be included if project design incorporates financing for export diversification, to reduce market risks and in line with Argentina's policy to become one of the world's "supermarkets".

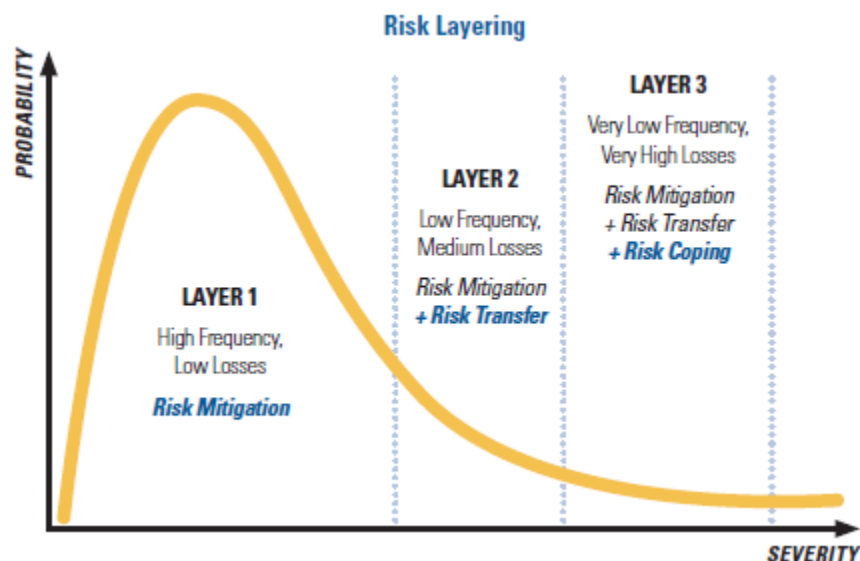
²⁰ Edith Scheikerman de Obschatko et al., Los pequeños productores en la república Argentina, PROINDER-SAGPyA/IICA, 2007. Up to date information on small and medium-sized producers is scant. The latest agricultural census was carried out in 2002. Argentina does not include rural areas and small towns, about 30 percent of the total population, in its regular household survey either.



23. **Indirect beneficiaries.** Contractors (firms and employees) who provide services to farmers and whose income often collapses when disaster strikes agriculture production; firms and their employees, up- and downstream the agriculture value chains, who depend on reliable supplies of agricultural products; provincial governments, which allocate scarce public funds to attending emergencies and whose revenues suffer when these occur in their jurisdictions. In addition, the project will strengthen the institutions responsible for generating and disseminating critical information for risk management and the offices responsible for managing responses to agricultural emergencies.

24. **Integrated framework for managing agriculture risks.** The implementation of the framework implies a balance between existing public policies and programs, available public resources, and existing private sector technologies and instruments. It also requires the development of a robust institutional structure to ensure policy and program integration and clear communications across various sector stakeholders. Interinstitutional coordination to reduce response times after an event, improving targeting of risk management programs to the most vulnerable population and changing the risk management paradigm from an ex post to an ex ante system are key issues to be tackled by the proposed operation. Thus, this project seeks to provide the public sector with the capacity and strategies for managing agriculture sector risks in an integrated fashion, increasing the resilience of the most vulnerable farmers while improving the effectiveness and efficiency of public spending.

25. **Components.** In order to contribute to implementing an integrated approach to risk management, the project is divided into three components that have been identified as the key areas of improvement within the existing public sector policies and programs in Argentina. Component 1 focuses on the provision of agroclimatic information (public service) for the management of agriculture risks, while components 2 and 3 focus on bringing integrated management of agriculture risks at the farm level, addressing different agriculture risk layers with different risk management strategies (risk mitigation, transfer and coping – see risk layering figure below).



26. **Component 1 - Strengthening agro-climatic information systems** (approximate cost USD 15 million, of which 80% from the Bank). Despite the fact that the GoA has made important progress in facilitating access of agro-climatic information and commodity prices for agriculture risk management purposes, there remain important limitations – technical and financial – that hinder sustained cooperation among government institutions, and the use of data by the private sector and the public. For instance and despite the existence of cooperation agreements among institutions that



generate data, heterogeneity of IT infrastructure and information systems still impedes coordination and cooperation. These constraints make it difficult to carry out risk monitoring and risk analyses in a timely manner.

27. Based on an approach that intends to leverage public funds with private assets and participation, the component would finance improvements in capacity and interoperability of agroclimatic and price information systems operated or disseminated by the Ministry of Agroindustry (MAI) and other selected public and private entities linked to the agriculture sector. An example of this is the work being done to standardize and disseminate the agroclimatic data collected by private networks of meteorological stations with the ones of the National Meteorological Service (SMN) and of the National Agriculture Technology Institute (INTA). Another example is the ongoing development of an information system that collects and publishes real-time spot prices of basic grains (Operations Information Systems for Grains²¹), which is a joint effort between MAI and the Agriculture Commodity Exchanges of Argentina. It would also improve the institutional capacity of selected institutions to analyze georeferenced data. The component would finance goods, training, consultant services and operational costs for the development or enhancement of agro-ecological data and information management systems. The project would also allocate resources to promote private- and public-sector development and implementation of IT systems and software solutions that improve access to agro-industrial information and enhance the assessment of agricultural risks associated with climate variability, climate change, and market price fluctuations. The key expected results from this component are: (i) a well-functioning early-warning system for the main hazards that affect agricultural value chains²²; and (ii) a reliable and easily accessible system for the provision of production, price and meteorological information to the public.

28. **Subcomponent 1.1. Development of Tools and Systems.** The purpose of this subcomponent is to consolidate and integrate production, price and meteorological information generated by a variety of public and private institutions. It envisages financing for the following activities:

- a. diagnostic of sector ICT capacities and systems;
- b. diagnostic of existing capacity for generation, transmission, maintenance, quality assurance and security of information;
- c. design and implementation of the infrastructure for provision of agro-industrial agro-climatic data, including systems for downloading, analyzing, visualizing and consulting data and information;
- d. design of protocols, standards and operation and maintenance manuals for supported tools and systems;
- e. integration and strengthening of key price and meteorological networks and data;
- f. development of historical synthetic data series for agroclimatic variables for probabilistic analysis; and
- g. strengthening of provincial and regional spatial data infrastructure selected on the basis of information gaps.

²¹ The real time price information system can be accessed at: www.siogranos.com.ar. This information system received technical assistance from the World Bank in 2015 for its development and it is a unified system for the purchase and sale of grains that make up the Physical Market ("disponible", "cash", "forwards" a fijar ", " directas ", etc.) and that arises according to the established in the CNV - SAGyP Joint Resolution N° 208 and 628. This system has been developed by the Cereal Stocks exchanges of Bahía Blanca, Buenos Aires, Córdoba and Entre Ríos, and the Stock Exchanges of Chaco, Rosario and Santa Fe, the Mercado a Término de Buenos Aires SA (MATba) and the Mercado a Término de Rosario S.A. (ROFEX). The products on which the aforementioned operations are to be reported are: wheat, corn, sunflower, soybean, soybean oil, forage barley and sorghum. The aim of the joint action is to improve transparency in the physical grain market and, in particular, to promote the link between the quality and the price of the products traded.

²² An example is the linkage and coordination with the Information and Early Warning System (IEWS) established under our Argentina Adaptation Fund: Increasing Climate Resilience & Enhancing Sustainable Land Management in the Southwest of the Buenos Aires Province (P125804) and coordinated between National Agriculture Technology Institute (INTA) and the National Meteorological Service (SMN).



29. **Subcomponent 1.2. Institutional Capacity Development.** This subcomponent aims at building the capacity of selected national and provincial government institutions for the operation of the supported information systems. It would also promote the development of software solutions by the private sector, based on the data generated by the improved systems. This subcomponent would finance the following activities:

- a. hardware, software and training required for effective operation of selected national, provincial and decentralized entities;
- b. promotion and dissemination of visualization, consultation, analysis and data download tools developed by MAI, under an open data approach for private sector developers and use by other institutions;
- c. training of government staff and potential software developers in data management and information for agricultural risk management; and
- d. technical assistance for the design of market price references, agro-meteorological indexes and event impact analysis.

30. **Component 2 – Agriculture risk mitigation investments** (approximate cost USD 125 million, of which 80% from the Bank). The purpose of the component would be to improve the resilience of agricultural systems prioritized through regional-level (inter-provincial) agriculture value-chain risk strategies and provincial-level integrated agriculture sector risk-management plans. The component would finance: (i) Rural public Infrastructure works; (ii) Afforestation, reforestation and watershed management to protect water sources, reduce flood risks, and as a basis to encourage the adoption of good practices and climate smart technologies; and (iii) incentives for the adoption of climate-smart agriculture technology and risk management instruments at the farm-level. These would be financed through two subcomponents:

31. **Subcomponent 2.1. Infrastructure and natural resources management.** This subcomponent aims to reduce the impact of climate and production risks events at the sub-regional level, as prioritized by risk management instruments. It would finance on-lending to provinces for the execution of risk mitigation subprojects (combinations of works, goods, consulting and non-consulting services, and operational costs) for:

- a. water for agriculture, including activities destined to capture, collect, store, distribute and use of water for agricultural production, as well as improvement in the efficiency in use of water (construction, rehabilitation and improvement of irrigation, micro-irrigation, surface and subterranean storage);
- b. natural resources management, including watershed management, drainage, forestation, reforestation and protection and recovery of forest, soil and water resources;
- c. other activities (to be defined) that may be prioritized in the risk management plans and which have demonstrated impacts on risk reduction.

32. **Subcomponent 2.2. Technical assistance to vulnerable producers.** The purpose of this subcomponent is to promote the farm-level adoption of validated technologies to improve resilience of agricultural production systems. It may be deployed in combination with activities financed through subcomponent 2.2., or as standalone programs, all within approved risk management plans. The subcomponent would finance training and technical assistance services to farmer and farmer groups to:

- a. facilitate the adoption of good practices and climate smart production and storage technologies;
- b. improve the efficiency and sustainable operation of existing or new infrastructure; and
- c. facilitate access and use of agriculture insurance and price hedging instruments, and improve knowledge and purchase of such financial risk transfer instruments.



33. The subcomponent may also finance: (i) applied research, piloting and dissemination of promising but un-tested climate-smart technologies; (ii) research, piloting and dissemination for technological diversification (e.g. marine and aquaculture, agroforestry systems); and (iii) support for the implementation of certification and traceability systems (e.g. country-level value chains of global importance).

34. The project would explore the provision of incentives through financial institutions (such as partial credit guarantees, credit lines, etc.) and/or matching grants for poor and vulnerable farmers whenever a public goods element is envisaged (effectiveness of regional works, food safety, human nutrition or food security, climate change adaptation or mitigation, demonstration effects, etc.), or to mitigate a market failure.

35. The Project may also work on market risk with a long-term view, and at a high level, supporting a set of (inter-ministerial) policies and interventions, as well as to their coordination, which aim to reduce Argentina's heavy dependence on undiversified and basic commodity exports, and make Argentinian agriculture more competitive in the world stage. This is in line with the Government's vision to make Argentina the "supermarket of the world". To this end, the Project would support and scale up existing and new measures that aim to improve value-addition, and diversify/differentiate exports and markets in agriculture/agribusiness. It would finance, among others, technical assistance programs on marketing and standard development, and other private sector development initiatives, to accelerate productivity growth and global integration in a strategic set of agricultural value-chains.

36. **Component 3 – Agriculture Emergency Response Financing** (approximate cost USD 37 million, of which 80% from Bank). This component aims to improve the operation of the current agricultural emergency system enacted by Law 26.509 (of 2009), in order to increase coverage for vulnerable producers. This Agriculture Emergency Law (AEL) provides the main response mechanism that assists the agricultural sector against extreme events. Nevertheless, the National Emergency and Disaster Agricultural Fund, constituted through the AEL, lacks enough resources to implement risk preparedness, mitigation and response activities. The AEL does not provide a clear distinction of roles and responsibilities between federal and provincial governments in the aftermath of an extreme event, and all farmers are entitled to receive the same benefits, irrespective of their characteristics. Allocation of benefits is not governed by clear rules and the system lacks transparency. Most AEL benefits are not able to be used by family farmers because they are linked to cancelation or delays in the repayment of formal bank loans, and since most family farmers do not have access to formal credit, they are de facto excluded from this support, although they are the most affected by natural disasters.

37. The component would work in two directions: (i) improving the efficiency, equity and transparency of the agriculture emergency system; and (ii) introducing risk mitigation and risk transfer instruments to improve the financial sustainability of the agriculture emergency systems, in particular in terms of climate-related events. The project will also improve provincial institutional capacities for the management of agriculture emergencies, promoting the use of a more integrated risk financing structure. At the national level, it would support the design, implementation and purchase of risk financing instruments (credits, guarantees, insurance, derivatives, etc.) in a *pari passu* modality with selected provincial governments. The component would finance the following activities:

- a. Technical assistance for MAI's Agricultural Emergency Subsecretariat in order to strengthen the systems for decision making, benefit allocation, and registry and monitoring of beneficiaries;
- b. Development of aggregate (provincial or regional-level) agriculture risk financing instruments (parametric insurance, catastrophe bonds, contingent lines of credit, weather derivatives, etc.), as well as training and technical assistance for their validation and adoption; and
- c. Payment of premiums and related costs of agriculture risk financing instruments to be piloted under the framework of the system of agricultural emergency, on the basis of national and/or provincial demands.



38. The component may also include support for the design of instruments for price risk transfer for agricultural commodities and risks that are covered by current private sector agents. It may also provide support to build capacities in the public and private sectors for agricultural risk valuation and analysis.

39. **Component 4-- Project coordination, monitoring and evaluation** (approximate cost USD 10 million, of which 80% from the Bank). Provision of support to MAI, through its Rural Change Unit (UCAR), for carrying out: (a) project coordination and management; (b) monitoring, results evaluation and impact assessment of project activities; (c) project fiduciary administration, internal controls and audits; (d) project environmental and social risk/safeguards management; (e) a citizen's engagement mechanism; and (vii) project-related studies.

Note to Task Teams: The following sections are system generated and can only be edited online in the Portal.

SAFEGUARDS

A. Project location and salient physical characteristics relevant to the safeguard analysis (if known)

Specific subprojects to be financed under component 2 to strengthen resilience of the agricultural sector will not be identified before the project appraisal, and therefore their specific locations and environmental and social conditions are not known at the moment. While the project is national in scope, the natural environments of the Argentine provinces are very varied, including high diversity of ecosystems ranging from forests to desert and the Andes Mountains. The respective social and productive contexts are also diverse, the producer groups varying from large producers to subsistence farmers. Due to the national scope of the project, the project addresses potential presence of Indigenous Peoples.

B. Borrower's Institutional Capacity for Safeguard Policies

The implementing agency will be the Ministry of Agroindustry (MAI), through the Rural Change Unit (Unidad para el Cambio Rural-UCAR). The project's environmental and social risk and safeguards management will be responsibility of UCAR's Environmental and Social Unit, and previous experience has allowed it to enhance its capacity to streamline safeguards implementation and monitoring. However, beyond UCAR with previous experience with Bank-financed agriculture development projects and its strong commitment and active involvement during implementation of said operations, the project's decentralized implementation approach will involve a number of provinces with uneven institutional capacities and diverse regulations, including limited resources to implement the required safeguards procedures. Further, despite of UCAR's wide experience, it has recently faced some challenges regarding implementation of OP 4.12 on Involuntary Resettlement, in particular when addressing existing gaps between national and provincial regulatory and institutional frameworks and the OP 4.12 requirements. In conclusion, there is room for safeguards related capacity building. UCAR's and the responsible provincial agencies' institutional capacity needs will be assessed in detail as the project preparation proceeds and the identified actions included in the project design.

C. Environmental and Social Safeguards Specialists on the Team

Lilian Pedersen, Tuuli Johanna Bernardini, Claudio Luis Daniele, German Nicolas Freire



D. Policies that might apply

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The project will implement an integrated framework for managing agriculture risks, including a diverse set of investments. It aims to have an overall highly positive socioeconomic and environmental impact, including improvements in watershed management, reforestation, and application of climatic information systems to facilitate agricultural production planning and decrease climate related income loss. OP/BP 4.01 is triggered as the physical interventions/subprojects under component 2 could have negative environmental impacts in case not properly managed. However, the majority of project activities are expected to have low to moderate impacts that can be prevented or mitigated. In socioeconomic terms, positive impacts are expected in terms of improvement of existing public infrastructure e.g. on irrigation.</p> <p>Negative cumulative impacts are not expected as all activities will be implemented in areas already under agricultural production. Further, the project will promote good environmental practices as a means to improved management of agricultural risks and thus reduction of producers' vulnerability through exposure to climatic and market risks. The project will also finance activities to avoid or restore land degradation in adjacent watersheds.</p> <p>As the subprojects will only be defined during project implementation, the project requires an Environmental and Social Management Framework (ESMF) that UCAR will prepare, including a framework level Environmental and Social Management Plan (ESMP). The ESMF will guide identification and adoption of measures to mitigate environmental and social impacts and good practices to create environmental and social value added. The ESMF will be structured to prevent, minimize and mitigate impacts on forests, water resources, worker and community health and safety, as well as public infrastructure and services. The ESMF will reference the relevant sections of the World Bank Group General</p>



		<p>Environmental, Health and Safety (EHS) Guidelines e.g. on annual crop production, perennial crops and related water consumption and management.</p> <p>As part of the ESMF preparation, UCAR will prepare a Social Assessment (SA) that will focus on the analysis of the situation of small and medium, indigenous and female farmers; in general those that are primarily linked to regional economies and thus the most vulnerable against climate related risks and with the lowest capacity to recover from negative impacts caused by external factors like extreme weather or market shocks. The scope of the SA will include indigenous communities/farmers in order to assess whether there are specific challenges they face to recover from negative impacts.</p>
Natural Habitats OP/BP 4.04	Yes	<p>The project will develop capacity of national and local institutions for effective environmental planning and management in relation to climatic risks and improved land use practices. Even though all the productive activities financed by the project will be implemented in areas already under agricultural production, OP/BP 4.04 is triggered for precautionary purposes as watershed management and flood control investments financed by the project may require restoration activities e.g. on buffer or adjacent zones to protected areas. If such situation is identified at the subproject screening stage, the ESMF will require identification of support activities to strengthen the associated management instruments/practices. Triggering OP/BP 4.04 will secure the project is able to implement potential restoration activities related to any type of natural habitat. The ESMF will include a negative list that will exclude any investment that might impact negatively any type of natural habitat.</p>
Forests OP/BP 4.36	Yes	<p>OP/BP 4.36 is triggered as project is expected to finance forestation, reforestation, and protection and recovery of forests, particularly as part of watershed management. Only investments with positive impacts on forests and/or people dependent on forests will be eligible. The project will not intervene in the forest value chain. As component 2 will promote diversification of agricultural production and finance climate-smart technologies (e.g. agroforestry systems and agro-silvo-pastoral models), the project is</p>



		<p>expected to contribute to reducing pressure on forests and favor their management and conservation efforts.</p>
Pest Management OP 4.09	Yes	<p>The project will finance subprojects in agricultural systems that may require use of agrochemicals. By project appraisal, a list of agriculture innovations to be promoted by the project will be prepared, and some of them will most probably include use of agrochemicals. Additional technologies might be incorporated later on, and support is also envisioned to agricultural technology research that may involve agrochemicals. In every case, the policy will be applied using a negative list on prohibited substances and promoting integrated pest management.</p> <p>The ESMF will guide related screening and preparation of an Integrated Pest Management Plan (IPMP) for each subproject that may require use of agrochemicals, including proper management of any chemical waste.</p> <p>A positive list will be prepared to identify relevant natural/organic and low toxic pesticides and herbicides. Related training and capacity building activities will be included in the ESMF.</p>
Physical Cultural Resources OP/BP 4.11	Yes	<p>Project implementation is not expected to have any negative impact on identified physical cultural resources. However, the OP/BP 4.11 is triggered for precautionary purposes. The ESMF will provide guidance to address potential chance finds during implementation of construction activities and soil excavation. The Environmental and Social Unit of UCAR has proven experience and appropriate procedures in place to address chance finds, aligned with Argentina's well-developed legislative framework on the subject. The ESMF will also include reference to further guidance in case any subproject would relate to landscapes with historical/cultural significance, yet that is not envisioned at least at the PCN stage.</p>
Indigenous Peoples OP/BP 4.10	Yes	<p>The project will trigger OP 4.10 due to its national scope. Indigenous peoples are present in Argentina (about 2.5 percent of the population), and the income of several indigenous communities is linked to agriculture. As part of the preparation of the social assessment, UCAR will prepare an Indigenous Peoples Planning Framework (IPPF) to ensure that: (i) indigenous peoples' groups are afforded opportunities</p>



		to participate in planning of project activities that affects them; (ii) opportunities to provide such groups with culturally appropriate benefits are considered; and (iii) any subproject that could have a negative impact on indigenous peoples will not be eligible for project funding, or otherwise minimized and mitigated.
Involuntary Resettlement OP/BP 4.12	Yes	The project will trigger OP 4.12 since it includes infrastructure works that may imply either physical or economic displacement of people and/or business in the project area (e.g. activities like irrigation, and flood risk reduction may imply involuntary resettlement). UCAR will prepare a Resettlement Policy Framework (RPF) that will guide the preparation of specific Resettlement Action Plans (RAP), as required.
Safety of Dams OP/BP 4.37	Yes	<p>The Project will not finance building of any large dam. However, OP/BP 4.37 is triggered as it is possible that irrigation or water supply may rely on performance of an existing dam. The ESMF will guide, when needed, the applicable review and evaluation of the operation and maintenance procedures of the relevant existing dam and presentation of the related report. Said report will include findings and recommendations for any remedial work or safety measures that, if needed, will have to be undertaken before the start of operations on the relevant subproject.</p> <p>Similar procedures have been in use and proven satisfactory during the implementation of other Bank-funded projects with UCAR (e.g. Second Provincial Agricultural Development Project - P106684). UCAR has signed an agreement with ORSEP, the Argentine Dam Safety Regulatory Agency, which will ensure proper dam safety supervision when needed.</p>
Projects on International Waterways OP/BP 7.50	TBD	The project is not expected to finance activities that could adversely affect other riparians, particularly as most of them would be upstream. The project will not finance large dams, and potential irrigation projects are expected to relate with ongoing and/or minor schemes that (i) will not adversely change the quality or quantity of water flows to the other riparians; and (ii) will not be adversely affected by the other riparians' possible water use. Triggering and addressing of OP/BP 7.50 will be analyzed in further detail with UCAR and the World Bank legal specialists as the project preparation proceeds.



Projects in Disputed Areas OP/BP 7.60

No

OP 7.60 is not triggered as the Project will not finance activities in disputed areas as defined in the policy.

E. Safeguard Preparation Plan

Tentative target date for preparing the Appraisal Stage PID/ISDS

Jul 31, 2017

Time frame for launching and completing the safeguard-related studies that may be needed. The specific studies and their timing should be specified in the Appraisal Stage PID/ISDS

UCAR will prepare, consult and disclose the ESMF, SA, IPPF and RPF with support and respective approvals by the World Bank by the project appraisal that is currently scheduled for August 22, 2017. The ESMF will be prepared based on the ESMFs of UCAR's earlier projects with World Bank financing, including improvements and adjustments/additions in terms of related lessons learnt and the particular features of this new operation, particularly in terms of climate-smart practices.

The criteria and methodology to be used to select project beneficiaries with focus on the most vulnerable producers, as well as the mechanisms to be used for project related consultations and grievances will be discussed with UCAR as the project preparation proceeds.

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APPROVAL

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Note to Task Teams: End of system generated content, document is editable from here.