MÉXICO
GOBIERNO DE LA REPÚBLICA

SAGARPA
SECRETARÍA DE AGRICULTURA, GANADERÍA, DESARROLLO RURAL, PESCA Y ALIMENTACIÓN

National Agrologistics Program

1 Executive Summary

FOOD & BIOBASED RESEARCH
WAGENINGEN UR

MÉXICO

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National Agrologistics Program

Report 1

Executive Summary

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In the name of Wageningen UR Food & Biobased Research team,

Peter Ravensbergen

TABLE OF CONTENTS

Mexico enjoys all the conditions that are needed to become one of the leading countries in the export of agri-food products

1 Introduction

The goal of the National Agrologistics Program is to define public policy measures that contribute to accomplish the potential of exporting agro-products, which will result in a transforming legacy for the sector. The horizon of this Program is the year 2030[1].

1.1 Key points of the National Agrologistics Program: Working Guidelines, Budget and Impact

The Program Working Guidelines are:

1. A public policy framework with an overall view, that coordinates the actions adopted by the relevant departments towards an integrated territorial development, synergetic investment programs and efficient use of resources
2. A legal framework that prioritizes quality and ensures the fulfillment of safety requirements
3. The infrastructure required to enable production, transformation, transport and distribution of agri-food products
4. Attractive business models for all the chain actors, which make investments viable
5. An innovation circle based on training and knowledge production

The budget needed for the first stage of the Program is:

The investment allocated to implement the first stage of the Program, defined until 2018, is estimated to be approximately $5,000 million MXN[2].

[1] The Secretary for Agriculture, Livestock, Rural Development, Fishery and Foods (SAGARPA) has entrusted Wageningen UR to prepare the Report regarding the National Agrologistics Program. This took place between November, 2013 and August 2014.

[2] The budget for Stages II and III, until 2030, shall be defined in due course.

The impacts generated by the Program in its first stage are expected to be:

1. In terms of the losses and waste reduction
    - A reduction of postharvest losses and waste in order to recover 4% of the product:
        - In the export chain, a 33% losses and waste reduction for an amount of $11,168 million MXN
        - In domestic market chains, 10% losses and waste reduction for an amount between $34,300 and $58,200 million MXN
2. In terms of the foreign trade assistance
    - A 25% reduction of waiting time at customs, which results in lower logistics costs for exporters and importers
    - An increase in exports of the 50 main products up to 10%, which equals $29,600 million MXN
3. In terms of multiplier effect of investments
    - An economic benefit that would amount to $11,800 million MXN
    - The generation of 9,000 new jobs
    - The conditions created to receive foreign direct investment
    - A leverage ratio of one to one in private investment; i.e., one peso of the private sector for each peso of the public sector in constructing assets and investment in logistics services
4. In terms of capacity development
    - The training and education of producers in agrologistics and businesses shall reach 28,000 Rural Economic Units (REU) by means of the partnership program
    - The investment of $900 million MXN in training extension shall train 350,000 producers
    - The investment of $17 million MXN in scholarships for Postgraduate Degrees in Agrologistics
    - The provision of $64 million MXN in research and development by the Mexican Institute for Agrologistics
5. In terms of reliability and safety
    - The signing of mutual recognition agreements with USA, Asia and Europe for 50 products as a result of quality standards and traceability systems
    - The reduced costs equivalent to 1% - 1.5% of total sales in the sector by reducing insecurity by means of joint Government measures
6. In terms of better planning and coordination of infrastructure development
    - A bigger refrigerated storage capacity and infrastructure of the chains through the coordination of the National System for Agroparks
    - A more efficient use of the National Infrastructure Program's investment in roads, ports and multimodal improvements ($252,000 million MXN) of the National System of Logistics Platforms
    - The creation of clear and transparent operating rules to direct private sector resources to be invested in agrologistics assets

1.2 About this Executive Summary

Additionally to the introduction, this Executive Summary has been divided into three sections. The first one, **Where are we?**, summarizes the main conclusions of the Diagnosis Report. The second one, **Where do we want to go?**, contains a summary of the Strategy Report, describing the program's Vision, its working guidelines and actions to make it reality. And, lastly, **How shall we do it?**, summarizes the 2018 Roadmap, defining the actions in full detail, including an indicative budget and a work agenda/ calendar.

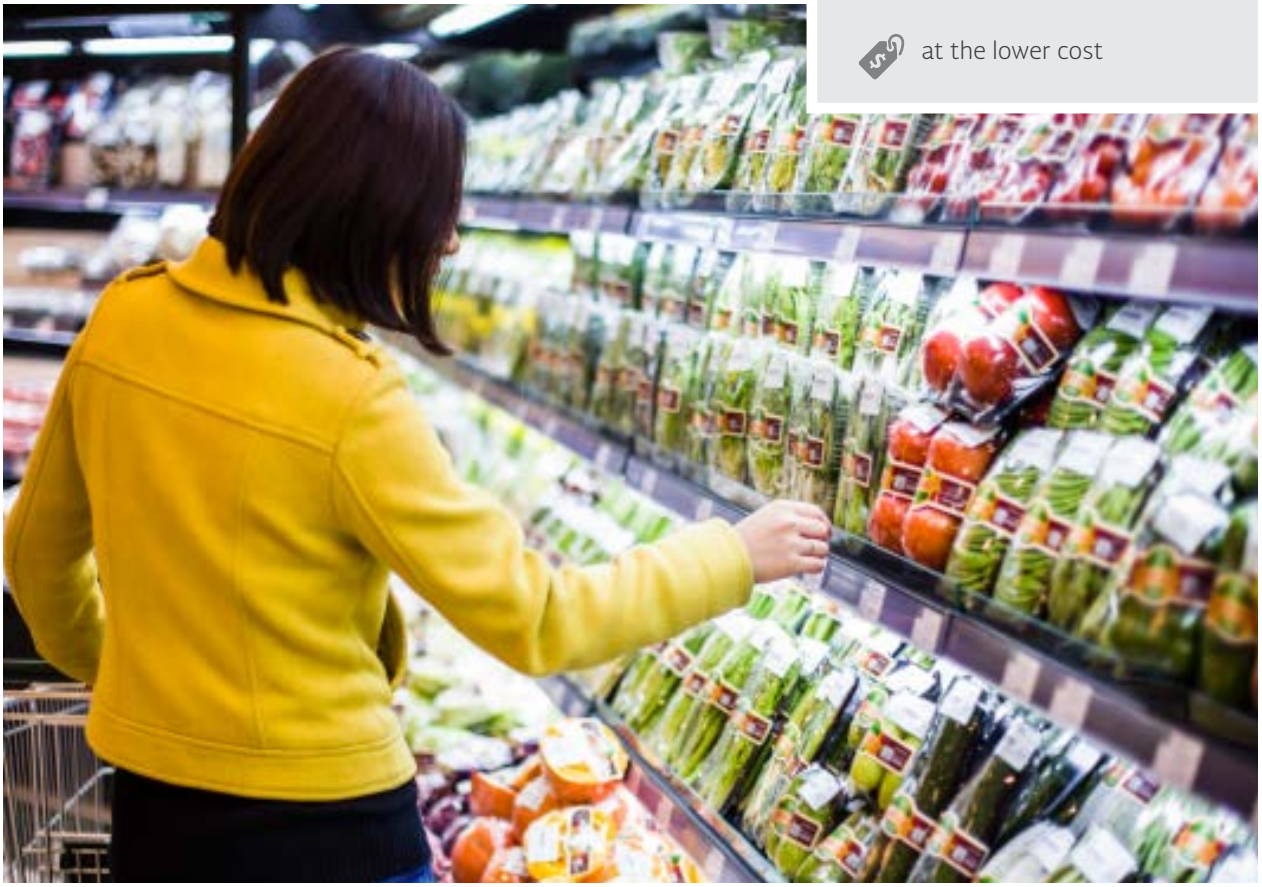
1.3 What is agrologistics?

Agrologistics is a relatively recent field that includes all the activities in a supply chain that are necessary to allow that the offer of farm products may meet the market's demand for those products[3].

Agrologistics may be considered a sub-discipline of logistics specifically focused on the agri-food industry. Its scope involves all those agents that are responsible for producing (farmers and producers), processing (agri-food industry), and distribution (shippers, services providers and traders).

Agrologistics pursues:

- the correct product
- at the correct place
- at the right moment
- meeting correct quality specifications
- at the lower cost

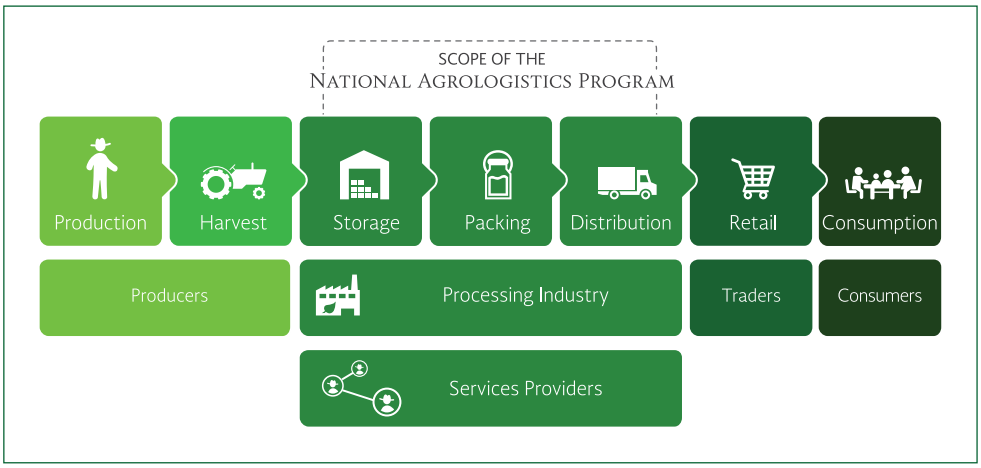


[3] Van der Vorst, J.G.A.J., Snels, J. , Developments and Needs for Sustainable Agrologistics in Developing Countries, Multi–Donor Trust Fund for Sustainable Logistics (MDTF–SL). Position Note on Agrologistics, WorldBank, 2014.

1.4 Scope of the National Agrologistics Program

The scope of the National Agrologistics Program includes all of those activities that take place after the products have been harvested to their delivery to the retailers. Additionally to the agencies of the Government of Mexico, the direct agents of the program are the processing and services industries, and indirectly, producers, retailers and consumers.

Figure 1.1 Scope of the National Agrologistics Program



National System for Agroparks and National Agrologistics Program

The National System for Agroparks, published in the Official Gazette of the Federation on December 2103[4], is a main component of the Agri-food Productivity and Competitiveness Program whose mission is to foster the development of facilities such as agri-food storehouses, packing and processing plants.

These facilities are to be located in the same regions that produce and export food products that require postharvest handling in order to promote focusing on a regional corporation cluster, articulating productive conglomerates and linking small producers with integrating corporations in order to reach more and higher yielding markets. The territorial distribution of these agroparks, carried out in such a way for them to be complementary, shall contribute to promote balanced regional development. Currently, there are 3 agroparks pilot projects in various phases of development in Aguascalientes, Nayarit and Chiapas.

The National System for Agroparks may be considered to be part of the National Agrologistics Program that focuses on the process of building agroparks or other agrologistics assets related to postharvest handling. The System foresees resources for diagnostic and executive projects, as well as to complement the investment needed to develop the agroparks, and the investment in equipment for the corporations and entrepreneurs installed in these agroparks.

The System is expected to consolidate the value chains; promote development of suppliers and services agents, as well as to foster new development clusters.

The National Agrologistics Program will in addition to its focus on the proper infrastructure of the National System for Agroparks provide a more complete framework that includes institutional aspects, business and operating models, and the generation of knowledge and innovation applied to Agrologistics.

Working Guideline 3 of the National Agrologistics Program, “Planning and construction of Agrologistics and multimodal assets in strategic locations” includes the scope of the National System for Agroparks. The System also foresees economic support through corporate funding, promotion of a business model based on demand, advantageous and open to all the parties involved. This corporate funding could be essential to provide these small enterprises with the use of the facilities to be built under the National System for Agroparks.

[4] DOF: 18/12/2013 – Operating Rules for the Agri-food Productivity and Competitiveness Program

1.5 Alignment of the National Agrologistics Program with the National Development Plan

Themes of the National Development Plan: Inclusive Mexico and Prosperous Mexico

The actions of the National Agrologistics Program have impact on two of the themes of the National Development Plan, as follows:

Inclusive Mexico: Through the reduction of food losses and waste and reducing logistics costs, increasing food security.

Prosperous Mexico: By increasing the competitiveness of the agri-food sector through support to agroparks, regulations for quality and safety, support of the logistics infrastructure and cold chains, as well as innovation and training directed to the agrologistics process.

In particular, the Prosperous Mexico Axis strategies, related to the proposed Program are as follows:

- Strategy 4.2.4. Expand access to credit and other financial services, through the Development Bank, to economic actors in priority strategic sectors.
- Strategy 4.2.5. Promote the participation of the private sector in infrastructure development, articulating the participation of state and municipal governments.
- Strategy 4.7.3. Strengthen the system of standardization and evaluation in accordance to the rules.
- Strategy 4.9.1. Modernize, expand and maintain the infrastructure of the different modes of transport as well as improve their connectivity under the strategic criteria and efficiency.
- Strategy 4.10.1. Boosting productivity in the agri-food sector by investing in the development of physical, human and technological capital.
- Strategy 4.10.2. Boost partnership models that generate economies of scale and higher value-added producers in the agri-food sector.
- Strategy 4.10.5. Modernize the regulatory and institutional framework to foster a productive and competitive agri-food sector.

The actions proposed in the National Agrologistics Program are fully aligned with the strategies of the Sector Program for Agricultural Development, Fisheries and Food[5], which are included in the themes of the National Development Plan. It is advisable to carry out the following key points:

- The National Agrologistics Program is a **methodology** to implement the Sector Program, and therefore the National Development Plan
- The National Agrologistics Program does not propose to invest in additional shares, which pose a distraction from the framework of the already existing public policies. On the contrary, it is designed to promote the coordination of numerous agencies within and outside of SAGARPA, and create the **synergies necessary to ensure that resources are used more efficiently**
- The Program seeks to **increase the effectiveness** of public policy to generate a **greater competitiveness** of agri-food chains, always in accordance with the views of the National Development Plan and the Sector Program

[5] The main pillars of the Sector Program for Agricultural Development, Fisheries and Food related to the National Agrologistics Program are: (I) To increase the productivity of small farms through associative models (cluster) and the integration of the supply chain; (II) To stimulate innovation, applied technology development and technical assistance with new extensionims mechanisms; (III) To promote the production of healthy and safe food, and (IV) To promote regional development, agroparks and strategic projects. Annex 1 lists the different strategies of the Sector Program that are directly related to the Working Guidelines and actions of the National Agrologistics Program.

2 Where are we?

Our diagnosis reveals that the initial situation of the agrologistics sector in Mexico may be summarized as follows: Mexico produces low added value perishable products and delivers these products to local markets and the United States using trucks as main transport means.

The passage from this situation to another one that may fulfill the sector's potential entails many different dimensions. Achieving this change will imply that all agri-food chain agents will have to remove certain obstacles. This is why the methodology of this diagnosis has included different elements. These include (1) an analysis of supply and demand; (2) a product-market analysis; (3) an analysis of the physical infrastructure; and (4) a consultation process with the main actors.

Mexico produces low added value perishable products using trucks as main transport means

Conclusions of diagnosis

1. Coordinate the integration of the National Agrologistics Program (Programa Nacional de Agrologística) at the federal, state, and regional level, with the participation of the public and private sector in a high level group
2. Create market access programs by promoting cooperative models and added value facilities (i.e. agroparks)
3. Invest in creating a continuous cold chain: through cold storage programs and refrigerated rooms for border inspections.
4. Introduce refrigerated containers (reefers)
5. Improve connectivity between multimodal transport systems to decrease logistical costs, i.e. uninterrupted seaport-railway-roadway connections and maritime shipping for short distances[6])
6. Align customs and inspection processes at seaports by improving the Single Window and condensing it to one review process and one inspection.
7. Incorporate risk based inspections and a certification system so that third parties can perform the inspections at production zones so commercial goods can pass through the border without further review.
8. Create a program that incorporates information and communication technology and standardization for the traceability of goods.
9. Combat insecurity in transport through a specific agenda against robbing and illegal selling of stolen goods in roads and railways.
10. Propose an education and training agenda to create new talent in agrologistics

[6] The infrastructure program of the current administration implies developing an improved national network of highways and roads, as well as other transport projects destined to make Mexico a first class logistic platform. It is expected that the greater share of this plan's investment shall come from public and private associations (PPP), and may signify about $100 billon USD in the next 5 years. The projects include 60 new highways (16 toll highways, 29 freeways, and 16 rural roads), 3 passenger railways, 7 ports and 7 airports. According to Transport Secretary Officers, the budget for roads for the six years of the current administration shall be 36% greater than the one of the previous government. This expenditure shall not only be destined to build more infrastructure but also to maintain its quality especially in the main agrologistic roads of the country or at least those that transport products with greater value.

2.1 Supply and demand

The increase in urban population is causing grocery stores and economic restaurants or public markets to lose market participation while supermarkets grow, although this trend varies per region.

Also growth of the middle class is changing the food demands. While the preference for corn tortilla decreases, the demand for pasteurized cow milk, beef and prepared foods (jams, flauta rolls, hot dogs, soups, tacos, etc.) increases. This is particularly relevant in Mexico, in which households spend 25% of the annual income per capita on food, a high expenditure compared to other countries. In general, households with lower income spend a higher proportion in food. The products to which 80% of this expenditure is destined are: breads and cereals, meat, dairy products, mineral water and vegetables. Nevertheless, there are significant differences between the rural and urban households. For example, consumers in urban areas spend more on meat and less on breads and vegetables.

International trade is also creating new challenges for agrologistics since it demands animal products with higher added value. In this sense, if Mexico does not adopt international standards, trains its personnel and improves the cold network, it will still have a limited role compared to producers in South America, North America, Australia and New Zealand. Making these changes would allow the country to export and reduce some of its main imports of animal products (beef and dairy products) simultaneously.

Mexico has a significant international potential in fast-growing products, such as fresh high-quality fruits and vegetables, a market currently ruled by developed countries because of efficiency, technology and regulations in developing countries. Export markets that grew faster between 2008 and 2012 are asparagus (fresh and frozen), which grew 121%; strawberries (fresh and processed), which grew between 57% and 64%; nuts, which grew 264%. Other products of lower volume but fast growth include cauliflowers, broccoli, carrots, and kohlrabi or kale. A clear area of opportunity is where price differentials are favorable to Mexican exports such as cauliflower, broccoli, asparagus, peppers, sausages, grapes, lemons, dried lima and fresh berries.

2.2 Agri-food supply chains

Our study of the agri-food supply chains has been carried out through a methodology that combines product and market. This consists of analyzing products that are representative of the classes of vegetables, fruits, dairy products, beef, grains, fishery and processed foods, taking into account the needs of the specific markets to which they are directed (See Table 2.1). The study leads to the conclusion that these changes must be wide ranging and deep, within the following terms:

- In terms of **product**, it is necessary to increase the quality of the products that arrive to the point of consumption, their added value, and regional specialization
- In terms of **market**, it is necessary to produce what is to be consumed, considering habit changes, and deliver the products to the consumers, wherever they may be, which implies improving their access to international markets
- In terms of **transport**, it is essential to achieve a continuous cold chain and capitalize on the opportunities that other means of transportation have to offer, such as railway or sea transport, expecting that the diversification may also contribute to reduce costs
- In terms of **organization**, it is necessary to coordinate the efforts of the public institutions at all levels as a condition to ensure an effective participation of the private sector

Table 2.1. Main needs revealed by the product-market analysis

Roma/Saladette Tomatoes	Berries	Cultivated shrimps	Pork	Pasteurized fresh milk	Yellow corn	Fresh vegetables, washed and chopped (Salads and vegetables ready-to-eat)
United States	European Union	National Market	Japan	National Retailers Sales	Imports from the United States	National Market of high level
1. Organize small producers in associations to achieve economies of scale 2. Localize the consolidation points closer to the main markets, relating exporters with big clients 3. Improve lead times and freight costs, for example, with inspection and certification in origin programs; improve Single Window operations at border crossings 4. Improve the quality of the highway infrastructure in Northwest of Mexico, connect the Pacific and Atlantic coasts and ensure safety in main export routes	1. Integrate small producers to the export chains 2. Train the producers in order to comply with all European Union market requirements. Promote cooperation among producers to implement certification schemes 3. Improve cooperation between the federal government inspection institutions and maintain a regular contact with the governments of importing countries 4. Maintain the cold chain and packing network during shipping maneuvers, shortening transport times from farm to packing station times to 15 minutes 5. Consolidate cargo and provide maritime routes and adequate areas for this type of product	1. Integrate the producers to the consumers market by means of organizations of producers that process, pack and trade their products 2. Adjust production to consumption patterns. Currently, the aquaculture systems are not based on Lent, Christmas and New Year to program their sales, which could mean obtaining higher prices 3. Plan and budget with the long term in mind (e.g. 25 years in the United States) to establish a cold chain	1. Align inspections at border crossings 2. Have sufficient refrigerated containers since the lack of them at exporting ports increases logistic costs 3. Reduce delivery times to shippers. While the mean delivery time from Hermosillo to Osaka is 21 days and 17 days to Yokohama, it only takes 3 days to the United States 4. Integrate the small and medium corporations to the chain of exports, that are composed of vertically integrated corporations (from production to marketing also passing their processing and packing)	1. Support dairy farming cooperatives in order to reduce costs 2. Evaluate the program for milk collecting centers (Livestock Services Centers) installed in 2012, through which small dairy farmers (with 15 to 20 cows) can deliver their raw milk to be refrigerated centrally 3. Diversify the production of dairy products and milk substitutes to add value to the production 4. Improve the highway infrastructure that connects producing areas and milk processing facilities	1. Support the diversification of buying corn and better cover the shortage risk by means of financial instruments, the consumption of different types of corn (searching for competitive prices), and the import of other markets such as Brazil and South Africa. 2. Conduct a pilot project to exploit the containers that return empty to the United States 3. Increase the efficiency and capacity of railway infrastructure to give better service to domestic products and station operation so that they can manage train carousels	1. Extend and improve the highway infrastructure and ensure round the clock safety on the main trading routes 2. Introduce a new Food Legislation similar to the General Food Legislation of the United States in order to simplify their compliance 3. Carry out a business case for a chain of exports covering fresh, cut and clean vegetables for the United States market, followed by a pilot program

2.3 Physical infrastructure

Mexico's investment in transport and communications infrastructure between 1992 and 2011 was 1.1% of its GDP, well below its trading partners and competitors[7]. This low investment is quite visible in the overall conditions of the infrastructure and of the agrologistics infrastructure in particular.

High dependence on road transport, which has to face unsatisfactory conditions. Near 80% of food is shipped via the road system (except for grains which are mostly transported by railway). Road transport in Mexico is more costly than in other countries; for example, about 50% higher than in the United States. This is due to different aspects. The radial pattern of the highway network in the center of the country weakens east-west and north-south interconnections. Lack of highway connectivity in regions such as Sinaloa, Durango, the coasts of Jalisco, Michoacán, Guerrero and Oaxaca increases distances and raises freight costs. The lack of safety entails high insurance premiums, as well as the use of alternative routes to avoid unsafe areas. These adverse highway conditions, of which only 36% are paved, generate additional expenses to the shippers due to greater mechanic maintenance operations. These deficiencies increase the prices of the products between wholesale markets and consumption areas.

Very few ports are prepared for agrologistics. Those terminals that are specialized in loading and unloading containers and cold storage installations are scarce, where only the ports of Manzanillo, Lázaro Cardenas, Veracruz, Altamira and Ensenada are capable of handling agri-food commerce. The rest of the ports operate with semi-specialized terminals (known as multi-purpose) and conventional terminals to handle shipments. The inspections of the different authorities are scarcely coordinated, producing delays in merchandize crossing times, which are substantially higher than those of the OECD countries. Connectivity between the port infrastructure and the railway system is inadequate overall.

One of the main challenges of the ports in Mexico is their scarce association with other international markets[8]. While no Mexican port links Asia with Europe, regional competition increases, with logistic centers being built in the Dominican Republic and studies carried out for a second channel between the Atlantic and the Pacific in Nicaragua.

The railway system is scarcely connected with other transportation means. Although the freight railway system has grown 90% these last 15 years[9] and the railways have become the backbone to the development of the grain supply chain, signifying 24% of total railway freight, the lack of cold storage capacity and cold inspection installations undermine its potential to ship fresh products.

There is a low number of intermodal railway centers, especially in the south, and a lack of alternative lines to change cars really limits connections with sea-borne and highways means. Additionally to the lack of connectivity, the main challenges include low speed (estimated to be 30 km per hour) caused by inefficient crossing of urban areas, outdated regulations and lack of signposts.

Air-borne transport is used scarcely in agrologistics. In Mexico, the volume of products shipped by airplanes is practically zero. Among the greater challenges facing airway freight is the saturation of the main airports, especially in Mexico City, the wear and tear of the infrastructure, and scarce regional connectivity.

[7] Official Gazette of the Federation, Tuesday April 29 2014 (National Infrastructure Program) extracted from the International Transport Forum of the OECD, a document of IHS Global Insight and McKinsey & Company.

[8] National Development Plan 2013-1218.

[9] OECD (2014), "Peer Review of Railway Freight Development in Mexico. Report of the International Transport Forum", February, 2014. International Transport Forum, OECD, February 2014. http://www.internationaltransportforum.org/jtrc/peer-review/mexico-freight-rail.pdf

2.3.1 Storage and cold chains

Cold storage capacity in Mexico is low compared to other countries[10], and its price is higher[11]. These weak points explain why nearly 50% of perishable food products are transported without any refrigeration. Lack of investment in the cold chain contrasts with growth expected for refrigerated freight, which indicates that their volume will grow from $75 billion USD in 2011 to $157 billion USD in 2017[12]. In countries such as India, the value of the cold chain sector has grown 18% in the last three years, foreseeing to reach a value of $10 billion USD in $2016-17[13].

In terms of the operation of the logistics centers, overcoming hindrances such as lack of standardization of technical specifications in warehouses, absence of records regarding quality of stocks, and lack of possibilities to perform transactions based on credit (which can be carried out in other countries and sectors[14]) shall foster the development of a cold storage network.

For these to be feasible, investments in cold storage must be supported by an increase in the offer of cold freight. Although in the last 5 years greater storage capacity has been installed, this has not provided more market participation in relation to the products shipped. Lack of refrigerated freight is an obstacle for the feasibility of storage assets. The market quota of refrigerated shipment in trucks have not grown during the last 10 years, signifying between 6.8% and 7%[15] of the total shipments transported through highways.

[10] The refrigerated storage capacity in Mexico is 4 million m3, while in Brazil it is 5.7 million m3, in Japan it is 34 million m3 and in China it is 61 million m3. Source: Global Cold Storage Capacity Report, 2010, by Victoria Salin, Texas A&M University, for the International Association of Refrigerated Warehouses.

[11] For example, 41% higher than the United States for cold shipments of tomatoes.

[12] Global Cold Chain News, March 24 2014, available at: http://www.iifiir.org/clientBookline/recherche/NoticesDetaillees.

[13] Global Chain News. Indian cold chain grows at 20% a year. August 15, 2014. available at: http://www.globalcoldchainnews.com/?p=11910

[14] According to the Association of Agriculture Secretaries on a State Level, while in the United States it is possible to purchase up to 30% of maize from a storehouse with differed payments using letters of credit at LIBOR rates, in Mexico 100% of the purchase must be paid cash. This statement emerges from two interviews held 5 years ago by IMCO with the then president of AMSDA, Octavio Jurado, and also reflects the position of the National Chamber of Industrialized Maize of Mexico.

[15] SCT 2013.

2.4 Consultation Processes

Part of the diagnosis stage, the consultation processes consisted of many interviews with crucial agents[16] to identify opportunities, weak points and barriers to overcome. In addition to its value as a source of information, the importance of the process has led to the first step toward the creation of the Leadership Group.

Mexico has a poorly exploited natural potential. Its advantages include a diversity of climates and therefor production, which can be specialized according to different regions. For example, productivity does not go together with the significant amount of resources in the south area. Mexico's geographic situation is unrivalled, facing the Atlantic and Pacific oceans, bordering to the north with the biggest customer, the United States, and enjoying the possibility of being the gateway to the rest of Latin America to the south.

A suitable governance system is crucial to the success of the Program. 36% of those interviewed pointed out that governmental promotion is critical to the development of the Program's agenda. Leadership and availability of a Vision established jointly are requirements that will allow design and implementation measures, as well as to maximize efforts.

Those who were interviewed understand that a suitable governance system needs inter-institutional conditions at all government levels to promote coordinated agrologistics projects, preventing that different states may compete with a same project, preventing redundancies that are expensive but lead to nothing; an integrated public investment policy that may allow private sector investment to be aligned properly; public-public coordination between customs authorities and those that perform other inspections to overcome border-crossing restrictions; a regulatory system to promote export of these products; the determination of goals and indicators to measure results; and a change of focus from "green votes" and subsidies, which have accustomed the producer to depend on the government, toward a transforming project based on efficient exploitation models, that may allow the farmers to remain in the countryside.

The interviewees consider that with political goodwill, a suitable institutional structure that may catalyze the development of agrologistics, and strong alignment between what is demanded and what is produced, the financial sources will appear naturally.

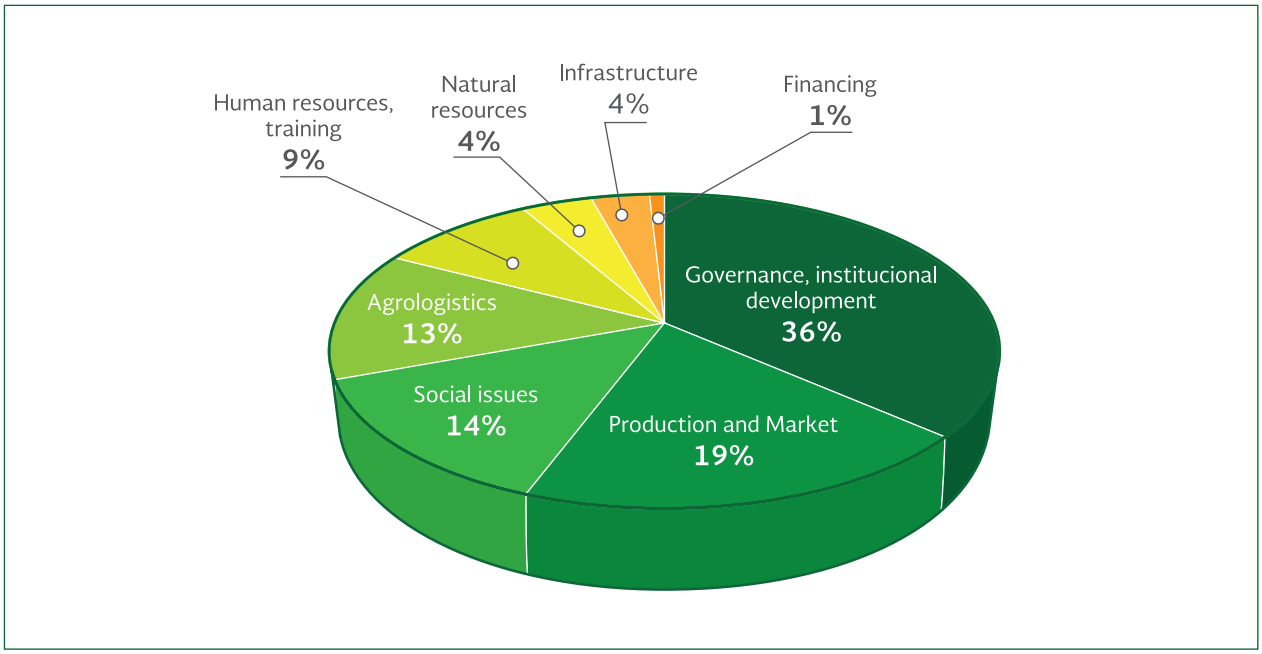
Leadership Group

The Leadership Group, convened by SAGARPA, includes executives from main public and private institutions that are part of Mexico's agri-food value chain. The goal behind the creation of this group is to involve all interested parties from the Program's beginning, foreseeing that this early participation shall facilitate implementation and continuity of the policies, which will allow to:

- Forge common understanding of the challenges facing Agrologistics in Mexico
- Create a sense of shared ownership with the National Agrologistics Program, and ensure a consensus regarding the Vision that shall guide the Program's design and execution
- Establish the background to create a forum to discuss and adopt decisions

[16] These include SAGARPA, ARE, SCT, ASERCA, National Agricultural, Rural, Forest and Fishing Development Financing, FOCIR, FIRCO, FAO, CONAGUA, BID, WEF, CNA, COLPOS, IMCO, IICA, INEGI DF, PROMEXICO

Figure 2.1 Topics indicated in the interviews



Lack of knowledge about the market and production polarization is an obstacle found at the chain's origin. The small producers, that handle 75% of producing units, find it difficult to understand the market. This is due to their lack of aggregation in small units, lack of business abilities including negotiation and information to adopt decisions, scarce added value and irregular product quality, hardly adaptive methods, and an aversion to change, as well as absence of incentives and training to implement those changes. This lack of connection between the producers is augmented by poor cooperation habits, diversity of interests and fragmented land ownership. Wider scale producers, belonging to large corporations, employ innovative value aggregation and generation methods and have their own distribution channels.

Lack of infrastructure and storage and freight services raises transaction costs. The freight system is based mostly on a "man-truck" structure that is highly inefficient. 50% Of trucks ride empty; transportation time, toll ways, insecurity, geographic conditions and design of the highway and railway network, mainly with lines of north to south render communications weak with high freight costs. Exploitation of railway and sea transport is scarce. Lack of basic storage and freight infrastructure makes the logistic chain poor. High transaction costs mean that product prices are impacted by logistic inefficiencies.

Key points extracted from the interviews

1. Leadership. Institutional coordination and impulse are crucial. This requires creating traction in the different Ministries involved, establishing a compromise to commitment and identifying "champions" in each of them.
2. Participation. The National Agrologistics Program is not only a government initiative. In order to articulate a shared Vision it is necessary to include in its preparation those agents that are going to implement it.
3. Transparency. The Program must contribute to preventing arbitrary decisions. Establishing a direction and certain common reference points based on evaluation methods, the Program can reduce arbitrary localization of projects.
4. Confidence. The Program must contribute to generating credibility in a widely polarized sector. It must take into account all the realities and sketch a scenario where the sectors involved may perceive benefits, thus requiring continuity of the policies and a change of culture processes.
5. Information. Information is an instrument for competitiveness. The Program must lay the foundations to create information and traceability systems that may benefit all the links of the chain, from producer to consumer.
6. Reality. Share the points of view of producers and services providers. For the Program to be realistic, it should be designed considering the conditions and opportunities that work day in day out in the sector.
7. Competitive infrastructure. The Program must contribute to reduce the sector's logistic costs. Assisting logistic efficiency by supporting multimodal infrastructures, shipment consolidation systems, and better postharvest handling practices, simplifying paperwork and integrating services of the chain.
8. Value. The Program must reflect the sector's most innovative added value creating trends. It must consider best quality practices and propose a qualitative jump toward the future.
9. Training. The Program must capitalize improvement opportunities for traditional farming sectors. Improvement of productivity and conditions of the small producers (called strata E1 to E3 in the FAO scale, signifying 81.3% of all productive units) constitutes an impressive opportunity for Mexico. To these ends, it is necessary to build capacity based on specific programs that may enable their change from producers to entrepreneur.
10. Clarity. The Program must articulate clear messages and goals. On a strict technical basis, the Program must use a universal language to enable communications with the widespread range of the sector's players, as well as with public opinion.

3 Where do we want to go?

In order for the National Agrologistics Program to contribute effectively to the goals of national interest, it is necessary to establish a long term Vision.

Since the Program shall demand coordinated efforts from the different agents that sustain the agri-food sector, this Vision will serve as a reference to adopt measures and coordinate them between the components of the agri-food value chain.

This Vision has been designed following a consultation process led by SAGARPA, which has invited the representatives of a comprehensive array of agrologistics key players to become part of the Program's Leadership Group.

A shared Vision is essential for the Program's success, since it:

- Defines the final desired condition, as well as the values that will guide its decisions
- Is a milestone for a change with continuity
- Is a reference to define policies and projects
- Is a tool for inclusive leadership as well as to multiply the involvement of the agents who shall implement them

3.1 Vision Workshop

The goal behind the creation of the Leadership Group and the Workshop was to involve all the stakeholders from the Program's same origin, based on the belief that this collaboration will foster implementation and continuity of the policies.

Summoned by the Secretary of SAGARPA, more than 60 representatives of key agrologistics players participated in a symposium held on May 22, 2014. During the Workshop, the participants were assisted by a team of national and international experts, who submitted their preliminary findings for the diagnosis stage, a series of success factors related to international agrologistics programs and projects, and the first draft of a Vision for the Program.

The Leadership Group worked in different panels, each one assessing a collective Vision and focusing on one of these success factors per panel. With this contribution, the following declaration of Vision for the Program was adopted.

The Vision of the Program is the result of the joint efforts of the Leadership Group

To become a world leader in export of agri-food products by the year 2030

In realizing this Vision we will be abide by the following values and principles:

- Promote high quality and high value agri-food products at a competitive price, for both the domestic and external consumers.
- Minimize food losses and waste to help enhance food security, economic productivity and environmental sustainability.
- Engage stakeholders in the agri-food chains in decision making to promote equity and justice, making globalization work for all Mexicans.

The declaration of Vision was the result of the efforts of the following entities:

- Presidency of the Republic
- Ministry for Agriculture, Livestock, Rural Development, Fishery and Foods (SAGARPA)
- Ministry for Communications and Transportation (SCT)
- Ministry of Economy (SE)
- Ministry for Finance and Public Credit (SHCP)
- Ministry for Agrarian, Territorial and Urban Development (SEDATU)
- Ministry for Environment and Natural Resources (SEMARNAT)
- Ministry of Energy (SENER)
- National Service of Agro Alimentary Health, Safety and Quality (SENASICA)
- Agency for Trading Services and Development of Agricultural Markets (ASERCA)
- Promotion of Mexican International Business. Investment and Trade (PROMEXICO)
- Trust Funds for Rural Development (FIRA)
- The Capitalization and Investment Fund for the Rural Sector (FOCIR)
- Shared Risks Trust (FIRCO)
- National Agricultural, Rural, Forest and Fishing Development Financing
- Inter-American Development Bank (IADB)
- Inter-American Institute for Cooperation on Agriculture (IICA)
- Food and Agriculture Organization of the United Nations (FAO)
- World Economic Forum (WEF)
- Mexican Association for Agricultural Development Secretaries (AMSDA)
- National Association of Importers and Exporters of the Mexican Republic (ANIERM)
- National Association of Supermarkets and Departmental Stores (ANTAD)
- National Association of Private Transport Agents (ANTP)
- Mexican Association of Shipping Agents, AC. (AMANAC)
- Mexican Railroad Association (AMF)
- General Warehouses Association, A.C. (AAGEDE)
- National Confederation of Supply Center Traders Agrupation, A.C. (CONACCA)
- Federal Regulatory Improvement Commission (COFEMER)
- Confederation of Customs Agent Associations of the Mexican Republic
- Confederation of Industrial Chambers of the United States of Mexico (CONCAMIN)
- Confederation of Associations of Customs Agents in the Mexican Republic (CAAAREM)
- National Agricultural Council (CNA)
- Association of Postgraduates (COLPOS)
- Autonomous University of Chapingo (UACh)

3.2 Indicators to measure the Vision

In order to measure how the Vision is being implemented, this report determines to achieve being among the top **10 counties with the greater export value** and among **the 20 countries with best logistic performance**[17] as a leadership position.

Table 3.1. Measurable goals to achieve the Vision

Vision	Current Situation	2018	2024	2030
"To become a world leader in export of agri-food products by the year 2030"	20th place in export value	18th place in export value	15th place in export value	Among the top 10 exporters in the world
	50th position in the LPI index	40th position in the LPI index	30th position in the LPI index	Among the top 20 in the LPI index

3.2.1 Export values

According to the data of 2013, Mexico is placed in position number 20 among the countries with greater agri-food product export values. These exports are currently valued in $24.5 billion USD. The growth rate of these exports has been 8.5% per year since the year 2000.

In spite of this growth, Mexico has dropped from position 16th in 2000, to 17th in 2005, and even further to 20th in 2013. The growth of export values of countries such as India (11% in the period of 2000 and 2005 and 22% between 2006 and 2013), Malaysia (11% and 14% in the same periods) and Poland (27% and 15% in the same periods) is one of the reasons for Mexico's descent in the ranking. Moving up the classification requires additional effort. Doing nothing means that Mexico will continue to descend.

Based on estimations of Wageningen UR Food & Biobased Research (FBR)[18], assuming constant conditions for all countries, Mexico would be placed in 2030 among the 10 countries with the greatest export value (in 2030), if it grows at an average of 10% annual ratios. This would be an outstanding challenge, but there are certain records of countries that have achieved annual growths significantly greater than this value. In addition to the before mentioned countries, for example, Brazil reached a mean increase in the value of its exports between 2000 and 2005 of 19%, which helped it to jump from position 11 to 6; and between 2006 and 2013 it was 13%, that enabled it to move from the 6th to the 4th position in the ranking of the top exporting countries.

If Mexico can grow a mean annual 10% until 2030, it could be among the 10 countries with highest export value

[17] Logistics performance measured by the Logistic Performance Indicator (LPI) index developed by the World Bank.

[18] Estimation prepared by FBR based on UN Comtrade data (consulted on 08/04/2014) and summarized according to the Standard International Trade Classification (SITC) for International Trade

The goal of the National Agrologistics Program is to further increase agri-food products export in 2030 up to at least $80-100 billion USD. United States is the main export market for Mexico, with fruits and vegetables as the most exported products, with a current participation of Mexico's products in the United States' market of 31% and 66% respectively. This market share must increase, in the case of fruits reaching 50%, resulting in a growth of export value of $3.2 billion USD today to $7.3 billion USD; and vegetables, reaching 75%, which means a value growth of $4.5 billion USD today to $8.2 billion USD.

There are ample opportunities to develop new markets in Europe and in Asia. This opening is important to diversify export markets, but their contribution to the absolute value of exports is limited compared to exports to the United States.

The Vision execution requires maximizing the opportunities of export to United States

3.2.2 Logistics Performance Index (LPI)

Mexico is currently ranked 50 in the LPI. While Mexico's performance has improved in the last years, the performance of other countries such as Argentina, Vietnam, Lithuania, Panama and Greece, located around position 50, has been even better. Particularly relevant is the case of Panama, who competes with Mexico to become the benchmark logistics provider in the Americas.

According to LPI, the indicators that impact the Mexico's performance, and therefore those to be improved in first, are customs procedures (70th position), inefficiency in locating and tracking logistics (55th position) and low quality of infrastructure (50th position).

According to the World Economic Forum (WEF) and to Baine Consultancy, if each country improves its logistics performance in two of their main obstacles within the supply chain taking it to an average position according to global best practices, the global GDP could increase by almost 5% ($2.6 billon USD) and exports by 14.5%. While this estimation is general and has been performed on a global level, it can give an idea of the positive consequences that logistics performances could have for exports.

A better logistics performance is particularly crucial for the perishable products due to their high logistics costs and short shelf life

3.3 What is needed to achieve this change?

Implementing the Vision Program requires changes at several levels, such as achieving operating coordination between public departments and ensuring continuity of policies, as well as training for each agrologistics chain agent. Based both on this diagnosis and on the Vision, it is possible to establish the following essential changes:

Public-public alignment is a priority requirement. Furthermore, if the relevant Ministries are not coordinated fully, the Program will not be executed, since many of the working guidelines need simultaneous and organized actions from different Ministries.

Promotion from the Office of the President would be essential to coordinate the Ministries effectively and continuously. For example, a Specialized Cabinet for Agrologistics (based on the previous Tourism Cabinet) may gather the Undersecretaries of the different Ministries involved in developing framework agreements regarding Agrologistics related policies and resources, including sufficiently ample executive terms, preferably linked to the horizon of the Vision. The Ministries or agencies that may be involved are (but not limited to):

- Ministry of Agriculture, Livestock, Rural Development, Fishing and Food (SAGARPA)
- National Service of Agro Alimentary Health, Safety and Quality (SENASICA)
- Ministry of Economy (SE)
- National Directorate of Standards
- Ministry of Communications and Transportation (SCT)
- Ministry of Finance and Public Credit (SHCP)
- Tax Administration Services (SAT)
- Ministry of Agrarian, Territorial and Urban Development (SEDATU)
- Ministry for National Defense (SEDENA)
- Government Secretary (SEGOB)

The Specialized Cabinet is a first and essential step towards the creation of the National Agrologistics Council

The Specialized Agrologistics Cabinet is a necessary step toward the creation of the National Agrologistics Council (*See Working Guideline 1*). Additionally, the public sector's capacity to be strongly coordinated in Agrologistics issues is essential to achieve efficient collaboration with the private sector.

Tourism Cabinet [19]

Within the framework of the launch of the National Tourism Policy, President Enrique Peña Nieto promoted the creation of the Tourism Cabinet with the purpose of articulating all the plans, measures and budgets that have a direct impact on the tourism sector. Its goals are to:

- Coordinate the measures of the federal agencies, by means of eight work groups.
- Streamline, rationalize and increase the use of the public resources destined to the tourism sector.
- Consolidate the National Tourism Policy as an essential means for the growth and development of Mexico's economy.
- Incorporate the initiatives and opinions of the private agents and of the social sector to its sectorial policies

The ten permanent members of this Tourism Cabinet are: Ministry of Tourism (SECTUR), as the Technical Secretary; Government Secretary (SEGOB), Ministry of Foreign Affairs (SRE), Ministry of Finance and Credit Public (SHCP), Office of the President of the Republic, Ministry of Environment and Natural Resources (SEMARNAT), Ministry of Economy (SE), Ministry for Communications and Transportation (SCT), Ministry of Agrarian, Territorial and Urban Development (SEDATU), and the Legal Council for the Federal Executive of the CJEF.

In addition to the 12 government agencies, the private sector and the civil society are invited.

The private sector has to "talk with one voice". Under the umbrella of the "private sector", agrologistics can encompass producers of all sizes, developers and operators of agrologistics assets, food product industries, shippers and logistics operators, investors, distributors, and insurance companies among other providers of services. In meetings held by the National Agrologistics Council, issues referred to only one link of the chain are to be outweighed by the extensive array of activities that the private sector carries out. As in the previous section, the impulse received from the Office of the President shall be crucial to allow that the different agents of the private sector may sit at the Sectorial Working Table where the goals and means of operation are to be aligned. This is also a necessary step to make the National Agrologistics Council operative. It would be recommendable that incentives for the private sector become be part of the sectorial table.

It shall be crucial that the different private sector agents sit at the Sectorial Working Table where the goals and means of operation are to be aligned

Continuity of policies. The explicit will to transform the country's agrologistic issues is an effort that will demand several six-year periods. If during the current legislative period the institutional foundations are established and their implementation ensured, it will be possible to achieve results in the two following administrations, towards 2030. The Program needs an effective governance framework that may allow coordinating policies and resources with other departments, state governments and entrepreneurs. Creating an agenda based on consensus shall enable a focus on productive incentives instead of subsidies.

An explicit will to transform the country's agrologistic issues is an effort that will demand several six-year periods

[19] Fuente: Presidencia de la República. http://www.presidencia.gob.mx/que-es-el-gabinete-turistico/ Consultado el 20 de Agosto de 2014.

Ensure quality. The task of complying with an increase in exports must begin by ensuring product quality in order to comply with target market regulations. The role of these regulations is essential to ensure quality, as well as the re-design of inspection procedures so that these do not hinder the product's quality during its transport and delivery to the consumers. Giving priority to quality will have a highly positive effect on reducing losses and waste and therefore on food safety.

Promote the development of an agrologistics infrastructure. Building agrologistics assets such as stockpiling centers or agroparks is an important effort, but they are worth nothing if they do not function as a whole, or we find them detached from the distribution centers and without any feasible transportation options that may safeguard product quality. It is therefore necessary to move from isolated projects to systemic projects[20], thinking of the chain as a system and avoiding adopting decisions based on non-technical criteria. Planning, investing, building and operating based on agri-food clusters and corridors, in line with the National Development Plan, and grouping those investments as infrastructure to be executed by the different agencies and government levels are important steps to create a competitive infrastructure.

It is necessary to pass from isolated projects to thinking of the chain as a system and avoid adopting decisions based on non-technical criteria

Develop a connected corporate network that is associated to the market. Knowing what to produce in order for it to be sold in the national and international markets requires information and production and distribution capacity. It will be difficult to achieve the goals if a majority of producers work alone, detached from the economies of scale and export chains. Promoting small producers to transform into corporations, encouraging them to create suitable association models, shall create the critical mass of exporters that these goals need.

It will be hard to achieve the goals if the majority of producers work isolated, staying away from economies of scale and export chains

Establish the basis for innovation and added value. Achieving and maintaining a leading position in the competitive agrologistics environment requires practical and forward thinking skills. This double dimension implies the need to train the chain's agents in such a way that each of them may operate their link good as possible, based on practical training modules, created where they are needed; and creating an array of academic programs that may elevate agrologistics to a scientific level, which generates researchers who will drive innovation.

[20] For example, in 2012, the Ministry of Communications and Transportation and the Ministry of Economy together with the Inter-American Development Bank issued a report describing the National System of Logistic Platforms. The report identifies 85 logistic centers and proposes installing 3 new food logistic centers (CAL) and 6 agroparks. The institutions involved are working to develop an institution that may implement the 6 agroparks. It would be invaluable for the National Agrologistics Program that, by means of a pilot project of the first food logistic center, a platform to manage the other CALs and the 6 agroparks may be designed.

Clusters[21]

The clusters have been a useful tool to improve agrologistics coordination and integration in specific locations. This is why the National Development Plan pursues to create agri-food clusters. One of the advantages of having the 'aggrupation' based in Mexico is that the agricultural sector has organized itself as from 2002 by means of specific Committees related to the production and trade of products (Product System Committees, CSP). This has led to producers and authorities considering other ways to add value to the products and improve their logistics. There are currently more than 460 CSP across the whole country.

The problem with the aggrupation's policies created by the public sector is that they were not designed necessarily to service the markets. A recent study carried out by the FAO comparing 7 agri-food clusters in Mexico reveals how some were created to service the needs of the market while others were promoted by the policies of certain authorities.

The clusters promoted by export criteria have returned better results than those promoted by the policies of certain governments. This happens because the latter tend to have conflicting goals such as the eradication of poverty and an increase in supply chain efficiency and marketing problems.

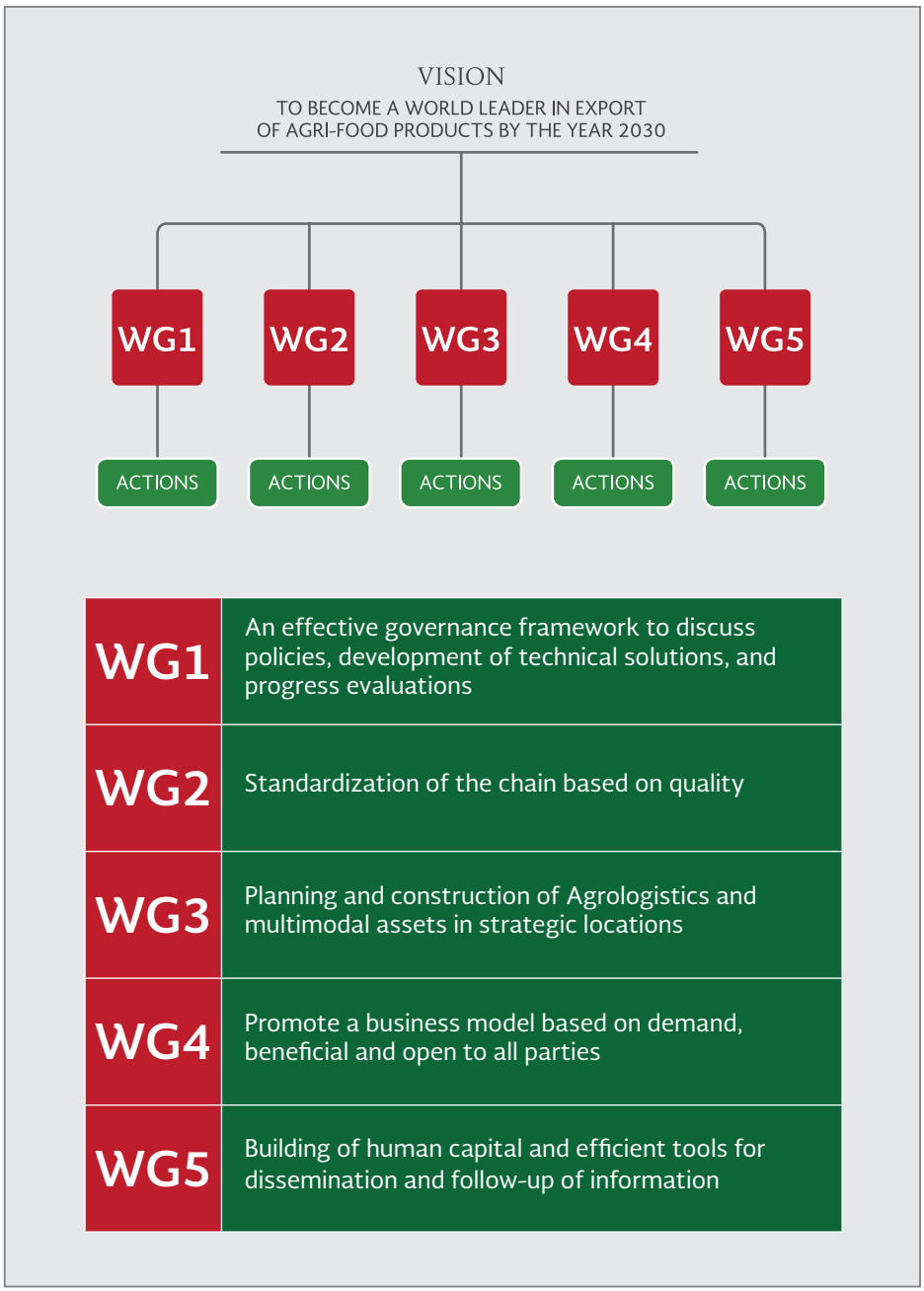
According to the study, the clusters' success depends on their investment in public assets, such as: rural infrastructure, food safety standards and controls; research; creation of technical and negotiating skills for small producers, as well as coordinating and cooperating in mechanisms to reduce transaction costs.

Clusters may have various territorial forms, such as those concentrated around a node, or those that extend down an axis, all of which form Agrologistics corridors.

[21] Villarreal, R., (2009) Cluster: Un Modelo de Asociatividad y Competitividad Sistémica en la Cadena Global de Valor. CreateSpace Independent Publishing Platform.

3.4 Actions to implement the Vision

The changes required by the Vision of the Program shall be promoted by means of five Working Guidelines (WG), according to the dimensions identified in the previous point, and therefore derived from the diagnosis conclusions, the success factors of different international experiences and the specific success factors for the Program. For each Working Guideline three actions are identified and will lead the Vision to the practical field, two in the short-term and one in medium-term. These Working Guidelines and actions are described in the Strategy Report and detailed in the Roadmap.



WG1 An effective governance framework to discuss policies, development of technical solutions, and progress evaluations

1A. Establish the National Agrologistics Council
1B. Establish a Technical Agrologistics Secretary
1C. Create a Control Panel to inform and evaluate

An effective governance framework is characterized by its ability to combine interests when designing policies, knowledge of how to translate them into appropriate technical solutions, and proficiency in improving plans and projects based on the evaluation of their performance. The goal of this Working Guideline is to achieve institutional coordination needed for effective decision-making during the start-up stage of the Program.

Expected results

1A. Establishing the National Agrologistics Council in the first quarter of 2016, after a 12 month dialogue process led by the Office of the President, with the Ministries, involved government agencies and representatives of the private sector convened in a Sectorial Working Table. Between 2016 and 2018, the Council will guide the Program's progress in each of its areas and evaluate investment proposals by the Agrologistics Fund.

1B. Establishing the Technical Agrologistics Secretary in the first quarter of 2015. The Secretary will have the mission to coordinate all technical jobs related with the implementation of the Working Guidelines. It shall report to the National Agrologistics Council and prepare quarterly and biannual reports for the Congress and the Specialized Cabinet.

1C. Creation of a Control Panel for Agrologistics. The Control Panel will contain the necessary information to evaluate logistical performance of the agri-food sector in general and track the progress of the Program in particular. The design will be finalized in 2015 and the measuring and obtaining of information will be done in 2016. The Board will be available to the private sector in the first quarter of 2017. It will be comprised of 2 types of information. In the first place, information about route options and logistics' costs (Listings of logistical service businesses and possibility of cost estimations and times); availability, prices and refrigerated storage location, inspection and verification points location along the chains, with the possibility to estimate transit times. In second place, information about management and decision making of the private sector comprised of 6 types of indicators compatible with the LPI index and developed by the World Bank.

Establishing the specialized Cabinet and Sectorial Committee are the first activities that would be of vital importance for the National Agrologistics Council to fulfill its mission

WG2 Standardization of the chain based on quality

2A. Create a pre-approval system at points of origin or consolidation of the chain based on risk management

2B. Standardize the quality of packaging and traceability systems

2C. Develop a standardization strategy

The objective of this Working Guideline is to improve and harmonize the legislation and standardization of the agri-food chains. Remodeling of the laws and standards around quality and food safety is key to improve performance of chains and reduce logistic costs. These improvements are also essential to achieve the mutual agreements with America, Asia and Europe so that countries in these regions, facilitating the access to these markets, recognize the certificates of products given in Mexico. The Program establishes the standardization of 50 priority products that can adhere to those agreements between 2015 and 2018.

Improving quality will allow greater food safety, as well as reduce waste, and render higher margins

Expected results

2A. New regulation for sanitary inspections based on risk management. It includes the establishment of agreements between the Tax Administration Services (SAT), Ministry for National Defense (SEDENA), National Service of Agro Alimentary Health, Safety and Quality (SENASICA), Ministry of Health (SALUD), and Ministry of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), for joint-inspections and pre-approval systems in points of origin or consolidation by authorized third parties. This action will create fewer inspections and make them more relevant. Possible breaks of the cold chain shall be reduced, all of this resulting in better quality and product safety. The proposed regulation will be designed in 2015 and will present itself for adoption in the first quarter of 2016.

2B. Adoption of packaging standards and quality traceability by the main trading partners of Mexico, among them a universal tagging system with GS1 traceability. The implementation of the tagging project is scheduled for 2016.

2C. Harmonization of national schemes for the certification and evaluation of the conformity of quality and safety standards, so that they can be recognized internationally. This action includes:

- New regulations for 50 priority products (10 to 15 regulations per year)
- Support in establishing a public-private network of reputable laboratories in charge of issuing certifications

Agrologistics assets and their functions

- **Collection centers,** which need to be located as closely as possible to the producers. This proximity is critical for product pre-cooling after it is packed and before being shipped. The existence of inspection facilities will help significantly to keep the continuity of the cold chain
- **Agroparks**, which integrates productive, transformative, management and inspection functions and depending on their logistic location can also harbor logistics consolidation and distribution functions
- **Distribution and consolidation centers**, in the proximity of large metropolitan areas in order to serve the domestic market
- **Multimodal nodes,** where freight is transshipped, including storage and handling in order to aggregate or disaggregate volumes. These will benefit from a location near the consumption areas or the corridors between production and consumption areas
- **Export points,** such as ports, airports and border crossings for rail or road transport

	Collection centers	Agroparks	Distribution centers	Multimodal nodes	Export points
Production		✓			
Cold storage	✓	✓	✓	✓	✓
Packaging	✓	✓			
Processing		✓			
Inspections and certification		✓			✓
Consolidation		✓	✓	✓	✓
Distribution		✓	✓		

WG3 Planning and construction of Agrologistics and multimodal assets in strategic locations

3A. Prepare a comprehensive master plan, including project prioritization

3B. Develop the building design and development and management models for Agrologistics and multimodal assets

3C. Develop and implement framework agreements with state governments

The goal of this Working Guideline is to better use public resources by defining and planning effective agrologistics infrastructure projects and the design of public-private participation schemes for their design and financing. This will allow optimal territorial distribution of the assets, and, being encouraged by certainty, an increase in private investments to create large-scale assets, under proper operating rules.

Expected results

3A. The elaboration and adoption of a Comprehensive Master Plan for the development of agrologistics assets. This Plan should create the improvements required in key port and transport infrastructure, like asset classes to develop along the chains: collection centers, agroparks, distribution centers, multi modal nodes and points of export. The identification of corridors, demand centers, productive areas and its deficiencies in connectivity, will be essential criteria for the prioritizing of products that can benefit with resources from the Agrologistics Fund of the National System for Agroparks. The Plan will be developed in 2015 and 2016.

3B. The development of standards for executive projects required in the construction of assets. These standards will include procedure manuals and guides for the defining of participation schemes for developers, investors and users. These works will be developed parallel to the Comprehensive Master Plan throughout 2015 and 2016.

3C. Collaboration agreements with state governments to promote support for common objectives and facilitate the execution of large-scale projects.

The National System of Agroparks together with the National Agrologistics Program focuses on the process of building Agroparks or other Agrologistics assets

WG4 Promote a business model based on demand, beneficial and open to all parties

4A. Multiply investment resources through special purpose entities and the Agrologistics Fund

4B. Encourage business models and associations of small producers

4C. Establish auditable and transparent processes

The objective of this Working Guideline is to promote investments in the agri-food chain, through the financing of infrastructure, association or service projects and that they in turn benefit along with the businesses that supply and make up the chain. The main instrument is the creation of the Agrologistics Fund and the design of Special Purpose Entities (EPE) to direct this investment. Yet, an incentive program is scheduled for organizations to group together small-scale suppliers, and the design of transparent processes for awarding resources and contracts that generate more trust in investment.

The Program must offer opportunities from the economic point of view for all interested parties

Expected results

4A. Create the Agrologistics Fund in the first half of 2015 with contributions of public funds of about $2,400 million MXN in 4 years. Facilitate private investment by means of Special Purpose Vehicles. The participation of private investment is expected to be increased in a 1:1 relation with respect to public investment.

4B. Regional integration of small and medium agri-businesses in legal or trading entities, which will allow them to access the supply chain. The expected result is an increase in participant's income and a better training in postharvest handling and conformation to demand. An investment of approximately $900 million MXN in induction programs is expected in order to reach 25,000 and 30,000 Rural Economic Units (RUE) from strata E3 (in transition) and E4 (companies with fragile income) in 4 years.

4C. Establishment of transparent and easily audited processes in the framework of the National Agrologistics Program. Systemization of processes for the disposition of resources and service contracts related with the Program is expected, so that they will guarantee the correct allocation of contracts and ensure the quality of work. A greater level of trust in investment generated through transparency in public spending is expected.

WG5 Building of human capital and efficient tools for the dissemination and follow-up of information

5A. Establish a modular training program based on Extensionism Networks

5B. Establish an inter-sectorial commission for supervising postharvest losses and waste

5C. Create an Agrologistics Network of Excellence for postgraduate studies and innovation

The objective of this Working Guideline is the investment in human capital and the knowledge transfer for greater competitiveness of the sector in the postharvest stage. The objective will be achieved by means of three concrete actions: establish an Extensionism Network to train producers and agricultural entrepreneurs, create a monitoring commission for postharvest losses and waste in collaboration with SEDESOL and the National Crusade Against Hunger, and invest in a functional network of postgraduates that offers specialized training in agrologistics.

To achieve sustained competitiveness, knowledge must be transformed into applied innovation

Expected results

5A. Training in agrologistics and supply planning matters of 350,000 Rural Economic Units, which equals 25% of the E3, E4 and E5 strata in 4 years. Offer a certification scheme of producers for their integration into supply chains.

5B. Measurement and supervision of losses in the postharvest stage, through work in conjunction with technical groups of the National Crusade Against Hunger. The Program as a whole foresees a reduction of 10% of current losses in the internal consumer market in the first 4 years, estimated at 40% for perishable goods.

5C. Include Agrologistics as one of the priority subjects of National Council of Science and Technology (CONACYT). Creation of a network for programs and specializations in agrologistics in universities. Allocate $64 million MXN in applied research and $17 million MXN in study scholarships. This action also considers the creation of the Mexican Institute for Agrologistics (IMA) as a center for innovation and collaboration with businesses.

4 How shall we do it?

A transforming public policy initiative such as the National Agrologistics Program cannot be built in one day. Its implementation requires sustained leadership, coordinated measures and allocation of resources for several years.

In this Program the horizon is shaped by the Vision designed for 2030. But it is worth noting that to achieve the 2030 Vision we must start acting now. This doesn´t mean to rush to nowhere; quite the opposite, since bringing these actions without a connecting order only leads to a waste of public funds.

During the course of this work, the importance of "landing" this program has been highlighted. The analogy holds good in this case. The program has to move from a 10,000-meter altitude perspective to ground level. However, landing means following a series of protocols that enables steady dropping until the plane is ready to land. Abrupt maneuvers would only end in a crash. In the National Agrologistic Program's case, the "landing protocol" is the Roadmap that establishes the stages, specific measurable goals, defines responsible agents, and measures the required times and resources for the first 4 years of implementation.

To achieve the Vision in 2030 we must start acting now

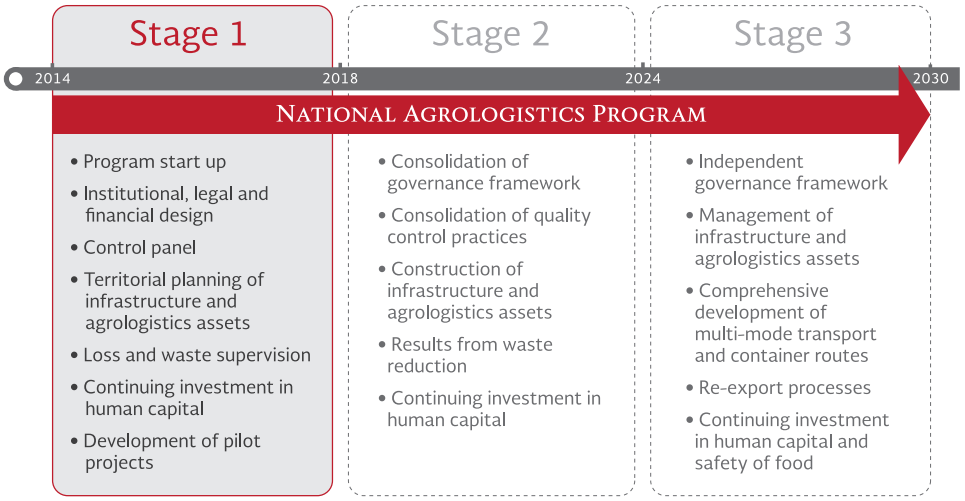
4.1 Stages of the National Agrologistics Program

Stage I, for the period 2014-2018, is the starting stage. At this stage the institutional alignment, legal framework review, territorial planning of infrastructure and agrologistics assets shall be completed. A certain amount of pilot projects will be launched, which shall help to speed up the Program's implementation as well as generating activity inertia to cement its continuity.

Stage II, in the 2018 and 2024 period, is the adjustment stage and national level implementation. Execution and evaluation of pilot projects shall help to adjust some policies when needed as a step towards their large-scale implementation. At this stage, success rests on the continuity of the alignment of the key actors and the consolidation of legal amendments and investments established for the first stage.

Stage III, after 2024, is to operate the Program at a larger scale. After the catalyst public administration investment, the program will be operated largely through the private sector investment. However, a guarantee of budgetary and political continuity is needed in order to address projects involving high investment and coordination by the executing institutions, such as comprehensive development of multi-mode transport or implementation of new global container transport systems for perishable foods.

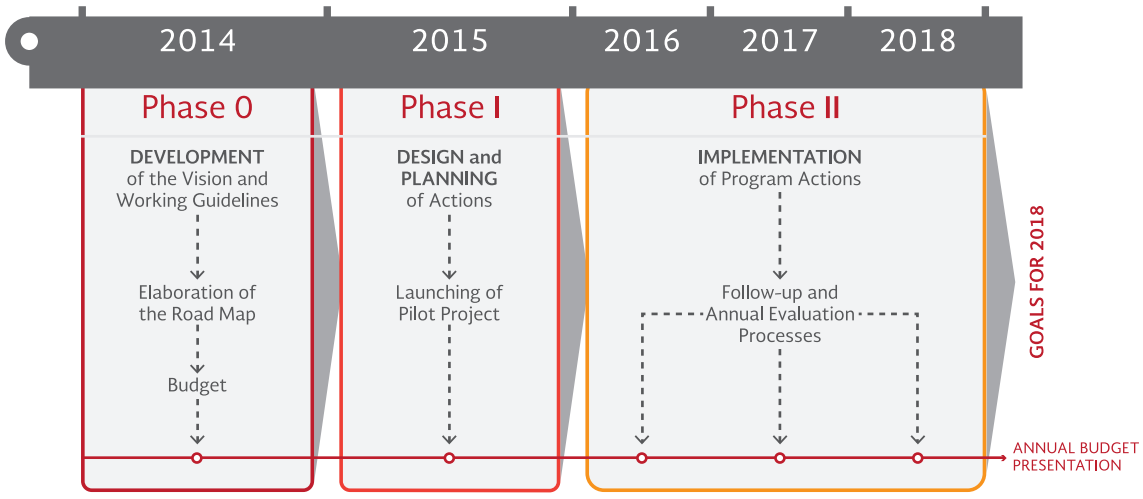
Figure 4.1. Stages of the National Agrologistics Program



4.2 What to do during the next 4 years?

The measures to be implemented until 2018 are described in the Roadmap Report, which is divided into three phases: the preparatory phase, design and planning phase and implementation phase.

Figure 4.2. Phases of the Roadmap for Stage I



4.2.1 Phase 0 (2014)

Duration: 12 months

Budget: $24 millon MXN

The preparatory phase was started on January 2014 with the and the Vision's preparation, articulated through the participation of directors of the main private and public institutions from the agri-food value chain. SAGARPA and seven key actors validated the subsequent Strategy Report[22]. This process culminated in the presentation of the Roadmap in September 2014. Once the Roadmap will be approved, a budgetary allocation will be necessary for year 2015 to start the program without any delays. If the budget is approved, SAGARPA shall lead the following start-up activities during the 4th quarter of 2014.

Table 4.1. Priority activities for the 4th quarter of 2014

Priority	Activity
1	Presentation and approval of budget items for 2015 estimated in $1,150 million MXN
2	Creation of the Agrologistics Specialized Cabinet and the Sectorial Working Table
3	Establish a Technical Agrologistics Secretary dedicated to coordinate and follow-up the program

4.2.2 Phase I (2015)

Duration: 12 months

Budget: $1,150 millon MXN

The goal for this phase is to establish a planning, legal and budgetary framework that meets the Program's basic needs:

- Alignment of the public-public and private-private sectors as a pre-requisite to public-private alignment
- Legal and regulatory adjustment to develop activities concerning logistics, trade, food exports/imports and land use
- Elaborate instruments for territorial prioritizing and planning based on geo-referenced data
- The definition of operating procedures between executing institutions and the different government levels, as well as procedures to enable investment in the chain and association assets
- The increase of capability and the creation of information exchanging platforms to supervise the progress and assist better decision-making

This phase will begin with the implementation of the selected pilot projects listed below.

[22] The consulted players in the validation process of the Strategic Report were: SAGARPA- Undersecretary for Food and Competitiveness; SAGARPA- General Coordination of Advisors; SENASICA- Directorate General of Phytosanitary Inspection; SE Directorate General of Standards; SCT- Undersecretary of Transport; SEDATU- Undersecretary of Land-Use Regulation; Inter-American Development Bank; National Agricultural Council; Office of the President- Technical Secretary of the Cabinet.

Priority pilot projects

1. Joint custom inspections at refrigerated SAGARPA-SENASICA-SAT facilities
2. Pre-approval program with inspection at points of origin or consolidation: operate one point at the existing facilities and create a new point
3. Green lines in customs for trucks with a pre-approval certificate
4. GS1 standardization and coding protocol in 10 chains of perishable products
5. Design and construction of a storage center in rural areas with refrigerated storage
6. Pilot route for sea transport of short-sea shipping to the United States: fruit transport by ship from Veracruz to Philadelphia
7. Pilot route for rail transport to the United States: vegetables transport from Guanajuato to Chicago/Atlanta
8. Quick training modules regarding extensionism: training on the subject of communications and producers' supply planning skills

4.2.3 Phase II (2016 – 2018)

Duration: 36 months

Budget: $3,700 millon MXN

In this phase, the consolidation of the National Agrologistics Council, and implementation of planning instruments and pilot projects coordinated by the Technical Secretary, will be complemented by continued investment in capacity building and research, as well as promoting investment through the Agrologistics Fund and incentives for the association of small producers. While in the previous phase the vast majority of the actions are led by SAGARPA, at this stage it is expected to allocate resources and responsibilities to other agencies and levels of government as well as private-public implementers. The expected results are:

In 2016

- The installation of the National Agrologistics Council
- The approval by Congress and adoption by the sector of legislative and standards harmonization
- Presentation of the Comprehensive Master Plan for agrologistics assets
- The continued implementation of pilot projects for inspections, packaging, traceability, and routes and services logistics
- The entry of first students in the specialized agrologistics postgraduate program
- The agrologistics fund reaches $1,000 million MXN

In 2017

- The presentation of the Control Panel of the Program
- The development of master plans for regional and local action plans for strategic projects
- The continued implementation of pilot projects for inspections, packaging, traceability, and routes and services logistics
- The agrologistics fund reaches $1,600 million MXN
- Presentation of the results of the first national survey on postharvest losses, the relevant recommendations and its consultation system

In 2018

- The extension network reaches a capacity of 350,000 people
- The incentive program for associations reaches between 25,000 and 30,000 REU
- First comprehensive evaluation of the Program, based on transparency protocol developed in the design phase
- End the first generation of postgraduate students, which enrolled in 2016
- The agrologistics fund reaches $2,300 million MXN

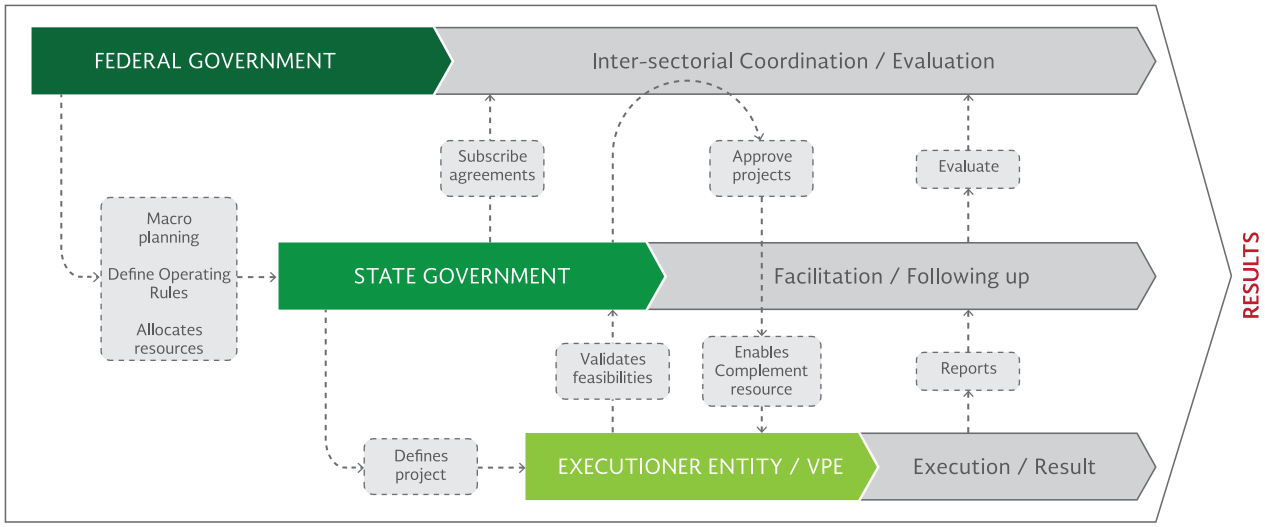
4.3 Operational Procedures

Federal organizations play a key role in producing changes. Notwithstanding, it is not advisable that SAGARPA should assume an executing role, except to create the conditions and foster pilot projects. It is important that the executing organizations are those who pass on the resources, training and the incentives wherever necessary, and communicate with the projects on a daily basis and follow-up their progress. Two options can be considered in order for SAGARPA to support the executing procedures:

Option 1 – Federal, state level and executing institutions

- The federal body (in this case SAGARPA) shall allocate resources to state governments liable to certain operating rules and designed based on macro planning
- The state governments define specific projects and validate their feasibility via the private sector during the initial stages, such as investors and interested parties
- Once the projects are approved at a federal level, the states manage the resources (in several cases, they complete up to 20%) and their facilitation to the executing institutions
- These institutions, vehicles or public-private associations hire the required services to execute the projects and report to the state governments, who, in turn, shall submit their evaluation of the project to the federal bodies (which are not always the same organisms that provide the resource)

Figure 4.3. Option 1

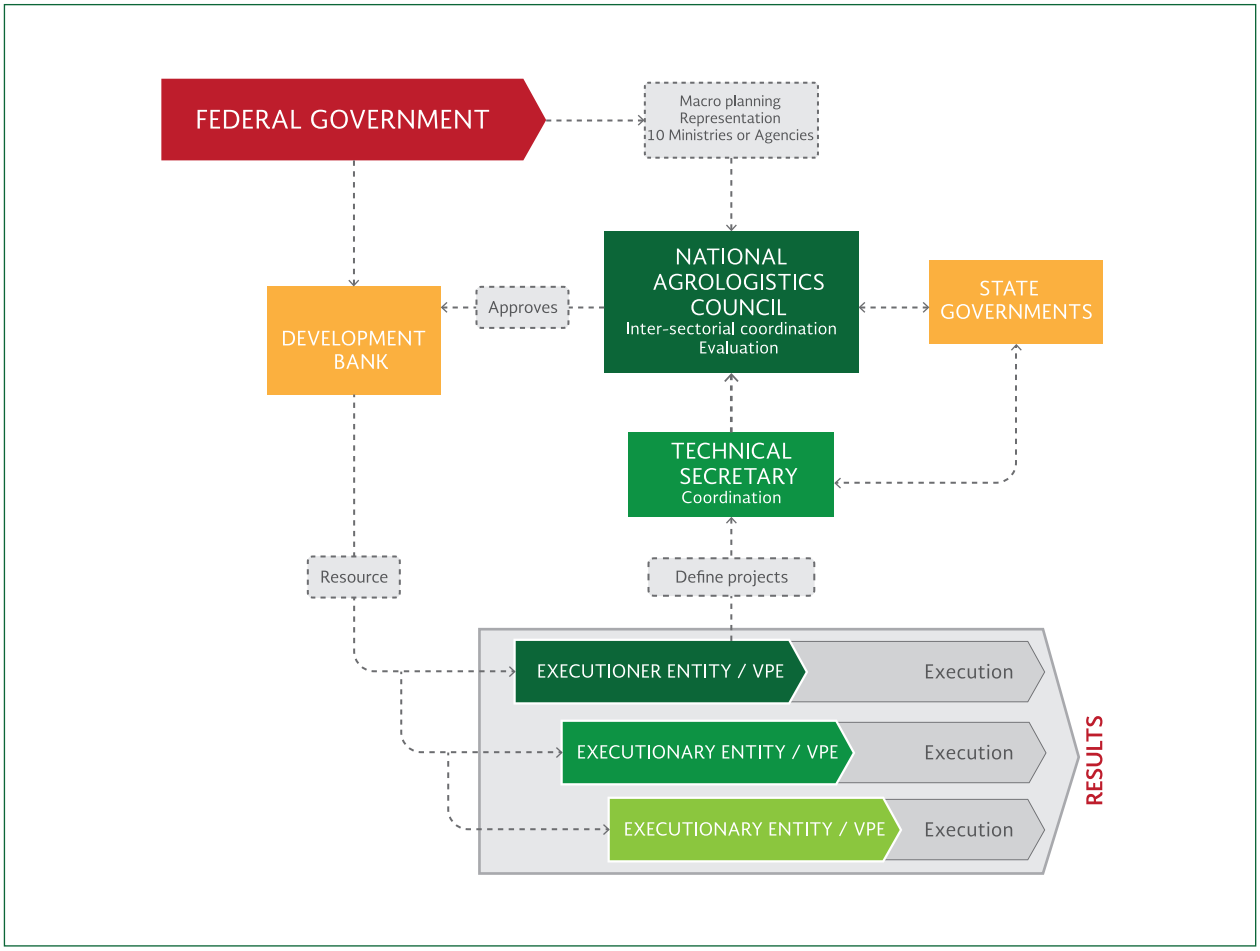


Option 2 – Federal levels and executing institutions

- The federal government operates the resources through the Development Bank, which, in turn, allocates it to executing institutions pursuant the priority list of the National Agrologistics Council
- In this case, the initiative rests on the executing institutions, which shall define and forward the projects to the Technical Secretary for their feasibility evaluation
- Once they are validated, the projects are forwarded to the Council for approval. Those which are approved receive resources directly from the Development Bank through the executing institutions
- The executing institutions shall report to the Technical Secretary and the latter to the Council. The Council shall coordinate the project's progresses with the state governments. The need to report to federal departments is met directly because the same Council represents the federal level

The pros and cons of these operating options are detailed in the Roadmap Report.

Figure 4.4. Option 2



4.4 Budget

The preliminary budget for Stage I of the National Agrologistics Program until the year 2018 is approx. $5,000 million MXN. This includes the public resources required to execute the 15 measures described in the Strategy Report and detailed in the Roadmap. The resources are divided into 5 budget items, each of them allocated to a Working Guideline. Annex 2 includes the budgetary breakdown for each Action of the Working Guideline.

Budget Summary 2015 – 2018						
Working Guideline	2015	2016	2017	2018	TOTAL	%
WG1	$ 24,179,300	$ 25,146,472	$ 26,152,331	$ 27,198,424	$ 102,676,527	2%
WG2	$ 147,850,000	$ 190,278,000	$ 133,536,000	$ 138,877,440	$ 610,541,440	13%
WG3	$ 35,150,000	$ 30,756,000	$ 24,706,240	$ 25,694,490	$ 116,306,730	2%
WG4	$ 654,750,000	$ 703,128,000	$ 764,253,120	$ 831,082,445	$ 2,953,213,566	61%
WG5	$ 285,573,900	$ 258,816,856	$ 269,169,530	$ 279,936,311	$ 1,093,496,597	22%
Total per Year	$ 1,147,503,200	$ 1,208,125,328	$ 1,217,817,221	$ 1,302,789,110	$ 4,876,234,860	100%
%	23%	25%	25%	27%	100%	

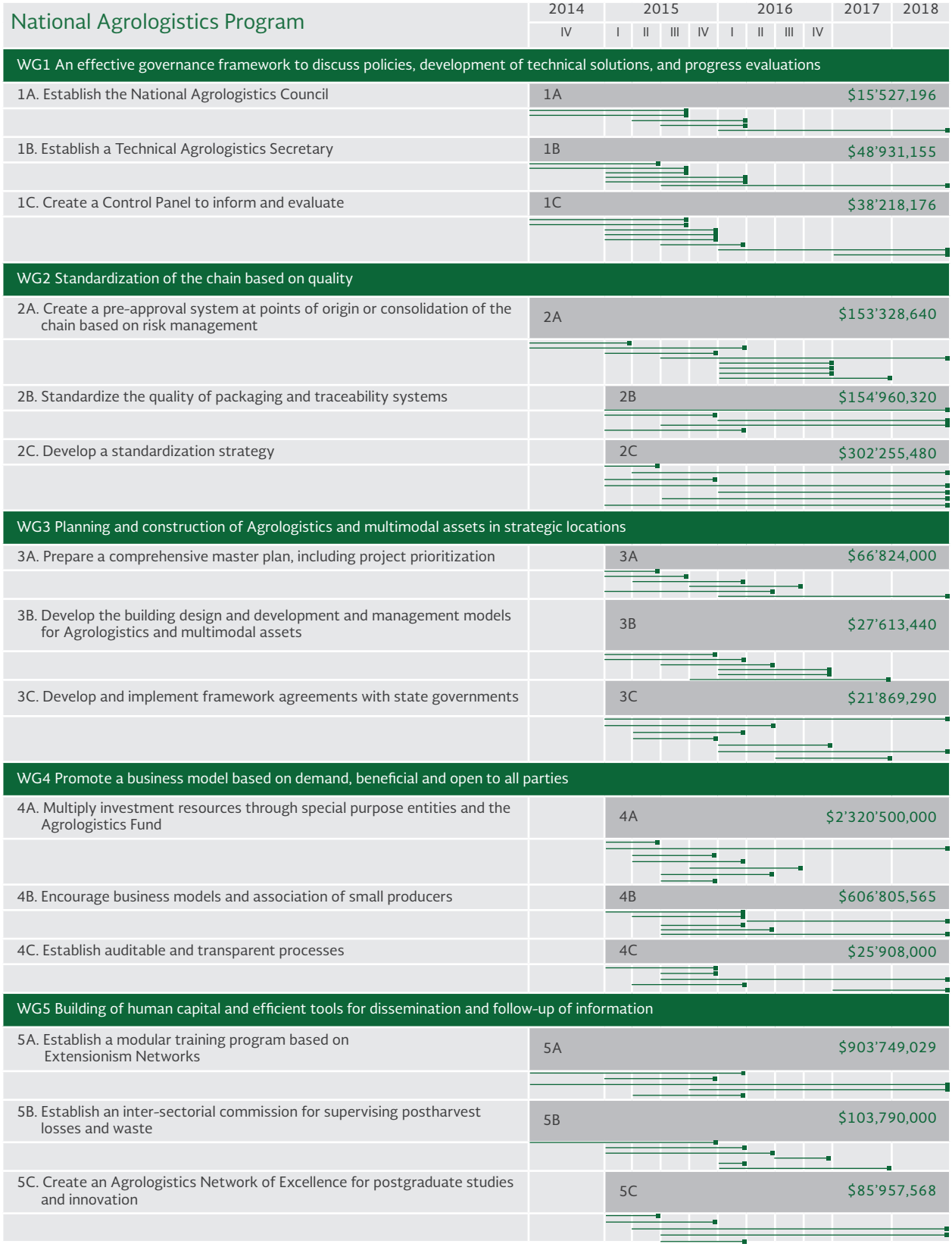
4.5 Calendar

Despite how far in the future the year 2030 may seem, achieving the objectives of the program, which involve a transformational legacy for the field in Mexico, requires launching the Program soon as possible.

The schedule of actions until the year 2018 is extremely tight, and 2015 is the key to the success of the Program. If the operation can be performed in the last quarter of 2014, then in 2015 not only the foundations of institutional coordination and executive capacity to scale up will be laid, but these will also be tested in pilot projects. These projects also will have the ability to generate confidence in the program, which will help producers and other actors to multiply the momentum initiated by the public sector.

The first recommended decisions are on budget allocation for year 2015, which allows starting the Program without delay. If the budget is approved, SAGARPA should lead the following activities starting in 4th quarter of 2014, which involve the creation of a Specialized Cabinet for Agrologistics and Sectorial Working Table as well as the establishment of a Technical Agrologistics Secretary dedicated to the coordination and monitoring of the Program.

Figure 4.5 2015-2018 Calendar



5 Program impacts

5.1 Expected impact

The following tables summarize the expected impacts of the Working Guidelines and the projects that shape them[23]. The Route Sheet has quantified as much as possible the measures' contribution as a tool to measure their impact, but also has identified those contributions that are not quantifiable.

Combined, this amounts between $89,000 and $113,000 million MXN, which represent a return of approximately 20 times the initial investment of $5,000 million MXN. That is, regardless of the less tangible impacts in the short term, such as improved institutional coordination and alignment of private actors, a more skilled sector and a more reliable and higher quality food chain.

5.1.1 Working Guideline 1

The impact of this Working Guideline includes the benefits reached in the following Working Guidelines, which can be grouped in six categories: (1) Foreign trade facilitation; (2) Reduction of losses and waste along the chain; (3) Multiplying effect on investments; (4) Development of abilities; (5) Reliability and safety; and (6) Better planning and coordination of infrastructure development

The impacts have been detailed in the introduction to this Executive Summary.

5.1.2 Working Guideline 2

A risk-based inspection system at Customs would allow product exporting to be simplified, reducing inspections at the border and opening up new markets, which would be considered an increase of 10% of additional exports in the next 4 years for 50 selected products[24]. With this increase it is possible to estimate that the volume of products exported by Mexican producers, with a base price of $13,000 million MXN today, could be increased to $29,600 million MXN ($2,276,000 USD).

Standardization and traceability of products may decrease the losses related to expiration dates and the difference from the products shipped and received. For these two effects the estimated reduction of postharvest losses would be 33%, compared to the current estimate of 12% in the export chain, this leads to an estimated reduction of 4% in losses in the whole chain[25]. Considering the value of the products at $279,200 million MXN, this results in an additional savings of $11,168 million MXN for this Working Guideline, which can increase the economic benefit to the sector with $40,768 million MXN.

[23] It is necessary to note that the measurement of the impacts generated by each one of the measures and/or projects likely cannot be viewed in isolation, since more than one project or work group could be contributing to the expected impacts, or one positively reinforces the contribution of others.

[24] The exports of these 50 main products in 2012 rose to $ MXN 174,850 million (at an Exchange rate of $13.45 pesos/dollar) according to data from the Ministry of Economy through the Comprehensive Foreign Business System (SIICEX, Tariff code of the import and export tax law TIGIE). The 10% increase in exports by 2018 means a growth of an additional 2.5% per year with respect to its average annual inertial growth, which averaged 8.5% annually from 2000 to 2012.

[25] It is estimated that the average postharvest losses and waste along the export chain are 12% of the value of exports, this means a reduction of 33% in this area, resulting in the recovery of 4% of the value chain. The impacts were calculated based on agricultural exports totaled $11,300 million MXN in 2013, taking into account an inertial growth of 12%.

Also included are non-quantifiable benefits, such as a 25% reduction in waiting times at border stations, due to a better risk-based inspection process. Also, positive impacts are expected in information access in the chain for all participants.

MONETARY		NON-QUANTIFIABLE
Description	Amount	Description
WG2. Standardization of the chain based on quality		
Trade facilitation (10% increase in exports of the main 50 products)	$29,600 million MXN in 2018	25% reduction in customs waiting times
Reduction of postharvest losses in the export chain equivalent to 4% of its value	$11,168 million MXN in 2018	Access to chain information
WG2 subtotal	$40,768 million MXN in 2018	

5.1.3 Working Guideline 3

With the planned investments, captured in the National Infrastructure Program (PNI) and with the programmed investments in the Working Guideline 4, it is possible to increase the infrastructure of cold chain management in priority regions and reduce even more losses and waste (less transport time, and better product handling) that are present in the national market, reducing them an additional 10% (leaving them at 36%, based on a 40% for perishable products), in order to reach a losses and waste level that is more like that of similar countries in the region. This reduction means an increase in sales around $31,600 MXN (direct sales) to up to $61,100 million MXN (estimated with consumer prices), due to the fact that they wouldn't lose these products[26]. It's worth mentioning that the proposed target lies at the end of 2018, and a year savings are estimated sales for the last year (2018), so the contribution could be higher, as progress is made to achieve the goal of reduction in the early years.

With the estimated reduction it's possible to gain substantial investments for improving the cold chain, this shows that it could be profitable for producers and for the country, since they can have other non-quantifiable benefits as well, such as the change in available goods and the security of agricultural goods.

[26] According to the National Institute of Statistics and Geography (INEGI) through the ENIGH 2013, the consumption of food, drinks, and tobacco in households in 2012 was $1,960 million, taking into account an annual growth of 5% (taken from the average annual growth for the 2010-2012 period) the 10% reduction in losses and waste would translate to a maximum recovery of $ 61,100 million MXN. The floor of recovery is calculated using the agricultural GDP, that according to INEGI, rose to $505,800 million MXN, a growth of more than 8.5% a year Postharvest losses within the food chains are estimated at 40% (according to the Declaration of the Ministry of the Technical Waste and Food Loss Group of the National Crusade Against Hunger, a joint press conference with the United Nations and the FAO, Mexico, 2013).

MONETARY		NON-QUANTIFIABLE
Description	Amount	Description
WG 3. Planning and construction of Agrologistics and multimodal assets in strategic locations		
Better domestic market performance, reducing losses by 10%; a move from the current 40% to 36%	Between $34,300 and $58,200 million MXN	Food safety

5.1.4 Working Guideline 4

Through an investment fund and new business models it is possible to reach producers that currently don't market their products directly. Reaching 28,000 Rural Economic Units (from the 900,00 that are capable of being supported)[27], in the 2014-2018 period, it would be possible to increase their sales in the order of $2,400 million MXN[28].

The public Investment dedicated to active agrologistics that is estimated at $7,000 million MXN from the Nation System of Agroparks and the Agrologistics Fund is another impact derived from this Working Guideline.

It is anticipated that this generates 1:1 leverage with private capital for this type of investment. In that scenario, each peso invested by the public sector would mean one peso reciprocal from the private sector.

[27] FAO, SAGARPA 2014. 2012 Diagnosis of the rural and fishing sector of Mexico. The partnership schemes aim to bring together producers from E3 and E4 strata to increase its production capacity and its market power to bring competition to a size equal to that of the producers of the E5 strata. For this purpose, there is a need to create associations (target of 345 per year) up to 1380 in 2018. The Program will reach 28,000 REU)around 20 REU per association); eith the change in their income from E3 and E4 to E5, we will be obtaining an increase in their income of $2,400 million MXN, which implies that each REU will obtain a potential that amounts $93,000 MXN in 4 years.

[28] Without considering the exports susceptible to achieving a larger amount of players (only the internal market is considered).

MONETARY		INVESTMENT
Description	Amount	Description
WG4. Promote a business model based on demand, beneficial and open to all parties		
28,000 Rural Economic Units under association programs. $93,000 In 4 years per Rural Economic Unit (see footnote 29 in this report)	$2,400 million MXN	Activos de la cadena agrologística por $7,000 millones MXN (incluyendo el Sistema Nacional de Agroparques)

5.1.5 Working Guideline 5

La The implementation of a modular information program based on the transfer of knowledge and technical training within an extensionism network, as well as investments in postgraduate specializing in Agrologistics, along with the supervision and measurement of losses and waste will have a positive impact on labor productivity in the chains, and reinforce the effect in losses and waste reduction.

An investment of $900 million MXN would provide 350,000 trainings, the creation of the Mexican Institute of Agrologistics, will result in an investment of $64 million MXN in research and development. This would mean $17 million MXN in scholarships for postgraduate studies in Agrologistics.

INVESTMENT	NON-QUANTIFIABLE
Description	Description
WG5. Building of human capital and efficient tools for dissemination and follow-up of information	
350,000 training courses on extensionism with an investment of $900 million MXN	Increase in labor productivity
Investment of $64 million MXN in investigation and development through the Mexican Institute for Agrologistics	
$17 million MXN for postgraduate scholarships for Agrologistics studies	

6 Annexes

6 Annexes

Annex 1. The Sectorial Program strategies that relate directly to the working Guidelines of the National Agrologistics Program

Strategy 1.1 Guiding the research and technological development applied to produce applied innovations for the agri-food sector that raise productivity and competitiveness.

1.1.2. Coordinate and guide the efforts of innovation in the public and private institutions to strategic productive and interdisciplinary projects.

1.1.4. Encourage innovation through multi-year budgets oriented to comprehensive projects, from detecting needs until implementation in the countryside.

1.1.5. Implementing evaluation and monitoring of investments in science and technology to strengthen innovation in the sector.

1.1.6. Articulate demand for innovations between those who produce and institutions, avoiding duplication and prioritizing the needs of organized producers.

1.1.9. Establish an interdisciplinary advisory group of public and private institutions to analyze proposals for innovation, technological development and education.

Strategy 1.2 Develop productive capacities with business vision of the small producers.

1.2.2. Promote mainstreaming of rural extension and innovation through the productive and value chains (inputs - production - postharvest - marketing).

1.2.3. Develop productive, competitive and business abilities with practical focus, applied through innovation in the interchange of knowledge.

1.2.7. Establish innovative schemes linked with educational, research and training institutions.

Strategy 1.5 Foster a commercial policy approach to agri-business and the balance planning of demand and supply to ensure a timely supply.

1.5.1. Set a trading policy, which emphasizes to produce what sells and not sell what is produced.

1.5.2. Induce production towards priorities and potential of the country to reduce imports and seasonal surpluses and grow the horticulture.

1.5.3. Link trade competitiveness between those who produce, process and sell in domestic and international markets.

1.5.6. Promote the standardization and certification of benefit and quality of agri-food processes to facilitate their access to the market.

Strategy 1.6 Promote logistics competitiveness to minimize postharvest losses and waste during storage and transport.

1.6.1. Decrease food looses and waste by investing in infrastructure and equipment for postharvest, transportation and storage.

1.6.2. Increase the handling capacity of perishables, with investments focused on the cold chain.

1.6.3. Develop schemes for good practices and certifications approved internationally in agri-food chains (from the field to the table).

1.6.4. Encourage public and private investment to increase the capacity of handling perishables in ports and strategic logistics centers.

1.6.5. Develop a traceability system for agri-food products, which will facilitate their trade.

1.6.7 Promote professionalism, competence and availability of logistics services.

Strategy 2.1 Promote the development of productive conglomerates and agroparks, which articulate to small producers with integrators companies.

2.1.1. Promote the National System for Agroparks growing logistics infrastructure and strategic projects in the productive and exporting regions of food.

2.1.2. Promote the integration of small and medium producers to take advantage of the economies of agglomeration in infrastructure and equipment.

2.1.5. Promote the training of specialists in agrologistics and agroclusters.

2.1.6 Establishing a Consolidation Center System that allows small and medium-sized producers market their produce.

Strategy 2.2 Implement new models of agribusiness that generate higher added value in the productive chain.

2.2.1. Strengthen public-private partnerships for training and consolidation of new models of agribusiness.

2.2.3. Promote the entrepreneurial culture of the small and medium producers.

2.2.5 Lead to the involvement of education institutions and research centers in the creation of new models of agribusiness.

Strategy 2.3 Promote strategic and productive projects of regional impact in coordination with the various levels of Government.

2.3.1. Identify and promote productive projects that generate regional development based on a precise map of the Projects Planning Component.

2.3.2. Establish collaboration schemes with other federal agencies and other orders of Government are established to trigger investment in strategic projects.

Strategy 3.2 Strengthen health, safety and food quality to protect the health of the population and increase the competitiveness of the sector.

3.2.1. To modernize infrastructure and inspection mechanisms to reduce the risk of introducing pests and quarantine diseases.

3.2.3. To modernize the network of laboratories, to give scientific and technical support to phyto-zoo-sanitary measures required by risk analysis.

3.2.5. Promote safe food and quality through the reduction of risks, practices and organic production systems offer.

3.2.7. Promote international trade through updating of standards, regulations, elimination of barriers phyto-zoo-sanitary and export licenses.

3.2.9. Improve health and safety regulations to boost the competitiveness of the sector.

Annex 2 - 2015-2018 Budget

National Agrologistics Program		2015	2016	2017	2018	TOTAL
Budget for 2015-2018		$ 1,147,503,200	$ 1,208,125,328	$ 1,217,817,221	$ 1,302,789,110	$ 4,876,234,858
WG1	An effective governance framework to discuss policies, development of technical solutions, and progress evaluations	$ 24,179,300	$ 25,146,472	$ 26,152,331	$ 27,198,424	$ 102,676,527
1A	Establish the National Agrologistics Council	$ 3,656,500	$ 3,802,760	$ 3,954,870	$ 4,113,065	$ 15,527,196
1B	Establish a Technical Agrologistics Secretary	$ 11,522,800	$ 11,983,712	$ 12,463,060	$ 12,961,583	$ 48,931,155
1C	Create a Control Panel to inform and evaluate	$ 9,000,000	$ 9,360,000	$ 9,734,400	$ 10,123,776	$ 38,218,176
WG2	Standardization of the chain based on quality	$ 147,850,000	$ 190,278,000	$ 133,536,000	$ 138,877,440	$ 610,541,440
2A	Create a pre-approval system at points of origin or consolidation of the chain based on risk management	$ 20,000,000	$ 46,800,000	$ 42,416,000	$ 44,112,640	$ 153,328,640
2B	Standardize the quality of packaging and traceability systems	$ 52,850,000	$ 70,678,000	$ 15,408,000	$ 16,024,320	$ 154,960,320
2C	Develop a standardization strategy	$ 75,000,000	$ 72,800,000	$ 75,712,000	$ 78,740,480	$ 302,252,480
WG3	Planning and construction of Agrologistics and multimodal assets in strategic locations	$ 35,150,000	$ 30,756,000	$ 24,706,240	$ 25,694,490	$ 116,306,730
3A	Prepare a comprehensive master plan, including project prioritization	$ 20,000,000	$ 15,000,000	$ 15,600,000	$ 16,224,000	$ 66,824,000
3B	Develop the building design and development and management models for Agrologistics and multimodal assets	$ 10,000,000	$ 10,400,000	$ 3,536,000	$ 3,677,440	$ 27,613,440
3C	Develop and implement framework agreements with state governments	$ 5,150,000	$ 5,356,000	$ 5,570,240	$ 5,793,050	$ 21,869,290
WG4	Promote a business model based on demand, beneficial and open to all parties	$ 654,750,000	$ 703,128,000	$ 764,253,120	$ 831,082,445	$ 2,953,213,565
4A	Multiply investment resources through special purpose entities and the Agrologistics Fund	$ 500,000,000	$ 550,000,000	$ 605,000,000	$ 665,500,000	$ 2,320,500,000
4B	Encourage business models and association of small producers	$ 144,450,000	$ 148,128,000	$ 154,053,120	$ 160,174,445	$ 606,805,565
4C	Establish auditable and transparent processes	$ 10,300,000	$ 5,000,000	$ 5,200,000	$ 5,408,000	$ 25,908,000
WG5	Building of human capital and efficient tools for dissemination and follow-up of information	$ 285,573,900	$ 258,816,856	$ 269,169,530	$ 279,936,311	$ 1,093,496,597
5A	Establish a modular training program based on Extensionism Networks	$ 212,823,900	$ 221,336,856	$ 230,190,330	$ 239,397,943	$ 903,749,029
5B	Establish an inter-sectorial commission for supervising postharvest losses and waste	$ 25,750,000	$ 25,000,000	$ 26,000,000	$ 27,040,000	$ 103,790,000
5C	Create an Agrologistics Network of Excellence for postgraduate studies and innovation	$ 47,000,000	$ 12,480,000	$ 12,979,200	$ 13,498,368	$ 85,957,568

Annex 3: The 15 Actions of the National Agrologistics Program

ACTION 1A	ESTABLISH THE NATIONAL AGROLOGISTICS COUNCIL
WORKING GUIDELINE	**WG1.** AN EFFECTIVE GOVERNANCE FRAMEWORK TO DISCUSS POLICIES, DEVELOPMENT OF TECHNICAL SOLUTIONS, AND PROGRESS EVALUATIONS
CONTEXT	The National Agrologistics Council is the institution in charge of strategic planning and proposing policies for the new agrologistics program in México. It involves all the interested stakeholders of the agrologistics chain. It shall hold periodic meetings during the year. With the unanimous decision of all the Council members, extraordinary meetings can be held. Although the Council has a continuous mandate, its Terms of Reference and scope of work shall be reviewed every three years. The Executive Committee shall meet three times per year during the session periods to prepare the agenda for the Council meetings. As a prerequisite to the formation of the Council integration of a Specialized Cabinet by the Office of the President is required, to meet officials of the first level of the relevant Ministries for the Agrologistics. Parallel participation is required of the private sector in a Sectorial Working Table, in order to have a voice in the presentation of the problems and give relevant solutions for all the stakeholders in the sector.
ACTION OBJECTIVES	Constitute a group with the participation of the different stakeholders (P. e.g., government agencies, private sector and others) guided by the vision of a competitive and sustainable agri-food sector that offers proposals on how to take better advantage of the agrologistic potential of the sector, ensuring the availability of high quality food at affordable prices in our country, and heading México to an international leadership.
RESULTS	All the stakeholders of the agri-food sector in the formulation and implementing actions regarding operative issues related to: • Dialogue and agreements between all the stakeholders to propose public policies for the sector • Coordination among the different government agencies around the necessities of Agrologistics • Optimize the agrologistics value network • Harmonize quality and safety standards • Analyze, assess and if necessary, propose the agrologistics infrastructure for the new needs of the country • Actively participate in the National Development Plan While in terms of strategic management: • Alignment and coordination of the public and private sectors • A technical structure defined to support the National Agrologistics Council
DELIVERABLES	Six-monthly report to SAGARPA regarding the status of agrologistics in Mexico including the following topics: • Review of the progress in implementing the Mexican agrologistics policy. • Recommendations on how to improve the effectiveness and efficiency of the Mexican agrologistics chain, including investment priorities • Follow up of the agreements in the Sectorial Working Table • Measures needed to be adopted on the basis of forthcoming editions and regional and/or international trends • Approval of pilot projects with demonstrative purposes that involve several sectors and actors, in order to be financed by the Agrologistics Fund • Tool to evaluate the Council management

WORK AGENDA - NATIONAL AGROLOGISTICS PROGRAM

WORK AGENDA	2014	2015				2016				2017	2018
	IV	I	II	III	IV	I	II	III	IV		
1A1. Project Preparation. Create the Specialized Cabinet and the Technical Secretary within the structure of the Federal Government with the support of the Office of the President and SAGARPA, as well as the Sectorial Working Table with the different actors.	●	●	●	●							
1A2. Establishment of the Council. Establishing the National Council of Agrologistics the Office of the President, in collaboration with SAGARPA. Signature of the agreements of collaboration.	●	●	●	●							
1A3. Institutional design of the Council. Define the Council's institutional design, organizational structure and powers; as well as the tasks and responsibilities of each member of this Council.			●	●	●	●					
1A4. Management agenda. Define the work agenda. Open the dialogue with the interested parties regarding policies and propose alternative solutions to the issues being discussed.				●	●	●					
1A5. Council continuity. Ensure the Council continuity based on an objective evaluation of its performance.						●	●	●	●	●	●

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
SAGARPA through the Specialized Cabinet.	Office of the President plus 10 Ministries and Governmental agencies: SAGARPA, SENASICA, SE-DGN, SHCP, SAT, SEDENA, SCT, SEDATU, SEGOB, CJEF, and representing the private sector all the main involved parties and the actors that contribute to the functioning of the Mexican agrologistics chain.	In the first place, the Mexican citizens are the ultimate beneficiaries of the Council's labor because they shall benefit of fresher food, at better prices. In the second place, the participants will obtain a more efficient agrologistics chain and a better macro-economic environment due to higher competiveness in Mexican agri-food sector exports.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st half 2015	2nd half 2015	2018

RESPONSIBLE UNIT

SAGARPA, Office of the President

SCOPE

FEDERAL

The National Agrologistics Council shall establish its head office at SAGARPA. The operating extensions shall be directed to the state delegations of SAGARPA in coordination with the State Secretariats of Rural Development.

INDICATIVE BUDGET

The annual budget is $ 3,656,500 MXN to cover the costs of the Council relating to the preparation and printing of reports, meeting expenses (room rental, materials, catering) and expenditure on research and external inputs. An annual increase of 4% inflation is considered.

2015	$ 3'656,500
2016	$ 3'802,760
2017	$ 3'954,870
2018	$ 4'113,065
TOTAL	**$ 15'527,195**

ACTION 1B	ESTABLISH A TECHNICAL AGROLOGISTICS SECRETARY
WORKING GUIDELINE	**WG1.** AN EFFECTIVE GOVERNANCE FRAMEWORK TO DISCUSS POLICIES, DEVELOPMENT OF TECHNICAL SOLUTIONS, AND PROGRESS EVALUATIONS
CONTEXT	The Technical Agrologistics Secretary (TAS) is the coordinating and executive entity that implements the policies and decisions taken by the National Agrologistics Council.
ACTION OBJECTIVES	The objective of the Technical Agrologistics Secretary (TAS) is to coordinate and manage all the actions of the Program and provide substantive services required by the National Agrologistics Council, as well as providing the evidence base on which the Council will formulate its decisions on policies and recommendations.
RESULTS	The Technical Secretary will strengthen the National Agrologistics Council structure, providing support to its administration, which will be reflected on: • Decision making that is technically substantiated • Timely and available information • Follow-up of agreements, resolutions and other decisions • Foster direct, timely and objective communication and coordination between the interested parties • Establish the methods, formalities, and necessary requirements of the proposals made by the Council • Establish the basis for the Council's budget schedule
DELIVERABLES	The Technical Agrologistics Secretary (TAS) shall be responsible for: I. Preparing and disseminating the previous, actual and subsequent documents related with the quarterly meetings of the National Agrologistics Council II. Identifying the multi-sectorial pilot projects for the Council's approval and that shall benefit from seed capital or financing from the Agrologistics Fund III. Administrating the Agrologistics Fund The Technical Secretary shall be responsible for the following documents, including but not limited to: • Written agenda for each of the Council meetings • Analytic reports, position reports, and their political recommendations commissioned by the Council • Recommendations arising from special meetings of groups/ experts • Results from regular reviews, studies and evaluation surveys • Special studies on best practices worldwide, innovation and agrologistics trends • Feasibility studies for pilot projects that shall benefit from seed capital or financing from the Agrologistics Fund • Tool to evaluate the Council administration

WORK AGENDA - NATIONAL AGROLOGISTICS PROGRAM

WORK AGENDA	2014	2015				2016				2017	2018
	IV	I	II	III	IV	I	II	III	IV		
1B1. Receive the necessary information inputs for the implementation of the Technical Agrologistics Secretary.	●	●	●								
1B2. Establish the Technical Secretary.	●	●	●	●							
1B3. Define the scope, roles and responsibilities of the Specialized Cabinet as well as the Technical Secretary.		●	●	●							
1B4. Create and arrange the work agenda for the National Agrologistics Council.		●	●	●	●	●					
1B5. Apply operating protocols. Generate permanent information as well as initiatives.		●	●	●	●	●					
1B6. Identify and manage the resources needed to operate the National Agrologistics Council , as well as its Committee and the Technical Secretary.				●	●	●	●	●	●	●	●

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
SAGARPA supported by the Specialized Cabinet and the Office of the President.	Office of the President, SAGARPA, National Agrologistics Council.	The first beneficiaries of the Technical Agrologistics Secretary (TAS) are the National Agrologistics Council and their members whom shall have access to better information, knowledge exchange and a better understanding of the common problems and challenges as well as the specific problems and challenges of each stakeholder.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
The Technical Agrologistics Secretary (TAS) has to be established at least three months before the National Agrologistics Council, this means, on the 1st half of 2015.	2nd half of 2015	Twice a year

RESPONSIBLE UNIT

SAGARPA and National Agrologistics Council (evaluation)

SCOPE

FEDERAL

Head Office: The Technical Agrologistics Secretary (TAS) shall operate from SAGARPA.

INDICATIVE BUDGET

This budget estimates an annual amount of $11,522,800 USD for salaries for a 15 people staff of the Technical Secretary and operating expenses. An annual increase of 4% inflation is considered.

2015	$ 11,522,800
2016	$ 11,983,712
2017	$ 12,463,060
2018	$ 12,961,583
TOTAL	**$ 48'931,155**

ACTION 1C	CREATE A CONTROL PANEL TO INFORM AND EVALUATE
WORKING GUIDELINE	**WG1.** AN EFFECTIVE GOVERNANCE FRAMEWORK TO DISCUSS POLICIES, DEVELOPMENT OF TECHNICAL SOLUTIONS, AND PROGRESS EVALUATIONS
CONTEXT	The National Agrologistics Control Panel is a virtual platform that shall provide an analytical evidence base for the National Agrologistics Council, the Technical Agrologistics Secretary (TAS) and third parties. This is a medium term measure, because the first tasks are to evaluate the availability and current use of data and information in all the linked sectors and key actors, their willingness to submit information on a regular basis, as well as to share data with all the jurisdictions and users. This task can be performed once the members of the National Agrologistics Council understand the advantages of having this platform and becoming active participants in the process of its creation and use. It is proposed that the relevant information of the Control Panel includes the main topics of the Logistics Performance Indicator report of the World Bank: • Efficiency of the customs clearance process • Quality of transport infrastructure and IT technology for logistical services • Ease of international transport operations • Competence of the local logistics sector • Traceability and tracking of international shipments • Internal costs in logistics (transport) • Timely arrival of shipments at the point of destinations
ACTION OBJECTIVES	Provide a system and a single space for decision making, based on the information and data belonging to Agrologistics in México.
RESULTS	The expected outcomes are better informed decisions and recommendations made by the National Agrologistics Council, more efficient use of resources and assets by the key actors in the agrologistics chain, new opportunities regarding research, innovation and enterprises in all fields related to Agrologistics (agriculture, economy, marketing, environmental planning and management, transport, energy, water, etc.) • A measurement instrument, which will provide more information to the decision-makers about the progress of the actions of the Program • Enables the use of the statistics of imports and exports for the follow-up of goals • Reports relevant cost information and the location of facilities for the agri-food products management • A tool that will link market data, policies and budget allocations

DELIVERABLES	The National Agrologistics Control Panel will be a GIS and interactive data platform that allows researchers and trained users to enter, access, make references and cross tabulations in several data and information forms related to Agrologistics, and display the results:
	• General working plan to conduct a diagnosis study of the current situation
	  · Based on the Diagnosis Report, the design of the Control Panel will be enriched
	  · Identifying best practices of existing portals
	  · Identifying information not available and its potential sources
	  · Identifying users' needs
	  · Cost estimation and project time
	• General plan for the pilot project
	• Strategic proposal to deploy a Control Panel
	• Estimate final project costs
	• Tool to evaluate the Control Panel's effectiveness

WORK AGENDA	2014	2015				2016				2017	2018
	IV	I	II	III	IV	I	II	III	IV		
1C1. Evaluation of the data and information sources.	●	●	●	●							
1C2. Terms of Reference of the Control Panel. Establish Terms of Reference by the National Agrologistics Council.	●	●	●	●							
1C3. Planning of the Control Panel. Set the stages of progressive implementation of the Control Panel, including pilot projects.		●	●	●	●						
1C4. Information management. Develop an existing information management system: • Availability of information. Make available information for producers on different channels and devices • Access to information tool. Create a visualization tool for the available information • "Big Data" tool. Create an analytical tool of "Big Data" that links market data, policies and budgetary allocations		●	●	●	●						
1C5. Supervision of the development of the Control Panel. Provide resources to the Technical Secretary to hire and supervise development of the Control Panel.		●	●	●	●						
1C6. Training for decision-making. Enable users to apply information to decision-making and prepare user guides for using the Panel and its tools.				●	●	●					
1C7. Interfaces for evaluation for decision making. Develop interfaces for the evaluation of the Program for decision-makers and provide market information to producers.						●	●	●	●	●	●
1C8. Dissemination and communication. To inform the main users on the availability of the tool and facilitate its use.										●	●

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
SAGARPA through the Technical Agrologistics Secretary (TAS), SIAP.	Members of the National Agrologistics Council, ASERCA, SENASICA, SCT, SIAP.	Direct and indirect participants of the agri-food chain: services providers, producers, traders, logistics agents, agro-industrials, etc.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter 2015	1st quarter 2016	2018

RESPONSIBLE UNIT

SAGARPA

SCOPE

FEDERAL

Head Office: SAGARPA

INDICATIVE BUDGET

The budget includes $9 million MXN per year for the diagnostic study and data collection, as well as the development and evaluation of the tool of the Control Panel, with annual increases of 4% for inflation.

2015	$ 9'000,000
2016	$ 9'360,000
2017	$ 9'734,400
2018	$ 10'123,776
TOTAL	**$ 38'218,176**

ACTION 2A	CREATE A PRE-APPROVAL SYSTEM AT POINTS OF ORIGIN OR CONSOLIDATION OF THE CHAIN BASED ON RISK MANAGEMENT
WORKING GUIDELINE	**WG2**. STANDARDIZATION OF THE CHAIN BASED ON QUALITY
CONTEXT	The quality of perishable products depends on the cold chain's continuity. Therefore, it is essential to avoid breaking the supply chain from its point of origin until its destination. Once the load has been pre-cooled in the place of origin, whenever phytosanitary[1] and customs inspections of the product are carried out simultaneously at the time of loading, the certified sealed product may be transported to its destination with minimal chances of interrupting the chain. An approach based on risk management, which means that the exporting companies are to be themselves in charge for the inspection of their products, improves the performance of the supply chain. Since the party assuming the risk of the product's rejection is the same corporation, this reduces the burden on the authorities. All pre-approval costs are therefore the responsibility of the private agent, and thus these schemes also ensure greater efficiency of public resources. This evaluation system shall allow to apply the pre-approval system at origin, thus consolidating simplified controls on the destination country, in accordance with the international agreements signed with the main business associates of México (US, Japan, European Union, China and Latin America), and from mutual recognition when using risk based approaches and trade certificates of trust (for example: C-TPAT, AEO, among others). It is important to indicate that Mexican legislation must adapt itself to enable the creation of joint inspection teams and to align its agencies, as well as to carry out inspections at the origin or consolidation points. [1] Comprising phytosanitary and animal health inspections.
ACTION OBJECTIVES	Obtain three improvement levels on the inspection systems in a gradual manner: 1. Coordinate SENASICA, SAGARPA, SAT and SEDENA joint teams to execute custom, phytosanitary and military joint inspections. In this case, these inspections would be conducted in one place only, with appropriate facilities and reducing time and costs otherwise originated from multiple displacements between several locations, and without breaking the cold chain. 2. Conduct joint pre-approval inspections in origin or consolidation points. This requires a greater investment and initial coordination between agencies and teams of inspectors, but offers great benefits in the medium term. 3. Implement an inspection system based on risk management. This implies that only a sample of the load would be verified pursuant to the risk allocation for that particular product. The same companies or other third parties shall be authorized to conduct the inspections once more at the place of origin. In that regard, inspection costs would become a part of the quality control costs of the companies, and as a result, the current costs of inspection shall be largely reduced. It is proposed for the three levels, to develop pilot projects, among them: new pre-approval points and preferred line for trucks in cross borders.
RESULTS	The expected benefits are: • Keep the cold chain closed, preserving product quality • Reduce product transit time • Reduce product exportation costs • Decrease the stock list throughout the chain (cost reduction) for the traders • Create an open market for inspections run by certified third parties, which should decrease custom transit prices in almost 20%
DELIVERABLES	• Evaluation of the regulatory framework for enforcing joint teams and pre-approvals • List of inter-agency collaboration agreements to implement the proposed action • Pre-approval technical protocol for points of origin • Category lists of priority products for this action • Strategic proposal to locate these points of origin • Design and planning of the requested cooling refrigerated facilities, or specifications for those existing facilities • Profile and references terms for authorized third parties • Implementation and evaluation of the pilot projects

WORK AGENDA	2014	2015				2016				2017	2018
	IV	I	II	III	IV	I	II	III	IV		
2A1. Subscribe cooperation agreements. Identify and convene the stakeholders to create joint teams so that they can carry out the joint inspections.	●	●									
2A2. Design a pre-approval points system. Establish a pre-approval system, including identification of points to be developed, protocols and creation of inspection joint teams.	●	●	●	●	●	●					
2A3. Legal and regulatory framework. Analyze and suggest all the legal and regulatory amendments required to enforce a pre-approval system. Prepare the proposal within the framework of the inspection system based on risk management.		●	●	●	●						
2A4. Implementation of pilot projects. The construction and operation of facilities at the point of origin and a preferential line for trucks at cross borders.				●	●	●	●	●	●	●	●
2A5. Operating mechanism for authorized third parties. Develop standards and the accreditation and certification procedures for authorized third parties.						●	●	●	●		
2A6. Single Window. Increase the Single Window functionality, bearing in mind inspection at origin and standardizing operating schedules.						●	●	●	●		
2A7. Creation and certification of bonded warehouses. The construction of a bonded warehouse that will be developed as project pilot.						●	●	●	●		
2A8. Make electronic data exchange compatible. Standardize the electronic exchange with US-CBP and CBSA in the medium term and within the framework of the NAFTA.						●	●	●	●	●	

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
SENASICA, SAGARPA.	SAT, SE, SEDENA, National Standardization Council for Corporate Competitiveness.	All the participants of the agri-food chain, including the final consumer.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter 2015	1st quarter 2016	2018

RESPONSIBLE UNIT

SAT and SENASICA

SCOPE

FEDERAL

Head office: SAT

INDICATIVE BUDGET

Included in the budget are design and annual maintenance of the pre-approval system of $10 million MXN the 1st year plus yearly maintenance, two pilot programs: $ 10 million MXN yearly for preferred truck line starting the first year, $ 30 million MXN yearly for inspection stations starting the second year. It is considered an annual inflation rate of 4%.

2015	$ 20’000,000
2016	$ 46’800,000
2017	$ 42’416,000
2018	$ 44’112,640
TOTAL	**$ 153’328,640**

ACTION 2B	STANDARDIZE THE QUALITY OF PACKAGING AND TRACEABILITY SYSTEMS
WORKING GUIDELINE	**WG2**. STANDARDIZATION OF THE CHAIN BASED ON QUALITY

CONTEXT

Proper packaging of perishable products is essential to preserve their quality. It is also essential that the packaging protects the integrity of the product according to the highest standards available, and ensures the conditions needed for their cold storage.

Harmonization of quality standards in packaging and labeling for their traceability requires regulatory changes. Defining these standards shall benefit from the participation of the industry.

Collaboration with other departments:

The Directorate General of Standards of the Ministry of Economy is working on the following projects, which shall be coordinated with this action. It is proposed that DGN-SE shall lead the technical aspects together with the Directorate General of Agri-food Standardization DGNA-SAGARPA, for the design and the updating of standards.

- Intelligent data codes (for example QR or bar codes) with GS1 information
- Creation of a platform to expedite the dialogue with those corporations in charge of final marketing of perishable products and certified laboratories in charge to harmonize the certification schemes

ACTION OBJECTIVES

- For national markets, especially for the part of the chain that goes from wholesalers to retailers, introduce the use of standard plastic boxes[1] and other quality standards to handle perishable products
- For international markets, harmonize the packaging standards of the main trading partners, mainly the United States but also GlobalGap, BRC (British Retail Consortium) and IFS (International Food Standard)
- As for traceability, introduce smart labels with GS1 information, establishing operating and information links with the Single Window, and sanitary and customs inspections

[1] Sturdy and foldable plastic boxes are widely used throughout Europe. In certain countries they are color-coded for fruits and vegetables and other perishables. As containers, boxes are part of the equipment grouping systems.

RESULTS

In 2018:

- An implemented regulation to provide unique schemes for information exchange (traceability) and packaging of perishable products from the farm to the retailer
- Mutual recognition of Mexican standards in the main international markets
- Adaptation of a harmonized label for the commercial sector, using data codes with GS1 information

Projection of results within the scope of traceability:

- In 2018: traceability standards adopted
- In 2024: perishable products, 50% adopted
- In 2030: 75% adopted in all groups of perishable groups using the most advanced codes or RFID

DELIVERABLES

- Creation of a platform to adopt standards, homologation and accreditation of the packaging of perishable products, mobilized by corporations in the industry
- Design of the harmonized label with data code
- Design of quality packaging standards for 10 perishable products
- Multi-user system for returnable packaging (boxes/crates) implemented for 10 priority products of the national market (retail), co-financed by the private sector, to be evaluated in 2018
- Pilot traceability projects to be evaluated in 2018

WORK AGENDA	2015				2016				2017	2018
	I	II	III	IV	I	II	III	IV		
2B1. Platform for Packaging Quality. Its mission is to identify, design and agree packaging standards with the corporations being a crucial element in order to improve product management, with the purpose of ensuring preservation of their quality.	●	●	●	●	●	●	●	●	●	●
2B2. Adopt a smart labeling system that allows harmonized traceability with international standards. Adopt the most used traceability standard by our main trading partners, which, in its turn, is harmonized with international standards. This shall cover the production activities from farm to retailer and shall be used by all Mexican agencies.	●	●	●	●						
2B3. Pilot projects on traceability for the domestic market. Collaboration with producers, traders, shippers, wholesalers and retailers in implementing traceability projects for perishable products (for example, a label that provides the necessary information regarding product compliance with applicable standards and regulations, in addition to the data required by consumers, retailers and authorities, by means of data codes), and place the brands NOM (Official Mexican Standard) and NMX (Mexican Standard) as a sign of confidence that distinguishes product quality and safety in the domestic and international market. Establish information links with the Single Window (SW) and sanitary and customs inspections.					●	●	●	●	●	●
2B4. Harmonize packaging standards with international markets. Homologate the packaging standards with respect to the criteria of the main trading partners, especially United States but also Global Gap, BRC (British Retail Consortium) and IFS (International Food Standard), for international markets.			●	●	●	●	●	●	●	●
2B5. Design packaging standards for 10 perishable products. Create quality packaging standards for 10 priority products for domestic consumption, with participation of the commercial sector. Pilot Project: Returnable packaging systems. Implement a multi-user returnable packaging system (boxes/crates) for the 10 priority products in the national market, co-financed by the private sector, to be evaluated in 2018.	●	●	●	●	●					

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
DGN-SE, DGNA-SAGARPA.	GS1, EMA, SENASICA, CNA, platform of corporations including the packaging sector.	All participants in the agri-food industry.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter 2015	1st quarter 2016	2018

RESPONSIBLE UNIT

SAGARPA (DGNA)

SCOPE

FEDERAL

Head Office: SAGARPA. Platform for Packaging Quality: offices in Mexico City.

INDICATIVE BUDGET

This budget includes $5 million MXN yearly for the platform to adopt standards, $5 million MXN yearly for the design of the harmonized label in the 1st year, $10 million MXN for the design of packaging standards of 10 products in the 1st year. $39.4 million MXN pilot traceability projects and $79.3 million MXN for a multiuse returnable packaging system. It is considered a 4% annual increase of inflation.

2015	$ 52'850,000
2016	$ 70'678,000
2017	$ 15'408,000
2018	$ 16'024,320
TOTAL	**$ 154'960,320**

ACTION 2C	DEVELOP A STANDARDIZATION STRATEGY
WORKING GUIDELINE	**WG2**. STANDARDIZATION OF THE CHAIN BASED ON QUALITY
CONTEXT	Alignment of product quality and safety regulations in Mexico with main international standards shall allow the producers to export immediately and shall guarantee that their product's certification shall be recognized in the destination countries. Mexico, to become a worldwide leader in agri-food products exports, requires the supply chains that are aligned with: • International standards for perishable products according to the Codex Alimentarius, UN/CEFACT and US-CBP, USDA • Internationally acknowledged certificates for Good Agricultural Practices: Global GAP, International Food Standard (IFS), Global Food Safety Initiative (GFSI), Safe Quality Food (SQF), British Retail Consortium standard (BRC), Hazard Analysis and Critical Control Points (HACCP), ISO 22000, etc. • Management initiatives from the International Coordinated Border of the World Customs Organization These purposes require a team of intergovernmental coordination and high level international relationships. This team shall report to the Office of the President every six months.
ACTION OBJECTIVES	• Create a Work Team for Agri-food Standardization within the National Agrologistics Council. This group shall be responsible for the strategic agenda for standardizing agri-food products. Their priorities are: •Mutual recognition negotiations concerning the certifications issued by Mexico in America, Asia and Europe •Positioning the brands NOM and NMX as a symbol of trust that distinguishes Mexican products in the domestic and international markets • Synchronize the standards and national conformity evaluation schemes, and align them with international standards and trends to remove unnecessary trade procedures, consequently benefiting entrepreneurs and consumers, and assuring food quality and safety • Develop a structure to evaluate those standards and regulations which may be necessary, and take advantage of existing structures such as laboratories, verification units and competent agencies or accredited certification organizations, both for the public or private sector, as enforcement bodies to ensure food quality and safety (pursuant to NOM and NMX), that simplify and minimize procedures and supervisions from all the authorities and participants of the sector
RESULTS	• Mutual recognition agreements with America, Asia and Europe in order to achieve recognition from those countries regarding agri-food certificates issued in Mexico, aiding access to the market and vice versa. A group of 50 priority or highly potential products shall be identified, and shall be the object of the recognition agreements for the time period 2014-2018
DELIVERABLES	• Work Team for Agri-food Standardization. Its objective is to convene the key participating actors in standardization issues, commission appropriate studies, generate technical recommendations, disseminate the "NOM" seal and evaluate and report the progress of the National Agrologistics Program's goals. • Other deliverables for the Work Team: studies and convening of experts to develop the test methodologies needed to fulfill the standards. Drafting manuals and systematizing processes. • A study of current law and regulatory baselines regarding the quality and safety of agri-food products in Mexico. • Development of regulating standards, regulatory impact analysis and testing methods for 50 products in 4 years. • Homologation processes for national certification schemes. • Organize 2 training and comparison annual events where international laboratories participate in order to achieve reciprocal acknowledgment of qualified Mexican laboratories. • Develop infrastructure and equipment in qualified laboratories, and provide training for its use

WORK AGENDA	2015				2016				2017	2018
	I	II	III	IV	I	II	III	IV		
2C1. Create an Agri-food Standardization Work Team. Its goal is to combine the key participating actors in standardization issues, commission studies, generate technical recommendations, and evaluate and report the progress.	●	●								
• **2C1.a Disseminate the NOM seal.**		●	●	●	●	●	●	●	●	●
2C2. Harmonize standards and evaluation schemes to obtain their domestic and international recognition.										
• **2C2.a A study of current law and regulatory baselines.**	●	●	●	●						
• **2C2.b Develop regulating standards, regulatory impact analysis and testing methods for 50 priority or highly potential products in international markets in 4 years.**	●	●	●	●	●	●	●	●	●	●
• **2C2.c Homologation process for certification schemes.** Purpose: to create a standard or unique brand aligned with international standards and trends.					●	●	●	●	●	●
2C3. Develop a certified unit network to evaluate the conformity.										
• **2C3.a Domestic and international reciprocal acknowledgment of accredited Mexican laboratories to evaluate conformity.** Organize 2 training and comparison events per year with the participation of international laboratories.			●	●	●	●	●	●	●	●
• **2C3.b Develop infrastructure and equipment in qualified laboratories, and provide training for its use.**	●	●	●	●	●	●	●	●	●	●

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
DGN-SE, DGNA-SAGARPA.	SENASICA, COFEPRIS, EMA, CNA, organized traders, organized retailers.	All the actors participating in the supply chain.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter 2015	1st quarter 2016	2018

RESPONSIBLE UNIT

SAGARPA (DGNA)

SCOPE

FEDERAL / INTERNACIONAL

Head office: Mexican Accreditation Entity (EMA). Alternating meetings at EMA and SAGARPA.

INDICATIVE BUDGET

This budget includes $12.5 million MXN yearly for the standardization work team, $12.5 million MXN yearly for the dissemination of the NOM seal. $5 million MXN in the 1st year for the study of the legislative environment, $12.5 million MXN yearly for the normalization of regulatory laws for 50 products, $2.5 million MXN yearly for the homologation of certification schemes, $30 million MXN yearly for training and comparison events and for laboratory equipment. It is considered an annual inflation rate of 4%.

2015	$ 75'000,000
2016	$ 72'800,000
2017	$ 75'712,000
2018	$ 78'740,480
TOTAL	**$ 302'252,480**

ACTION 3A	PREPARE A COMPREHENSIVE MASTER PLAN, INCLUDING PROJECT PRIORITIZATION
WORKING GUIDELINE	**WG3**. PLANNING AND CONSTRUCTION OF AGROLOGISTICS AND MULTIMODAL ASSETS IN STRATEGIC LOCATIONS
CONTEXT	Agriculture, understood to be the traditional and extensive use of the soil is undergoing deep transformations. Precision technology such as hydroponic greenhouses point to an intensive use that does not depend on soil's quality, which opens new opportunities in agricultural land planning. Agroparks are a clear example, where one can find an intensive production, transformation, logistics and marketing on one location in metropolitan and semi-rural areas. In 2010 Mexico saw more than 15 thousand hectares of precision crops across the country, and in 2013 the value of the greenhouse's crops and floriculture amounted to more than $8,000 million[1]. Planning of the value chain of these emerging assets requires deep knowledge of the territorial conditions, and precise understanding of their economic viability and physical distance to the market. Based on these developments, the Program intends to establish geographic criteria for project prioritizing by means of a Comprehensive Master Plan: • The Comprehensive Master Plan shall provide the basis for an efficient agrologistics value chain that responds to the vision of placing Mexico among the leaders of the sector worldwide • The Plan is a dynamic tool that supports decision-making in programming investments in infrastructure and territorial development [1]INEGI, National Accounts System of Mexico. Accounts for goods and services, reviewed in 2012, basic version 2008.
ACTION OBJECTIVES	• A better planning to provide infrastructure and agrologistics and multimodal assets throughout the country with a long-term vision • Criteria to prioritize public investment and greater security for private investment • Better coordination of measures and communication between federal entities and authorities that govern development of land, infrastructure and natural resources: SCT, SEDATU[2], SE, SEMARNAT, SEMAR, SENER, CONAGUA and Port Authorities. The production of the Plan requires a great institutional coordination and at the same time it can boost communication and coordination among participant entities • Linking with other Programs, especially the National Infrastructure Program and National System of Logistics Platforms including the consolidation of resources. [2] For example, in the case of SEDATU, mapping the location of the agrologistics nodes can be a valuable tool for the evaluation of territorial development policies such as Rural-Urban Systems (SUR) and integrated urban development (DUI).
RESULTS	• In the territorial dimension, the Plan must identify nationally consumer areas, production areas, facilities to process and handle existing products, already planned facilities, available road and rail infrastructure, and multimodal clusters as well as ports, airports and border crossings. Reserving land for the facilities and infrastructure needed for medium and long-term must be considered, and identify a designated use of land compatible with SEDATU regulations • Within the extent of feasibility, and based on current and future demand, the Plan must identify business and management models for the assets; define criteria and incentives for developers that build these assets, and requirements for those producers that make use of them. In addition to the scientific basis, the feasibility study should be completed with contributions from the interested parties by means of a participatory process • The National Agrologistics Program must be linked to the National Infrastructure Program and the National System of Logistic Platforms, Thereby, it must seek to combine financing sources from various agencies. Creation of a common investment database allocated to projects related with agrologistics assets should be an essential and practical first step • The Plan must take advantage of the technical studies of other already operating Programs and data and information produced by government institutions such as SEDATU, SCT, SE, INEGI, SIAP, and ASERCA, among others
DELIVERABLES	The Comprehensive Master Plan at federal level: • Analysis and diagnosis of the current situation in its territorial and economic dimension from the perspective of demand • Proposal of intervention areas and criteria to select strategic projects, in other words, their localization, corridors and clusters that have development and financing priority • Inter-sectorial planning strategies • Terms of reference to produce regional master plans and local action plans • This project should be used also to create, in collaboration with SIAP, a geo-referenced database for decision-making

WORK AGENDA	2015				2016				2017	2018
	I	II	III	IV	I	II	III	IV		
3A1. Mandate to convene the stakeholders and request information. Establish collaboration agreements between the stakeholders to share the information required to develop the Plan.	●	●								
3A2. Territorial diagnosis. 1. Mapping of the infrastructure required by agrologistics activities 2. Main demand centers per product 3. Main production and management center 4. Corridors and articulation points of demand along the chain 5. Ports and customs, import and export point 6. Project current and future cash flows based on deman 7. Identify high potential agrologistics areas for strategic projects (agrologistics corridors 8. Margin for updating and improving existing the infrastructure (connectivity gaps, bottlenecks)	●	●	●							
3A3. Links to other federal Programs: PNI and SNPL		●	●	●	●					
3A4. Economic diagnosis. Business cases are required to justify the investment. The Plan must identify investment and management patterns for assets, define criteria and incentives for developers that build these assets, and requirements for producers that make use of them.				●	●	●	●			
3A5. Design of the regulatory framework. Identify the legal instruments needed to develop the projects, soil change processes or special land use designations compatible with SEDATU regulations.	●	●	●	●	●	●				
3A6. Prioritize the Agrologistics Fund as a result of territorial planning. The Plan must provide criteria to prioritize resources to the Technical Secretary, which is responsible of managing the Agrologistics Fund.					●	●	●	●	●	●

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
Technical Secretary of the National Agrologistics Council.	SAGARPA, SCT, SEDATU, SE, SENER, CONAGUA, SENASICA, sector of transport, CNA, corporations, university planning departments, state governments.	Users and operators of the supply chain, authorities at ports, railways, airports, agroparks, warehouses and state governments.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter 2015	1st quarter 2016	2018

RESPONSIBLE UNIT

Technical Secretary

SCOPE

FEDERAL / REGIONAL

The project shall be coordinated by the Technical Agrologistics Secretary , with the participation of other Ministries, particularly SCT and SEDATU.
Head Office: SAGARPA

INDICATIVE BUDGET

The budget includes $20 million MXN on the 1st year to develop the Plan and $15 million MXN yearly for its management, continuous development and drafting of planning tools that would govern planning at regional and local levels starting the 2nd year. This budget takes into account a 4% annual inflation rate

2015	$ 20'000,000
2016	$ 15'000,000
2017	$ 15'600,000
2018	$ 16'224,000
TOTAL	**$ 66'824,000**

ACTION 3B	DEVELOP THE BUILDING DESIGN AND DEVELOPMENT AND MANAGEMENT MODELS FOR AGROLOGISTICS AND MULTIMODAL ASSETS
WORKING GUIDELINE	**WG3**. PLANNING AND CONSTRUCTION OF AGROLOGISTICS AND MULTIMODAL ASSETS IN STRATEGIC LOCATIONS
CONTEXT	For the initial stage of the 2014-2018 National Agrologistics Program a contribution of public funds to build agrologistics assets is estimated to be close to $ 2,400 million MXN ($190 million USD), and with the $4,600 million already destined to the National Agroparks System for the same period, represents an investment of over $7,000 million MXN in agri-food chains. According to the magnitude of the investment, it is essential that the allocation of these resources are guided by clear and well-timed operating rules. Developing this type of projects is new, and therefore there are no previous references that assist these guides. Likewise, since the public sector has decided to assume its leadership in land development and infrastructure development, it is necessary to develop protocols for the role of developers of this new class of logistics projects, their responsibilities and what they must require from the rest of the participants in the process and from their consultants. In the developing Agroparks in Mexico, the public sector has also led joint venture agreements with anchor corporations (SAPIs) that are emerging as partners for the entire investment by means of financial trusts. This financing scheme continues to be uncertain for investors, due to the lack of precedents in Agroparks design and its eventual return on investment. Consequently, transparent schemes with incentives are required to guide and smooth private investment and the creation of APPs between SAPIs and the government. This measure proposes to define the Terms de Reference for both the preliminary and feasibility studies, master plans, and engineering that are the key inputs to achieve these projects and their evaluation as investment.
ACTION OBJECTIVES	The objective is to guide the design and planning of agrologistics assets. According to the National System of Logistics Platforms, a logistics platform is defined to be "a nodal multi-customer infrastructure that takes advantage of the freight breaks in transport and logistics chains to focus on added value technical activities and functions." A platform specialized in perishable products can combine logistics and production functions with customs and sanitary inspections or regional coverage services such as multimodal change terminals and irradiation chambers. These would be an array of infrastructure and facilities (refrigerated warehouses, yards, intermodal terminals, office buildings, greenhouses, production or processing plants, etc.) where optimization of good flows is obtained and supplying services are facilitated by a 'clustering' effect. The specific purposes to develop agrologistics assets are: • Provide competitive and quality land that allows developing logistics activities related with perishable products • Generate loyalty flows in a specific area and attract new flows, facilitating a change in mode of transportation. • Reduce infrastructure investment • Promote the area socio-economically by means of creating jobs and improving competitiveness • Provide added value integrated services that offer better quality to production and logistics processes
RESULTS	• Criteria to define executive projects of the different parts of the National Agrologistics Program. This study shall define the different types of agrologistics assets such as cold storage collection centers in production areas, selection, classification and pre-cooling facilities, Agroparks, multimodal nodes, distribution centers, and port facilities. • Criteria to define financing models and incentives, which shall determine the needs for return on investment, and the way to manage and operate these assets.
DELIVERABLES	• Terms of Reference for contracting preliminary studies. Definition of the type of asset, program of uses, schedules (master plan) and sizing. • Procedure Manual for public developers. Models for territorial planning, land development and management of assets by means of Special Purpose Vehicles (VPE). • Participation scheme, business model, and incentives for key investors and key infrastructure operators • Participation scheme and incentives for enterprises and logistic service providers. • Participation scheme for small and medium producers or associations • Incentives for universities, research and training centers • Incentives for users of multi-customer services

WORK AGENDA	2015				2016				2017	2018
	I	II	III	IV	I	II	III	IV		
3B1. Prioritize the allocation and exercise of financial resources from the Agrologistics Fund. Prioritize the allocation and exercise of financial resources needed for agrologistics assets, based on those that have proved their value by means of a business plan. The purpose is to avoid investing in dysfunctional assets and monopolistic chains that deviate from the general interest. This action is developed in parallel with the mapping information of the Comprehensive Master Plan (Action 3A).	●	●	●	●						
3B2. Define the Terms of Reference to hire studies and construction projects. These studies include the analysis of demand and feasibility of lands, planning services, design and construction engineering services of the infrastructure and logistics facilities, as well as the construction and management.	●	●	●	●	●					
3B3. Procedure Manuals for public developers. Models for territorial planning, land development and management of assets by means of VPE.			●	●	●	●				
3B4. Participation scheme and incentives for anchor investors and key infrastructure operators. These can act as partners or licensees. It requires research of the business model and territory development.					●	●	●	●		
3B5. Participation scheme and incentives for corporations and users. These shall be installed in the project with their own facilities, logistics services suppliers, producers and associations, universities and training centers, as well as users of multi-customer facilities.					●	●	●	●		
3B6. Operation of pilot projects and systematization of experiences. Define, plan and implement pilot projects, so that the design initially established might be adjusted upon their results, and likewise demonstrate their commitment to the sector and the public opinion with the implementation in the short term.				●	●	●	●	●	●	

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
Technical Secretary of the National Agrologistics Council.	Development Bank, state governments, private sector, developers.	State governments, authorities at ports and corridors.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter 2015	1st quarter 2016	2018

RESPONSIBLE UNIT

Technical Secretary

SCOPE

FEDERAL

Head Office: Office of the Technical Secretary for the National Agrologistics Program

INDICATIVE BUDGET

This budget includes $10 million MXN yearly (2015-2016) for the elaboration of criteria studies, participation schemes and incentives and $7.2 million MXN for the follow-up and systemization of pilot projects (2017-2018). This budget considers an annual inflation rate of 4%.

2015	$ 10,000,000
2016	$ 10,400,000
2017	$ 3,536,000
2018	$ 3,677,440
TOTAL	**$ 27'613,440**

ACTION 3C	DEVELOP AND IMPLEMENT FRAMEWORK AGREEMENTS WITH STATE GOVERNMENTS
WORKING GUIDELINE	**WG3**. PLANNING AND CONSTRUCTION OF AGROLOGISTICS AND MULTIMODAL ASSETS IN STRATEGIC LOCATIONS
CONTEXT	Conferring competences and responsibilities to state governments is an important step to facilitate the execution of the National Agrologistics Program. This requires developing and implementing framework agreements based on the Comprehensive Master Plan and the definition of the agrologistics corridors (Action 3A), and operating rules for the executive project of the assets that make up the system (Action 3B), which specifies how each of them should be built and managed. Since both instruments have been developed with the participation of state governments, this collaborative precedent shall facilitate the accountability of state governments. CONAGO's leadership in designing and implementing such agreements assures that all state government's actions are aimed to achieve common objectives and prevents internal competition.
ACTION OBJECTIVES	This is a core action in the process of establishing a National Agrologistics Council. Within its scope are: • Creating a space for institutional dialogue, which leads to agreements that engender balance and optimal allocation of the Agrologistics assets included in the Comprehensive Master Plan. • Support CONAGO's mission and promote the consolidation of Mexican states as critical actors in this process so they may add considerably to regional and national development and count with resources and responsiveness to meet the demands of their entities, coordinated through the agrologistics corridors. • Propose the design of inclusive and commonly agreed programs that meet the productivity, regulatory, infrastructural and organizational demands of the agri-food sector. • Propose the design of inclusive and consensual programs that meet the demands of the agri-food sector in terms of productivity, regulations, infrastructure and organization. • Promote strengthening a new relationship of respect and collaboration between government levels and the private sector. • Hasten the development of sea ports, airports, roads, rails, agroparks, collection centers, rural transforming centers and other assets that shall be provided to achieve this goal by means of common agreements
RESULTS	• Harmonious understanding between the different government levels. This means direct and active communication between each pair and with the Federation. • A clear delineation of power and responsibilities for each federal entity and for the Federation itself. • Propose the required legal amendments to build an appropriate legal framework within which this proposal will be fulfilled. • Agreed decision-making regarding plans, goals, commitments and financial contributions which each federal entity will provide to the Agrologistic infrastructure projects. • Objective assessment regarding the evolution of each measure, whether already implemented or being implemented. • Cross convergence of federal and interstate financial resources surrounding the Agrologistics corridors.
DELIVERABLES	• Operational and procedural guidelines to implement projects of Agrologistics assets and infrastructure development by the state governments, aligning regional development with federal planning through master plans and the defining of Agrologistics corridors. • Guidelines for implementing phases and Special Purpose Vehicles (VPE), in relation to contracting works, development of managing asset models and establishment of public-private partnerships. • System indicators based on logistic and financial performance of measurable assets from the objectives of the National Agrologistics Program
PILOT PROJECT	Recommended preparatory meetings between the Federation and the legal state delegations with a proposed agenda that includes: • The analysis of current regulations and possible adjustments for the implementation of this action. • The session to share prior experience with public - private development agreement

WORK AGENDA	2015				2016				2017	2018
	I	II	III	IV	I	II	III	IV		
3C1. Coordination with state governments. Establish the participation and commitment of each party. Functions, responsibilities, and management scope. Mainly regarding agreements covering the location of Agrologistics infrastructures with regional scope. Commitments regarding the amounts and participation practices in the projected investments in agreement with the Master Plan and the defining of the Agrologistics corridors.	●	●	●	●	●	●	●	●	●	●
3C2. Review of the current legal framework for implementing assets. Review or create instruments to implement the assets executing projects in the states, including planning processes and requesting permissions.	●	●	●	●	●	●				
3C3. Required process needed by state governments to hire the asset constructive design. Establish the work process needed by state governments to commission asset design.		●	●	●	●					
3C4. Identify the origin of available programs and resources. Align the objectives and scope of existing programs with the goals of this initiative, increasing resources.		●	●	●						
3C5. Creation of operating manuals. Design and implement Procedural and Operating Manuals for each process of the different type of assets. Use the systematization of pilot experiences as a baseline.					●	●	●	●		
3C6. Technical support for project completion. Offer technical support to state governments to establish institutions for project completion, as well as business models to manage assets, developing thus public-private partnerships.					●	●	●	●	●	●
3C7. System indicators. Introduce key performance benchmarks to evaluate the asset development process.							●	●	●	

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
National Agrologistics Council, CONAGO.	The state governments and the Federation supporting the achievement of common goals. Private organizations shall complete surveys to assess the scope and implementation feasibility in the short, medium and long terms.	State government, infrastructure and assets developers and operators working in compliance with these operative guidelines. Also: producer associations, service providers, agro-industries, logistics companies, input suppliers, training centers, traders and consumers in general.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st half of 2015	1st half of 2017	2018

RESPONSIBLE UNIT

CONAGO, state governments via the Secretaries of Rural Development, National Agrologistics Council

SCOPE

FEDERAL / STATE

Coordination is carried out at CONAGO with the active participation of state Economic and Rural Development Ministries.

INDICATIVE BUDGET

The budget includes $5.1 million MXN in legal and administrative consultation and continuing agreements in relation to the state government framework agreements. 50/50 participation between federal entities and federal government is expected. This budget accounts for a 4% annual increase of inflation.

2015	$ 5’150,000
2016	$ 5’356,000
2017	$ 5’570,240
2018	$ 5’793,050
TOTAL	**$ 21’869,290**

ACTION 4A	MULTIPLY INVESTMENT RESOURCES THROUGH SPECIAL PURPOSE ENTITIES AND THE AGROLOGISTICS FUND
WORKING GUIDELINE	**WG4**. PROMOTE A BUSINESS MODEL BASED ON DEMAND, BENEFICIAL AND OPEN TO ALL PARTIES
CONTEXT	The agrologistics assets to be built in the states shall be developed by implementing institutions specially designed to this purpose, and that, thanks to the contribution of the private sector, shall multiply public investment. These implementing institutions, since they are focused on specific projects, may be more efficient in terms of technical and administrative tasks. In addition, international experience shows that complex projects in which different actors are involved, benefit by establishing dedicated offices for project management (PMO, its acronym in English), composed by experienced and full-time staff, in charge of carrying out the different aspects of the projects. In case the project is expected to be developed within a period of time longer than 3 years, or complex financing mechanisms from different sources are required, as will be the case of establishing agrologistics networks, then it is advisable to use Special Purpose Vehicles (VPE), and for the project management and operation Special Purpose Entities (EPE). Likewise, the National Agrologistics Council shall have the mandate to create an Agrologistics Fund, as a common investment fund for infrastructure or financial trusts, which initially shall have a capital of $500 million MXN per year. In order to multiply investment resources, try new technologies and launch logistics services by means of the following functions of the Special Purpose Entities: • Finance agrologistics assets (fitting of agroparks, cold storage, inspection centers, bonded warehouses, multimodal terminals) • Seed capital to test new technologies, by integrating pilot projects • Seed capital to develop new services as well as shipping and rail routes
ACTION OBJECTIVES	• Multiply investment resources by means of institutions that direct private investment quickly and effectively • Maximize available resources for the agri-food industry in the development bank and public sector by means of the Agrologistics Fund. Together, the VPE and EPE these can be efficient financial leverage mechanisms and to attract resources from different sources, such as multilateral development agencies (BID, World Bank), privates corporations, and government and financial institutions
RESULTS	• Develop strategic logistics nodes, among which agroparks deserve special recognition • Seed capital for pilot projects relevant to the National Agrologistics Program strategies • Increased available funding to develop assets of the National Agrologistics Program
DELIVERABLES	• Create the Agrologistics Fund integrated with mixed capital including corporations of the agri-food sector, banks, development agencies, the government and associations of producers. For specific projects, VPE/EPE shall be created by relevant groups of investors under the guidance of the Fund, and may have access to the Fund's capital to the extent that their project meets the necessary requirements • The Executive Board of the Fund shall be inclusive and reflect the collection of public and privates associations present in the VPE/EPE projects, regardless of their equity magnitude or participation • VPE/EPE's legal and financial design, to promote productive business models that shall encourage the investment in assets and infrastructure by agri-food corporations and banking industry. These shall include: definition of the proposal modalities to investors • Legal certainty to investors of the VPE/EPE, definition of responsibilities for each actor and definition of surveillance mechanisms • Seed Capital Fund for strategic public infrastructure and to trigger important logistics services for the strategies proposed to the Council It is estimated that after 1 decade of operation the Fund shall be able to manage an investment volume of up to $13,000 million MXN ($1 billion USD) distributed in projects throughout the country, and shall count with foreign direct investment contributions.

WORK AGENDA	2015				2016				2017	2018
	I	II	III	IV	I	II	III	IV		
4A1. Technical Secretary as the coordinating and monitoring body. Establish the Technical Secretary as the coordinating and monitoring body of the different Special Purpose Entities in states and municipalities.	●	●								
4A2. Creation and Operation of the Agrologistics Fund. Define the purpose of the Fund, its relationship with the implementing institutions (VPE/EPE), operating rules and the members who make up the executive committee. Coordinate with Action 3B to define qualified projects that may access the Fund. Its creation is in charge of the banking sector, however, management of the Fund and coordination of the implementing institutions is carried out by the Technical Agrologistics Secretary.	●	●	●	●	●	●	●	●	●	●
4A3. Competences of Special Purpose Entities. Define specific competences of the Special Purpose Entities (EPE), for example, construction and operation of agrologistics assets.		●	●	●						
4A4. Reforms to the Public and Private Associations Law. Propose the required changes to the Public and Private Associations Law, based on the competencies defined for the EPE.		●	●	●	●					
4A5. Governance model for Special Purpose Entities. Define the governance and management model of these institutions, specially pointing out how decisions shall be made, so that the parties shall have a weight of opinion proportional to their contributions. It is necessary to consider that these business and management models should encourage investment.				●	●	●	●			
4A6. Procedures to attract private investment. Develop a model of procedures to attract private investments by the EPE, to be added to the contributions of state governments and SAGARPA.			●	●	●	●				
4A7. Coordination of financing sources. Coordinate with the development bank, SHCP and SE, the operating financing of EPE.			●	●						

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
National Development Bank, with SHCP and. SAGARPA who request the seed capital of the Fund during the first 4 years.	Companies in the agri-food industry, banks, investors, development agencies and associations of producers.	Everybody investing in infrastructure of the sector that participates in the Fund or in its VPE/EPE for a specific project.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter, 2015	1st quarter, 2016	Annual

RESPONSIBLE UNIT

Development Bank

SCOPE

FEDERAL / REGIONAL

Coordination of VPE/EPE by means of state and regional delegations of the development bank (Financiera Nacional, FIRA, FIRCO, FOCIR, etc.)
Head Office of the Agrologistics Fund: offices of the National Development Bank.

INDICATIVE BUDGET

This budget consists of $500 million MXN yearly as a contribution to the Agrologistics Fund. This budget takes into account a 4% annual inflation rate.

2015	$	500'000,000
2016	$	550'000,000
2017	$	605'000,000
2018	$	665'500,000
TOTAL	**$**	**2'320,500,000**

ACTION 4B	ENCOURAGE BUSINESS MODELS AND ASSOCIATIONS OF SMALL PRODUCERS
WORKING GUIDELINE	**WG4**. PROMOTE A BUSINESS MODEL BASED ON DEMAND, BENEFICIAL AND OPEN TO ALL PARTIES
CONTEXT	The development of business models based on association includes the definition of incentives and training for those producers with insufficient cash flow to deal with the possible costs of using the assets. If the models are defined by small and medium producers, rather than imposed by the government, the possibilities to integrate them to the value chain shall be higher. Developing business models that allow the use of agrologistics assets is a critical goal for the Program. Public policies must be clear and transparent, with decisions based on technical facts regarding the costs of use and location of the assets. The models to be developed and the associations of producers should be geared to meet the market demands. As well as planning infrastructure and facilities should be made on a scientific basis and respecting the products and markets, the producers and SMEs should be prepared to group their activities around them. In this line, a target population of 970,725 economic units that belong to the E3 and E4 Rural Economic Units strata defined by FAO is estimated.
ACTION OBJECTIVES	• Provide strategic orientation of the economic organization of rural producers in order to operate as a corporation, with coordination among departments • Adopt profitable business practices by small agricultural entrepreneurs • Promote partnership work, complement strengths and minimize weaknesses among small agricultural entrepreneurs, by means of appropriate business models • Include 10% of the target population in schemes of associated producers in 15 years • Raise the average sales revenue for 10% of the target population to the next higher strata
RESULTS	• Regional integration of small and medium agricultural entrepreneurs in legal and commercial schemes • Participation of small and medium agricultural entrepreneurs in the National Agrologistics Plan • Increase the percentage of small agricultural entrepreneurs in the farming contract modality • Associations of producers that reach a minimum area of 150 ha • Administrative and legal training of inducing agents • Business training for managers of new associations
DELIVERABLES	• A collaborating model, including a standard common needs document, with organizational bases and constitutive processes for economic association of small agricultural entrepreneurs • Training modules in business plan and joint investment designs • Agreements with chain investment cores in assets, such as agroparks, to execute pilot projects • Incubation areas for the associations where business consultancy is provided
PILOT PROJECT	Consider the ongoing building of agroparks as a basis in order to stimulate the integration of productive chains and/or rely on already established associations of producers: • Select a product category and identify opportunities of inclusion with corporations prospected for agroparks • Associativism induction course for producers. Adoption of the proposed model • Reserve the resources available to provide agroparks services at reduced costs for associations of participating users • Agroparks Service User Association (AUSA)

WORK AGENDA	2015				2016				2017	2018
	I	II	III	IV	I	II	III	IV		
4B1. Signing collaboration agreements. Document agreements between SAGARPA, SE, the Development bank, IICA and rural development organizations, companies and associations of producers. Find investors in agroparks and collection centers investment projects in rural areas.	●	●	●	●	●					
4B2. Develop the business model. Coherent joint work to identify the best business model and the legal scheme for different situations, in order to implement this initiative.		●	●	●	●					
4B3. Disseminate the Associativism proposed model. Inform SMEs regarding opportunities for collaborative business work and the benefits available						●	●	●	●	●
4B4. Define incentives for small producers and SMEs to use agrologistics assets. Coordinate incentives with the development bank destined to associations of small producers and SMEs, in order to use agrologistics assets.			●	●	●					
4B5. Leading corporations assisting small producers. Encourage leading corporations to assist small producers to integrate themselves, transferring management skills, and sharing market technology and knowledge.			●	●	●	●				
4B6. Pilot projects. Demonstrate and ensure results through pilot projects, as well as systematize and disseminate the best practices.			●	●	●	●	●	●	●	●

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
SAGARPA	SAGARPA delegations, SE, Development Bank, IICA, INCA Rural, agri-food industry corporations, development agencies, associations of producers.	Small and medium producers across the country.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter, 2015	1st quarter, 2016	2018

RESPONSIBLE UNIT

SAGARPA

SCOPE

FEDERAL / STATE / MUNICIPAL

Design of incentives and budgetary basis provided by SAGARPA. The incentives and training programs shall be managed by SAGARPA delegations in the states and facilities within their own municipalities.

INDICATIVE BUDGET

This budget includes $3 million MXN for the training of 625 agents inducted in the 1st year, and $1 million MXN for each year subsequently, $34.5 million MXN to boost training for 1,380 associations in 4 years with incentives for association, including management and legal costs, $103.5 million MXN yearly for incentives for meeting the demand, and $3.45 million MXN yearly for business training for managers of new associations. This budget takes into account an annual inflation rate of 4%.

2015	$ 144’450,000
2016	$ 148’128,000
2017	$ 154’053,120
2018	$ 160’174,445
TOTAL	**$ 606’805,565**

ACTION 4C	ESTABLISH AUDITABLE AND TRANSPARENT PROCESSES
WORKING GUIDELINE	**WG4**. PROMOTE A BUSINESS MODEL BASED ON DEMAND, BENEFICIAL AND OPEN TO ALL PARTIES
CONTEXT	The starting point to ensure that public and private money is well invested is to have a conception based on demand, which allows identifying markets with a high potential regarding imports and exports. Transferring the capital of the public inversion's private members and making the business model of agrologistics assets advantageous for all the parties, requires clear game rules. It is also important to ensure that public resources are used efficiently, guaranteeing proper Program execution; in such a way that its activities are upheld by the users, beneficiaries and the public in general. This implies creating auditable and transparent processes to develop and operate agrologistics assets, opening business opportunities and diminishing any options for corruption and obscure decisions.
ACTION OBJECTIVES	Establish easily auditable and transparent processes within the National Agrologistics Program. • Build a foundation of trust • Ensure cleanliness and impartiality when granting resources through a public process • Ensure the quality of the Program's service providers through a transparent selection process and based on robust criteria • Offer advice to improve the internal control of the institution • Develop a system of timely and reliable data to validate, control and plan resources • Provide a standardized process for project development and delivery of resources.
RESULTS	• Optimize invested resources • Evaluate the fulfillment of the established objectives • Ensure quality in the resource allocation processes and contract awards. • Transparency and enablement in the Program's accountability
DELIVERABLES	• Manual of criteria to grant public resources to the National Agrologistics Program for projects. • Procedural bidding manual for companies related to agrologistics assets such as engineering and design, developers, construction, investment management and financing • Evaluation protocol for the performance of agrologistics assets: •Being built / in construction •Currently operating

WORK AGENDA - NATIONAL AGROLOGISTICS PROGRAM

WORK AGENDA	2015				2016				2017	2018
	I	II	III	IV	I	II	III	IV		
4C1. Mandates and commitments. Formalize cooperation between SFP and SAGARPA to define best practices and process designs.	●	●	●	●						
4C2. Establish criteria to grant financial assistance to agrologistics asset developers with public resources.			●	●						
4C3. Bidding system for agrologistics assets. Define a quick, transparent and homogenous bidding system across the national territory to govern contracting of building, operation and maintenance of agrologistics assets at state level.			●	●	●	●	●	●	●	●
4C4. Synchronize procedures. Integrate the audit schemes with the Public Works and Related Services Law, the General National Assets Law, the Law of the Professional Career Service in the Federal Public Administration, the Federal Law for Budget and Fiscal Accountability and other laws, regulations, decrees, agreements and orders from the President of the Republic.		●	●	●	●					
4C5. Evaluation. The Technical Secretary shall run regular evaluations regarding the progress of agrologistics assets.									●	●

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
Responsible units, with SFP guidance.	SFP, SAGARPA, Technical Agrologistics Secretary, state governments, developers, building and engineering companies, investors, operators.	Each participant in the processes where public funds are used, and above all, taxpayers in the country.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st Quarter, 2015	1st Quarter, 2016	2018

RESPONSIBLE UNIT

Secretary of Public Administration - SAGARPA

SCOPE

FEDERAL

Head office: SFP offices and the Technical Agrologistics Secretary. Following up of projects provided by SAGARPA branches and state governments.

INDICATIVE BUDGET

The budget comprises formulating criteria to grant resources, design of a bidding system, and following up and project evaluation protocols with an initial investment of $ MXN 10 million in the 1st year. In the following years, $5 million MXN per year to cover expenses for operating costs, building of regional and state teams and federal project monitoring. This budget takes into account an inflation rate of 4% per year.

2015	$ 10’300,000
2016	$ 5’000,000
2017	$ 5’200,000
2018	$ 5’408,000
TOTAL	**$ 25’908,000**

ACTION 5A	ESTABLISH A MODULAR TRAINING PROGRAM BASED ON EXTENSIONISM NETWORKS
WORKING GUIDELINE	**WG5**. BUILDING OF HUMAN CAPITAL AND EFFICIENT TOOLS FOR DISSEMINATION AND FOLLOW-UP OF INFORMATION
CONTEXT	Innovation and Knowledge Transfer is one of the three strategic pillars in the National Agrologistics Program. Pursuant to this pillar, the Program shall encourage the alignment of the sector with their human capital development, producing knowledge, training, productivity and competiveness. This requires investment in training and technology and management applications for the different phases of the system, particularly when planning the supply and transport of perishable food. This investment shall produce a genuine transference of ownership and knowledge to the actors in the agri-food chain, mostly to producers and entrepreneurs who are the chain's beginning point and have enormous influence on product quality.
ACTION OBJECTIVES	Offer training in marketing, distribution and postharvest handling topics to the producers categorized in stratums E3, E4 and E5 of the Rural Economic Units[1] through short courses and using educational technology platforms, in order to increase the operating capabilities of producers and involved actors in agri-food product trading. To achieve higher efficiency, the project shall use the extension networks that are already available. • Create a professional profile for the Rural Economic Units selected as target population, constituted by 1.4 million people • Reach 25% of the target population in the first 4 years • Create programs to develop technical capacities in postharvest handling and marketing in the target population • Introduce a scheme for technical and business education of the sector • Increase the practical knowledge of the selected topics in the target population [1] See the definition of the REU stratification: FAO, Diagnosis of rural and fishing sector in Mexico 2012 (SAGARPA, 2013), 19.
RESULTS	The expected outcome is to have qualified actors in the commercialization of agri-food products, enabling them to make more accurate and efficient decisions with positive results for their competiveness and incomes. Specific results: • Boost producer capacities to maximize postharvest economic yields. • Professionalization of the agri-food sector; skilled producers in agri-food technical topics and business topics • Scheme for certification of producers
DELIVERABLES	Courses with a duration time of 20 to 40 hours, that shall cover key subjects concerning postharvest handling and planning based on marketing. The main goal is that the extension workers or the leaders of existing producer networks may gain knowledge and become experts. These trained actors, in turn, shall teach other producers and actors in a multiplying training scheme. • Specific scheme to instruct producers · Catalog of courses to be taught (for example, postharvest handling and losses, transport management) · Document covering the criteria to define the academic-professional profile of trainers and participating institutions. • Agenda to implement and execute the modular skill development plan • Strategy to advertise the programs • Budget related to the program • Estimate the amount of certified producers · Economic impact of the certification · Yield rates of product handling and trading
PILOT PROJECT	Training Course of Communication and Planning skills for supply. Goal: Increase the planning skills of small and medium producers so they can deliver their products on time and under adequate conditions. • Select the region / initial entity for implementation – SAGARPA • Deciding the sample size - DGTA • Identify and localize the target population in the region • Recruitment of teachers / instructors • Develop specific contents for the region – SAGARPA / DGTA • Enable the requested infrastructure • Joint call - SAGARPA / DGTA • Delivery of courses – DGTA • Pilot assessment - COPAES

WORK AGENDA - NATIONAL AGROLOGISTICS PROGRAM

WORK AGENDA	2014	2015				2016				2017	2018
	IV	I	II	III	IV	I	II	III	IV		
5A1. Integrate the Academic Commission for Agrologistics Training. Establish a coordinating commission integrated by SEP and SAGARPA.	●	●	●	●	●	●					
5A2. Prepare a relevance study. Validate the creation of instruction programs.		●	●	●	●						
5A3. Train teachers and create contents. Define the teacher's profile in academic and professional competences. As well as to identify general programs needs and particular characteristics of each region.	●	●	●	●	●	●	●	●	●	●	●
5A4. Establish workshops, online courses and promotion of instruction programs.					●	●	●	●	●	●	●
5A5. Management and decisions for pilot test and evaluation. Definition of priorities regarding subjects, regions and financial resources for the pilot tests to be executed during the implementation stage.			●	●	●	●					

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
SEP - SAGARPA, having as operators the INCA Rural and other organizations. Support from the Directorate of Agricultural Technological Education (DGTA) in the design phase.	SAGARPA, SEP, INCA, DGTA, (Directorate of Agricultural Technological Education), stakeholders of the sector but not public entities, such as independent producers, producer associations.	Firstly, the direct and indirect participants of the whole productive chain. Ultimately, the consumers who shall obtain better products, with higher quality and lower prices.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st Quarter, 2015	3rd Quarter 2015	Annual

RESPONSIBLE UNIT

SAGARPA

SCOPE

FEDERAL / STATE

The implement management of this measure can be conducted at the INCA Rural headquarter, with extensions in the different academic fields of the states. It is advisable that DGTA Academic Bodies shall develop the design phase.

INDICATIVE BUDGET

This budget consists of $ MXN 212,823,900 yearly to start 20 – 40 hour training courses on Agrologistics and postharvest management in an extensionism network that includes 88,677 people, with the goal of reaching 25% of the target population by the end of four years. This budget accounts for an annual increase of 4% inflation.

2015	$ 212'823,900
2016	$ 221'336,856
2017	$ 230'190,330
2018	$ 239'397,943
TOTAL	**$ 903'749,029**

ACTION 5B	ESTABLISH AN INTER-SECTORIAL COMMISSION FOR SUPERVISING POSTHARVEST LOSSES AND WASTE
WORKING GUIDELINE	**WG5**. BUILDING OF HUMAN CAPITAL AND EFFICIENT TOOLS FOR DISSEMINATION AND FOLLOW-UP OF INFORMATION
CONTEXT	Food security is the center of a global debate regarding the need to provide food for a growing population, estimated to reach 9 billion people in 2050. FAO estimates that in Mexico food losses and waste ranges between 30 and 45% and arises during the journey from harvest to the consumer, being one of the main deficiencies the product handling during the storage and transport processes[1]. The reasons are varied and range from the lack of infrastructure and experience in postharvest handling, including lack of food chain traceability and coordination, to the scarcity of values referred to the ethics of not wasting food. In the context of the National Crusade Against Hunger, in 2013 SEDESOL joined the Technical Group for Food Losses and Waste, which aims to conduct technical studies and monitor Goal 4 of the program: "Minimize postharvest and food losses during storage, transport, distribution and marketing". To accomplish this and other goals of the crusade, 5 in total, SEDESOL shall use resources of 70 already established federal programs. In the Administrative Agency 08 (Agriculture, Livestock, Rural Development, Fisheries and Food) 5 concurrent programs have been identified: • Productive PROCAMPO • Prevention and Risk Management Program • Capacity Development, Technological Innovation and Rural Extensions Program • Program for Sustainability of Natural Resources • Agri-food Productivity and Competitiveness Program [1] Statement issued by the Secretary of the Technical Group of Food Losses and Waste of the National Crusade Against Hunger, made in a press conference jointly to the United Nations Food and Agriculture Organization (FAO) in Mexico. Press note by SEDESOL on November 14, 2013
ACTION OBJECTIVES	This measure proposes to create an entity to facilitate waste monitoring during postharvest processes. This requires linking the technical work agenda of the National Agrologistics Program with the social work agenda of the National Crusade Against Hunger led by SEDESOL. • Combine SEDESOL / SAGARPA's resources and measures • Establish a methodology to monitor the wastage of food in Mexico and analyze the main sources and its causes • Establish mechanisms to disseminate and implement good practices • Identify and propose the creation and/or modernization of agrologistics infrastructures needed • Connect the various links and encourage the participation of agents of agri-food chains in formal losses and waste reduction programs • Maximize the profits in postharvest production volumes
RESULTS	• Establish a measurement baseline regarding postharvest losses • Regular monitoring of any progress in reducing postharvest losses • Reviews and recommendations for the standardization of postharvest best practices • 10% reduction of postharvest losses and waste over a 4-year period in the internal market and 33% in the export chains.
DELIVERABLES	• Design of duties, functions, responsibilities and basic rules of the Commission's organization and operation • Develop scientific definitions methodology and alignments • Develop surveys for data collection and implementation • Losses and waste measurement schemes where it may be possible to measure directly • Analyses and recommendations • Implement mechanisms to disseminate survey results and recommendations
PILOT PROJECT	Recommended the following pilot projects to address the recommendations of the study of postharvest losses: • Cold storage for long periods to take advantage of new markets. • Development of new products to take advantage of the lower qualities, not accepted by supermarkets. • Follow-up to the wastage on food in specific chains to detect new procedures, regulatory requirements and/or information systems

WORK AGENDA	2014	2015				2016				2017	2018
	IV	I	II	III	IV	I	II	III	IV		
5B1. Establish the Commission's functions, responsibilities and reaches. Design of powers, functions, responsibilities and basic rules for the Commission's organization and operation. In addition to summon and appoint the Commission member institutions and its scientific committee.	●	●	●	●	●						
5B2. Development of methodology and alignment of scientific definitions with the CNCH and international organizations. Line the works and processes of the Commission with the protocols of the CNCH, FAO, WRI, etc., for the measurement of postharvest losses and their impact on the total volume of waste of food.		●	●	●	●	●					
5B3. Design and implement the first survey on postharvest losses at a federal level for the baseline.		●	●	●	●	●	●				
5B4. Analysis of the outcome of the survey and recommendations. Prepare the Commission's first report, to be submitted to the Congress together with the Technical Group for Food Losses and Waste led by SEDESOL.								●	●		
5B5. Implement dissemination mechanisms. Create a database and web platform to disseminate the survey's results and recommendations.						●					
5B6. Implement pilot projects.						●	●	●	●	●	

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
The Inter-Ministerial Commission shall be led by SAGARPA.	National Agrologistics Council, Technical Group of Food Losses and Waste (SEDESOL), SIAP, INIFAP, PROFECO, representatives of the industry and civil society.	Consumers, producers, people experiencing lack of food, the society as a whole.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter, 2015	1st quarter, 2016	1st quarter, 2017 Biannual Periodicity

RESPONSIBLE UNIT

SAGARPA

SCOPE

FEDERAL / STATE

Head Office: SAGARPA, with operating extensions in the state delegations, which shall be the link between the Commission and the executing fields.

INDICATIVE BUDGET

The budget includes $ MXN 25,750,000 the 1st year for establishing an inter-sector commission for the supervision of postharvest losses and waste and the design and application of a national survey and interpreting of the results. $ 20 million MXN for the implementation of pilot projects and $5 million MXN for annual operational expenditures starting in 2016. The budget accounts for an annual inflation rate of 4%.

2015	$ 25'750,000
2016	$ 25'000,000
2017	$ 26'000,000
2018	$ 27'040,000
TOTAL	**$ 103'790,000**

ACTION 5C	CREATE AN AGROLOGISTICS NETWORK OF EXCELLENCE FOR POSTGRADUATE STUDIES AND INNOVATION
WORKING GUIDELINE	**WG5**. BUILDING OF HUMAN CAPITAL AND EFFICIENT TOOLS FOR DISSEMINATION AND FOLLOW-UP OF INFORMATION

CONTEXT

Implementing the vision of the National Agrologistics Program shall require innovativeness by all chain actors. This innovation consists in transforming the knowledge into concrete products and services, and it shall probably need incentives to trigger their application. The first step is to create a critical mass of researchers, and the implementation of a specialized Master in agrologistics will be an important progress in this direction.

The Network of Excellence's mission shall be to provide a concrete framework for the innovation program, as well as to represent it legally and administratively, and to manage incentives for innovators. The basis of the program's content shall be provided by a 'think tank' that shall include research agendas regarding specific products in each key topics of the agrologistics chain[1].

[1] These research protocols must be guided by demand and involve multidisciplinary groups including business studies, public administration, engineering, economics, sociology and other disciplines that lead to the creation, implementation, tracking and continuous improvement of the components of agrologistics systems.

ACTION OBJECTIVES

- Having a group of high-quality researchers in the field.
- Create a collaborating space between knowledge and business areas in order to transform this knowledge in concrete products and services and to train agrologistics experts in the practice

RESULTS

- Create the Mexican Institute for Agrologistics
- Patents, process reengineering, dynamic relationships between research centers, corporations and government
- In addition, specializations, master's degree and joint doctorates are expected to be created among the participating universities, including foreign universities
- Create a technological agenda that may lead to modernize the sector based on products and/or competitive advantages
- Creation of services companies and skilled jobs
- Create a network of postgraduates and specializations that address agrologistics, in the functions of teaching, research and extension, as soon as possible.
- Include Agrologistics in CONACYT priority themes

DELIVERABLES

Design a postgraduates network of excellence

Implementar Implement 2-3 teaching programs and 10 undergraduate specialization courses in 4 years, attracting 150 students between graduate and current studentscurso.

- Integrate the curriculum design group
- Study of relevance
- Construct a graduate student profile
- Select and develop material and content
- Establish materials of regional importance
- Evaluation instrument development
- Teacher recruitment
- Integration of lab and equipment requirements
- Define economic support for scholarship holders
- Academic program registry

Mexican Institute for Agrologistics

Elaboration of economic criteria and profitability of projects including technical criteria for the selection of applied research projects

- Select categories of products
- Consult with producers to submit applied research projects
- Consult with a limited group of consultants, higher education institutions, research centers, sector businesses and independent professionals
- Create a B2B forum
- Select complementing pairs (developer-project)
- Delivery and evaluation results

WORK AGENDA	2015 I	2015 II	2015 III	2015 IV	2016 I	2016 II	2016 III	2016 IV	2017	2018
5C1. Working agreements to create the Agrologistics Network of Excellence. Establish medium and long term agreements with the National Council for Science and Technology (CONACYT), other researching agencies and centers (INCA, INIFAP), and leading private corporations in the industry.	●	●								
5C2. Definition of research thematic areas. Identify applied research areas, led by the private industry and sector, by means of the contributions made by network members in order to be developed by academic centers[2]. [2] The Engineering Institute at the UNAM , the Department of Economics of the Postgraduate College, the Rural Development Department at the University of Chapingo, the Financial Economics Department at the Faculty of Administration of the UNAM and the Center of Public Policy at the Technological Institute for Higher Education of Monterrey are examples of institutions, which can develop, applied research activities.	●	●	●	●						
5C3. Higher education in Agrologistics[3]. Create curriculum for degrees or engineering specializations (for example, for students of agricultural economics or industrial engineering) as well as a postgraduate degree, raising agrologistics to a university level. [3] There are no degree courses in agrologistics or to train customs operators. In Mexico City there is only a small private school that offers a Degree in Customs Practices (School of Customs Procedures). The most renowned degree is offered by the National Polytechnic Institute (IPN) in International Business.		●	●	●	●	●	●	●	●	●
5C4. Create the Mexican institute for Agrologistics. Create a center of agricultural knowledge innovation and generation based on applied research. The center shall have a B2B format and shall be advised by a think tank, whose mission shall be to define a technological agenda.			●	●	●	●	●	●	●	●
5C5. Align resources for research and development. Coordinate the allocation of resources of existing programs with other institutions and administrative departments to finance incentives for innovation programs.			●	●	●					

MEMBERS

LED BY	PARTICIPANTS	BENEFICIARIES
CONACYT, as it has the capability to link universities, researching centers and governments and the Mexican Institute for Agrologistics.	SAGARPA, public and private Centers of Excellences in research, CNA, SCT, IMT, ANTAD, leading companies of the sector.	Producers, trading corporations, as well as corporations that sell agricultural products directly to the final consumers. Society as a whole.

DATES

DESIGN PHASE	IMPLEMENTATION PHASE	EVALUATION
1st quarter, 2015	First quarter, 2016	2018

RESPONSIBLE UNIT

Technical Agrologistics Secretary, CONACYT

SCOPE

FEDERAL / REGIONAL

The network shall have several offices, strategically distributed throughout the country, consistent with the location of centers of knowledge, pilot projects and investments in logistics assets. The Mexican Institute for Agrologistics shall be in charge of CONACYT with close links with the sector through the National Agricultural Council (CNA).

INDICATIVE BUDGET

This budget includes $30 million MXN for establishing a Forum on Innovation and Knowledge Generation and $5 million MXN for the design of a study plan for the 1st year. $8 million MXN annually in operation expenditures and $4 million MXN in scholarships annually. The budget accounts for an annual inflation rate of 4%.

2015	$ 47,000,000
2016	$ 12,480,000
2017	$ 12,979,200
2018	$ 13,498,368
TOTAL	**$ 85'957,568**

MÉXICO

GOBIERNO DE LA REPÚBLICA

SAGARPA

SECRETARÍA DE AGRICULTURA,
GANADERÍA, DESARROLLO RURAL,
PESCA Y ALIMENTACIÓN

MÉXICO

GOBIERNO DE LA REPÚBLICA

SAGARPA

SECRETARÍA DE AGRICULTURA,
GANADERÍA, DESARROLLO RURAL,
PESCA Y ALIMENTACIÓN

FOOD & BIOBASED RESEARCH

WAGENINGEN UR