

## I. BASIC INFORMATION

Country/Region (*):	Regional
Name of Fondo Semilla (FS):	<i>“Platform for the Water Management in Agriculture 2030-2050”</i>
Number of FS (*):	
Team leader (*):	
Type of Technical Cooperation (*):	Research and Dissemination
Authorization Date (*):	
Beneficiaries (countries or entities that will participate in technical cooperation):	INIA Chile (Institute of Agricultural Research) INTA Argentina (National Institute of Agricultural Technology) CSIC Spain (Superior Council of Scientific Investigations) INIA Spain (National Institute of Agricultural and Food Research and Technology)
Executing Agency and contact name	INIA CHILE (Institute of Agricultural Research). Contact: Pedro Bustos Valdivia
Donors that will provide financing (*):	
Requested Financing (in US \$)	30.000
Local Counterpart (in US \$)	139.373
Total Financing (in US \$)	169.373
Execution Period (months) (*):	12 months
Disbursement period (months) (*):	12 months
Required Start Date (*):	
Types of consultants (*):	Signatures or individual consultants
Preparation Unit:	FONTAGRO
Responsible Disbursement Unit (*)	CSD/CSD
TC included in the Country Strategy (s/n) (*)	N/A
CT included in CPD (s / n) (*):	N/A
Priority Sector GCI-9 (*):	Institutions for growth, competitive regional integration, protection of the environment, response to climate change, food security
Other comments (*)	

## II. DESCRIPTION Summary:

- 2.1. The increasing pressure over the water resources, the competence between the various actors with specific roles in the water use and possible effects of the climatic change let us to predict reduced water availability in the near future in the Latin America and the Caribbean Region (LAC). In addition, the increasing demand of food represent an increasing challenge for the irrigated and the traditional rainfed agricultures that require inputs (water, fertilizers, seeds...), infrastructures and knowledge. However, this complex scenario supposes an opportunity for the increment of land productivity that will requires the development and application of innovative technical solutions and institutional changes.
- 2.2. This proposal aims to provide responses to the necessity of advances in the generation of knowledge, the development of methodologies and tools oriented to the increment of the water use efficiency in agriculture, facing the specific challenges described before and the adaptation of the agricultural systems in the LAC countries. The general purpose promotes the interaction between researchers and institutions of the agricultural regions in the LAC region and Spain. The first step is to consolidate a collaborative network for the definition of the *“Up-to-date approaches for the water management in agriculture in the LAC countries”*. Further steps are oriented to the implementation of a *“Platform for the Water Management in Agriculture 2030-2050”*. The objectives of this platform are the modernization of the irrigation technologies accounting for the different perspectives and to settle the basis of a sustainable intensification of the agriculture.

## III. BACKGROUND, JUSTIFICATION AND OBJECTIVES

- 3.1. **General consideration.** The increasing competence over the water resources between the various economic activities and the risks associated to the effects of climatic change results in high uncertainty about the water availability for agriculture and in the LAC region. This challenge is critical in arid and semiarid regions across the American continent. In these areas, the agriculture depends on the irrigation supply and this fact reduces the sustainability and the vulnerability of these systems. In addition, the increasing pressure to produce more food results in the net increment of the cultivated area and the transformation of traditional rainfed areas. This transformation will require infrastructure, knowledges in addition of water. However, this complex scenario, the development and application of new technologies and the necessary institutional changes represent an opportunity to increase the water productivity in the LAC region, considering the availability of human and natural resources.
- 3.2. According to FAOSTAT, the total irrigated area in the LAC region increases continuously since 1961, changing from 10 millions ha to more than 30 millions ha in 2015. The increment in irrigated agriculture doubles the increments registered in rainfed conditions and the irrigated lands represent up to the 20% of the total arable area. The only 2 regions in the world with possibilities of a sustainable increase of the irrigated area are Africa and the LAC region. These areas were using the 18% to 23% of the total area potentially irrigates in 2005. The increment of irrigated areas in the LAC region was quantified in a 31% during the period 2011 to 2015, in comparison with the average 6% at global level and the 5% registered during the previous periods. These figures exemplified the challenges faces in this proposal.
- 3.3. **Challenges.** The LAC region must face the current challenges with economic and ecological evidences and arguments that differs from the previous ones. The assignation of water resources should satisfice the increasing demand and must reduce the impact of the agricultural activity in the ecosystemic services. The economical analyses are preponderant on this matter, but the challenge will require additional technical solutions and changes in the paradigm of water management at the level of national and regional institutions, promoting a more efficient and equitable distribution of the water resources. This change in the paradigm must reduce the

current conflicts at the level of river basins and between the different users. The proposed approach is a multisectoral, multiapproach, holistic and integrated management, based on the administration of the conflict of interest between the various actors involved in the process (FAO WR27, 2004)<sup>1</sup>.

- 3.4. **The Project** proposes, initially, the consolidation of an international network led by Chile, Argentina and Spain to analyze the *“Up-to-date approaches for the water management in agriculture in the LAC countries”* included in FONTAGRO. The second step in the development of a *“Platform for the Water Management in Agriculture 2030-2050”*. This platform is conceived as a collaborative space to increase the interaction between researchers, persons working in transference and other actors involved in the water management in agriculture. The specific objectives of the platform are the development and application of the innovative technical and political solutions facing the challenges of the use of water in agriculture.

#### **Justification of the importance of FS**

- 3.5. The hypothesis of these proposal is that the creation of a collaborative network among professionals will allow the consolidation of a **"Water Management Platform in Agriculture 2030-2050"** which will facilitate the interaction and strengthening of the capacities of the National Agricultural Research Systems of the LAC countries and Europe. This platform will allow to better approach the asymmetries in knowledge and technologies, allowing to face barriers for the transfer and adoption of new knowledge in agriculture.
- 3.6. For this reason, the Seed Fund is an important financing tool for the initiative, since it will allow the exchange of knowledge and experiences in technology and irrigation governance, from the perspective of water resources and climate change, among research professionals and transferees from the region and Europe. This will identify strategies and technologies to be implemented in the different conditions of agriculture that allow an adaptation of irrigation management to changing climatic conditions and technological modernization.
- 3.7. It is important to note that an irrigation network in LAC has the background of the "Ibero-American Network for Water Management in Agriculture. Irrigation and fertigation ", coordinated by Professor Luis Santos Pereira, from the Technical University of Lisbon and which included public researchers from fifteen countries in the region. This network was funded by CYTED, and was formally active between 2005 and 2008. The network had three general objectives: Integration of irrigation management with environmental management, Integration of irrigation management with the economy of production and Integration of irrigation in the exploitation and collective systems. The specific objectives ranged from the technical to the political, and focused on the conservation of water quantity and quality. Emphasis was placed on the exchange of information and experiences, as well as on the development of information systems.
- 3.8. Ten years after the completion of this network, and given the challenges derived from climate change, the growing importance of the private sector in irrigated agriculture, new irrigation technologies and the emergence of information systems based on Satellite (Earth Observation) and information technologies, it is necessary to generate an irrigation network with a renewed consortium, integrating public and private efforts, open to new technologies and with a broad vision of the diversity of water use in regional agriculture. With these premises, the new platform will lay the foundations for water management in regional agriculture in the period 2030/2050.

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<sup>1</sup> FAO (2004): "Economic valuation of water resources: from the sectorial to a functional perspective of natural resources management". FAO Water Report 27. Rome, 187 pp.

- 3.9. **The change** sought through this Seed Fund is a direct and active participation of regional agriculture in cutting-edge technologies on water use in agriculture. Placing the region at the forefront of the implementation and generation of these technologies in the 2030-2050 environment will allow for competitive and sustainable agriculture, at the service of food security in the countries of the region, and with attractive jobs for young people.
- 3.10. **General Objective** is to create a collaboration network of LAC countries for the creation of a "**Water Management Platform in Agriculture 2030-2050**" that allows the exchange of knowledge and experiences and facilitates the development of a wide-ranging project, where public-private, national, regional and international institutions participate to comprehensively address the use of water resources in agriculture from the standpoint of knowledge, innovation and the use of new technologies.
- 3.11. The **Specific Objectives** are:
- 1.- Create a collaboration network of LAC-FONTAGRO members (professionals, researchers, transferees, others) for the creation of a **Water Management Platform in Agriculture 2030-2050**.
  - 2.- Prepare a diagnosis of the state of the art of irrigation in LAC countries, identifying gaps and priority areas to improve the management of water resources in agriculture.
  - 3.- To elaborate a project of great scope to generate the conditions for the incorporation of operative technological tools for the handling of the irrigation so much to regional level as intrapredial.
- 3.12. Quantification of **direct and indirect beneficiaries**: a first group of beneficiaries is the society in general, through documents and information will be generated for public and private stakeholders useful to define actions in the face of global climate scenarios and their effects on the use of water resources. Given the importance in the society of the region of water resources, agriculture and climate change, it is important to consider that this Seed Fund will serve to improve the social perception about the future of water use in agriculture.

In addition, the specific beneficiaries of this proposal will be the following:

- The R & D & I groups of public institutions of the countries of the region, particularly (but not exclusively) those of the INIA System of Latin America.
- The companies producing, installing and exploiting new technologies to optimize the use of water in regional agriculture. The set of technologies includes aspects such as remote sensing information analysis (earth observation), collective and plot irrigation equipment, use of field sensors or irrigation programming. These companies will be a very important part of the collaboration network of LAC countries for the creation of a "Platform for Water Management in Agriculture 2030-2050".
- The governments of the countries in the region, which will be associated with the network, so that they can update their policies, incentives and investments facing the problems and solutions analyzed in the network framework.
- Irrigators and their institutions, who will be involved in the network from the beginning, expressing their problems, posing challenges and sharing solutions with the rest of the agents and with irrigators from other countries in the region.
- Representatives of water authorities, users, local governments, energy companies, mining companies, etc. will be incorporated as is the case of the General Irrigation Department of Mendoza, which is the Water Authority in that province and the Elqui River Surveillance Board (Chile).

- • Analysis and technological solutions are incorporated for **rained** agriculture areas where an interesting process of incorporation of new areas to irrigation is taking place (effect of climate change) and where family farming is concentrated.

**Lessons Learned Iberoamerican Network of Irrigation and Fertigation**, developed between 2005 and 2008 and coordinated by Luis Santos Pereira did not obtain financing and therefore ceso in its activities. A new Ibero American Irrigation Network (RIAR) was attempted, without funding and that worked for several years, demonstrating the interest and commitment of the associates. In addition, José Rodán led another proposal from the Network that unfortunately was not financed by economic crisis and lack of funding in that same period. As an assessment of this Network, the training and research activities in common among the different participating countries can be indicated as the most innovative value. The most important impact of the Network on the scientific-technological area at the Ibero-American level was the task of integrating efforts and development of common tasks among Ibero-American countries, materialized among others by the joint work of RED CYTED and PROCISUR. In this new configuration of the Network, the lessons learned will be taken, encouraging even more training in new technologies as well as collaborative work among specialists in different topics associated with the management of water resources in agriculture. An emphasis that perhaps lacking in the previous networks was a greater approach and collaboration between private companies and the scientific world, in order to settle the technological advances (developments in operational products) in agricultural conditions of various economic sizes.

#### **IV. DESCRIPTION OF THE ACTIVITIES, COMPONENTS AND BUDGET**

##### **COMPONENT 1. COLLECTION OF BACKGROUND, CAPABILITIES AND PREVIOUS OR CURRENT PROJECTS IN THE THEME**

- 4.1 Through background review activities and coordination with water resources research professionals from the participating countries, information will be gathered to establish the state of the art of the use of water resources in agriculture in the member countries. Work will be done with local and international funding sources to identify innovative initiatives in the use of water resources aligned priorities of the Medium Term Plan (MTP) 2015-2020 of FONTAGRO. National and / or regional actors will be identified in the field of research and transfer of irrigation technologies and water management, for the development of a wide-ranging project. Likewise, topics of particular interest of the countries will be identified and a survey will be made of the use of new technologies in water management in LAC countries.

**Activity 1.1. Compilation of the state of the art of key information, diagnoses and previous work carried out on the use of water in agriculture at international, regional and national levels.**

- 4.2 In order to identify the main actors in the management and use of water in agriculture, as well as the regional and international funding agencies, a background will be compiled of successful initiatives in water resources and innovative in the use of new technologies. Special emphasis will be placed on identifying priorities aligned with the FONTAGRO Medium Term Plan. Regional meetings will be coordinated (non-face-to-face videoconferences) to facilitate their development and decrease the economic needs of the activity.

**Activity 1.2. Organization of a regional coordination workshop, with the participation of countries and key institutions of the water use value chain in agriculture**

- 4.3 In order to present the background, capacities and projects identified in Activity 1.1, a regional workshop will be organized. In this activity it is expected to establish cooperation links with researchers and funding agencies that will eventually translate into capacities and support for

the formulation and development of the far-reaching project "Platform for Water Management in Agriculture 2030-2050" where they are addressed with activities the main identified limitations and the advancement gaps for the modernization of irrigation agriculture.

The results of this component will be:

**Product 1:** Work plan of the Water Management Platform in Agriculture 2030-2050.

**Product 2:** Report of the regional workshop, containing the state of the art of the subject in the region and an analysis of the papers presented by the countries, as well as the agreements for the formulation of the **Consensual Project**.

COMPONENT 2. TO GENERATE A CONSENSUAL PROJECT THAT APPROVES TECHNOLOGICAL INNOVATION FOR THE EFFICIENT USE OF WATER RESOURCES THROUGH A "PLATFORM OF WATER MANAGEMENT IN AGRICULTURE 2030-2050" IN LATIN AMERICA AND THE CARIBBEAN.

- 4.4 This component aims to develop a consensus project proposal of great scope and significance that allows managing resources for a sustainable regional research program in the short, medium and long term. This platform will be constituted by different national, regional and international agencies, public and private, and will include counterpart commitments (cash and in kind), components, activities by component, and expected outputs; as well as the schedule and budget discussed and agreed with the participants of the platform.

**Activity 2.1.** Preparation and presentation of a **Consensual Project** proposal "Water Management Platform in Agriculture 2030-2050".

The results of this component will be:

**Product 3:** Document containing the Consensual Project proposal of the "Water Management Platform in Agriculture 2030-2050"

**Product 4:** "Platform for Water Management in Agriculture 2030-2050" formed and present on the FONTAGRO website.

- 4.5 **Knowledge management:** The proposed Seed Fund will disseminate the knowledge generated in Component 1 through progress reports and final report, available both on the FONTAGRO website and on the websites of the participating researchers, as well as in direct links available in social networks and other means of information and knowledge management. In addition, the regional workshop will strengthen the exchange of knowledge, experiences and key information among participating institutions.
- 4.6 **Sustainability:** The sustainability of the initiative will be proposed as a priority objective in the framework of the approaches with regional or international financing agencies, as well as public-private efforts with which the Platform is linked during the development of the Seed Fund. Funding instances will be sought (perhaps already established in initiatives under development by the members of the Platform) from which they can be involved in the activities of the Consensus Project proposal. Public-private efforts can strengthen access to new knowledge, designs, technologies and innovations that can be scaled in LAC through the national agricultural research institutions (INIAs), facilitating transfer processes and technological linkage, especially with focus to new technologies for agriculture (AgTech / FinTech).
- 4.7 **Regional public goods:** All products achieved during the development of the Seed Fund will be considered regional public goods. They will have a space with their own website hosted on the FONTAGRO website and therefore they will have open access.

- 4.8 **Environmental and social impacts:** Due to the transverse linkages that the topic of management of water resources in agriculture has with all other aspects of agriculture, it is expected that the activities of the Seed Fund make it possible to have updated information on the state of art in irrigation, evaluation of infrastructure, information needs, successful replicable projects, projects financed by local and international financing agencies, all useful inputs for the generation of new initiatives in irrigation.
- 4.9 Negative environmental and / or social impacts are not expected once the activities of the Seed Fund have been implemented. In the case of social impact, the proposal is aimed at strengthening the actors of the water user chain in LAC and the participating institutions of technological innovation in irrigation. It is expected to generate positive effects that improve the coordination of research activities, innovation and future financing of the "Water Management Platform in Agriculture 2030-2050".
- 4.10 This Seed Fund is aligned with the priorities of the 2015-2020 Medium Term Plan (MTP) of FONTAGRO in i) technological, organizational, and institutional innovation in the member countries, ii) adaptation and mitigation of climate change and iii) intensification sustainable agriculture and natural resource management.
- 4.11 Annex II presents the schedule of implementation of this FS, in Annex III a summary of the evidence of legal representation and trajectory of the institutions, and in Annex IV the professional summary of the technical leaders by participating institution.
- 4.12 The total amount of the operation is US \$169.373, of which FONTAGRO will finance a total of US \$ 30,000 from its own funds. The rest of the funds, US \$139.373, correspond to the counterpart contributions in kind from the participating institutions. Annex V presents the individual commitment letters. Next, the table of maximum amounts by expense category and the consolidated budget is presented.

## Consolidated Budget

*Platform for the Water Management in Agriculture 2030-2050*																											
Name		Co-Executing Agency					Public associates										Private associates										
Financed resources	FONTAGRO		CONTRAPARTIDA																							Subtotal	TOTAL
	INIA Chile	Subtotal	INIA Chile	INIA España	CSIC	INTA	Min. Agric. Argentina	CAZALC	CRDP	Universidad de San Juan	Universidad Castilla-La Mancha	Universidad Católica Chile	Universidad de Concepción	Water For Food Institute	CND	INIA Uruguay	Universidad Nacional de Colombia	Universidad de Talca	AGRISAT	TRAGSA	RED WATERPLAT	Coopoccol	SupPlant				
01. Consultants and Specialists	8.000	8.000	23.793	5.000	11.000	15.000	10.000	-	-	2.250	15.000	1.300	500	4.461	500	2.000	-	500	-	10.000	-	5.000	3.750	110.054	118.054		
02. Goods and Services	8.000	8.000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8.000		
03. Materials and Supplies	2.500	2.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.500		
04. Travel and Travel	9.000	9.000	-	3.000	-	-	-	-	-	-	50	500	3.500	1.000	1.000	1.763	500	3.000	-	-	-	-	2.250	16.569	25.569		
05. Training	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
06. Dissemination and Knowledge Management	1.000	1.000	-	-	-	-	-	1.500	1.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.000	4.000		
07. Administrative Expenses	-	-	-	1.000	-	-	-	-	-	250	-	-	-	-	-	-	-	-	-	-	-	-	-	1.250	1.250		
08. Unforeseen events	1.500	1.500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.500		
09. Audit	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
<b>Total</b>	<b>30.000</b>	<b>30.000</b>	<b>23.793</b>	<b>9.000</b>	<b>11.000</b>	<b>15.000</b>	<b>10.000</b>	<b>1.500</b>	<b>1.500</b>	<b>2.500</b>	<b>15.000</b>	<b>1.350</b>	<b>1.000</b>	<b>7.961</b>	<b>1.500</b>	<b>3.000</b>	<b>1.763</b>	<b>1.000</b>	<b>3.000</b>	<b>10.000</b>	<b>-</b>	<b>5.000</b>	<b>6.000</b>	<b>130.873</b>	<b>160.873</b>		

## Table of Maximum Amounts by Category

Expense Category	Up to:	
01. Consultants and Specialists	60%	18.000
02. Goods and Services	30%	9.000
03. Materials and Supplies	40%	12.000
04. Travel and Travel	30%	9.000
05. Training	20%	6.000
06. Dissemination and Knowledge Management	20%	6.000
07. Administrative Expenses	10%	3.000
08. Unforeseen events	5%	1.500
09. Audit	5%	1.500

## V. EXECUTING AGENCY AND EXECUTION STRUCTURE

- 5.1 **INIA Chile (Executing Agency, EA).** The executing agency is the Institute of Agricultural Research INIA-Chile, an institution created in 1964, is the main research and agricultural technology transfer institution in Chile. It is a corporation of private law, nonprofit, dependent on the Ministry of Agriculture. Its financing is through public and private funds, research projects and sale of technological inputs. The mission of INIA, which is part of the State Policy for Agriculture, is to generate, adapt and transfer technologies to ensure that the agricultural sector contributes to food safety and quality in Chile, and responds competitively and sustainably to the great challenges of development of the country. It has a national geographic coverage between the regions of Arica and Parinacota in the north and Magallanes in the extreme south, through 10 Regional Research Centers (CRI), Departments, Laboratories, Libraries, and a staff composed of highly qualified professionals which allows it to perform an adequate job as a research center at the service of the forestry and agricultural sector, and perform the direct provision of services. The INIA is directed by a National Directive Council chaired by the Minister of Agriculture, delegating the Executive Direction of the Institution to its National Director. In the various agroecological zones, it has the CRI Steering Councils made up of representatives of the public and private sectors corresponding to the respective sphere of action, which allows the research to be adapted to the local productive needs.
- 5.2 INIA Chile has been part of FONTAGRO since its creation in 1998 with a contribution of US \$ 2.50 million. During the 18 years of membership, Chile has led 9 consortia for a total value of US \$ 7.8 million and participated as a member of 27 consortiums with a total value of US \$ 23 million, of which US \$ 7 million were contributed by FONTAGRO. The projects have included research and technological development of wheat, potatoes, fruit trees, aquaculture, fodder, livestock, and sustainable use of natural resources, among others.
- 5.3 **INIA- Spain (Co-executor):** The National Institute of Agricultural and Food Research and Technology (INIA) is a Public Research Organization that has a double function, being responsible for the coordination of research in R + D + i agro-food in the state scope, as well as of the execution of research projects, in close collaboration with the corresponding socioeconomic sectors, is attached to the Secretary of State for Universities, Research, Development and Innovation of the Ministry of Science, Innovation and Universities. INIA develops R + D + i in the agri-food sector through different centers such as: Center for Forest Research (CIFOR), Center for Research in Animal Health (CISA), and the Center for Plant Genetic Resources (CRF), and departments such as : Biotechnology, Environment, Animal Genetic Improvement, Plant Protection, Animal Reproduction and Food Technology. Other research activities are also carried out in the Center for Biotechnology and Plant Genomics (Soria), the Center for Ecological and Mountain Agriculture (Plasencia) and the National Center for R & D in Iberian pig (Zafra). INIA is the Spanish representative in the CGIAR (Consultative Group for International Agricultural Research). INIA coordinates the INIAs system of Ibero-America, represents Spain in the Board of Directors of FONTAGRO and is also the Spanish representative of the Management Committees of the EU Framework Program and the SCAR Advisory Committee. The institution has been involved in most of the NETWORKS of the European Research Area for Agrifood (ERA-Nets): FACCE ERA-NET Plus, FACCE SURPLUS, ORGANIC PLUS, ERA-ARD II, EUPHRESCO I and II, CORE Organic II, RURAGRI, EMIDA, ANIHWA, SUSFOOD I and II, WOODWISDOM, ARIMNet I and II, SUMFOREST and C-IPM. He currently participates in ERA-Nets COFUND of H2020: SuSan, LEAP-AGRI, COREOrganic, SUSFOOD and SUSCROP.
- 5.4 **CSIC - Spain (Co-executor):** The CSIC is a Public Research Organization of the Government of Spain dedicated to multidisciplinary research. Of its more than three thousand researchers, 23 deal with water resources in agriculture, being distributed in four centers located in different areas of irrigated Spain. The research carried out by these researchers make the CSIC the fourth world institution in its specialty. The works developed by the CSIC have an impact on

controlled deficit irrigation, irrigation technology, irrigation scheduling, the physiology of water stress, and the management of water quantity and quality in relation to agricultural production and energy consumption, between others. In the last ten years, the CSIC has executed hundreds of R+D+i projects and contracts on the use of water in agriculture. Among them, three stand out in which the representative of the institution has participated in this proposal:

- o Comprehensive program for saving and improving the productivity of irrigation water in Spanish horticulture. Code: CSD2006-00067. Organization: Consolider Program
- o Design, management and environmental control of irrigation systems modernized by sprinkling in the Ebro valley. Code: AGL2013-48728-C2-1-R. Organization: State Plan for Scientific and Technical Research and Innovation.
- o Technologies for Water Recycling and Reuse in Latin American Context: Assessment, Decision Tools and Implement Strategies under an Uncertain Future (COROADO). Code: 283025. Organization: Framework Program of the European Union.

- 5.5 **INTA- Argentina (Co-executor):** Decentralized state agency, under the Ministry of Agribusiness of the nation. It was created in 1956 and since then leads the agro-technological scene in research, extension and innovation in value chains, regions and territories, to improve the competitiveness and sustainable rural development of the country. The institution has a presence throughout Argentina through a structure that includes: a central headquarters, 15 regional centers, 52 experimental stations, 6 research centers and 22 research institutes, and more than 350 extension units. The themes of water and irrigation have traditionally been addressed by INTA. Example of projects in WATER RESOURCES: "AERN-291631: Development of technologies for the optimization of irrigation", "AEES-301342: Economic valuation of irrigation water in agriculture", FONTAGRO 2008 "Evaluation of changes in water productivity in front of different climatic scenarios in different regions of the Southern Cone ", " Latin American Network for water management in agriculture. Irrigation and fertigation ", CIAC-940133" Evaluation of irrigation areas through the use of performance indicators and comparison with the reference pattern in the South Central Region 2 ", PNAGUA-1133044" Water management and irrigation for sustainable development of the territories"

**Associated Agencies:**

- 5.17 **Institution 1 Regional Water Center for Arid and Semi-Arid Zones of Latin America and the Caribbean (CAZALAC):** it is part of the group of Category II Centers under the auspices of UNESCO. These centers carry out their work on relevant thematic and geographical priorities in their areas of specialization. In this way, CAZALAC has become the reference body of UNESCO in the topics of water resources in arid zones in the region. In the Latin America and the Caribbean region, the CAZALAC Water Center has been one of the first Centers to start its operations, and one of the first Category II centers to be established worldwide. At present, there are other Category II Centers under the auspices of UNESCO, which together with CAZALAC form a network of work on the different topics of water resources management in the continent. Strengthen the technical, social and educational development of the Region on the basis of improved use and management of water resources in the arid and semi-arid zones of Latin America and the Caribbean and, in addition, increase the role of communities in development of a water culture. Its specific objectives are: Promote scientific research on water issues and the management problems of arid and semi-arid zones in Latin America and the Caribbean; Promote greater contact between researchers working in the field of water resources in the Region; Disseminate the results of the research undertaken in relation to water resources in the arid and semi-arid zones of the Region; Provide education

and training on sound water resources management and promote the capacity building of regional researchers; and Establish a program on sustainable management of water resources in pilot areas of the Region, following the Dublin principles.

- 5.18 **Institution 2 Regional Corporation for Productive Development Coquimbo Region (CRDP)** of [Chile] is a public entity that was born in 2009 with the transformation of the Regional Productive Development Agency of the Coquimbo Region into the current Regional Corporation for Productive Development (CRDP) of the Coquimbo Region, focused on the development of the Competitiveness Agendas of the productive sectors defined as priorities for the Coquimbo region: Agriculture and Agro-industry, Fisheries and Aquaculture, Mining and Tourism. This work was translated into the development of Improvement Programs for Competitiveness for the Mining and Tourism sectors and support for the presentation of Technology Dissemination Projects and has as its central axis the promotion of competitiveness and / or each of the productive sectors prioritized. His work is around the enhancement of five Strategic Axes: Quality of Life and Sustainability, Human Capital, Energy, Water Resources and Internationalization of the Coquimbo Region.
- 5.19 **Institution 3 National Council of Innovation for Development (CNID) of Chile:** advisory body of the Presidency of the Republic that generates strategic orientations to strengthen the contribution of science, technology and innovation (STI) to the development of the country. It was born in 2005 as the National Innovation Council for Competitiveness, being from its origin an autonomous space, reflection and articulation of actors. Since 2014, it has broadened its outlook and changed its name to the National Council for Innovation for Development (CNID), moving from a prism focused on competitiveness, to one that understands development as a phenomenon that must integrate diverse dimensions, being sustainable and inclusive. This decision accounts for their own evolution, as well as seeking to respond better to the times. The CNID in 2016 convened the Research, Development and Innovation Commission for the sustainability of water resources, with the participation of scientific and public and private stakeholders, who prepared the Science and Innovation Agenda for the Water Challenges in Chile. The Agenda is structured in a central way through 4 Dimensions or Strategic Lines and 4 Enabling Conditions. To support the implementation of the agenda, three instances have been set up; the continuation of the R+D+i Commission for the sustainability of water resources as a strategy instance for updating and linking the agenda; the Committee of Strategic Orientations of Research in Water and the Network of Research in Water Resources.
- 5.20 **Institution 4 Pontificia Universidad Católica (PUC) of Chile:** institution of university professional education and research, with 127 years of history. It has 3,248 academics, 31 academic units and 18 faculties, including the Faculty of Agronomy and Forestry Engineering (FAIF). It has about 27 thousand students, of which approximately 3,000 are in master's courses, 1,000 in doctoral programs and more than 600 post-graduate students. In addition, it has more than 500 current research projects financed by national and international competitive funds. The Faculty of Agronomy and Forest Engineering (FAIF) of the Pontificia Universidad Católica de Chile, created in 1904, has assumed R & D & I as fundamental pillars of its academic activity. In these objectives, the whole community of the Faculty participates, with the joint work of professors, students and technical personnel in the different research units, postgraduate programs, centers and multidisciplinary research programs. Both the professors and researchers, as well as the authorities, maintain a fluid relationship with producers and exporters of horticultural crops, vineyards and forestry companies.
- 5.21 **Institution 5 Universidad de Concepción (UdeC) of Chile:** Traditional Chilean private university, the work of the Penquista community, one of the most traditional and prestigious in its country, considered complex due to its investigative extension in the various areas of

knowledge. Founded on May 14, 1919, it is the third oldest university in Chile, and one of the twenty-five universities belonging to the Council of Rectors of Chilean Universities. Its headquarters are located in the city of Concepción, and also has two other campuses in Chillán and Los Ángeles. It was the first University created in the south-central area of the country and belongs to the Cruz del Sur University Network and the G9 University Network. As part of its educational line, the University of Concepción devotes a large part of its budget to academic research. It has in its facilities the most complete Chilean art museum in the country, several sports centers and a network of 11 libraries. By 2012, the total number of graduates of this house of studies amounted to 57,000. It also teaches 23,700 students, 2,166 of them graduate programs; 72% of its professors have doctorates or master's degrees and its infrastructure, with 243,556 m<sup>2</sup> built, is one of the largest in Chile. It is currently one of the three universities in the country that is accredited by the National Accreditation Commission (CNA) for a maximum period of 7 years in all compulsory and optional areas.

- 5.22 **Institution 6 Castilla La Mancha University (UCLM) of Spain:** The UCLM began its journey in 1985, although it was formally created by the law of June 30, 1982 as a result of political autonomy and collective desire manifested by the Castilian-La Mancha society and shared by the regional government. The academic institution became from its beginnings a factor of cohesion with a clear objective ahead: to act as a fundamental piece for the economic, social, cultural and technological development of the Autonomous Community, responding to its present and future needs. In 1982, Professor Javier de Cárdenas y Chávarri was appointed president of the Management Committee responsible for launching the University of Castilla-La Mancha. This position would be occupied between 1983 and 1988 by Professor Isidro Ramos Salavert, who was succeeded by professors Luis Arroyo Zapatero (1988-2003) and Ernesto Martínez Ataz (2003-2011). This responsibility falls since November 2011 in Professor Miguel Ángel Collado Yurrita. In its thirty years of existence, the UCLM has facilitated the access of young people to higher education, boosting the life of the cities where its four campuses are located: Ciudad Real -sede of its Rectorate-, Albacete, Cuenca and Toledo. At present his teachings also extend to the localities Almadén (Ciudad Real) and Talavera de la Reina (Toledo).
- 5.23 To coordinate and systematize the efforts and work that had been carried out from the University of Castilla-La Mancha on the different issues affecting the use and use of water, in 2001 the **Regional Center for Water Studies (CREA)**, was created which interdisciplinary and intercampus, to support and encourage in a coordinated manner, the research, advisory and teaching on these issues, seeking the highest efficiency and social effectiveness. CREA, as a university center for research and technological development, is structured in six sections composed of multidisciplinary teams that, although with their own entity, collaborate closely in the work undertaken by the Center. Said sections are: Water agronomy, Economy and water law, Water resources management, Wetlands, Hydraulic engineering, Applied limnology and hydrobiology.
- 5.24 For its part, the **Remote Sensing and Geographic Information Systems Section (T-SIG)** was born integrated in the Regional Development Institute (IDR) of the University of Castilla-La Mancha (UCLM) in September 1994. It constitutes a multidisciplinary and interdepartmental university group formed by geologists, physicists, computer engineers, agronomists, telecommunications, forestry, etc. which provide their specific training in the development of different studies and R & D projects related to the territory. Its main objective is research in the areas of Remote Sensing, Geographic Information Systems, Cartography and Hydrogeology, paying special attention to the training of new researchers and technology transfer to companies and public administrations. In its more than two decades of existence, the Remote Sensing and GIS Section has developed a great research and training activity: two

hundred people have worked in its facilities: professors, contracted, scholarship holders or collaborators, and more than three hundred have been trained in courses of specialist taught by their faculty. During all this time he has achieved the recognition and trust of important public bodies and companies related to their areas of interest, both nationally and internationally. This is supported by its participation in 173 projects or R & D contracts, with financing of more than thirteen million euros.

- 5.25 **Institution 7 San Juan University of Argentina:** Currently, forty years later, the National University of San Juan has five faculties, Engineering; Social Sciences; Philosophy, Humanities and Arts; Architecture and Exact, Physical and Natural Sciences; three Pre-University colleges, the "Libertador General San Martín" School of Commerce, the "Domingo Faustino Sarmiento" Industrial School and the "Mariano Moreno" Central University College. We train professionals who master the principles of science and technology, and develop their activities in the field of their competence. The goals that we propose try to achieve an adequate scientific training, the development of research based on reflexive and critical intellectual methods that involve processes of analysis, reasoning, creative thinking and a spirit of self-criticism. Our graduates can solve problems, plan and make decisions, clearly communicate their ideas and acquire professional skills of commitment, responsibility, initiative and participation.
- 5.26 **Institution 8 Water for Food Global Institute, University of Nebraska of EEUU:** Nebraska is fortunate to have one of the most progressive and prosperous agricultural industries in the world thanks to the blessings of our natural resources, the ingenuity and hard work of our farmers and the research leadership of the University of Nebraska. The Robert B. Daugherty Foundation selected NU to harness this well-rounded combination for a new institute focused on ensuring water and food security for our growing world. The Robert B. Daugherty Water for Food Global Institute (DWFI) was founded in 2010 to leverage the university's expertise and extend it with strong state, national and international partnerships. The institute's impact is achieved through the work of its talented staff of more than 100 faculty and global fellows, postdoctoral researchers, and students in a wide variety of fields pursuing projects focused on increasing water and agricultural productivity. Additionally, the institute includes the valuable assets of the Nebraska Water Center and the Water Sciences Laboratory, and benefits from the expertise of the National Drought Mitigation Center at the University of Nebraska-Lincoln. As a system-wide institute, DWFI taps the specialized resources available at all four NU campuses, including the College of Public Health within the University of Nebraska Medical Center in Omaha. DWFI also collaborates with other universities, businesses, non-governmental organizations, and government agencies around the world to address issues on a global scale. Through research and policy development, education and communication, the institute is enhancing knowledge, fostering future water and food security leaders and developing effective techniques to sustainably manage water and increase food security.
- 5.27 **Institution 9 AGRISAT IBERIA S.L. of Spain:** is a technology-based company resulting from the R & D & I work, for more than 10 years, of a multidisciplinary group composed of researchers from the University of Castilla La Mancha, computer developers, agronomists and farmers. From the first moment, we saw the possibilities offered by the images captured by observation satellites of the Earth's surface in the field of crop monitoring and control. After validating the results of multiple tests carried out in large areas throughout the peninsular territory, during 6 agricultural campaigns, we decided to make available to the rest of farmers and agents of the agricultural sector the advantages of using applied remote sensing as a complement to improvement in the management agronomic of crops. We make available to farmers and agents of the sector access to a new agricultural service through which they can

observe and measure, from a new point of view, the growth and development of their crops, with the aim of improving their agronomic management.

- 5.28 **Institution 10 TRAGSA (Spain):** The Tragsa Group is part of the group of companies of the State Industrial Participation Company (SEPI). It is constituted by Empresa de Transformación Agraria, S.A., S.M.E., M.P., (Tragsa), the parent company founded in 1977 for the execution of works and services of rural development, environmental conservation and emergency actions; its first subsidiary, Tecnología y Servicios Agrarios, SA, SME, MP, (Tragsatec), created in 1989 to carry out consulting and engineering projects and Colonization and Agrarian Transformation, SA (CYTASA) constituted in Paraguay in November 1978. Recently, In 2013, Tragsa Brasil Desarrollo de Proyectos Agrarios, LTDA was created. Nearly four decades working for Public Administrations at the service of society, have placed this business group at the forefront of the different sectors in which it operates, from the provision of agricultural services, forestry, livestock and rural development, to conservation and environmental protection. The large national distribution of the company, which has delegations in all the provinces of the 17 Spanish Autonomous Communities, allows you to respond, as your own means, quickly and efficiently, to any urgent requirement of the central, regional or local administration.
- 5.29 **Institution 11 WATERLAT GOBACIT:** is a network of teaching, research and inter- and transdisciplinary intervention focused on the subject of politics and the management of water and services based on the use of water. The network has a strong presence in Latin America and the Caribbean but its focus is global in nature. The Network articulates the cultural, ecological, economic-financial, health, management and operation, institutional and public policy dimensions, and policy on water-related issues. The network has research objectives and priorities clearly focused on the fight against injustice, inequality and helplessness connected with water. The origin of the Network dates back to the early 1990s when a group of Latin American researchers and students based at the Latin American Faculty of Social Sciences (FLACSO), Mexico, and at the Gino Germani Research Institute, University of Buenos Aires, Argentina, began to develop joint research projects, academic exchanges and collaboration with professionals in national and international institutions linked to water management, among others the Mexican Institute of Water Technology (IMTA). The work of these researchers was subsequently consolidated and expanded with the close collaboration that was established with colleagues at the University of Oxford, England, which included the development of the international project PRINWASS (2001-2004), which conducted a critical review of the processes of privatization of water and sanitation services in 9 countries in Africa, Europe and Latin America.
- 5.30 **Institution 12 SupPlant (Israel)** is a world leading company in the field of “IOT” in agriculture. By changing the basic concept of irrigation methods, the SupPlant unique technology can save water on global scales and improve productivity and yields. During the past 4 years, SupPlant developed a unique artificial intelligence system that is able to analyze data generated from crops through sensors and translate this data into irrigation commands. The Company’s core technologies, and their underlying line of products, which are collectively branded SupPlant™, are based on advanced algorithms that analyze climatic, soil and vegetation indices, as well as the use of Internet of Things (“IOT”) and the benefits of Big Data for irrigated crops whether grown in the field or in greenhouses. The basis for the various applications is the ability to quantify at any given time the status of the plant (according to its stress levels) objectively based on indices developed by the Company, and thus dynamically performing different treatments to the plants more efficiently.
- 5.31 **Institution 13 RIVULIS Eurodrip** is an innovator in micro irrigation solutions, which offers the global agricultural sector real solutions to the field, allowing producers from all over the

world to achieve higher quality crops more consistently and increase yields with greater efficiency. costs, while managing the shortage of water and land. Rivulis Eurodrip offers large-scale operations, global distribution, leading product brands and complete irrigation solutions. Our extensive platform includes: The most extensive product portfolio in the industry, composed of trusted brands such as T-Tape, Ro-Drip, Hydrogol, PC D5000, Eolos, Eolos Compact and Supertif. A wide range of services, from system design, practical training, field technical support to irrigation recommendations based on sensorless software. With R & D Centers that encompass globally from California to Greece and Israel. Our knowledge base in the micro irrigation sector is rooted in a deep understanding of product innovation and manufacturing that adds value to the producer. A cross-company culture that values long-term, sustainable relationships with our business partners and farmers as the key to mutual success.

- 5.32 **Institution 14 Coopocol Colombia:** It is an Integral Services and Solutions Corporation of Colombia, a non-profit organization formed by a team of professionals highly committed and trained in various areas of knowledge. Our organization arises with the firm purpose of promoting actions that improve the quality of life of the community, through projects and productive activities related to the following sectors: food security, agri-food, agroindustrial, health, educational, civic, cultural, sports - recreational , IT, telecommunications, scientific and technological research, ecology, environmental protection and social development programs.
- 5.33 **Institution 15 Ministry of Agriculture Argentina:** In order to correct the limitations that restrict the development of irrigation and stimulate the potential of irrigation throughout the national territory, the Ministry of Agribusiness (previously the Ministry of Agriculture, Livestock and Fisheries) through the The Ministry of Agriculture, Livestock and Fisheries of the Nation formulated the National Plan of Irrigation of the Argentine Republic (PNR), with the intention that said plan constituted the conceptual and institutional basis for the formulation and execution of the different programs and projects that address different themes of irrigated agriculture. The General Objective of the PNR seeks to promote the fully sustainable development of irrigated agriculture throughout the national territory can double the current area irrigated to reach the year 2030 with four million hectares (4,000,000 ha) and increase the efficiency of water application for irrigation.
- 5.34 **Institution 16 SEDRA:** obtains its legal status in 2017 in Santiago de Chile, with the purpose of providing technical assistance and professional consultancy services, studies and advice to governments, international organizations, associations, in the countries of Latin America and the Caribbean, technical institutes, universities and private companies linked to the integral development of agriculture and the rural world in: Public policies: Formulation and evaluation of public policies, Design and evaluation of development projects, Design and management of technological innovation programs, Design and evaluation of promotion instruments, Analysis and strengthening of chains, clusters and collaborative networks, Development and rural poverty, Environment, land management, water and biodiversity and climate change, Gender analysis and development, Land use planning and Socioeconomic and environmental sustainability of agriculture and natural resources: B good practices and certification of value chains. - Sustainable intensification and mitigation to climate change. - Management of crops, forests and livestock. - Climate-smart agriculture. - Trademarks of origin, traceability, inclusive business and business plans for agro-productive chains. - Quality and safety of food and post-harvest loss management.
- 5.35 **Institution 17 RUBICON** Founded in 1995, RUBICON is a private company headquartered in Melbourne, Australia, with offices in the US, China and Europe. Our company has designed, developed and installed more than 25,000 gates and meters in TCC systems and has sold products to more than 50 customers in 10 different countries. RUBICON is the only company

in the world dedicated exclusively to improving open channel gravity irrigation systems. Rubicon is dedicated to designing, developing, manufacturing and evaluating its own products and has the ISO-9001 accreditation that attests to the highest standards in the design and manufacturing process. Our research and development facilities have the largest fluids and water evaluation laboratory in the southern hemisphere, where we evaluate, according to international standards, our gates and meters. Our approach to innovation and improvement of our solutions is demonstrated by a wide variety of global patents of new technology included in the TCC® components. Our research in collaboration with the University of Melbourne on channel control has led to important advances in the theory of flow measurement and control, and has received recognition of government and academic awards, including the prestigious Ross Clunies Award from the Australian Academy of Sciences and Technological Engineering (Australian Academy of Technological Sciences and Engineering Clunies Ross Awards). Today we share with the University of Melbourne the intellectual property of several patents, and our projects have received the recognition for the 2009 Infrastructure Award from the Melbourne Institute of Engineering. In addition, in recognition of our position in the industry our staff often receives invitations to participate in the World Bank Water Week.

5.36 **Institution 18 University of Talca:** The University of Talca is one of the 27 institutions of higher education that make up the Council of Rectors of Chilean Universities (CRUCH). Founded in 1981, after the merger of the old headquarters of the University of Chile and the Technical University of the State (UTE), it has progressively become one of the main national references of public and non-profit higher education, being qualified by recent ranking and measurements as the best state university of regions. The University organizes its actions based on a Strategic Plan defined until the year 2020 that gathers the macro tendencies of the environment and, from them, takes advantage of the opportunities to realize the corporate vision of "Being recognized as a public, innovative, complex and of excellence; reference of the superior educational system and pertinent in its development with the work of the country and the region ". This Plan is structured on the basis of four strategic focuses of development, which in turn guide a set of objectives and specific actions around the training in Undergraduate, Postgraduate, Specialties and Continuing Education; academic excellence and complex university; efficient management of complexity; regional and national development; and skills and learning for the development of the strategy.

5.37 **Institution 19 INIA URUGUAY:** Mission: Generate and adapt knowledge and technologies to contribute to the sustainable development of the agricultural sector and the country, taking into account State policies, social inclusion and the demands of markets and consumers.  
Vision: To be a recognized organization, at a national and regional level, for the excellence of its scientific and technical achievements in the service of sustainable development of the agricultural sector and the country, playing a relevant role in the innovation processes, tending to articulate with the other actors of the science, technology and innovation system and committed to the quality of its human capital and its processes and products.  
Values: Excellence in research and management: Develop research, with scientific objectivity and methodological precision, and act with technical rigor, applying skills and knowledge to the maximum.  
Ethics and transparency: Act with rectitude and coherence between expressions and actions, and guided by the vision, mission and institutional policies.  
Respect for the community and the environment: Build lasting relationships with the community, from an attitude of respect and preservation of the environment.  
Team spirit and disposition for networking: Cooperate among the members of the Institute as well as develop and implement institutional alliances and work networks with the aim of sharing and increasing knowledge and innovation.

Commitment: Act firmly in overcoming individual and collective challenges, for the achievement of institutional objectives.

Initiative, leadership, and innovation: Act proactively, participating in the definition of guidelines for the generation, incorporation and / or adaptation of knowledge and technologies, aimed at solving specific problems.

Development of human capital: Create opportunities for employees to develop their skills and competencies, respecting diversity and plurality

- 5.38 **Institution 20 National University of Colombia:** The National University of Colombia, in accordance with its mission, defined in the Extraordinary Decree 1210 of 1993, must strengthen its national character by means of the articulation of national and regional projects, that promote the advance in the social, scientific, technological, artistic and philosophical of the country. In this horizon, the University, as an entity of higher education and public, which will allow all Colombians to be admitted to it, to carry out undergraduate and graduate studies of the highest quality, under criteria of equity , recognizing the diverse orientations of academic and ideological type, and supported in the system of University Welfare that is transversal to its missionary axes of teaching, research and extension. Mission: As the University of the nation, it promotes equitable access to the Colombian educational system, provides the widest range of academic programs, trains competent and socially responsible professionals. It contributes to the elaboration and resignification of the nation project, studies and enriches the cultural, natural and environmental heritage of the country. As such, he advises on scientific, technological, cultural and artistic orders with academic and investigative autonomy.
- 5.39 **Institution 21 Aapresid:** The Argentine Association of Producers in Direct Sowing (Aapresid) is a non-profit non-governmental organization. Integrated by a network of agricultural producers that, based on the interest in the conservation of their main resource, the soil, adopted and promoted the diffusion of a new agricultural paradigm, based on Direct Sowing. This new agriculture seeks to increase productivity without the negative effects of the farming schemes. And it is an authentic answer to the great dilemma between production and sustainability that the human species faces today: Producing food, fibers and biofuels, keeping in balance the economic, ethical, environmental and energy variables of our society. Our action is based on openly sharing knowledge among the members of the network, stimulating leadership and innovation.
- 5.40 **Institution 22 Irrigation:** It is a decentralized public body that manages the water resource in the province of Mendoza, regulating and supervising its use. It has institutional, budgetary and constitutional hierarchy. Its main function is that of general administration of public waters. All matters related to water resources, such as the preservation, distribution and regulation of water in its natural and artificial channels, are within its competence. In 1884, with the sanction of the General Water Law, it is established that "The administration of water and, in general, compliance with this law will be under the direction of the General Water Department." In 1894 the Constitution of Mendoza denominates to the General Department of Waters like General Department of Irrigación (DGI), name that stays until the present. By constitutional mandate, its mission is to manage, together with the community of users, the water resource for the population and productive supply of the province; thus ensuring sustainability, transparency, equity and efficiency in water distribution. The users participate through the Channel Inspections that are in charge of administering the secondary irrigation network, with monitoring and sanctioning faculties. They have autarky, although subject to the legal and budgetary control exercised by the DGI. Through the joint work between the water agency, the Canal Inspections, Associations of users and social actors involved in the productive growth of the province, the administration of such a vital resource for Mendoza is carried out.

- 5.41 **Institution 23 Morpho:** Latin America is a company specialized in monitoring and telemetry solutions focused on both industry and research and development applications. Integral solutions from the evaluation, installation and implementation of the projects. We know the science behind the processes, we are experts in environmental monitoring. In agriculture we have environmental monitoring systems and telemetry solutions focused on the mining industry. Integral solutions from the evaluation of the project to installation and implementation of the systems. Experts in hydrology, movement of water in substrata and geotechnics

## **VI. IMPORTANT RISKS**

- 6.1 External factors that jeopardize the objectives envisaged in the project are associated with: (1) Problems associated with the signing of cooperation agreements between the participating institutions, arising from differences in the legal requirements of each one for this type of initiatives This includes administrative and financial aspects, (2) Budgetary problems of the institutions in the countries that participate in the consortium that impede the development of the activities (3) Problems arising from the differences in the exchange rate parity for reception of budgets in dollars (4) Limitation of the permanence of the personnel participating in the project.

## **VII. EXCEPTIONS TO THE BANK'S POLICIES**

- 7.1 No exceptions to Bank policies are identified.

## **VIII. ENVIRONMENTAL SAFEGUARDS**

- 8.1 Given the characteristics of the project, no negative environmental or social risks are expected, so the classification of this operation according to the Environment and Safeguards Compliance Policy (OP-703) is "C". See Safeguard Policy Filter (SPF) and Safeguard Screening Form (SSF).

## IX. REQUIRED ANNEXES

### 9.1 Annex I. Participating Agencies

#### Executing agency

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Researcher	Assistant
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#### Administrator

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## Co-Executor

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Agency: **Daugherty Water for Food Global Institute at the University of Nebraska**  
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Email: cneale@nebraska.edu  
Skype:  
<https://waterforfood.nebraska.edu/>

Agency: **AgriSat Iberia S.L.**  
Contact person: Vicente Bodas González  
Position or title: Director agronómico  
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Agency: **WATERLAT GOBACIT**  
Contact person: Dr. José Esteban Castro  
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Tel.:  
Email: jecastro@conicet.gov.ar  
<http://waterlat.org/>

Agency: **SUPLANT (Israel)**  
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Agency: **RUBICON**

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COORPOCOL**

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Agency: **Universidad de Talca**

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Agency: **Instituto Nacional de Investigación Agropecuaria (INIA)**

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Agency: **Asociación Argentina de productores en siembra directa (Aapresid)**

Contact person: Martín Rainaudo

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Agency: **Irrigación. Departamento General de Irrigación**

Contact person: Dra. Marcela Andino

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Agency: **MORPHO LA**

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## 9.2 Annex II. Schedule

Component	Activity	Year I				Place (1)	Institution (2)
		TRIM I	TRIM II	TRIM III	TRIM IV		
<p><b>COMPONENT 1.</b></p> <p>COLLECTION OF BACKGROUND, CAPABILITIES AND PREVIOUS OR CURRENT PROJECTS IN THE THEME</p>	<p><b>Activity 1.1.</b> Compilation of the state of the art of key information, diagnoses and previous work carried out on the use of water in agriculture at international, regional and national levels.</p>	X	X	X		Chile, Argentina, España	INIA Chile INIA España INTA CSIC
	<p><b>Activity 1.2.</b> Organization of a regional coordination workshop, with the participation of countries and key institutions of the water use value chain in agriculture.</p>			X		Chile	INIA Chile INIA España INTA CSIC
<p><b>COMPONENT 2.</b></p> <p>TO GENERATE A CONSENSUAL PROJECT THAT APPROVES TECHNOLOGICAL INNOVATION FOR THE EFFICIENT USE OF WATER RESOURCES THROUGH A "PLATFORM OF WATER MANAGEMENT IN AGRICULTURE 2030-2050" IN LATIN AMERICA AND THE CARIBBEAN.</p>	<p><b>Activity 2.1.</b> Preparation and presentation of a Consensual Project proposal "Water Management Platform in Agriculture 2030-2050".</p>			X	X	Chile, Argentina, España	INIA Chile INIA España INTA CSIC

#### 9.4 Annex III. Evidence of legal representation and experience of participating institutions

<b>Institution / Country</b>	<b>Legal Representative</b>	<b>Responsible for the Project</b>	<b>Role</b>	<b>Dedication in % to the project</b>	<b>Main tasks to be carried out</b>
INIA / CHILE	Pedro Bustos	Claudio Balbontín	Director	20	Activities coordination Workshop Organization Report editing Formulation Consensus Project
INTA / ARGENTINA	Eduardo Quargnolo	Fernando González Aubone	Co-Director	10	Activities coordination Workshop Organization Report editing Formulation Consensus Project
INIA / ESPAÑA	Isabel Cañellas Rey de Viñas	José Luis Alonso-Prados	Co-Director	5	Activities coordination Workshop Organization Report editing Formulation Consensus Project
CSIC / ESPAÑA	Jesús Val	Nery Zapata Ruiz	Co-Director	10	Activities coordination Workshop Organization Report editing Formulation Consensus Project

## 9.5 Annex IV. Curriculum Vitae summary

### INIA CHILE

**Claudio Balbontín N, Ph D.**, specialist in irrigation INIA Intihuasi: Agronomist (University of Chile), Master of Science (Colegio de Postgraduados, Mexico) and Doctor of Agrarian Sciences (Higher Technical School of Agronomists of the Castilla University -La Mancha, Spain, UCLM). His work experience is mainly related to agricultural research work in international centers such as the Laboratory of Soil Fertility and Environmental Chemistry of the Colegio de Postgraduados (Mexico), led by Dr. Jorge Etchevers B. and the Remote Sensing and GIS Section of the Institute of Regional Development of Castilla La Mancha University (Spain), led by Dr. Alfonso Calera. Currently, the professional works as a researcher in irrigation of the Regional Center Intihuasi (La Serena, Chile) of the Institute of Agricultural Research INIA, where he has led initiatives of the Regional Government of Coquimbo as "Development of an Analysis Center for Agriculture (CAPRA)", "Satellite Agricultural Platform for the monitoring and determination of the water requirements of the main crops of the country", "Satellite monitoring of regional irrigation demand", "Bases for the determination of the water requirements of the main crops of the country according to agro ecological zones", through which a Remote Sensing Laboratory has been implemented in the region, methodologies for efficient irrigation of crops have been validated and statistics of cultivated area and associated water consumption have been generated, useful information for the administration of water resources and decision makers. Likewise, the researcher has developed basic science proposals with CONICYT financing as "Orchards of the future: monitoring and definition of grape vineyard water status oriented to improve irrigation management efficiency" in which remote sensing and water relations methodologies are used for estimation of the evapotranspiration flow of the crops, subjects in which it has generated scientific productivity in indexed journals (ISI).

**Gabriel Selles V** : Agronomist University of Chile and Doctor of Agronomic Sciences School of Agronomy of Montpellier (France). He was Academic Department of Engineering and Soils Fac. Agronomy, University of Chile, Head Projects Department of the National Irrigation Commission (CNR) and is currently a researcher in irrigation and drainage Institute of Agricultural Research, La Platina Regional Center. He is also National Coordinator of the Fruit and Vegetable Program of the Institute. Since 2008 he is a member of the Academic Senate of the Doctorate Program in Water Resources of the Universidad de Concepción and since 2009 he is a member of the Academic Senate of the Master's Program in Agricultural Sciences, Universidad de Chile.

**Carlos Zuñiga E.:** Doctor of Philosophy (Ph.D.) in Biological and Agricultural Engineering, Department of Biological Systems Engineering, Washington State University, Pullman, USA. He is an Agronomist specialized in Soil and Water Management. His work experience was a research assistant in the Department of Biological Systems Engineering, Washington State University, and researcher at the Institute of Agricultural Research (INIA Chile) during the period September 2006 to August 2014 and currently.

**Raúl Ferreyra E. :** Agronomist from the University of Chile and Magister from CIDIAT (Inter-American Center for Integrated Water and Land Development). Professor Magister Irrigation and Drainage (Course Relationship Soil Water Plant and Design of Localized Irrigation, National University of Cuyo Mendoza Argentina Professor of the Post Title Design of Irrigation and Drainage Project University of Talca (Localized Irrigation Design) Currently a Researcher in Irrigation and drainage Institute of Agricultural Research, Regional Center La Cruz.

**Carlos Ovalle:** Agricultural Engineer Pontificia Universidad Católica De Valparaíso, Chile. D.E.A. Universite Des Sciences Et Techniques Du Languedoc, Montpellier Ii, France. Doctor of

Sciences, Université Montpellier II, France. Doctor in Ecology Université Des Sciences Et Techniques Du Languedoc, Montpellier II, France. Currently Dr. Ovalle works at INIA La Cruz and is National Sustainability Coordinator of INIA Chile.

#### **CSIC SPAIN**

Nery Zapata Ruiz, Ph.D. Agronomist from the Polytechnic University of Valencia (1995) and PhD in Agricultural Sciences (European Doctorate) from the University of Lleida (1999). Expert in design and management of irrigation systems (gravity and pressurized) through field studies and simulation tools. Member of the "Water, Agriculture and Environment" group of Excellence, recognized by the Government of Aragon since 2006. Participates in numerous national projects (National R & D Plan, CONSOLIDER) and international (European Union Framework Programs). He has published numerous scientific, technical and popular articles. With two of them he has won the award for the best articles of the Environmental and Water Resources Institute of the American Society of Civil Engineers, years 2010 and 2011. He has directed four doctoral theses and currently manages one more, 7 master theses and numerous final projects. She regularly participates as a professor in postgraduate courses (CENTER and CEDEX) and a master's degree (Higher Polytechnic Center of the University of Zaragoza) related to irrigated agriculture. His lines of research are the agroclimatology, definition of the water needs of crops, management of irrigation systems and the management of irrigation communities. His specialization (ISI WoK) are: Water Resources, Agriculture, Agro-meteorology, and Agricultural Engineering. Bibliometrics: ResearcherID: E-8329-2012 (<http://www.researcherid.com/rid/E-8329-2012>).

#### **INIA SPAIN**

**José Luis Alonso-Prados, Ph.D.** Doctor in agronomy from the Polytechnic University of Madrid, currently holds the position of General SubDirector of Prospective and Program Coordination at the National Institute of Agricultural and Food Research and Technology (INIA) in Madrid, assuming the responsibilities of coordinating research in R+D+i in agro-food in the state scope and the representation of Spain in the European committees of agricultural investigation. He started his professional career at the INIA in the Department of Plant Protection, participating and directing research projects and establishing the system for the evaluation of active substances in Spain under Directive 91/414 / CEE, coordinating a multidisciplinary group of research experts for the evaluation of active substances of phytosanitary products, activity that continues with the implementation of Regulation 1107/2009. In 2011 he held the position of Technical Director of Evaluation of Varieties and Phytosanitary Products, assuming, in addition, the responsibilities, in the INIA, for the management of the evaluation of new plant varieties and the certification of seed lots under ISTA regulations. He is a principal researcher and has collaborated in several research projects, author of numerous scientific and dissemination publications, and director of two doctoral theses. He participates in the Standing Committee on Agriculture Research, is the Spanish representative in the Pesticide Steering Committee of EFSA and the Post Approval Issues Working Group of the European Commission and participates in numerous national and international committees.

**Isabel Tolosana** holds a degree in Physics. Since February of 2018 she works in the Multilateral Relations Service. With training in Education, during the last years she has worked in different European programs and networks sponsored by the European Commission (eTwinning, Europass, NARIC), being also an external evaluator of Erasmus +. Among other tasks, he has given training (both online and in person) and made numerous presentations on educational issues to both teachers and public and private organizations.

## **University Castilla La Mancha, SPAIN**

**Alfonso Calera:** Bachelor and PhD in Physics, currently professor at the UCLM. Dr. Alfonso Calera during the last decade has led a sequence of European projects oriented to water management in different irrigated areas around the world, using the approach based on reflectance. DEMETER (EVG1-CT-2002-00078), developing the e-SARAS online application that provides irrigation users with a GIS tool to improve water use, PLEIADeS (GOCE Contract No. 037095) where the SIG SPIDER application was developed, incorporating a tool to visualize and inform temporary information on irrigated areas. The SIRIUS project (FP7-SPACE-2010-1), which began last year, continues in this area and incorporates Hidromore information into the online GIS application. The FATIMA project "Farming Tools for external nutrient Inputs and water Management". Since the 1990s, the team led by Dr. Calera collaborated with the Central Board of Irrigators of the Eastern Channel (JCRMO), mapping the area of the Mancha Oriental aquifer, focusing on the detection of irrigated areas. JCRMO is an Association of Water Users of farmers in charge of the exploitation plan that monitors the Mancha Oriental aquifer ( $\approx 105$  ha of irrigated area, mainly groundwater). This project called ERMOT was a remarkable contribution to transfer the results of the research to the users.

**José María Tarjuelo:** Agronomist E.T.S.I. and Doctor of Agricultural Sciences E.T.S.I. Currently, Dr. Tarjuelo is a University Professor at UCLM. He has over thirty years of professional experience in teaching and research on the general problems of water and energy use in irrigation. The lines of research are focused on a) The application of engineering and agronomy to help the efficient use of water and energy in irrigation, focusing on the improvement of the design and operation of water distribution systems, irrigation in plot (mainly by sprinkling and drip), including the development of simulation models of sprinkler irrigation contemplating wind action and equipment normalization b) Development of multicriteria models to help decision making for farm management agricultural, which allow selecting the alternative crops and irrigation management that leads to the economic optimum of exploitation as a sustainable activity, taking into account water availability, irrigation system and other constraints, as well as the risk due to climate variability and / o of product prices; c) Start-up and coordination of the Integrated Irrigation Advisory Service (SIAR) of Castilla-La Mancha, in operation between 1999 and 2014. This is fundamentally an applied research, developed in close collaboration with socio-economic agents (farmers, material manufacturers of irrigation and other companies of the sector), integrated in a continuous process of transfer of results to technicians and users through scientific publications, courses, conferences and congresses at an international level, also promoting the participation of companies in research projects. In order to carry out these tasks, a multidisciplinary research group has been formed, of which he has been the coordinator until 2017, currently constituted by more than eight doctors, to which the incorporation of young researchers according to the needs of each moment. The funding for these lines of work has been obtained from the National R + D + i Plan, from the different EU Framework Programs, from the Ministry of Education and Agriculture of the JCCM, from different contracts with companies and from their own College. Author of specialized books and monographs, generally in collaboration with other authors, has more than one hundred published scientific papers (Agricultural Water Management, Agronomy Journal, Irrigation Science, Water Resources Management, Biosystem Engineering, etc.), having directed seventeen doctoral theses. Internationalization has always been a priority, with very close relations with Latin America, boosted by participation in the Ibero-American Network of Irrigation and Fertigation, financed by CYTED and developed between 2004 and 2008, as well as with EU countries and the European Union. Mediterranean basin, for participation in European projects. To a lesser extent we have collaboration with China, India and other countries for participation in international

organizations such as the CIGR, EurAgEng, ICID or ASABE and in the International Standardization committees, as well as in the national associations AERYD and SEAgIng.

### **INTA ARGENTINA**

**Fernando González Aubone** is an agronomist from the National University of Córdoba and holds a master's degree in Agricultural Economics and Agribusiness from the Purdue University in the USA. Mr. Gonzalez has 25 years of professional experience in the following agriculture topics:

- Administration: both of family farms and investment projects in the Cuyo region.
- Irrigation: agronomic design, sale and installation of turnkey pressurized systems and distribution of irrigation products nationally and internationally.
- Irrigation: management of modernization of transport networks and collective irrigation systems in Spain.
- Development Cooperation: coordination of agricultural program and rural development in a province of Afghanistan within the framework of the reconstruction operations of AECID of Spain, commanded by OTAN in that country.
- Water: participation and coordination of water management projects and activities for irrigation at extra-farm level.

Currently he is researcher of INTA based on the EEA San Juan and coordinator of the specific project PNAGUA 1133044 "Water management and irrigation for the sustainable development of the territories". In coordination with this project, Fernando has been and is a participant and / or researcher responsible for science and technology projects financed by FONCYT and participant and / or coordinator of several technical assistance agreements between INTA and other public and private organizations.

**Roberto Martínez:** Agronomist (National University of the South, Argentina), Master in Irrigation Engineering (CEDEX, Madrid, Spain), Master in Agricultural Sciences (National University of the South), Doctor in Agricultural Science and Technology (University of Castilla-La Mancha, Higher Technical School of Agronomists, Albacete, Spain). Responsible on the part of the INTA EEA Valle Inferior of Río Negro, of the Laboratory of Soils, Water and Crops. Within the agreement between INTA EEA Valle Inferior of Río Negro and the National University of Río Negro. Coordinator of the Irrigation Integrating Project within the National Water Program of INTA.

**Marta Laura Paz:** Civil Engineer, Management of Irrigation Systems. Since 1992 I have participated in research teams at the UNSJ and INTA in projects of analysis, evaluation and improvement of water resources systems, especially irrigation water distribution. Up to the year 2017 I have consulted in private companies on issues related to drinking water distribution systems using mathematical modeling, and since 2004, in the PROSAP Program of MAGYP, coordinating the formulation and execution of 4 irrigation investment projects in the Province of San Juan, with IDB and IBRD financing, with functions to coordinate the activities of the multidisciplinary work teams; arm TDR for consultant contracts; elaborate and carry out the execution follow-up of POA's; prepare documentation for procurement of goods and services and bidding for irrigation works; follow up on activities; Prepare periodic reports on the progress of the projects.

### **University of Concepción Chile**

**Octavio Lagos:** Agricultural Civil Engineer and Doctor of Engineering from the University of Nebraska, Luis Octavio Lagos, is currently Director of the Department of Water Resources of the Faculty of Agricultural Engineering of the Universidad de Concepción. He is part of the team of the Research Laboratory and Technologies for Water Management in Agriculture, ITECMA2,

and is part of the management team of the Center for Research in Water Resources for Agriculture and Mining. His research focuses mainly on water resources, engineering applied to irrigation systems and water management in agriculture. This is made visible through his research aimed at precision irrigation with central pivots and the study of the amount of water needed for each crop using satellite images.

**Eduardo Holzapfel:** Agronomist and Doctor in Engineering, Area of optimization of Water Resources in Agriculture of the University of California Davis, Eduardo Holzapfel is professor and emeritus of the Faculty of Agricultural Engineering of the University of Concepción and is part of the team of the Department of Water Resources of the same unit, of the Laboratory of Research and Technologies for Water Management in Agriculture, ITECMA2, and deputy director of the Water Center for Agriculture and Mining project. His research points to the optimal use of water resources in agriculture and the design, management and operation of irrigation systems associated with the line of fruit trees. This is shown through its work oriented to establish the parameters that fundamentally affect the use of water, in order to obtain a high productive level and an adequate use of the water resource that grant the possibility of using the surplus of those resources in other areas of water. Associated economy such as energy, use of water for cities, etc.

#### **Pontifical Catholic University CHILE**

**Pilar Gil:** Doctorate in Agricultural Sciences. Mention physiology and fruit nutrition. Pontificia Universidad Católica, Chile. Degree in Agronomy, Pontificia Universidad Católica de Valparaíso, Chile. Agronomist, Pontificia Universidad Católica de Valparaíso, Chile. He is currently a professor at the Catholic University (Assistant Professor) and works on projects such as "Research, development and innovation to improve the efficiency of use and safety of water resources in horticultural production systems of the Metropolitan Region (CONICYT-Regional Action: I + D collaborative with SMEs) in which he is a Principal Investigator.

**Francisco Meza:** Ph.D. Atmospheric Sciences, Cornell University. Master of Science in Engineering. Hydraulic and Environmental Mention. Agronomist. Pontifical Catholic University of Chile. Dr. Meza works as Professor of the Pontificia Universidad Católica, where he teaches courses in Biometeorology and Applied Climatology, Climate Change: A Multidisciplinary Approach, Climatology. He is currently developing the project "Integrating crop simulation models, ground observations, and remote sensing data to improve the estimation of current evapotranspiration" (CONICYT - Fondecyt Regular) where he is the Principal Investigator.

#### **Daugherty Water for Food Global Institute at the University of Nebraska (USA)**

**Christopher Michael Usher Neale:** Civil Engineer (Escola) of Engenharia Mauá São Caetano do Sul, São Paulo, Brazil), Master of Science in Agricultural Engineering (Colorado State University, Fort Collins, Colorado), Doctor of Philosophy in Agricultural Engineering (Colorado State University, Fort Collins, Colorado). The areas of research of Dr. Neale are Applied Remote Sensing from satellite and airborne systems in the visible, near infrared, thermal infrared and microwave portions of the electromagnetic spectrum; use of airborne multispectral imagery for monitoring and mapping river corridors, riparian vegetation, wetlands, natural resources, irrigated agriculture; GIS applications in engineering, including development of water irrigation user cadastre maps and database for water user organizations; Irrigation water management and water demand estimates; Irrigation and Drainage Engineering; Evapotranspiration measurements with lysimeters, Bowen ratio, eddy covariance and scintillometer systems. Remote sensing of energy balance components and Evapotranspiration. Development of crop coefficients including remote sensing approaches. Precision agriculture and crop yield estimation using remote sensing and GPS equipment.

### **National Council of Innovation for Development (CNID)**

**Xaviera Paz De La Vega:** Engineer in renewable natural resources. Faculty of Agricultural Sciences, University of Chile. Master in Biological Sciences with mention in Ecology and Evolutionary Biology. Diploma in Human Rights, Climate Change and Public Policies Henry Dunant Foundation. Responsible for Environment and Sustainability. National Council for Innovation for Development. She worked as Executive Secretary of the Presidential Commission for Research, Development and Innovation for the Sustainability of Water Resources. Science and Innovation Report for the challenges of Water in Chile. National Council for Innovation for Development. She is currently the National Coordinator of the Water Resources Research Network. National Council for Innovation for Development and Member of the Advisory Council of the Center for Water Resources for Agriculture and Mining (CRHIAM) of the University of Concepción, Fondap.

### **Talca University**

**Samuel Ortega-Farías** is an Agronomist Enologist from Pontificia Universidad Católica de Chile. He holds a Master's Degree in Irrigation Engineering and a Doctorate in Bio-Mathematical Modeling, both degrees obtained at "Oregon State University", USA. Currently, he is a full professor at the Faculty of Agrarian Sciences and is Director of the Research and Transfer Center in Irrigation and Agroclimatology (CITRA) of the University of Talca, where he carries out teaching and research activities in the areas of biological modeling, mathematics, irrigation, agroclimatology and remote perception. In addition, he is Director of the interdisciplinary research program: "Adaptation of Agriculture to Climate Change". Work area: Agroclimatology, irrigation, Biomathematical Modeling, remote sensing.

### **INIA Uruguay**

**Claudio García Gallárreta:** He is an Agronomist and currently works at INIA Las Brujas. He completed his doctorate at the Federal University of Santa Maria, Brazil and his master's degree at the Federal University of Santa Maria, Brazil. His lines of research are the sustainable production of vegetables in the southern region of Uruguay and the management of irrigation in horticultural production.

**Alvaro Roel Dellazoppa.** M.Sc Ph.D. He did his doctorate in ecology at the University of California at Davis, CA, and his MS degree in Agronomy in the United States from Texas A & M University. The areas in which he currently works are: Efficiency of use and integrated irrigation management in rice cultivation; Added Value through Environmental Management; Food safety and Ecophysiology of Rice Cultivation.

## **9.6 Annex V. A letters of commitment of the local counterpart contribution.**

### **Executor**



La Serena, 5 de julio de 2018

Asunto: Carta de Aporte de Contrapartida. Proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050"

Doctora  
Eugenia Saini  
Secretaría Ejecutiva, FONTAGRO

Estimado Dra. Saini,

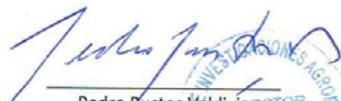
Nos es grato confirmar la participación del Instituto de Investigaciones Agropecuarias de Chile como organismo ejecutor del proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050", cuyo tema de investigación está incluido en el plan de trabajo de INIA. Asimismo, informamos que el señor Pedro Bustos Valdivia no tiene objeción a la participación en la Plataforma por parte del Dr. Claudio Balbontín (Director de la iniciativa), Dr. Gabriel Selles, Dr. Carlos Ovalle, MSc. Raúl Ferreyra, Dr. Carlos Zúñiga.

La institución se compromete a un aporte de contrapartida en especie de 23.793 dólares americanos, desglosada de acuerdo al siguiente detalle:

Categorías de Gasto	Monto
01. Consultores	23.793
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>23.793</b>

Atentamente,

Instituto de  
Investigaciones  
Agropecuarias  
Ministerio de Agricultura

  
Pedro Bustos Valdivia  
Directo Nacional  
Instituto Investigaciones Agropecuarias INIA Chile

INIA Dirección Nacional: Fidel Oteiza 1956, Pisos 11, 12 y 15, Providencia, Santiago. Casilla 16077-9  
Tel: +56 2 2577 1000



Co-executors



MINISTERIO  
DE CIENCIA, INNOVACIÓN  
Y UNIVERSIDADES

**CSIC**  
CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS  
ESTACIÓN EXPERIMENTAL  
DE AULA DEI  
DIRECTOR

Dra. Eugenia Saini  
Secretaria Ejecutiva, FONTAGRO

Zaragoza, 5 de julio de 2018

Estimada Dra. Saini,

Me es grato confirmar la participación de la Estación Experimental de Aula Dei (EEAD) del Consejo Superior de Investigaciones Científicas (CSIC) como organismo ejecutor en la solicitud del proyecto **Plataforma de Gestión del Agua 2030/2050**, cuyo tema de investigación está incluido en el plan de trabajo de la EEAD. Asimismo, le informo de que no hay objeción alguna a la participación en la Plataforma por parte del Dr. Enrique Playán, Investigador de plantilla de esta Estación Experimental.

La EEAD se compromete a realizar – si la solicitud resulta aprobada - un aporte de contrapartida en especie de 11.000 dólares americanos, correspondiente a la dedicación del Dr. Playán por un mínimo de 200 horas de trabajo. Esta aportación se desglosa de acuerdo al siguiente detalle:

Categorías de Gasto	
01. Consultores	11.000
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>11.000</b>

Atentamente,

**VAL FALCON** Firmado digitalmente  
por VAL FALCON  
**JESUS - DNI** JESUS - DNI 17698983T  
**17698983T** Fecha: 2018.07.05  
13:19:38 +02'00'

Dr. Jesús Val  
Director,  
Estación Experimental de Aula Dei del CSIC

CORREO ELECTRÓNICO: [direccion.eead@csic.es](mailto:direccion.eead@csic.es)

AVDA. MONTAÑANA, 1005  
50059 ZARAGOZA  
(APDO. 13034 - 50080 ZARAGOZA)  
TEL : 976 716060  
FAX : 976 716145



MINISTERIO  
DE CIENCIA, INNOVACIÓN  
Y UNIVERSIDADES



Instituto Nacional de Investigación  
y Tecnología Agraria y Alimentaria

Isabel Cañellas Rey de Viñas  
DIRECTORA

Dra. Eugenia Saini  
Secretaria Ejecutiva  
FONTAGRO

Madrid, 10 de julio de 2018

Estimada Eugenia,

Me es grato confirmar la participación del Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA) como organismo ejecutor en la solicitud del proyecto **Plataforma de Gestión del Agua 2030/2050**, cuyo tema de investigación está incluido en el plan de trabajo del INIA. Asimismo, le informo de que no tengo objeción alguna a la participación en la Plataforma por parte del Dr. José Luis Alonso-Prados, Subdirector General de Prospectiva y Coordinación de Programas del INIA.

El INIA se compromete a realizar – si la solicitud resulta aprobada - un aporte de contrapartida en especie de 6.000 dólares americanos, correspondiente a la dedicación del Dr. Alonso-Prados por un mínimo de 100 horas de trabajo y a gastos administrativos, así como un aporte en efectivo de 3.000 dólares americanos en concepto de viajes y viáticos (dietas). Esta aportación se desglosa de acuerdo al siguiente detalle:

<b>Categorías de Gasto</b>	
01. Consultores	5.000
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	3.000
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	1000
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>9.000</b>

Atentamente,

CORREO ELECTRÓNICO:  
direccion.general@inia.es

Ctra. de La Coruña, Km. 7,5 28040 MADRID  
TEL: 91 347 40 00  
FAX: 91 347 40 54

**“2018 Año del Centenario de la Reforma Universitaria”**



Buenos Aires, 13 de julio de 2018

Dra. Eugenia Saini  
Secretaria Ejecutiva FONTAGRO  
Banco Interamericano de Desarrollo  
1300 New York Avenue  
Washington DC 20577 USA

Por medio de la presente el Instituto Nacional de Tecnología Agropecuaria (INTA) declara el apoyo institucional a la propuesta del proyecto **"Plataforma de Gestión del Agua en la Agricultura 2030-2050"**, a presentarse en el marco de la Convocatoria FONTAGRO 2018.

El Instituto Nacional de Tecnología Agropecuaria se compromete a aportar quince mil dólares estadounidenses (U\$D 15.000) durante los 12 meses de ejecución del proyecto. Este aporte se desglosa en los siguientes rubros los cuales serán desembolsados en especie:

<b>Categorías de Gasto</b>	
01. Consultores	U\$ 15.000,00
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>U\$ 15.000,00</b>



Sin otro particular, la saludo atentamente



Ing. EDUARDO A. BAGNOLO  
Secretario Legal y Técnico  
Dirección Nacional

## Associates



Vicerrectorado de Investigación  
y Política Científica

Dra. Eugenia Saini

Secretaria Ejecutiva, FONTAGRO

Albacete 20 de agosto de 2018

Estimada Dra. Saini,

Me es grato confirmar la participación del Centro Regional de Estudios del Agua (CREA) y de la Sección de Teledetección y Sistemas de Información Geográfica (T-SIG) de la Universidad de Castilla-La Mancha (UCLM, España) como organizaciones asociadas del proyecto "**Plataforma de Gestión del Agua en la Agricultura 2030-2050**", cuyo tema de investigación está incluido en el plan de trabajo del CREA y T-SIG. Asimismo, informamos que no hay objeción alguna a la participación en la plataforma por parte del Dr. José María Tarjuelo Martín-Benito (Director CREA) y del Dr. Alfonso Calera Belmonte (Director T-SIG).

El CREA y el grupo T-SIG se comprometen a realizar – si la solicitud resulta aprobada- un aporte de contrapartida en especie de 15.000 dólares americanos, correspondiente a la dedicación del Dr. Tarjuelo y del Dr. Calera por un mínimo de 270 h de trabajo. Esta aportación se desglosa de acuerdo al siguiente detalle:

Categorías de Gasto	
01. Consultores	15.000
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>15.000</b>

Atentamente,

**GARDE  
LOPEZ-BREA  
JOSE JULIAN  
- 50172450C**

Firmado digitalmente por GARDE  
LOPEZ-BREA JOSE JULIAN -  
50172450C  
Nombre de reconocimiento (DN):  
c=ES,  
serialNumber=IDCES-50172450C,  
givenName=JOSE JULIAN,  
sn=GARDE LOPEZ-BREA,  
cn=GARDE LOPEZ-BREA JOSE  
JULIAN - 50172450C  
Fecha: 2018.08.20 13:43:24  
+02'00'

Dr. José Julian Garde López-Brea  
Vicerrector de Investigación y Política Científica  
Universidad de Castilla-La Mancha



August 26, 2018

Subject: Letter of Counterpart Contribution. Project **"Platform for Water Management in Agriculture 2030-2050"**

Dr. Eugenia Saini  
Executive Secretary, FONTAGRO

Dear Dr. Saini,

We are pleased to confirm the participation of the Daugherty Water for Food Global Institute as an associated organization to the **"Platform for Water Management in Agriculture 2030-2050"** project, whose research topic is consistent with our mission and present workplan.

The institution commits to a counterpart contribution in kind and cash of \$7961 US dollars, broken down according to the following detail:

Expense Categories	
01. Consultants	\$4461
02. Goods and services	
03. Materials and supplies	
04. Travel and per diem	\$3500
05. Training	
06. Knowledge Management and Communications	
07. Administrative Expenses	
08. Unforeseen events	
09. External Audit	
<b>Total</b>	<b>\$7961</b>

Sincerely,

Christopher M. U. Neale  
Director of Research  
Robert B. Daugherty Water for Food Global Institute at the University of Nebraska



**CARTA : N° 045/2018**

**MAT. : Carta de Aporte de Contrapartida. Proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050"**

**FECHA: LA SERENA, 30 DE JULIO DE 2018**

**Doctora  
Eugenia Saini  
Secretaria Ejecutiva, FONTAGRO**

Estimada Dra. Saini,

Nos es grato confirmar la participación del Centro del Agua para Zonas Áridas y Semiáridas de América Latina y el Caribe (CAZALAC) como organismo socio del proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050", cuyo tema de investigación está incluido en el plan de trabajo del CAZALAC.

La institución se compromete a un aporte de contrapartida en especie de 1.500 dólares americanos, desglosada de acuerdo al siguiente detalle:

<b>Categorías de Gasto</b>	<b>Monto</b>
01. Consultores	
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	1.500
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>1.500</b>

Atentamente,



**Gabriel Mancilla Escobar**  
**Director Ejecutivo**  
**CAZALAC**

Cc: Archivo.

Santiago, 27 de agosto de 2018  
C/21.

Doctora  
Eugenia Saini  
Secretaría Ejecutiva  
FONTAGRO  
Presente.

Estimada Dra. Saini,

Nos es grato confirmar nuestra participación como Consejo Nacional De Innovación para el Desarrollo (CNID) del proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050".

En ese sentido, el CNID contribuirá aportando las orientaciones estratégicas, en el contexto de Cambio Climático, del estado de los recursos hídricos en el país y en la definición de estrategias y acciones en Investigación, Desarrollo e Innovación para mejorar el desempeño tecnológico en torno a la eficiencia hídrica en agricultura, con un horizonte de largo plazo, al año 2050.

El CNID se compromete a un aporte de contrapartida en especies de 1500 dólares americanos, desglosada de acuerdo al siguiente detalle:

Categorías de Gasto	USD
01. Consultores	500
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	1000
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoría Externa	
Total	1.500

Atentamente,

  
**Katherine Villarreal**  
Secretaría Ejecutiva  
Consejo Nacional de Innovación  
para el Desarrollo



xdelav/avc.



*Ministerio de Agroindustria  
Secretaría de Agricultura, Ganadería y Pesca  
Subsecretaría de Agricultura*

Buenos Aires, 13 de agosto de 2018

Dra. Eugenia Saini  
Secretaría Ejecutiva FONTAGRO  
Banco Interamericano de Desarrollo

Estimada Dra. Saini,

Por medio de la presente, el Plan Nacional de Riego del Ministerio de Agroindustria declara el apoyo institucional a la propuesta del proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050", a presentarse en el marco de la Convocatoria FONTAGRO 2018.

El Plan Nacional de Riego, institucionalizado mediante Resolución 108/18, tiene como principal objetivo impulsar el desarrollo integralmente sustentable de la agricultura de riego en todo el territorio nacional. Se aspira a que el PNR constituya la base conceptual e institucional para los diferentes planes, programas y proyectos que aborden diferentes temáticas de la agricultura de irrigación a fin de trabajar sobre las limitaciones y acicatear las potencialidades del riego nacional.

El Plan Nacional de Riego se compromete –aprobación de la solicitud mediante- a realizar un aporte de contrapartida en especie de diez mil dólares estadounidenses (USD 10.000), correspondiente a la dedicación del equipo del PNR durante los 12 meses de ejecución del proyecto, desglosado de acuerdo al siguiente detalle:

Categorías de Gasto	
01. Consultores	US\$ 10.000
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoría Externa	
<b>Total</b>	<b>US\$ 10.000</b>

Sin otro particular, la saludo atentamente.

Lic. Ignacio GARCARENA  
Director Nacional de Agricultura  
Subsecretaría de Agricultura  
Ministerio de Agroindustria



PONTIFICIA  
UNIVERSIDAD  
CATÓLICA  
DE CHILE

130  
años

Santiago de Chile, 8 de agosto de 2018

Doctora  
Eugenia Saini  
Secretaria Ejecutiva FONTAGRO  
PRESENTE

Ref: Carta de Aporte de Contrapartida. Proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050"

De mi consideración,

Me es grato confirmar la participación de la **Facultad de Agronomía e Ingeniería Forestal** de la **Pontificia Universidad Católica de Chile**, como organización asociada del proyecto **"Plataforma de Gestión del Agua en la Agricultura 2030/2050"** cuyo tema de investigación está incluido en el plan estratégico de dicha Facultad, específicamente en las líneas de "Producción Sustentable" y "Gestión de Recursos Naturales y Cambio Global".

A través de la presente, certifico que no tengo objeción a la participación en la plataforma a través de los académicos Pilar Gil y Francisco Meza, ambos con líneas de investigación relacionadas al tema del proyecto.

La institución se compromete a un aporte de contrapartida de US \$1.350 (mil trecientos cincuenta dólares americanos), correspondiente a la dedicación de la Dra. Pilar Gil y del Dr. Francisco Meza, profesores de planta de nuestra universidad, equivalente a 24 horas cada uno. Este aporte se desglosa de acuerdo al siguiente detalle:

Categorías de Gasto	Montos
01. Consultores	US\$ 1.300
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	US\$ 50
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>US\$ 1.350</b>

Saluda atentamente a Ud.,

  
María Loreto Massanés Vogel  
Vicerrectora Económica  
Pontificia Universidad Católica de Chile





UNIVERSIDAD DE CONCEPCION  
Facultad de Ingeniería Agrícola  
Decanato

Campus Chillán, agosto 28 del 2018.  
D. 224.2018

Dra. EUGENIA SAINI  
Secretaría Ejecutiva  
FONTAGRO  
Presente

Asunto: Carta de Aporte de Contrapartida. Proyecto  
"Plataforma de Gestión del Agua en la Agricultura 2030-2050"

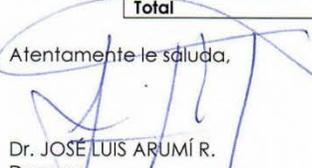
Estimada Dra. Saini,

Nos es grato confirmar la participación de la **Universidad de Concepción a través de la Facultad de Ingeniería Agrícola** como organización asociada del proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050". Asimismo, informamos que el Dr. José Luis Arumí R., Decano de la Facultad de Ingeniería Agrícola no tiene objeción en la participación de los Dres. O.Lagos y E. Holzapfel en el proyecto.

La institución se compromete a un aporte de contrapartida NO incremental de \$1000 dólares americanos, desglosada de acuerdo al siguiente detalle:

Categorías de Gasto	
01. Consultores	500
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	500
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoría Externa	
<b>Total</b>	<b>1000</b>

Atentamente le saluda,

  
Dr. JOSÉ LUIS ARUMÍ R.  
Decano  
Facultad de Ingeniería Agrícola  
Universidad de Concepción  
Campus Chillán





Universidad Nacional de San Juan  
Facultad de Ingeniería  
Departamento de Ingeniería Civil

San Juan, 14 de agosto de 2018

Asunto: Carta de Aporte de Contrapartida. Proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050",

Doctora

Eugenia Saini

Secretaría Ejecutiva, FONTAGRO

Estimada Dra. Saini,

Nos es grato confirmar la participación del Departamento de Ingeniería Civil de la Facultad de Ingeniería de la Universidad Nacional de San Juan como organización asociada del proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050", cuyo tema de investigación está incluido en el plan de trabajo del Departamento de Ingeniería Civil. Asimismo, informamos que el señor Jefe de Departamento no tiene objeción a la participación en la plataforma.

La institución se compromete a un aporte de contrapartida en especie de 2.500 dólares americanos, desglosada de acuerdo al siguiente detalle:

Categorías de Gasto	
01. Consultores	2.250
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	250
08. Imprevistos	
09. Auditoría Externa	
<b>Total</b>	<b>2.500</b>

Atentamente,

  
Ing. Raúl Francile  
Jefe del Departamento de Ingeniería Civil  
Facultad de Ingeniería  
Universidad Nacional de San Juan

Ing. Raúl O. FRANCILE  
Jefe Dpto. Ingeniería Civil  
FACULTAD de INGENIERÍA

# IRRIGACIÓN

Mendoza, 05 de Septiembre de 2018

**Asunto:** Carta de Aporte de Contrapartida Proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050"

**Estimada Dra. Saini:**

Nos es grato confirmar la participación del Departamento General de Irrigación como organización asociada del proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050".

La Institución se compromete a un aporte de contrapartida en especie de 2.500 dólares americanos una vez obtenida la convalidación por el Honorable Tribunal Administrativo del DGI, desglosado de acuerdo al siguiente detalle:

<b>Categoría de Gastos</b>	
01- Consultores	2.250
02- Bienes y Servicios	-
03- Materiales e Insumos	-
04- Viajes y Viáticos	-
05- Capacitación	-
06- Gestión del conocimiento y la comunicación	-
07- Gastos Administrativos	250
08- Imprevistos	-
09- Auditoria Externa	-
<b>TOTAL</b>	<b>2.500</b>

Atentamente,

  
ING. Agrim. SERGIO L. MARINELLI  
SUPERINTENDENTE GENERAL  
DE IRRIGACION

CARTA N°402/

La Serena, 13 de julio de 2018.

**Doctora Eugenia Saini**  
**Secretaria Ejecutiva, FONTAGRO**  
**Presente**

**Ref.: Carta de Aporte de Contrapartida. Proyecto**  
**"Plataforma de Gestión del Agua en la Agricultura**  
**2030-2050"**

Estimada Dra. Saini:

Nos es grato confirmar la participación del Corporación Regional de Desarrollo Productivo Región de Coquimbo como organismo socio del proyecto "**Plataforma de Gestión del Agua en la Agricultura 2030-2050**", cuyo tema de investigación está incluido en el plan de trabajo de la CRDP. La institución se compromete a un aporte de contrapartida en especie de 1.500 dólares americanos (no pecuniario), desglosada de acuerdo al siguiente detalle:

Categorías de Gasto	Monto
01. Consultores	
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	1.500
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>1.500</b>

Atentamente,

  
**MANUEL SCHNEIDER**  
**GERENTE**  
**CORPORACIÓN REGIONAL DE DESARROLLO PRODUCTIVO**  
**REGIÓN DE COQUIMBO**

  
MSCH/CBE/soc  
**Distribución:**  
- Archivo CRDP

Diego de Almagro 289, esq. Matta, La Serena  
Teléfono ( 56-51)673186



Polígono Industrial Campollano  
Tercera Avenida, nº 27  
02007 ALBACETE  
N.I.F.: B-02.555.720

ID # CH180822

22 agosto de 2018

Asunto: Carta de Aporte de Contrapartida. Proyecto: **Conformación de una Red Multiagencias para la constitución de una "Plataforma de Gestión del Agua en la Agricultura 2030-2050"**T

Doctora

Eugenia Saini

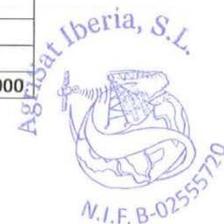
Secretaria Ejecutiva, FONTAGRO

Estimada Dra. Saini,

Nos es grato confirmar la participación de la **AGRISAT IBERIA S.L.** como organización asociada del proyecto **"Plataforma de Gestión del Agua en la Agricultura 2030-2050"**, cuyo tema de investigación está incluido en el plan de trabajo de **AGRISAT IBERIA S.L.** Asimismo, informamos que el señor **administrador y director agrónomo** no tiene objeción a la participación en la plataforma.

La institución se compromete a un aporte de contrapartida en especie de **TRES MIL dólares americanos**, desglosada de acuerdo al siguiente detalle:

Categorías de Gasto	
01. Consultores	
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	3000
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>3000</b>



Atentamente,

  
AgriSat Iberia, S.L.  
Vicente Boda  
Administrador y Director Agronómico  
AgriSat Iberia S.L.  
  
N.I.F. B-02555720

Dra. Eugenia Saini

Secretaria Ejecutiva, FONTAGRO

Madrid, 9 de agosto de 2018

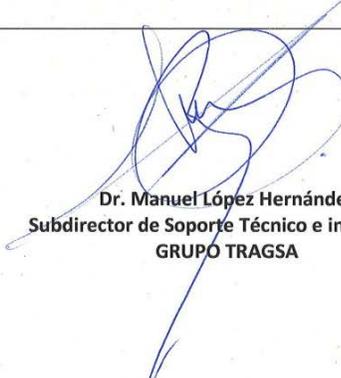
Estimada Dra. Saini,

Nos es grato confirmar la participación de la **Empresa de Transformación Agraria, S.A., (GRUPO TRAGSA)** como empresa pública asociada del proyecto "**Plataforma de Gestión del Agua en la Agricultura 2030-2050**", cuyo tema de investigación está incluido en el Plan de innovación, siendo además el agua/regadío una línea prioritaria dentro de la empresa. Asimismo, informamos que no hay objeción alguna a la participación en la Plataforma por parte de la empresa.

La empresa se compromete a realizar – si la solicitud resulta aprobada- un aporte de contrapartida en especie de 10.000 dólares americanos, correspondientes a la dedicación de personal perteneciente a la Subdirección de Soporte Técnico e innovación por un mínimo de 260 horas de trabajo. Esta aportación se desglosa de acuerdo al siguiente detalle:

<b>Categorías de Gasto</b>	
01. Consultores	10.000
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>10.000</b>

Atentamente,



**Dr. Manuel López Hernández**  
Subdirector de Soporte Técnico e innovación  
**GRUPO TRAGSA**





Dr Eugenia Saini  
Executive Director, FONTAGRO  
1300 New York Avenue, Office NW 513  
Washington DC, 20577  
United States of America

22 August 2018

Ref.: Collaboration in the "Plataforma Multi-agencia  
de Gestión del Agua en la Agricultura 2030/50"

Dear Dr Saini

On behalf of the individual and institutional members of the WATERLAT-GOBACIT Network I wish to confirm our interest in participating in the project proposal to establish a Platform on the subject of reference.

Our Network is dedicated to research, teaching and practical action on the politics and management of water resources and services, and has a strong interest in the challenges and opportunities facing water management in agriculture, to which we dedicate one of our Thematic Areas, "Water and Production". We have over 400 members, most of them located in the Americas but also in Europe, and to a lesser extent also in Africa and Asia. A large part of our membership are post-graduate students, many of whom are working on topics closely related to this project. Also, in addition to scientists and students, we have members from public sectors institutions and civil society organizations that are very active in this subject area. We have a solid experience in establishing and successfully maintaining international cooperation through networking, bringing together individual and institutional actors from a range of social sectors involved in water politics and management in many countries, in different continents.

We do not have core funding for our work, and our resources come from research projects and the support provided by our institutional partners, most of which are universities and research institutions. Although for this reason we are not in a position to offer financial contributions, we are interested in the proposed collaboration and committed to actively participate in the many areas of common interest that we have already identified with our partners in the proposal.

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**WATERLAT-GOBACIT Network ([www.waterlat.org](http://www.waterlat.org))**

I look forward to become involved in the project if the proposal is funded, and will be glad to further extend this information if required.

Sincerely,

A handwritten signature in blue ink, appearing to be 'J. Castro', written over a vertical line.

Dr Jose Esteban Castro  
Principal Researcher, National Scientific and Technical Council (CONICET), Argentina  
Emeritus Professor, Newcastle University, United Kingdom

Coordinator, WATERLAT-GOBACIT Network

Asunto: Carta de Aporte de Contrapartida. Proyecto “**Plataforma de gestión del agua en la agricultura 2030-2050**”

Doctora  
Eugenia Saini  
**Secretaria Ejecutiva, FONTAGRO**

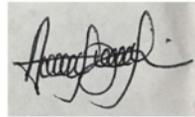
Estimada Dra. Saini,

Nos es grato confirmar la participación de la **CORPORACIÓN DE SERVICIOS Y SOLUCIONES INTEGRALES DE COLOMBIA** como organización asociada del proyecto “**Plataforma de gestión del agua en la agricultura 2030-2050**”, cuyo tema de investigación está incluido en el plan de trabajo de la **CORPORACIÓN DE SERVICIOS Y SOLUCIONES INTEGRALES DE COLOMBIA**. Asimismo, informamos que el señor **ANDERSON BALLESTEROS RIVERA**, representante legal, no tiene objeción a la participación en la plataforma.

La institución se compromete a un aporte de contrapartida en especie de 5.000 dólares americanos, desglosada de acuerdo al siguiente detalle:

<b>Categorías de Gasto</b>	
01. Consultores	5.000
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>5.000</b>

Atentamente,



**ANDERSON A. BALLESTEROS RIVERA**  
Representante Legal  
**CORPORACIÓN DE SERVICIOS Y SOLUCIONES INTEGRALES DE COLOMBIA**

DIRECCIÓN: CALLE 55 #37A - 49 OF. 202 BARRIO PROVIVIENDA  
BARRANCABERMEJA - SANTANDER  
TEL. 612 33 43 CEL. 313 223 0403  
EMAIL: coorpocol@gmail.com



Rivulis  
Bolivar 1365 Norte, Parque Industrial Chimbos  
San Juan – C.P. J5413XAD - Argentina  
Tel.: +54 (264) 431900  
E-mail: [daniel.santandreu@rivulis.com](mailto:daniel.santandreu@rivulis.com)

**Daniel Santandreu**  
Country Manager

Date: August 28<sup>th</sup>, 2018

To: Ingeniero Fernando Gonzalez Aubone  
From: Rivulis Plastro S.A.

RIVULIS PLASTRO S.A. is very interested in participating as a partner organization for the project "Platform for Water Management in Agriculture 2030-2050". The research topic and the transfer of the derived innovations are included in the work plan of RIVULIS worldwide and particularly in the LAC countries.

However, as we just took notice of this project, we are not in the position to commit a counterpart contribution at this point. So please, if possible, consider this as a letter of intent until a more formal participation could be confirmed.

Regards,



Daniel Santandreu  
Country Manager  
Rivulis Plastro S.A.



Corporación Servicios Profesionales para el Desarrollo Rural Integral y la Agricultura

Los Vikingos 6444 D 102 Las Condes Santiago CHILE

[Sedra@corpsedra.org](mailto:Sedra@corpsedra.org) [www.sedra.biz](http://www.sedra.biz) 56 2 224 65316

August 31, 2018

Subject: Letter of Counterpart Contribution. Project **"Platform for Water Management in Agriculture 2030-2050"**

Doctor  
Eugenia Saini  
Executive Secretary, FONTAGRO

Dear Dr. Saini,  
We are pleased to confirm the participation of the [Corporación Servicios Profesionales para el Desarrollo Rural Integral y la Agricultura (SEDRA)] as an associated organization of the "'Platform for Water Management in Agriculture 2030-2050" project, whose research topic is included at the technical areas of SEDRA. Likewise, we inform that the President has no objection to participation in the platform.

The institution commits to a counterpart contribution in kind as the participation of Mr. Jan Van Wambeke as an expert of SEDRA in workshops or other activities if the fund or other institution pay his expenses (travel and per diem).

Sincerely,

A handwritten signature in blue ink, appearing to read "Juan Izquierdo Fernández".

Juan Izquierdo Fernández



Presidente SEDRA

**De:** Damien Pearson [<mailto:Damien.Pearson@rubiconwater.com>]

**Enviado el:** jueves, 30 de agosto de 2018 4:02 a.m.

**Para:** Martin Baya <[martinbaya@gmail.com](mailto:martinbaya@gmail.com)>

**CC:** Allen Peterson <[Allen.Peterson@rubiconwater.com](mailto:Allen.Peterson@rubiconwater.com)>; Alvaro Luna Maureira <[Alvaro.Luna@rubiconwater.com](mailto:Alvaro.Luna@rubiconwater.com)>; Les Ganci <[Les.Ganci@rubiconwater.com](mailto:Les.Ganci@rubiconwater.com)>

**Asunto:** RE: FONTAGRO "Platform for Water Management in Agriculture 2030-2050"

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We Rubicon Water are interested in participating as a partner organization for the project "Platform for Water Management in Agriculture 2030-2050". The research topic and the transfer of the derived innovations are included in the work plan of RUBICON WATER worldwide and particularly in the LAC countries.

However, we are not in a position to commit to counterpart contribution at this time for reasons of business strategy definition in Argentina. Therefore, if possible, consider this as a letter of intent until a more formal participation is confirmed

Regards,

**Damien Pearson**

Deputy GM Commercial Operations, Americas and Europe

Mobile: +61 438 593 335

[damien.pearson@rubiconwater.com](mailto:damien.pearson@rubiconwater.com)

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## Rubicon Water

### Melbourne Office

1 Cato Street

Hawthorn East

Victoria 3123

Australia

Tel: +61 3 9832 3000

Fax: +61 3 9832 3030

[www.rubiconwater.com](http://www.rubiconwater.com)



Talca, 03 Septiembre 2018

Dr. Eugenia Saini  
**Secretaria Ejecutiva, FONTAGRO**

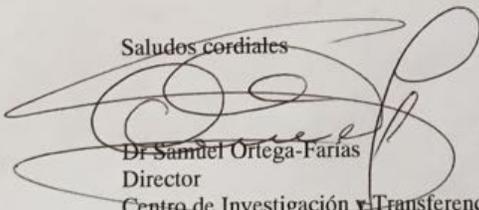
Estimada Dra. Saini,

Me es grato confirmar la participación del Centro de Investigación y Transferencia en Riego y Agroclimatología (CITRA) de la Universidad de Talca como organización asociada del proyecto "**Plataforma de Gestión del Agua en la Agricultura 2030-2050**", cuyo tema de investigación está incluido en nuestro plan de trabajo sobre la optimización del uso del agua en la agricultura.

Nuestro Centro se compromete a un aporte de contrapartida de mil dólares americanos, desglosada de acuerdo al siguiente detalle:

<b>Categorías de Gasto</b>	
01. Consultores	500
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	500
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>1.000</b>

Saludos cordiales



Dr. Samuel Ortega-Farías  
Director

Centro de Investigación y Transferencia en Riego y Agroclimatología (CITRA)  
Universidad de Talca, Chile

Montevideo, 13 de setiembre de 2018

Doctora  
Eugenia Saini  
Secretaria Ejecutiva, FONTAGRO

**Asunto: Carta de Aporte de Contrapartida. Proyecto "Plataforma de Gestión del Agua en la Agricultura 2030-2050"**

Estimada Dra. Saini,

Nos es grato confirmar la participación del Instituto Nacional de Investigación Agropecuaria (INIA-Uruguay) como organización asociada del proyecto **"Plataforma de Gestión del Agua en la Agricultura 2030-2050"**, cuyo tema de investigación está incluido en el plan de trabajo de INIA.

La institución se compromete a un aporte de contrapartida en especie de 3000 dólares americanos, desglosada de acuerdo con el siguiente detalle:

Categorías de Gasto	
01. Consultores	2000
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	1000
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>3000</b>

Atentamente,



-----  
Ing. Agr. (PhD) Fabio Montossi  
Director Nacional  
Instituto Nacional de Investigación Agropecuaria





P. DFIA 421

Palmira, septiembre 6 de 2018

Asunto: Carta de Aporte de Contrapartida. Proyecto **Conformación de una Red Multiagencias para la constitución de una "Plataforma de Gestión del Agua en la Agricultura 2030-2050"**

Doctora  
Eugenia Saini  
Secretaria Ejecutiva, FONTAGRO

Estimada Dra. Saini,

Nos es grato confirmar la participación de la **UNIVERSIDAD NACIONAL DE COLOMBIA SEDE PALMIRA** como organización asociada del proyecto **"Plataforma de Gestión del Agua en la Agricultura 2030-2050"**, cuyo tema de investigación está incluido en el plan de trabajo de la **UNIVERSIDAD NACIONAL DE COLOMBIA**. Así mismo, informamos que el señor **OSCAR CHAPARRO ANAYA** no tiene objeción a la participación en la plataforma.

La institución se compromete a un aporte de contrapartida en efectivo de \$1.769 dólares americanos, desglosada de acuerdo al siguiente detalle:

Categorías de Gasto	
01. Consultores	
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	1769
05. Capacitación	
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>1769</b>

Los recursos serán de aportados por la "Convocatoria De La Facultad De Ingeniería Y Administración Para La Divulgación Del Conocimiento", diseñada para tal fin. Será el profesor Enrique A. Torres Prieto quien se hará cargo de tramitar los recursos.

Atentamente,

OSCAR CHAPARRO ANAYA

DECANO FACULTAD DE INGENIERÍA Y ADMINISTRACIÓN  
UNIVERSIDAD NACIONAL DE COLOMBIA SEDE PALMIRA

September 03, 2018

Subject: Letter of Counterpart Contribution. Project "**Platform for Water Management in Agriculture 2030-2050**"

Doctor  
Eugenia Saini  
Executive Secretary, FONTAGRO

Dear Dr. Saini,

We are pleased to confirm the participation of the **SupPlant Ltd.** as an associated organization of the "**Platform for Water Management in Agriculture 2030-2050**" project, whose research topic is included in the work plan of **SupPlant Ltd.** Likewise, we inform that the **CEO of SupPlant** has no objection to participation in the platform.

The institution commits to the participation of a SupPlant's professional in the consortium's workshop. This participation is valued in approximately **6000 US dollars** and can be considered as a counterpart contribution **in kind (non cash)**, broken down according to the following detail:

Expense Categories	
01. Consultants	US\$ 3750
02. Goods and services	
03. Materials and supplies	
04. Travel and per diem	US\$ 2250
05. Training	
06. Knowledge Management and Communications	
07. Administrative Expenses	
08. Unforeseen events	
09. External Audit	
<b>Total</b>	

Sincerely,



Orit Barzilay  
SupPlant's CFO

Asunto: Carta de Aporte de Contrapartida.

Doctora

Eugenia Saini

**Secretaria Ejecutiva, FONTAGRO**

Estimada Dra. Saini,

Nos es grato confirmar la participación de la **MOPRH2O LATINOAMERICA LTDA** como organización asociada del proyecto "**Plataforma de Gestión del Agua en la Agricultura 2030-2050**", cuyo tema de investigación está incluido en el plan de trabajo de **MORPH2O LATINOAMERICA** . Asimismo, informamos que el señor **JOSE RAMON PEREZ** no tiene objeción a la participación en la plataforma.

La institución se compromete a un aporte de contrapartida en **EFFECTIVO** de **1000** dólares americanos, desglosada de acuerdo al siguiente detalle:

<b>Categorías de Gasto</b>	
01. Consultores	
02. Bienes y servicios	
03. Materiales e insumos	
04. Viajes y viáticos	500
05. Capacitación	500
06. Gestión del conocimiento y Comunicaciones	
07. Gastos Administrativos	
08. Imprevistos	
09. Auditoria Externa	
<b>Total</b>	<b>1.000</b>

Atentamente,



**RODRIGO FERREIRA**  
**GERENTE DE DESARROLLO**  
**MORPH2O LATINO AMERICA LTDA**

Rosario, 20 de Septiembre de 2018

Dra. Eugenia Saini  
Secretaria Ejecutiva FONTAGRO  
Banco Interamericano de Desarrollo  
1300 New York Avenue  
Washington DC 20577 USA

Estimada Dra Saini.

Nos es grato confirmar la participación de AAPRESID (Asociación Argentina de Productores de Siembra Directa) como organización asociada del proyecto Plataforma de Gestión Eficiente del Agua en la Agricultura 2030-2050 cuyo tema de investigación está incluido en nuestro proyecto Red Aqua.

Asimismo le informamos que el Ing. Agr. Diego Heinrich y el Ing. Agr. Martín Rainaud no tienen objeción a la participación en la plataforma.

AAPRESID se compromete a un aporte de contrapartida en especie de 5000 u\$ (dólares estadounidenses cinco mil) , representado en tiempo y gastos del personal participante de Red Aqua y difusión en medios propios de material generado por la plataforma.

Atentamente.



Ing. Agr. Alejandro Petek  
Presidente AAPRESID