



PROCINORTE

Strategic Plan

2010 – 2013

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Executive Summary

After contextualizing the agricultural global context, a concise introduction of PROCINORTE is given which includes brief descriptions of four founding organizations: Agriculture and Agri-Food Canada (AAFC), Agricultural Research Service (ARS), Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (INIFAP) and the Inter-American Institute for Cooperation on Agriculture (IICA).

The document continues with the analysis of PROCINORTE's niche, internal organization, current results and major challenges to serve as an effective tri-lateral cooperation mechanism for the three Northern countries. Then the Strategic Plan is presented, designed using the Balanced Scorecard Approach and Strategic Mapping which summarizes how an organization intends to create sustained value for its stakeholders.

The proposed vision of PROCINORTE is: the governments of Canada, Mexico, and the USA working together, in consensus, and through their national agricultural research institutions for problem-solving and supporting agriculture in the North American region with science, improved technology, and scientifically-based policy advice.

PROCINORTE proposed Mission is: to strengthen government-led collaboration in agricultural science for research and policy advice, contributing to problem-solving to support trade, helping target agricultural research on tri-lateral issues, and reaching out to other American countries, regional and global research networks.

The components of the mission statement serve as guides for the proposed activities as approved by the BOD, these activities: (1) Strengthen government-led collaboration in agricultural science and research that can lead to policy-guidance in these areas, (2) Contribute to problem-solving to support agricultural trade between the three member countries, (3) Help target agricultural research on tri-lateral issues, and (4) Reach out to other American countries and regional and global research networks.

An analysis identifies the most important perspectives that PROCINORTE develops in this Plan as follows:

Financial: To use PROCINORTE funding as seed money to promote collaboration in agricultural research, and also to help Task Forces prepare proposals to acquire or leverage financial or in-kind support from industry groups, farmer associations, and others.

Stakeholder: To focus on trilateral transborder issues for commercial agriculture in Canada, Mexico, and USA.

Internal Business: To build or strengthen linkages to regulatory counterparts, and to appoint office-holders to PROCINORTE roles.

Innovation & Learning: To seek a more intensive collaboration among the three countries, while exploring the use of modern information technologies to facilitate learning and reduce the costs of communications.

As approved by the Board of Directors of PROCINORTE (BOD) the Strategic Destination Statement Issues of PROCINORTE are:

- a. The Geographic Focus is on strengthening the three countries, with outreach to other regions and some spillover effects when possible. For example by transferring relevant knowledge generated by the Task forces to other countries.

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- b. The Main Thematic is on agricultural research & innovation, moving towards trans-border plant and animal health research, food safety and capacity building for trade, environment, biotechnology and other themes as appropriate
- c. PROCINORTE should be a proactive mechanism but will be prepared for expected occurrences that demand its attention.
- d. Financing of PROCINORTE should be based on the implementation of a realistic financial growth strategy based on a compelling Business Plan for the next three years.
- e. Organizational Structure. Enhanced senior policy involvement from the member countries in PROCINORTE depends on the success of the mechanism in demonstrating its relevance for the three member countries as highlighted in the Business Plan.

Therefore, the Core Competencies that PROCINORTE must have are identified as follows:

- 1. Collaborate in agricultural science across borders
- 2. Problem-solve on trilateral issues through scientific guidance
- 3. Help target agricultural research
- 4. Share knowledge, information and experiences with other countries and regions in LAC

Also, this document presents a brief analysis of the current composition of the Task Forces and recommends that their pertinence, relevance and performance be evaluated to make the adjustments that the BOD deems necessary in light of the proposal of this Strategic Plan and the current demand for tri-lateral cooperation in agriculture in the Northern Region.

The global context

The global economy has operated in recent years in a context characterized by highly dynamic changes that have had a significant impact on the performance of agriculture in every country in the Americas, making markets volatile, and increasing levels of poverty, food insecurity and hunger particularly in the poorest countries in the hemisphere (IICA, ECLAC and FAO 2009¹).

Even though agricultural markets have always been subject to price variations, the speed and magnitude of changes in the rate of variation have been more pronounced in the last three years, which has led to instability. The factors that have contributed to this scenario include: rapid growth of demand for basic products from China and other emerging countries, at a time when worldwide reserves stood at historically low levels; problems related to the fossil fuels market, creating the urgent need to develop alternative sources of and ways to save energy; and conditions affecting food production, including changes in climatic conditions and volatility in the prices of inputs required for production such as fertilizer. As a result of such volatility, food prices are unpredictable.

Other global factors at the regional and national levels that have affected, affect and will affect the performance of agriculture particularly in Latin America and the Caribbean (LAC), include public insecurity, social instability, political instability and migration, all of which are on the rise and are not likely to be solved in the short term. Mexico, the only LAC member of PROCINORTE has been severely affected by these trends as its economy is highly dependent on agriculture.

Since late 2009, the global economy has been showing signs of recovery, with 4% growth being anticipated in 2010. However, the engines driving future growth worldwide will be found in the emerging countries, led by China, India and Brazil, while the more developed countries will experience a slower recovery. The faster recovery in the emerging countries can be attributed basically to vigorous growth of domestic demand thanks to the adoption of anti-cyclical public policies. In the case of LAC, the growth of China as a destination for exports from the region and rising prices for export commodities are key reasons behind the recovery.

Canada, Mexico and the U.S. are partners in NAFTA, and enjoy a broad and expanding trade relationship. Canadian exports to NAFTA reached Can\$381.3 billions in 2008, while imports reached Can\$245.1. Mexico's economy is heavily dependent on trade with the United States, which purchases some 82% of its exports, particularly fruit and vegetables (\$4 billion in 2007). U.S. goods and services trade in NAFTA totaled \$1.1 trillion; exports totaled \$482 billion and imports totaled \$596 billion (2008).

Since the first North American Leaders' Summit in 2005, the NAFTA countries have been cooperating more closely on a trilateral basis to improve North American competitiveness, ensure the safety of their citizens, and promote clean energy and a healthy environment. They also cooperate on hemispheric and global challenges, such as managing trans-border infectious diseases and seeking greater integration to respond to challenges of transnational organized crime.

It is in this broad context that the Board of Directors of PROCINORTE decided to rethink the way their countries and institutions are collaborating in issues of tri-lateral interest related to agricultural science, technology and innovation. They requested IICA to develop a Strategic Plan (SP) and a Business Plan for PROCINORTE. The SP is presented in this document.

¹ IICA, ECLAC and FAO, 2009. The Outlook for Agriculture and Rural Development in the Americas: A Perspective on Latin America and the Caribbean.

Fundamentals for the Strategic Plan

PROCINORTE was founded in 1998 as a mechanism to strengthen collaboration in agricultural research among Canada, Mexico, and the USA. In 2009, the BOD decided to review the experience of PROCINORTE and to prepare a strategic plan, to best move forward with this collaboration mechanism. For this purpose, the BOD of PROCINORTE requested assistance from the Inter-American Institute for Cooperation on Agriculture (IICA) in developing a SP for PROCINORTE. In response, the following documentation was prepared for the PROCINORTE BOD:

1. A Matrix of key issues raised by agricultural research leaders in Canada, Mexico, and the USA
2. A SWOT analysis of PROCINORTE
3. A Balanced Scorecard analysis of PROCINORTE
4. A document and PowerPoint presentation summarizing the key strategic issues

This documentation served as the basis for the BOD of PROCINORTE to review, discuss, and make decisions on the key strategic issues, at their annual meeting held in Ottawa, Canada, during November 2009. At this meeting, the BOD of PROCINORTE requested that the documentation that had been prepared, plus the decisions they had taken, be summarized formally into a Strategic Plan and into a Business Plan for implementation. This is to provide the Summary Strategic Plan for PROCINORTE for 2010 -2013. A period of four years, 2010 to 2013 is chosen as encompassing one year of transition and three years for PROCINORTE to launch and implement its new strategy.

The accompanying Business Plan has been prepared for the implementation of the Strategic Plan.

A Niche for PROCINORTE

The American continent has had a rich network of mechanisms to collaborate in agricultural research, grouping various countries, thanks to the leadership of IICA. The first mechanism was PROCISUR in 1980 bringing together the countries of the Southern Cone (Argentina, Bolivia, Brazil, Chile, Paraguay, and Uruguay). The success of this model led to the establishment of PROCIANDINO in 1986 for countries in the Andean Zone. Over time, these efforts led to the creation of PROCITROPICOS (for countries in the Americas with tropical agriculture), PROCICARIBE (for the Caribbean region), SICTA (for Central America) and most recently in 1998, PROCINORTE encompassing Canada, Mexico, and USA. Founded in 1998, a review and strategic analysis of PROCINORTE seems due.

Additionally, the NAFTA Trade Alliance, encompassing Canada, Mexico, and the USA has launched a very significant level of economic integration and growth in trade in the region. This offers an opportunity for PROCINORTE to be of great additional value to its member countries. The NAFTA Trade agreement came into force January 1st, 1994. By 2006 the trilateral trade among these three countries had grown to a level of US\$ 2.6 billion per diem. A recent study² concludes that NAFTA agricultural trade among partners has grown 147%, twice as fast as non-agricultural trade, and that agricultural trade will accelerate further as the “phase in” period (10 to 15 years for some commodities) is coming to an end. The challenges, value, and issues of trilateral integration in agriculture have now reached unprecedented levels.

² *Do Regional Trade Agreements Increase Members' Agricultural Trade?* Grant, Jason & Lambert, Dayton, American Journal of Agricultural Economics, August 2008.

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While PROCINORTE was created to promote cooperation in agricultural research activities among Canada, Mexico, and the USA, it is now currently the only mechanism available to these three countries to use agricultural science to help solve trilateral problems of common concern in their agricultural sectors. Also, supporting technological innovation is crucial to IICA's mandate in support of its member countries. While Canada and the US might not need technical assistance from IICA, this is an important function of IICA in Mexico, to which the Institute is fully committed in areas of food safety, food security, sanitary and phytosanitary issues, rural development, and linking farmers to markets.

Strengthening technological innovation includes the need to develop new plant varieties and animal species adapted to growing, heterogeneous and variable demands; to develop and disseminate innovative technologies geared to the needs of businesses; to strengthen extension systems, to make them efficient and capable of carrying the new technologies and varieties to producers; to protect intellectual property; and to develop policies, strategies and new business models. With that purpose in mind, IICA intends to support the institutional efforts of its Member States to increase and extend innovation in agriculture, in order to improve productivity, competitiveness and trade, and thereby support food security and the development of the member countries.

This further emphasizes the opportunity and need that compels a new Strategic Plan for PROCINORTE. Also, PROCINORTE offers one additional and very significant opportunity to the NAFTA partners. The difficulties of negotiating trade in the NAFTA agreement proved so contentious, that a tri-lateral agreement was not possible. Agricultural trade in the NAFTA context is governed by bi-lateral agreements; Mexico-USA, Mexico-Canada, Canada-USA. PROCINORTE now offers an opportunity to review agricultural science issues in the NAFTA region from a truly trilateral perspective.

Also PROCINORTE can become a solid mechanism for regional collaboration with other regions in LAC through outreach to the other PROCIS (PROCISUR, PROCIANDNIO and PROCITROPICOS), and SICTA and PROMECAFE in Central America. Opportunities might be found in which the cooperation agendas of PROCINORTE and these collaborative mechanisms are agreed and joint projects are executed.

Organization Members of PROCINORTE

PROCINORTE's three member organizations, Agriculture and Agri-Food Canada's Research Branch (AAFC-RB), United States Department of Agriculture's Agricultural Research Service (USDA-ARS) and Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (INIFAP) agreed to cooperate on agricultural research and technology innovation of tri-lateral interest as specified in a declaration signed in 1999. IICA has facilitated the process of formation and continues to support PROCINORTE.

Agriculture and Agri-Food Canada's Research Branch (AAFC)

Agriculture and Agri-Food Canada (AAFC) provides information, research and technology, and policies and programs to achieve security of the food system, health of the environment and innovation for growth. AAFC, along with its portfolio partners, reports to Parliament and Canadians through the Minister of Agriculture and Agri-Food. AAFC's Science and Innovation Strategy was developed in 2006 and it identifies a broad vision for the agricultural and agri-food sector which charts a course for the short, medium and long-term by providing direction for science. The Science and Innovation Strategic Action Plan provides an integrated results-based management of science and innovation activities across

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Research Branch for the next five years and will be updated on an annual basis. The AAFC Science and Innovation Strategic Action Plan supports an approach to agriculture and agri-food research in Canada that aims at building a strong and coordinated national innovation system. This will entail greater collaboration with industry, academia and other partners, representing a shift to the way we collectively conduct science in Canada to focus on common objectives.

AAFC's Science and Innovation Strategic Action Plan continues to support Canada's national priorities of delivering year two of Canada's Economic Action Plan, providing new investments in jobs and economic growth, and supporting families and communities. The AAFC Science and Innovation Strategic Action Plan aligns science resources and activities to advance the Department's priorities to help Canada's agriculture, agri-food and agri-based products sector increase its environmental sustainability, compete in markets at home and abroad, manage risk, and embrace innovation. Science and innovation policy at AAFC is aligned with federal S&T objectives. A number of programs were developed to increase research activities and linkages with the agri-food industry, from the Agricultural Policy Framework (APF) (2002 - 2008) to the current Growing Canadian Agri-Innovations Program under Growing Forward (2009 - 2013) which includes a significant increase in investments for science and innovation as compared to the APF.

For more information: http://www.agr.gc.ca/index_e.php

Agricultural Research Service (ARS)

The Agricultural Research Service (ARS) is the U.S. Department of Agriculture's chief scientific research agency. The ARS was established on November 2, 1953, pursuant to authority vested in the Secretary of Agriculture by 5 U.S.C. 301 and Reorganization Plan No. 2 of 1953, and other authorities.

ARS conducts research to develop and transfer solutions to agricultural problems of high national priority and provides information access and dissemination to: (1) ensure high-quality, safe food, and other agricultural products, (2) assess the nutritional needs of Americans, (3) sustain a competitive agricultural economy, (4) enhance the natural resource base and the environment, and (5) provide economic opportunities for rural citizens, communities, and society as a whole.

ARS Strategic Goals are to (1) Enhance International Competitiveness of American Agriculture, (2) Enhance the Competitiveness and Sustainability of Rural and Farm Economies, (3) Support Increased Economic opportunities and Improved Quality of Life in Rural America, (4) Enhance Protection and Safety of the Nation's Agriculture and Food Supply, (5) Improve the Nation's Nutrition and Health, and (6) Protect and Enhance the Nation's Natural Resource Base and Environment. ARS has established objectives and performance measurements with indicators for each goal which are reviewed to monitor accomplishments.

The organization has 1,200 research projects within 21 National Programs, 100 research locations including a few in other countries employing 2,100 scientists and 6,000 other employees, and a budget of \$1.1 billion for 2009. The research priorities for each National Program are established with extensive input from customers, stakeholders, and partners, which is received, in part, at a series of National Program Workshops. The National Program Staff (NPS) In Beltsville ensures that the research activities address the objectives of the National Programs and support the USDA mission. The staff consists of about 30 National Program Leaders with expertise in many scientific disciplines, responsible for planning and executing our research strategies to solve critical problems affecting American agriculture. For more information: <http://www.ars.usda.gov/main/main.htm>

Instituto Nacional de Investigaciones Forestales, Agrícolas y Pecuarias (INIFAP)

INIFAP is the national institute of scientific and technological excellence in Mexico that responds to the technological demands for knowledge and innovation in agriculture. INIFAP's mandate is to generate scientific knowledge and technological innovation for farming and forestry systems, in response to the demands and needs of the agro-industrial chains and producers.

INIFAP works through a network of programs and experimental stations that foment strategic alliances and coordinate activities with diverse actors to maximize the utilization of the natural resources and to offer solutions to society's demands through new technologies, products and services. This strategy considers the following actions: (1) listening to the demands of the society and the sector, (2) strategic alliances with users, beneficiaries, clients, (3) scientific and technological cooperation, (4) participation in the consolidation of a National System of Cattle, Forest, and Agricultural Research, (5) strengthening technology transfer and (6) capacity building. INIFAPs' 1063 researchers carried out 678 projects in several disciplines, at eight regional centers and five national centers during 2009. For more information: <http://www.inifap.gob.mx/>

Inter-American Institute for Cooperation on Agriculture (IICA)

IICA is a specialized agency of the Inter-American System, and its purposes are to encourage and support the efforts of its Member States to achieve agricultural development and well-being for rural populations.

With more than six decades of institutional life, the Institute is responding to new mandates issued by the Heads of State and Government of the Americas, the General Assembly of the Organization of American States (OAS) and the ministers of agriculture of the Americas, to reposition itself so that it can meet both the new challenges facing agriculture and the requests for support it receives from its member countries. As it pursues its vision and carries out its mission, the Institute has competitive advantages it can draw on to carry out its new role. It has accumulated a wealth of knowledge regarding agriculture, rural territories, the diversity of peoples and cultures, and the agro-ecological diversity of the hemisphere, all of which are important for crafting creative solutions to a wide variety of problems and challenges.

Its presence in all of the Member States gives the Institute the flexibility it needs to move resources between countries and regions in order to promote and adapt cooperation initiatives intended to address national and regional priorities, facilitate the flow of information and improve the dissemination of best practices. The Institute has its Headquarters in Costa Rica, and Offices in 34 countries of the Americas, an Office in Miami, which is responsible for the Inter-American Program for the Promotion of Agricultural Trade, Agribusiness and Food Safety, as well as an Office for Europe, located in Madrid, Spain.

The Institute has two governing bodies and one executive organ. They are governed by the pertinent provisions of the Convention on IICA and by their respective Rules of Procedure. The Institute also has two special consultative mechanisms.

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The Inter-American Board of Agriculture (IABA) is the highest governing body. It consists of 34 Member States and holds a regular meeting every two years. The Executive Committee (EC) consists of 12 Member States, elected for two years on the basis of the principles of partial rotation and equitable geographical distribution. The Executive Committee holds a regular meeting each year.

The General Directorate (Rules of Procedure of the General Directorate) is the executive organ of IICA. It is made up of the technical and administrative units at IICA Headquarters and the 34 Offices throughout the Member States in the Americas. By mandate of the IABA, two special mechanisms have been appointed: (i) the Audit Review Committee (ARC), and (ii) the Special Advisory Commission on Management Issues (SACMI).

IICA has a specific mandate to work with agriculture in the Americas, viewed in a broad and systemic manner which takes into consideration activities associated with the provision of food, primary production, value added processing and linkages to economic, social and environmental activities all within a specific geographic area.

For more information: www.iica.int/

Regional Mechanisms to Support Agricultural Research

Taking into account the process of globalization and the growing interdependence that characterized the 20th century, and the institutional developments and diversification processes taken place in science and technology, several countries in LAC saw the need to strengthen hemispherical and global cooperation in technological research and development. Accordingly, the “First Consultative Meeting of the National Agricultural System in LAC” was held in 1996 where it was proposed that a regional agricultural research system be created. The following section describes two mechanisms created as a result by which collaborations in agricultural research are strengthened among the regions and countries of the Americas. The two main regional mechanisms to promote and support agricultural research and development are the Forum for the Americas on Agricultural Research and Technology - FORAGRO and the Regional Fund for Agricultural Technology –FONTAGRO.

Forum for the Americas on Agricultural Research and Technology - FORAGRO

At the regional level PROCINORTE is inserted in the framework of the Forum for the Americas on Agricultural Research and Technology Development (FORAGRO), a mechanism that promotes dialogue and articulation for regional agricultural research and technological development in the hemisphere. The members of FORAGRO comprise the national research institutes, national science and technology centers, and private sector organizations, producer organizations, NGOs and public and private foundations. At the regional level, its members include the PROCIs, regional networks, CATIE, CARDI and the CGIAR centers located in LAC. IICA operates the Technical Secretariat. FORAGRO provides input on behalf of the Americas to the Global Forum on Agricultural Research (GFAR).

FORAGRO’s lines of action are: hemispheric dialogue, regional technology research agenda, prospective studies, sharing information and experiences, lobbying, policies for institutional development, capacity building and evaluation of performance of the LAC R&D system.

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FORAGRO is serving as an efficient mechanism to advocate for increase funding for agricultural research, extension and innovation in LAC. IICA facilitated a mechanism by which the countries and the regions of the Americas were consulted through the different PROCIS on the priorities for research and innovation. This resulted in the document “Agriculture and Rural prosperity from the Perspective of Technological Research and Innovation in Latin America and the Caribbean: FORAGRO Position 2010” that FORAGRO delivered during the GCARD meeting of 2010.

For more information: www.iica.int/foragro

Regional Fund for Agricultural Technology -FONTAGRO

A regional mechanism that has contributed to forge research partnerships in the hemisphere is the Regional Fund for Agricultural Technology (FONTAGRO). This is a consortium to promote research and innovation in the agricultural sector with the direct participation of Latin American and Caribbean countries in securing priorities and financing research projects. It aims to contribute to the reduction of poverty, to promote competitiveness and to encourage the sustainable management of natural resources.

The Fund consists of more than US\$48 million invested by the member countries, and administered by the Inter American Development Bank (IDB), plus counterpart project funding and other resources provided by sponsors and other research and development organizations, among which the CGIAR Centers have had a significant contribution in the past.

The Fund’s member countries are Argentina, Bolivia, Colombia, Costa Rica, Chile, Dominican Republic, Ecuador, Honduras, Nicaragua, Panama, Paraguay, Peru, Spain, Uruguay, and Venezuela. The Fund is managed by a Board representing member countries and a Technical Administrative Secretariat (TAS) to which IICA provides technical support through its Northern Region Technical Coordination, based in the IICA Washington, DC Office. Mexico, USA and Canada are not presently members of FONTAGRO.

For more information: www.fontagro.org

Internal Organization of PROCINORTE

The BOD is PROCINORTE’s highest authority. The BOD meets face-to-face once a year, and starting in 2010, the members of the BOD or their delegates (in the case of Mexico) hold teleconferences to discuss emerging issues and follow up on activities. Each member of the Board of Directors is appointed by her/his government and continues until the government names someone else. The President of the Board of Directors is appointed by consensus among the BoD members. Initial appointment is for two years, with a possible extension for a maximum of 4 years.

The Task Force members are appointed by her/his government and serve until the government appoints someone else. One among them can be elected by consensus to substitute for the Task Force Leader in her/his temporary or permanent absence, with the same functions. The BOD also decided to envisage seminars, conferences or special publications to address emerging issues for which establishment of a TF would not be appropriate.

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Annex 1 highlights the member profile, period of appointment and Terms of Reference approved by the BOD in 2007, for President of the BOD, BOD member, Executive Secretary, Task Force leader and Task Force member.

Currently, the agricultural issues of interest for the three countries are addressed by the joint activities of five Task Forces that were established since the formation of PROCINORTE. A brief description of the Task Forces follows.

Genetic Resources Task Force- NORGEN

The objectives of NORGEN are to (1) encourage the communications and collaboration among personnel involved in National Genetic Resource Systems, (2) identify training and educational needs, (3) integrate with other genetic resources networks within the Americas and around the world, (4) develop projects of interest to the three countries, (5) encourage reciprocal participation of national experts in each country's operational and advisory committees, (6) establish contact with other task forces of PROCINORTE and (7) support the development of an Integrated Genetic Resources System in Mexico.

The three member countries of PROCINORTE are represented in NORGEN by researchers from the following research stations: Campo Experimental Bajío, (INIFAP, Mexico), Semiarid Prairie Agricultural Research Centre (AAFC, Canada) and Crop Production and Protection (ARS/USDA, USA). These researchers meet once a year to discuss the most relevant issues in genetic resources in their countries, inform of the major achievements in projects partially funded by PROCINORTE, and produce an annual plan.

In terms of its contribution to increasing regional cooperation for genetic resources conservation and sustainable use the most significant contribution of NORGEN has been its participation in the strategy "The Americas: A rational and effective conservation strategy for plant genetic resources" prepared for the Global Crop Diversity Trust in 2006. The document was intended to serve as basis for a concerted strategy with participation of countries and networks of the PROCI system (NORGEN, REMERFI, REDARFIT, REGENSUR, TROPIGEN and CAPGERNET), as well as international research centers based in LAC.

Lately, most of the activities supported by PROCINORTE are on capacity building to support the development of an Integrated Genetic Resources System in Mexico. For example, two Mexican curators recently participated in the GRIN-Global training, Atlanta (Feb. 2-4, 2010). The objective is provide curators and database managers with information and tools to fully collaborate in the National Center for Genetic Resources Preservation, a new facility being constructed in Jalisco. Also NORGEN carries out research focusing on temperate fruit germplasm in that country reflecting the interest of the Mexican delegate in this Task Force.

NORGEN's strategic direction and potential role to contribute with policy advice on genetic resources are issues relevant for the three countries that need to be addressed. NORGEN could play a significant role for information and germplasm sharing between countries in light of the relevant international treaties, and the countries' common interests in research into certain genetic resources topics. Also, the importance of access to genetic resources is emphasized, and Canada has urged the other two countries to ratify the International Treaty on Plant Genetic Resources for Food and Agriculture.

Tropical and Sub-Tropical Fruits Task Force

PROCINORTE's Tropical and Subtropical Task Force was created in 2000 to improve links between Mexico, Canada and the United States for research issues related to quality, safety and traceability of tropical and subtropical fruits. Its major goal is to become a mechanism to facilitate exchange of experiences, information and training by building linkages among public and private country institutions in the North American region, and between the major research and technology transfer actors in the region, the hemisphere and the world.

Since its origins, the Tropical and Sub-Tropical Fruits has been very active in conducting research. The TF has implemented several research projects of importance for the three countries such as (1) effect of post-harvest handling at the packing house on the shelf life of mango and avocado, (2) mechanized visual assessment of avocado and mango quality assessment, (3) a centralized database for the rapid integration of data with regard to quality and food safety in the mango and avocado supply chain, (4) development of anthracnose-resistant mango germplasm and (5) development of parameters to determine the quality of tropical/subtropical fruits. The TF is currently carrying out four joint projects in topics relevant for the production and post-harvest treatment of several fruits of high market value.

The TF keeps an updated and complete web site available in English, Spanish and French (<http://www.ars-grin.gov/cgi-bin/may/procinorte/index.cgi>). The members attend scientific meetings in which they present the results of joint collaboration, carry out field trips to evaluate genetic material, and jointly prepare publications (scientific papers, brochures, manuals, electronic publications, and others).

The TF research is very relevant for advancing fruit production, post-harvesting and processing and providing scientific support for relevant regulation in the three countries. The three countries are investing a considerable amount of their own funding in this research, while funding from PROCINORTE is utilized for bringing together the researchers at scientific seminars and planning meetings. This TF may become self-sustaining by carrying out outreach activities that demonstrate its contribution to solving problems affecting the fruit industry in the three countries, especially issues related to quality and safety that have implications for trilateral trade.

Animal Health Task Force

Founded relatively more recently, this Task Force has been struggling to set priorities, since a preliminary meeting held in 2006.

At the technical level, with the emergence of the highly publicized H1N1 influenza virus and the re-emergence of TB, communication and collaboration between Mexico, the USA and Canada became increasingly important. Therefore, at the annual BoD meeting in October 2009, the new TF chair (USA) stressed the need to investigate the potential for research collaborations and networking among the governments' animal health researchers, proposing H1N1 influenza as a priority. A high level workshop is being planned with the participation of the three countries and support from PROCINORTE's Executive Secretariat (IICA).

Plant Health Task Force

Also more recently established, the composition of the TF seems to be a key issue for the slow start and development of the Plant Health Task Force. The TF is comprised of research leaders from ARS/USDA and INIFAP, with extensive collaboration for several years on integrated pest management, on both sides of the border. The current representative from Canada is Director for Crop Protection Research in AAFC and joined in 2007. This TF has met several times to discuss several possible areas of interest among the three countries that ranged from insect resistance to pests of horticultural crops to quarantine/fumigation issues for imported fruit.

In 2009 PROCINORTE supported a workshop held in Welasco and in January 2010 the TF held a meeting at the research centre of the chair of the WG (Welasco, Texas) that highlighted the interest among the three country representatives to focus on cooperation in research interest in pests/control of insects of greenhouse (protected) crops including new invasive species. To that end, the TF also approved the next meeting to be held in Niagara Falls in conjunction with an IOBC conference being co-organized by Canada (AAFC) that would feature research presentations on greenhouse research work in pest control. The aim was for the TF to meet with researchers from all three countries conducting research on control of greenhouse pests, to participate in the organization of the conference to build knowledge in this area and to hold a meeting of the WG. PROCINORTE contributed \$5,000 to this scientific meeting where the PROCINORTE logo featured on the program and registration material. The Canadian representative participated in the conference at no expense to PROCINORTE.

Library and Information Services Task Force- LibraryTF

This is one of the most active Task Forces, comprised of staff from the National Agricultural Library (USDA), the Canadian Agriculture Library (AAFC), and members of the Red Mexicana de Bibliotecas Agropecuarias (REMBA), Universidad Autónoma Agraria “Antonio Narro”, Colegio de la Frontera Sur, INIFAP, and others. IICA provides technical support on information and knowledge management via its Information and Communications Unit.

2009 allowed the strengthening of the REMBA network including its further integration into the digital era through partner involvement in new levels of collaborations. With support from PROCINORTE, the continued growth and development of the REMBA network is helping the LibraryTF continue to make steady progress in its overarching goal to facilitate cooperative interactions that improve access to agricultural information in the Northern Region. Regularly scheduled conference calls and the LibraryTF listserv have facilitated communications essential to the success of the Task Force. In addition to the funding received through PROCINORTE, considerable in-kind institutional resources (staff expertise, services, and programs) are provided by the Canadian Agriculture Library, the National Agricultural Library, IICA-Costa Rica/SIDALC network, AgNIC (Agriculture Network Information Center) and others. These in-kind resources aid in helping to leverage the resources of PROCINORTE. The main activities focus on capacity building for the Mexican Agricultural Library Network (REMBA, Spanish acronym). Some of the recent activities include training to support and expand the development and maintenance of the Spanish language version of the National Agricultural library (NAL) thesaurus (NALT). Some of the most notable achievements of this TF were: the REMBA-Wide Digital Desk Consortium negotiation of license agreements for electronic journals for 2009, the expansion of the REMBA Web Portal and

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outreach and promotion with videos, brochures and posters; training for REMBA members on several topics, the Google Books Project and the National Catalog of Mexican Agricultural Information.

The TF has advanced hemispheric access to information on agricultural research and plays a key role for strengthening Mexico's INIFAP and REMBA. It has used its small budget to leverage in-kind and financial contributions from other institutions and agencies. The main challenge for the LibraryTF is to show the benefits of this Task Force for USA and Canada.

Having completed his task of supporting the REMBA network in Mexico, this Task Force was continued in 2011. However, the agricultural national libraries continue bilateral collaboration on topics of interest, sometimes with the support from IICA. The REMBA Network continues obtaining support from IICA through the Office in that country.

The Results of PROCINORTE

Documenting the results and outcomes of PROCINORTE has proven a real challenge as key information on the results, outputs and outcomes of the Task Forces is scattered and incomplete. At the moment of this writing, only the Tropical and Sub-Tropical Fruits Task Force and the Library-PROCI have produced detailed summaries of their activities and outcomes. NORGEN provided annual reports on its activities. The Plant Health and the Animal Health Task Forces did not submit their results.

A summary of documented results is presented in Annex 2 for Fruits, Library-PROCI and NORGEN.

In general terms the more active Task Forces are the Fruits and the Library-PROCI. Both follow a work plan and execute their allocated budgets in a timely way.

Major Challenges

Overall, the participants in the national consultations held during 2008/09 for the formulation of the Strategic Plan agreed that there are three major challenges to PROCINORTE, as follows:

- to consolidate its role as a mechanism for dialogue and a forum for tri-lateral cooperation
- to promote more cooperation and strategic partnerships among the stakeholders of the Northern Region's agricultural research systems, and
- to overcome financial limitations that impinge its capabilities to fulfill its mission

Table 1 presents the perceived challenges and recommendations expressed by participants in the consultations in Canada, Mexico and the US, which might orient the decisions of the BOD in terms of pertinence, relevance, efficiency and efficacy of the technical collaborations.

Table 1. PROCINORTE Challenges

Stated challenge	Recommended Measure	Observations
To promote more coordination and strategic partnerships among a broader set of national stakeholders	Implement Strategic Plan and Business plan	
To overcome financial limitations	Execute a Business Plan	Eventually needs allocation of funding from research authorities in Canada, Mexico and the US
To attract funding from stakeholders including government agencies	Illustrate PROCINORTE's accomplishments to date. Evaluate relevance and pertinence of current themes for collaboration on research, capacity building and outreach and make appropriate changes if necessary	Might need to revise country priorities to establish which ones are of trilateral interest and determine new ones if necessary
To promote more effective technical work	Evaluate current Task Force performance including the competence of the Task Force representative	Countries might need to revamp current Task Forces by changing their country representative
To address issues of science policy advice in support of tri-lateral trade	Appoint senior members of staff of each institution capable of making decisions at the country level in the relevant areas of collaboration	<ul style="list-style-type: none"> • Might need to revamp current Task Forces by changing the country representative • Might encounter resistance from current Task Force members
To avoid carrying out "pet projects"	Evaluate the relevance of current scientific projects for the three countries	Might encounter resistance from current Task Force members
To avoid becoming a mechanism to just fund traveling	Evaluate the relevance of the requested travel and the necessity of providing travel facilities for the potential participant	Might encounter resistance from current Task Force members
To make PROCINORTE better known at the three country level and abroad	To launch an effective results dissemination strategy based on the use of Information and Communication technologies (TICs)	IICA maintains and updates the PROCINORTE web page but it is difficult to obtain contributions from PROCINORTE members

PROCINORTE Strategic Planning

The Strategic Plan was developed following the guidance of the BOD of PROCINORTE at its annual meeting in November 2009, which was generated through national-level consultations in each member country. The BOD further reviewed the documentation prepared for it by IICA. The methodology utilized by IICA for the SP development is presented in Annex 3.

The following Vision, Values, and Mission are defined for PROCINORTE:

Vision

The vision of PROCINORTE is the governments of Canada, Mexico, and the USA working together, in consensus, and through their national agricultural research institutions for problem-solving and supporting agriculture in the North American region with science, improved technology, and scientifically-based policy guidance.

Values:

Values of PROCINORTE are:

- Equality among nations
- Serve the farmer
- Protect the consumer of agricultural produce
- Build scientific capability to meet societies' needs
- Share science for the benefit of all

Mission

The Mission of PROCINORTE is to strengthen government-led collaboration in agricultural science for research and policy advice, contributing to problem-solving to support trade, helping target agricultural research on tri-lateral issues, and reaching out to other American countries, regional and global research networks.

This mission statement can be broken into four components to serve as guides for the proposed actions at each of the perspectives as approved by the BOD of PROCINORTE. Therefore, the components of the mission are:

1. Strengthen Government-led collaboration in agricultural science for research and policy-guidance.
2. Contribute to problem-solving to support agricultural trade.
3. Help target agricultural research on tri-lateral issues.
4. Reach out to other American countries and regional and global research networks.

Perspectives

The formulation of this Strategic Plan takes into consideration the decisions of the BOD (Ottawa, 2009) in which key points emerged for the following perspectives:

Financial Perspective:

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To use PROCINORTE funding as seed money to promote collaboration in agricultural research, and also to help Task Forces prepare proposals to acquire or leverage financial or in-kind support from industry groups, farmer associations, and others.

Canada, USA and Mexico have contributed significantly in-kind to the scientific and technical activities of PROCINORTE, although these contributions have yet not been quantified. However, these countries have not allocated financial resources to explicitly to fund PROCINORTE.

Since its formation, PROCINORTE'S seed funding has been provided from IICA's core funds, reflecting the importance that the Institute places to promote knowledge sharing and collaboration among its members. IICA also provides support through the Executive Secretary, a senior member of staff with a solid background on technology and innovation. IICA's Representative in USA and the Deputy Representative -both based in Washington, provide technical support to PROCINORTE.

However, IICA's core funding depends on quotas provided by its Member States which have not been modified since 1995, in spite of the inflation over the last fifteen years, and the expanded cooperation agenda requested by Member States. While quota contributions have been frozen in nominal terms, in practice the purchasing power of these funds has declined significantly. This strained financial situation limits the Institute's capacity to deliver the required services to its members.

This situation is particularly important for PROCINORTE as this is the only PROCIS that receives funding from IICA for executing projects and activities³, and also given that PROCINORTE countries have a higher level of development of their agricultural sectors and potentially more resources available for sharing research agendas and innovation.

It is then advisable that the three Member Countries consider contributing financially to PROCINORTE in light of its perceived importance as an integrating mechanism for agricultural research. The Business Plan designed for PROCINORTE presents an expected program using the contributions of Canada, Mexico and the US to finance PROCINORTE's activities in the medium term.

Stakeholder Perspective:

To focus on trilateral transborder issues for commercial agriculture in Canada, Mexico, and USA.

NAFTA created the world's largest free trade area, which now links 444 million people producing \$17 trillion worth of goods and services. As the remaining agriculture-related NAFTA clauses became fully implemented on January 1st, 2008, there is much evidence of the Agreement's benefits to all three members in the form of the agricultural trade expansion within the region and the growth of foreign direct investments in members' agri-food value chains.

However, better coordination would help the three governments to successfully address ongoing challenges, such as plant and animal health diseases⁴. For instance, after the discovery of bovine

³ For all the PROCIS, IICA contributes with the time of the Executive Secretary, administrative support and office space as necessary.

⁴ Aleksandar Jotanovic and Brad Gilmour. 2009. NAFTA: Outcomes, Challenges and Prospects. No 55321, Economic and Market Information from Agriculture and Agri-Food Canada.

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spongiform encephalopathy (BSE) in Alberta (2003) the NAFTA members established a science-based framework for risk management measures to more effectively mitigate any BSE risk in North America. Scientific cooperation such as this is key to the safe movement of agricultural products in the region.

Internal Business Perspective:

To build or strengthen linkages to regulatory counterparts, and to appoint office-holders to PROCINORTE roles.

PROCINORTE is comprised of representatives of the public research agricultural institutes in the three countries. However, it has become clear that the mandate of focusing on support for agricultural trade demands review of the composition of the operative bodies of PROCINORTE, namely the Task Forces, to include staff with expertise in regulations pertaining to trade-related science issues. PROCINORTE would benefit from further involvement of authorities on plant and animal health, food inspection services and offices of trade. It is advisable that PROCINORTE membership in the Task Forces is extended to include members of such authority bodies of the three countries.

Innovation & Learning Perspective:

To seek a more intensive collaboration among the three countries, while exploring the use of modern information technologies to facilitate learning and decrease the costs of communications.

Joint research efforts by PROCINORTE will focus on issues of tri-lateral interest, and whenever possible the knowledge generated will be shared with other regions and countries. Opportunities for collaboration will be sought particularly with other mechanisms promoted by IICA, specially the other PROCIS, and networks of specialists. The forms of regional collaboration could start with scientific exchanges, further outreach by the Library Task Force, participation in thematic networks and development of joint scientific projects.

Strategic Destination Statement Issues:

BOD decisions regarding the strategic destination for PROCINORTE

- a. The Geographic Focus is on strengthening the three countries, with outreach to other regions and some spillover effects when possible.
- b. The Main Thematic is on agricultural research & innovation, moving towards trans-border plant and animal health research, food safety and capacity building for trade, environment, biotechnology and other themes as appropriate
- c. PROCINORTE should be proactive but react to emerging issues when necessary if the mechanism is effective (a proactive plan for reactive events).
- d. Financing of PROCINORTE should be based on the implementation of a realistic financial growth strategy based on a compelling Business Plan for the next three years.

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- e. Organizational Structure. Enhanced senior policy involvement from the member countries in PROCINORTE depends on the success of the mechanism in demonstrating its relevance for the three member countries as highlighted in the Business Plan.

Core Competencies:

Viewed from the Stakeholder Perspective, this then allows the identification of the Core Competencies that PROCINORTE must have:

1. Collaborate in agricultural science across borders
2. Problem-solve on trilateral issues through scientific guidance
3. Help target agricultural research
4. Share knowledge, information and experiences with other countries and regions in LAC

Relevance and Pertinence of the Task Forces

As a request from Canada, the PROCINORTE BOD is called to review the membership, terms of reference (ToR), expectations, deliverables and budgets/approval process for the Task Forces with an aim to improve their work and relationship and support by PROCINORTE. The ToRs adopted by the Board of Directors in 2007 are presented in Annex 1.

The original Terms of Reference for the members of the Task Forces in light of the new proposed mission and perspectives of PROCINORTE (see below).

Annexes

Annex 1: Approved Terms of Reference for PROCINORTE members (2007)

PROFILE	APPOINTMENT	TERMS OF REFERENCE
<p>President of Board of Directors (BoD)</p> <p>Strong leadership, vision, and commitment; Good inter-personal relations and capacity to promote team work; High academic qualifications (PhD or equivalent experience) in agricultural or related disciplines, including policy or social sciences; Excellent command of English; knowledge of Spanish is desirable; Proven record in leadership and management of research and development programs or institutions; Preferably with decision-making capabilities to commit personnel and resources of her/his own National Agricultural Research System; Understanding of issues and awareness of global affairs that affect research in agriculture and natural resource management; Direct experience in research administration; Experience in raising funds for research and managing donor relationships; Ability to lead and work effectively with a diverse team of people of different national and cultural backgrounds in an international setting.</p>	<p>The President of the Board of Directors is appointed by consensus among the BoD members. Initial appointment will be for two years, with a possible extension for a maximum of 4 years.</p>	<p>Convenes and leads the BoD meetings; Establishes the agenda of Board meetings in coordination with the Executive Secretariat and chairs the discussions; Represents PROCINORTE on all relevant regional meetings (i.e. FORAGRO) and provides written reports to the BoD; Informs the BoD about the conclusions of the FORAGRO biannual meetings; Guides the liaison and coordination with other global, regional, and national agricultural research institutions; Exercises all the responsibilities of other Board of Directors members.</p>
<p>Board of Directors Members</p> <p>Strong leadership, vision, and commitment; Good inter-personal relations and capacity to promote team work; High academic qualifications (PhD or equivalent experience) in agricultural or related disciplines, including policy or social sciences; Excellent command of English; knowledge of Spanish is desirable;</p>	<p>Each member of the Board of Directors will be appointed by her/his government and will continue until the government names someone else. One among them can be elected by consensus to substitute for the President in her/his temporary or permanent absence, with the same functions.</p>	<p>Represent her/his country in all Board of Directors meetings; Establish PROCINORTE's regional research priorities; Review and give approval to the proposed Task Force budget request; Appoint representatives of their own country to the Task Forces; Prepare and monitor the annual Action Plan and corresponding budget; Supervise all PROCINORTE publications: annual reports, working papers, web site, brochures, studies and workshop proceedings, etc; Evaluate the Task Forces' performance and results;</p>

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PROFILE	APPOINTMENT	TERMS OF REFERENCE
<p>Proven record in leadership and management of research and development programs or institutions; Preferably with power of decision to commit personnel and resources of her/his own National Agricultural Research System; Understanding of issues and awareness of global affairs that affect research in agriculture and natural resource management; Direct experience in research administration; Experience in raising funds for research and dealing with donors; Ability to lead and work effectively with a diverse team of people of different national and cultural backgrounds in an international setting.</p> <p>Executive Secretary</p>		<p>Decide on the permanence of current Task Forces. Decide on the creation of new Task Forces and their mandates; Look for additional financial sources for the activities of the Task Forces; Establish guidelines, policies and, strategies for the activities and use of financial resources by the Task Forces.</p>
<p>Proven record in leadership and management of research and development programs or institutions, preferably with experience in National Agricultural Research Systems (NARS) and/or in multi-stakeholder programs; Good inter-personal relations and capacity to promote team work; High academic qualifications (PhD or equivalent experience) in agricultural or related disciplines, including policy or social sciences; Ability to communicate effectively with stakeholders of agricultural research, including National Agricultural Research Services, International Agricultural Research Centers, Advanced Research Institutions and the private sector; Excellent knowledge of English; competency in Spanish is desirable; Direct experience in research; A successful record in raising funds for research and experience in dealing with donors</p>	<p>The Executive Secretary will be appointed by the Board of Directors with an initial appointment of two years, with the possibility of extension up to a maximum of 4 years. The appointment is a half-time position, requiring an estimated 50% of the incumbent's work days over the course of a year.</p>	<p>The Executive Secretary is responsible for the efficient functioning of the PROCINORTE Secretariat and for coordinating the implementation of administrative, institutional and operational activities as approved by the Board of Directors. The Executive Secretary will establish and maintain close contact with the Board of Directors and Task Force leaders. With the support of the IICA offices in the member countries, the Executive Secretary will carry out the following tasks: Provide semi-annual reports to the Board of Directors on PROCINORTE matters and on the implementation of the annual Action Plan and budget of the Secretariat and the Task Forces; Organize and coordinate the Board of Directors' meetings; Act as Secretary to the Board of Directors meetings; Assist member countries to implement the annual Action Plan as approved by the Board of Directors and corresponding budget; Coordinate with the appropriate Task Forces to facilitate the implementation of joint activities as approved by the Board of Directors; Generate the annual Operational Program and budget for IICA; Integrate the semestrial and annual reports to IICA; Supply information to other global, regional, and national agricultural research institutions as well as IICA (such as: contribution of the</p>

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PROFILE	APPOINTMENT	TERMS OF REFERENCE
<p>Task Force Leaders</p> <p>Proven intellectual, managerial and technical leadership in the subject area;</p> <p>Good inter-personal relations and capacity to promote team work;</p> <p>High academic qualifications (PhD or equivalent experience) in the Task Force related disciplines;</p> <p>Demonstrated ability to collaborate with specialists in their own and other related disciplines;</p> <p>Experience in leadership, management and coordination of teams, and negotiating with senior government officials, international agencies and multilateral financing institutions;</p> <p>Experience in project formulation and knowledge of funding practices and requirements of relevant multilateral and bilateral funding agencies;</p> <p>Analytical skills as demonstrated through publication record in refereed, professional journals;</p> <p>Quality of both oral and written communication skills on technical issues, in English. Competency in Spanish is desirable.</p> <p>Organizes and leads the Task Force meetings;</p>		<p>Cooperative programs to the Executive Summary of Technology and Innovation of IICA, with the approval of the President of the BoD;</p> <p>Administer the PROCINORTE web site;</p> <p>Attend FORAGRO meetings, as part of the Technical Support Group of FORAGRO (GTAF);</p> <p>Coordinate cooperation and maintain regular contact with the other PROCIs in the Hemisphere and with the Global Forum on Agricultural Research, and report to the BoD on such cooperation;</p> <p>Represent PROCINORTE at meetings and in the elaboration of collaborative projects and proposals with national, regional and international institutions, as requested by the BoD or its President;</p> <p>Perform any other tasks assigned by the PROCINORTE Board of Directors;</p> <p>Facilitate and assist member country participants in carrying out the agreed collaborative activities.</p>
<p>The Task Force Leader is appointed by consensus among the Task Force members. Initial appointment will be for two years, with possible extensions up to a maximum of 4 years.</p>		<p>In addition, the Task Force Leader as national representative for his/her country has the same responsibilities as the regular Task Force members.</p>

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PROFILE	APPOINTMENT	TERMS OF REFERENCE
<p>Establishes the agenda in coordination with the Task Force members and orients the debates; Represents the Task Force in regional thematic meetings; Liases and coordinates with other related global, regional, and national thematic networks; Prepares the proposed annual Task Force budget and sends it to the Executive Secretariat for approval by the BoD; Coordinates, with the support of the Executive Secretariat, implementation of Task Force activities as approved by the Board of Directors; Coordinates the preparation of the annual Task Force report and presents it at the annual Board of Directors meeting;</p> <p>Task Force Members</p> <p>Proven intellectual, managerial and technical leadership in the subject area; Good inter-personal relations and capacity to promote team work; High academic qualifications (PhD or equivalent experience) in the Task Force-related disciplines; Demonstrated ability to collaborate with specialists in their own and other related disciplines; Experience in leadership, management and coordination of teams, and negotiating with senior government officials, international agencies and multilateral financing institutions; Experience in project formulation and knowledge of funding requirements of relevant multilateral and bilateral funding agencies; Analytical skills as demonstrated through publication record in refereed, professional journals; Quality of both oral and written communication skills on technical issues, in English.</p>		
<p>Task Force Members</p> <p>Proven intellectual, managerial and technical leadership in the subject area; Good inter-personal relations and capacity to promote team work; High academic qualifications (PhD or equivalent experience) in the Task Force-related disciplines; Demonstrated ability to collaborate with specialists in their own and other related disciplines; Experience in leadership, management and coordination of teams, and negotiating with senior government officials, international agencies and multilateral financing institutions; Experience in project formulation and knowledge of funding requirements of relevant multilateral and bilateral funding agencies; Analytical skills as demonstrated through publication record in refereed, professional journals; Quality of both oral and written communication skills on technical issues, in English.</p>	<p>Task Force members will be appointed by her/his government and will serve until the government appoints someone else. One among them can be elected by consensus to substitute for the Task Force Leader in her/his temporary or permanent absence, with the same functions.</p>	<p>Identify common research interest and regional priorities to be addressed by the Task Force within its mandate; Identify and recommend experts from their own country for involvement in particular Task Force projects or activities; Prepare and implement the annual Task Force Action Plan and corresponding budget; Prepare concept notes, briefing documents, technical papers for discussion and project proposals that relate to Task Force issues, provide updated information for the Task Force web page; Contribute to the preparation of the annual report of the Task Force; Implement Task Force research projects and other joint activities as approved by the Board of Directors; Facilitate the exchange of information among the Task Force members and with other regional thematic networks; Actively seek alternative funding sources for Task Force activities;</p>

Annex 2. Results from Task Forces Work Tropical and Sub-Tropical Fruits Task Force, compilation of results and Outcomes

Area	Activity	Outcome
Outreach	Development of a webpage. Output: a webpage providing technical and non-technical information to customers and stakeholders involved in tropical/subtropical fruit production, quality and safety was developed and is continually updated. The webpage is in three languages and contains over 45 presentations and publications made by members of the taskforce on various subjects related to fruit quality and safety.	Webpage serves as source of technical and popular information on of tropical/subtropical fruits to growers, packinghouse managers and consumers.
	Growers' Organizations webpage. Output: Task Force members have had several meetings with avocado growers and their organizations in Mexico since 2004. TF recommendations have been made not just to produce more fruit of superior quality but to improve their marketing protocols as well as to update their web pages to disseminate information on avocado and on recipes to eat them. Avocado growers put hands on this advice and webpages were updated.	The taskforce has been instrumental in providing recommendations to improve avocado grower's webpages to enhance marketing.
Research	Evaluation of carambola cultivars	Recommendations on adaptability of carambola cultivars to various agroenvironments were made and information is now available for use by Extension Agents and commercial growers.
	Evaluating avocado maturity using hyperspectral imaging	Results open the way to develop hyperspectral imagery instrumentation to determine avocado maturity non-destructively in the field.
	Evaluation of rambutan cultivars	Recommendations on adaptability of rambutan cultivars to various agroenvironments were made and information is now available for use by Extension Agents and commercial growers
	A commercial alternative to extend shelf-life of 'Maradol' papaya	This article shows that 1-MCP at 100 nl-liter-1 for 12 hours applied after ethylene may be a viable technique to manipulate the ripening process and to extend the shelf-life of 'Maradol' papaya.
	Effect of 1-MCP on maturation of Hass avocado fruits.	It was shown that 1-MCP at 100 nl-liter-1 for four hours helps to export 'Hass' avocado to Canada since it maintains quality and extends shelf life.
	Monitoreo de la calidad microbiológica de agua y superficies de contacto en empaques de mango para exportación	Sugiere el uso de los métodos rápidos de muestreos microbiológicos como una excelente alternativa para establecer controles para el monitoreo de la higiene durante el empaque de mango para exportación
	Relationship between chlorophyll fluorescence and dry matter content of 'Hass' avocado fruit	The results showed that chlorophyll fluorescence did not correlate with DM content of over-ripe avocado fruit. Efforts are underway to find out if fluorescence may be useful to predict legal maturity on unharvested 'Hass' avocado fruit.
	Effect of Harvest Time and Ripening Degree on Quality and Shelf Life of 'Hass' Avocado	Our results showed that there is no reason for Canadian retailers to reject fruit with blackened skin since fruit quality and shelf life were not affected by harvest time and degree of skin color.
Resultados preliminares sobre la técnica de fluorescencia de clorofila para determinar la madurez de cosecha en mango 'Ataulfo'	Los resultados preliminares mostraron que la fluorescencia de clorofila puede ser una técnica viable para establecer la madurez de cosecha en	

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	<p>mango 'Ataulfo', sin embargo, es necesario continuar con la investigación al respecto.</p> <p>Pese a que el rango de MS estuvo abajo y arriba del estándar de madurez legal ($\geq 21.5\%$), ninguno de los parámetros de fluorescencia correlacionó significativamente con el contenido de materia seca.</p> <p>La aplicación del 1-MCP a 200 ppb alargó vida de anaquel de frutos de diferente grado de madurez pero debe aplicarse en frutos de máximo dos días de corte.</p> <p>1-MCP in combination with hot water treatment for 5 min extended the shelf life for five additional days and may be a good alternative for markets not requiring quarantine hot water treatment.</p> <p>This study shows that 1-MCP may be a viable technique to manipulate the ripening process and to extend the shelf-life of jackfruit.</p> <p>It was shown that skin color was negatively correlated to pulp firmness but the overall fruit quality characteristics were not affected.</p> <p>1-MCP prevented the incidence of fungal diseases and extended the shelf life by six days. The effect of 1-MCP was stronger in fruits stored without refrigeration, especially in peel color change and weight loss as well as it maintained pulp firmness longer.</p> <p>1-MCP may be a viable technology for exporting 'Kent' mango to European and Asian countries by sea transportation, decreasing over mature risks at the end markets and decreasing shipment costs.</p> <p>1-MCP at 200 ml l⁻¹ showed its potential to aid in the exportation of papaya from Nayarit to Canada since it lengthened for six days the shelf life of papaya without affecting quality.</p> <p>La tecnología del 1-MCP coadyuvará a disminuir pérdidas postcosecha de aguacate en el mercado nacional y permitirá acceder a mercados internacionales como Canadá, Estados Unidos, Francia y Japón que están demandando cantidades importantes de este frutal.</p> <p>Over 200 professionals and growers trained in México and Guatemala</p>
	<p>Evaluación de la fluorescencia de la clorofila como alternativa para determinar la madurez legal en aguacate 'Hass'.</p> <p>Efectividad del 1-Metilciclopropeno (1-MCP) en frutos de aguacate 'Hass' con diferentes grados de madurez y días de corte</p> <p>Effect of 1-Methylcyclopropene (1-MCP) and hot water treatment on physiology and quality of 'keitt' mangos</p> <p>Effect of 1-Methylcyclopropene (1-MCP) on physiology and quality of jackfruit (artocarpus heterophyllus lam</p> <p>Relationship between skin color and some quality characteristics of exportable 'Hass' avocado fruits</p> <p>Effect of 1-Methylcyclopropene (1-MCP) on postharvest behavior of 'Hass' avocados.</p> <p>Effect of 1-Methylcyclopropene (1-MCP) on shelf life and quality of exporting mango.</p> <p>Improving shelf life and quality of 'Maradol' papaya with 1-Methylcyclopropene (1-MCP)</p> <p>Improving shelf Mejoramiento de vida de anaquel y calidad de frutos de aguacate 'Hass' con 1-Metilciclopropeno (1-MCP)</p> <p>Courses and Workshops to Professionals and Growers for increasing productivity of avocado.</p>
Training	
Publications	<p>Over 150 publications in peer reviewed journals, proceedings, technology transfer publications and book chapters as well as over 50 presentations in scientific meetings have been made on topics such as fertilization, post harvest physiology, irrigation, crop modeling, orchard management, flowering, entomology, etc.</p> <p>OUTCOMES: Results from the research help to fill the knowledge gaps on cropping management systems for tropical/subtropical fruit crops.</p>

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Agricultural Library and Information Services, Outputs and Outcomes, 1998 – 2009

Outputs

- Revitalized and established REMBA (RED Mexicana de Bibliotecas Agrícolas) now a sustainable network of Mexican agricultural libraries with a governing board, yearly elections and Normas Minimas. REMBA has become the institutional member of the Task Force
- Project funding (~\$500k USD) was received from CONACYT and UAAAN for the creation of a “National Science and Technology Information System for Rural Development”. Consortium licensing of six databases of electronic resources was purchased from major scientific and technical information (STI) publishers and 13 sets of computers and scanners were provided to members of REMBA that required such equipment for digitization. The grant has provided 6,500 researchers and librarians from 12 Mexican institutions with desktop access to full-text information representing a significant step forward in the transition to a digital library services model.
- Supported the creation a National Catalog of the holdings of agricultural libraries in Mexico using the SIDALC platform. Metadata records from 15 REMBA institutions and 22 databases are regularly uploaded to the National Catalog through the new online portal. As a result, records of libraries’ holdings are integrated and made available on the open Web through federated search. The records are also available through SIDALC, the union catalog of Latin American libraries.
- Supported capacity building among REMBA member institutions through workshops, training, working group meetings, internships and annual membership meetings. Library professionals were trained in a range of topics including: customer service, quality management and quality assurance; intellectual property; digital libraries and digitization; role of information in agricultural research and development; etc.
- REMBA members were trained on networking and future collaborations jointly with NAL-CAL and IICA.
- Distance Learning Curriculum. A team from REMBA member institutions, consisting of six information technology and management specialists, travelled to Costa Rica to receive training in locally managing the digital Catalog system and attend a digital libraries/repositories workshop. As part of the Workshop, a 5-week syllabus for the course “Construcción de bibliotecas y depósitos digitales agrícolas para México” was designed. Instructional materials are now being composed by REMBA members. A distance learning platform to support the course as well as future educational requirements of REMBA is under construction.
- CAL organized a 2-week internship for a Library Technician from Jamaica to receive training on databases, library operations and research techniques which was funded by IICA-Canada via the Research Internship Program.

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- CAL hosted two interns from Mexico who received training in various databases and had the opportunity to visit numerous Canadian libraries for the purpose of information sharing and knowledge transfer.
- NAL funded participation of UAAAN to a meeting of Agriculture Network Information Center (AgNIC). Training was provided on the developing AgNIC Portal of USDA publications.
- Established UAAAN as the depository of Agriculture & Agri-Food Canada (AAFC) and USDA publications and other sources of agriculturally-relevant information for use throughout Mexico. Over the last 10 years, UAAAN received AAFC print publications on an ongoing and consistent basis. NAL also sent USDA print publications (21 boxes) in the early years of the agreement and helped fund shipping costs and subscriptions before transitioning to digital access. Since 2002, a total of 547 volumes (72 titles) of surplus scientific journals were sent from CAL to UAAAN to complement and strengthen the collection.
- CAL makes available a list of Web links of existing electronic documents in its Agriculture and Agri-food Canada (AAFC) Online.
- NAL/AgNIC created a database of USDA digital publications as part of its contribution to the repository at UAAAN.
- Record titles for more than 2,000 USDA publications were translated into Spanish by UAAAN for addition into the AgNIC Spanish language database interface for USDA publications.
- NAL provided training to UAAAN library staff in the use of its new electronic document request and management system (Relais).
- Translations of several NAL Web sites into Spanish by UAAAN facilitated access to resources among Spanish-speaking populations in the U.S. and elsewhere.
- Hemispheric network partnerships were solidified through NAL and CAL linkages to the Agricultural Information and Documentation System for Latin America and the Caribbean (SIDALC) <http://orton.catie.ac.cr/> and by SIDALC being designated the Latin American and Caribbean node of AGNIC www.agnic.org.
- ARIEL software (CAL) training for UAAAN (Nuevo Leon/NAL) provided institutional capability to participate in electronic interlibrary loan and document delivery services.
- An inventory of REMBA member's equipment, software and training requirements was completed.
- UAAAN conducted a survey of REMBA libraries to further determine needs.
- REMBA website and listserv was developed.
- Promotional materials including a video, 6,000 brochures and 150 posters were published so REMBA can become more visible to Mexican authorities.
- REMBA Roadmap, an institutional map of new and potential REMBA members, partners and stakeholders is being built through the award of five internships throughout

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- Mexico. The online directory also will identify and provide access to institutions, services and websites related to agricultural information
- An agreement was put into place to provide access to AgriWeb, the national directory of Canadian agriculture and agri-food information resources available via the Internet, through the NAL AgNIC Web portal.
 - Google Books Project. Google and IICA signed a multi-client service agreement that will allow national partners like REMBA to get involved in the program to digitize library collections. The identification of REMBA member collections for potential digitization by Google will be an important activity during 2010.

Outcomes

- Advanced hemispheric access to agricultural information through greater availability of metadata from Mexico, strengthening print collections locally, and optimizing the use of technologies that allow access to multi-institutional information through a federated search interface.
- Greatly enhanced access to core journal literature and databases needed by researchers and librarians through licensing Web-based digital access to these resources.
- Facilitated cooperative interactions that enhanced access to information in the Northern Region.
- Improved institutional capacity to continue to transition to a digital library services model that provides customers-driven products and services and delivers research-based information to the desktop.
- Improved sharing of information among NAL, CAL, and REMBA institutions through multi-institutional collaborations in information access and delivery.
- Raised brand awareness and profile of REMBA among decision-makers, partners, stakeholders, and end users.



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Genetic Resources Task Force Activities 2009

- NORGEN funds supported the participation of two curators, Drs. Filiberto Herrera Cedano and Jorge Carlos Berny Mier y Teran, from INIFAP (Mexico) genebanks in the U. S. National Plant Germplasm System's (NPGS) 3rd Curators Workshop in Atlanta and Griffin, GA 2-5 February 2010. The two curators met U.S. counterparts, presented information about Mexico's genetic resource program, and received prototype versions of the NPGS's new GRIN-Global germplasm information management system for testing in Mexico.
- NORGEN funds will support the participation of Mexico's NORGEN representative, Dr. Candelario Mondragon Jacobo, in the annual meeting (27-29 July 2010) of the NPGS's Plant Germplasm Operations Committee (PGOC). Dr. Mondragon will meet U.S. and Canadian (Agriculture and Agri-Food Canada) counterparts, and deliver a presentation on "Genetic Resources in Mexico: the cultivated perennials connection."
- Supported by NORGEN funds, during October or November 2010, INIFAP germplasm curators plan to travel to the NPGS genebank in Ames, IA for further instruction in the GRIN-Global information management system, so they can implement it in Mexican genebanks. Similarly, Agriculture and Agri-Food Canada genebank staff plan to travel to the U.S. either in late 2010 or early 2011 to learn the new GRIN-Global system and implement it in Canada.

Annex 3. The Strategic Plan Methodology

Many variants exist for guiding strategic planning. Most are variations of very similar processes, mostly different in levels of complexity. Nevertheless, one of the innovations in strategic planning methodology over the last two decades has been the development of the “Balanced Scorecard Approach.” This has been incorporated as the basic building block for the preparation of the PROCINORTE Strategic Plan 2010 – 2013.

The Balanced Scorecard approach was developed in 1987 by a consultant for a computer chip manufacturer, and in 1996 two Harvard Business School professors (Robert Kaplan & David Norton) disseminated the methodology in their publication, *The Balanced Scorecard*⁵. By 2000 the Balanced Scorecard approach was being used widely by strategic planners around the world.

This new approach can be adapted and summarized in the following diagram describing “the strategic planning continuum”

This document incorporates all the steps of the Strategic Planning continuum from “Vision” to “Designing the Strategic Map.” Once “Designing the Strategic Map” is complete, it will be possible to proceed with “Developing the Business Plan.”

The management literature is full of definitions of mission, values, and vision, and a very diverse perspective on which should be defined first, and how. For the purpose of this document these terms are defined as follows:

- Vision:** The picture or image the organization has of its “perfect world”.
- Values:** The beliefs or parameters that will be used to guide decision-making in the organization.
- Mission:** What the organization intends to do to reach (or at least get much closer) to its Vision.

The balanced scorecard is an analytical tool to help an organization define the main actions it needs to focus on. This is divided into four “perspectives”.

- Financial perspective:** Developed initially for the private sector, the financial perspective emphasizes measures on return on investment, sales growth, profit margin, etc. Over time, this measure was adjusted for the non-profit sector, with a focus on acquiring the resources necessary to meet the mission of the organization.
- Stakeholder perspective:** For the non-profit sector, the stakeholder perspective is seen as the main focus for assuring success. The key task is identifying those key activities that the

⁵ *The Balanced Scorecard: Translating Strategy into Action*, Harvard Business School Press, Boston (1996).

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stakeholders (i.e. donors, beneficiaries, the staff of the organization) consider most basic and essential for the organization to perform well.

Internal Business Perspective:

This perspective focuses on the internal procedures and management processes the organization must do well.

Innovation and Learning Perspective:
learn

Addresses the issue of how the organization is going to and improve over time.

Annex 4. Designing the Strategic Map

The final step in this modern approach to strategic planning is designing the Strategic Map. “Strategic Mapping summarizes how an organization intends to create sustained value for its stakeholders.”⁶

The Strategic Map summarizes the organization’s strategic plan .

With the definitions and summary analysis to date, and the decisions made by the PROCINORTE BOD at its annual meeting during November 2009, it is now possible to construct the PROCINORTE Strategic Map.

The first step is to insert the PROCINORTE Mission Statement, followed by the Core Competencies as defined by the Stakeholder Perspective.

The key actions that are necessary for success can then be inputted for the other levels of the Balanced Scorecard Approach; Internal Business Perspective, the Innovation and Learning Perspective, and the Financial Perspective.

In essence, the PROCINORTE Strategic Map becomes The Strategic Plan for PROCINORTE. The value of using this methodology is that:

- Key actions are clearly identified.
- The relationship between different key actions is clearly articulated
- The clutter of lengthy justifications and explanations is discarded in favor of very summary targeted actions.

Identifying Core Competencies

A Core Competence is a task the organization MUST do well to satisfy its stakeholders. For a non-profit organization, the Mission Statement and the Stakeholder Perspective provide the key information necessary for identifying the Core Competencies the organization requires.

⁶ Kaplan & Norton, *Strategy Maps; Converting Intangible Assets into Tangible Outcomes*. Harvard Business School Publishing, 2004