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Systematic Review

Subsidies to the agricultural sector for the search for food sovereignty. A funding option for a strategic sector of the national economy. Case: Mexico

Fernando Romero Torres¹, Augusto Renato Pérez Mayo² and Humberto García Jiménez³

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The Mexican agricultural area faces serious problems and challenges, many voices demand more subsidies and government support. Tacit and common sense presupposes that the increase of subsidies to the countryside is an essential condition to increase agricultural production and the wellbeing of Mexicans. Precisely because of this, the agricultural sector represents the beginning of the generation of a series of goods and services that are transformed to meet the requirements of the food and pharmaceutical sector, which are strategic for society, since there are other products of economic importance such as are the ornamental plants and those from the forest area, wood products with high economic value. Methodology In the review of the state of the art on the subject, a documentary research was carried out, the revision of official databases, as well as interviews with the interested parties, where the main subsidy programs that integrate the offer of the same were analyzed, towards the agricultural sector, finding that their similarities can be integrated into different strata that make up a specialized offer for the type of producer, considering their level of income, volume of production, transformation and sales and integration of the economic links of the activity. Results Of the series of subsidies that make up the offer presented by the Mexican government, in its municipal, state and federal areas, of subsidies that guarantee that the capital that arrives in this way is maintained in the agricultural sector and affects its reproduction, in order to capitalize and take the companies to the field.

Keywords: agricultural sector, food sovereignty.

INTRODUCTION

The Mexican agricultural area faces serious problems and challenges, many voices demand more subsidies and

government support. Tacit and common sense presupposes that the increase of subsidies to the countryside is an essential condition to increase agricultural production and the well-being of Mexicans. Precisely because of this, the agricultural sector represents

^{1,3}Research professor of the Faculty of accounting, business administration and informatics at the Autonomous University of Morelos State, UAEM, Mexico.

²Department of Studies of the organizations and Sociology of Organizations Faculty of Accounting, Management, and Informatics, The Autonomous University of the State of Morelos (Cuernavaca, Mexico).

^{*}Corresponding Author's Email: renatomayo@hotmail.com

the beginning of the generation of a series of goods and services that are transformed to meet the requirements of the food and pharmaceutical sector, which are strategic for society, since there are other products of economic importance such as are the ornamental plants and those from the forest area, wood products with high economic value.

This sector is strategic from the point of view of food sovereignty where it was established that one cannot speak of sovereignty when a country is not able to feed its population.

In this Research are analyzed by reviewing the documents that govern the major players involved in the dispersal of subsidies to the food industry by finding a series of coincidences that allows integrating strata, right here is where lies the validity of this proposal and which allows us to identify a critical path that economic actors must follow in relation to the development and growth of the social capital that make it up.

Development of the agricultural sector

From the green revolution started in the first half of the last century, food production grew exponentially, so at times there was more food than the one consumed, generating surpluses in some regions, is a situation coupled with the policies of price control caused that the food had a strong fall in the same associated with an overload of intermediaries, which had an impact on underperforming capital, the capitalization of the sector and its migration to other sectors that would ensure higher performance.

Mexico has not been the exception, with the implementation of the irrigation districts and the development of the training and advisory system, marketing and basic basket, as well as the participation of the government in critical aspects controlling the supply of inputs for production and marketing and distribution of products, causing falling prices many times below costs. In this century and with the paradigm shift, the agricultural products are integrated into the market economy seeking full price liberalization which has caused the recapitalization on the sector.

That is why this economic activity is considered among the strategic activities, both for guaranteeing food security and for raising the standard of living of the rural environment, valuing that agricultural activity is of vital importance for the development of the country.

In this regard, it has established a strategy where it is involved in all sectors activity, prompting private initiative (defined as anything that is not government involvement), as the engine of this activity. In this context, it has been considered that the classification of primary, secondary and tertiary does not fully respond to the needs of attention. Currently, the concept of chains is raised, where all the links interact to integrate the activity, a model that aims to guarantee the engineering of the process where

income and risk are distributed through the different links. There is a clear trend in the agricultural sector towards fewer production units but larger, obtaining economies of scale, access to global markets, better use of human resources, financial, organizational, market, among others (EPAC 2004).

It is important to assume that in order to transform the challenges posed by globalization, integration, and economic openness into opportunities, the traditional conception that treats the agro - productive as a primary activity must be overcome by one that rather considers it as what it is a system that starts in agricultural inputs and reaches the final consumer, in a chain logic (SIAP Atlas Agroalimentario 2015).

Another factor is the income of this activity to a market economy, where Mexico passes an overprotected economy, where the state intervened in all the links of the activity to a market economy where competitiveness establishes the ability to stay in the economic environment.

In addition to this, different segments are recognized (first, second and third level organizations) Which they interact and complement each other to ensure the basic functions of this economic sector, where live actors, high financial capacity and competitiveness, which bring together the sector 's capital and participate with focusing most of the market in a few hands generate do oligopolies capable of generating big number of jobs and use services complementary companies, participating in niche markets in size scales, including the export market and integrating companies and transactions in other countries besides participate and take advantage of treaties of free trade and the integration of the country into the OECD.

With this deepening in the change of role of the state economic sector, the direct participation of the state sector in private activities can be limited and specified, increasing the fields of action and responsibilities of the company. The State would thus fulfill a role of promoter and motivator of private actions, opening space for concertation and joint decision-making (Bulletin 2009).

At the other extreme, the so-called survival peasant with small production scales and little economic mobility, participating with self-consumption goods and a small participation in the market, in this segment concentrates a significant part of the population of landholders of rural areas (Bulletin 2009).

Between these two extremes we find the whole range of actors with some mobility among the strata, represented mainly by the mobility towards the medium and small company, this phenomenon is generating that fewer and fewer companies are concentrating the greater amount of social capital and market control, which generates companies with national sizes or extra national, living together with medium companies that specialize in regional markets, which are associated with each other to be able to compete or that complements the system becoming partners-suppliers of the large company.

Regarding the level of competition existing in the market, both the theory and the empirical evidence clearly indicate that where competition abounds competitivenessabounds. Hence the importance of establishing the mechanisms that ensures the conditions of equity and transparency in the markets and access to them. (Evaluation project Alianzacontigo (EPA 2004).

In this context we find different subsidy policies, complemented with specialized financing systems by activity, sector and economic segment, as well as policy actions that guarantee investment and the appropriation of the means of production, allowing a vision of long term, and fiscal policy where it is guaranteed that government resources promote this strategic activity.

Following Zúñiga and González-Estrada, regarding the concept of subsidy, this is understood "when a transfer has the purpose of defraying the current production expenses of the companies, it will be considered as a subsidy, just as if it were destined to private investment programs." In the same dynamic, Monke and Pearson consider subsidies to direct transfers provided by the State to private companies, as well as to tariffs and protectionist quotas. These last transfers are subsidies granted via prices. According to these authors, the subsidies are divided into two classes: direct transfers through government spending, and transfers via prices, such as tariffs and protectionist quotas for agricultural products in Mexico. In accordance with the above, subsidies are only a part of the transfers of the government of a country; the other part is provided by such as agricultural support services, dissemination, training, etc. Thus, in order to measure subsidies to agriculture, income transfers must be quantified through government spending and income transfers via prices. The sum of both is known by the name of aross income transfer.

Another factor that affects the subsidy policy is the effect of the impact of agriculture on the environment, mainly due to the planting of grains due to the intensity of the fertilization, seeking protection of the water but also reducing the risks associated with the use of pesticides and their effect on biodiversity and rural landscapes, as indicated by (Laukkanen and Nauges 2014).

The system of subsidies to the sector, we cannot analyze it outside the context of the way of doing business of the same in the second or decade of the century XXI; aspects that must be integrated to the global strategy of dynamization of the agro-productive chains:

- Infrastructure development
- Information systems
- Security
- Federation-State alignment and concurrence
- Quality of management.

In this context, an aspect that is important and that SAGARPA considers is that of generating interstate instances of articulation of the agro-productive linkages.

In some cases, the chain system has been considered as an instrument for analysis; in other cases, as a tool to facilitate dialogue and the creation of commitments between actors and in the definition of public policies to improve competitiveness. The agri-food chains have also been used to achieve the incorporation of actors or weak links to the markets or so that small producers can supply markets in more favorable conditions (Miguel et al., 2009).

METHODOLOGY

In the review of the state of the art on the subject, a documentary research was carried out, the revision of official databases, as well as interviews with the interested parties, where the main subsidy programs that integrate the offer of the same were analyzed. towards the agricultural sector, finding that their similarities can be integrated into different strata that make up a specialized offer for the type of producer, considering their level of income, volume of production, transformation and sales and integration of the economic links of the activity

RESULTS

Of the series of subsidies that make up the offer presented by the Mexican government, in its municipal, state and federal areas, of subsidies that guarantee that the capital that arrives in this way is maintained in the agricultural sector and affects its reproduction, in order to capitalize and take the companies to the field.

Although the largest amount and subsidies with greater permanence in the sector are the federal ones, where the state or municipal impact presents a participation to generate a stock market dispersed by state and municipal governments but audited by the federal government, based on agreements specific agreements established between the different areas of federal, state and municipal government (Specific Agreement 2015).

In smaller amounts there are state or municipal funds such as those that address priority problems of plant health of state interest, or critical aspects of capitalization as those that meet the needs of working capital for specific use.

To do this, it generates subsidy segments for a certain typology of producers or entrepreneurs in the agri-food chain.

Option route

Route 1. A first segment that grants a subsidy that seeks to keep the producer in the rural area mainly agricultural but also in the activity of transformation, marketing or services, promoting the formation of organizations, through resources for acquisition of capital goods, to solve

shortcomings operational and improve production, at the level of acquisition of basic inputs, tools for production, workshops to add value through the transformation of these products which includes a support component to obtain specialized advice to boost the productivity of effort, for this it is considered a support of between \$ 30,000 to \$ 40,000, per member, which drives a collective effort (SAGARPA 2015).

Route 2. A second segment in subsidy up to \$ 700,000 for producers rooted in the sector and who participate in markets in a constant manner, supporting with resources that become capital goods, consultancy and technical, financial and market training, which guarantee the roots of this type of entrepreneurs to the sector, in this segment the producer must guarantee that he can live off the agri-food business and must submit an investment project where he demonstrates the viability of the same, in the same way he must guarantee the contribution of 50% of the value of the project, that is, for each weight of subsidy that it receives, must guarantee an equal contribution.{13}In this segment, farmers who are rooted in the rural area and who are prepared to participate in the next one are considered, for this purpose the organization is promoted through the product system and the integration in the logic of agri-food chains for what they assign resources in the form of subsidies (SISPROA 2016).

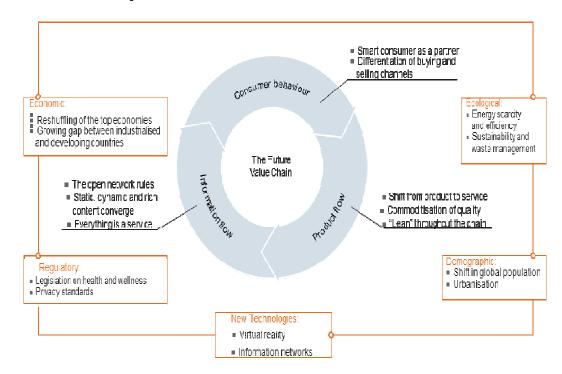
Route 3. A third segment supports with grants up to \$ 20,000, 000 for producers who become entrepreneurs and to guarantee to survive its market share and influence not only in regional markets but also open the range of customers. These should guarantee their roots in the agricultural sector, presenting their client portfolio, as well as their business history, and integrating an investment project, where they can be considered as the receiving the subsidy affects the strengthening of the business. This type of projects injects resources that can be converted into capital goods, production systems and integration of the chains, contemplating from the primary production, its and transformation, distribution sales, supporting comprehensive actions, which includes the hiring of specialists and technical, financial and market training. Normally this type of subsidy is considered as a risksharing system, where the beneficiary contributes a parity of up to 70 to 30 %. This contribution comes through the specialized federal agencies involved in the control by monitoring the draft Y the application from resources, this contribution is received as a loan with zero rate, so the beneficiary has to pay it, once the debt is recovered, the amount is reimbursed this time as a lost fund. This guarantees that the business is capable of maintaining the company, and that the entrepreneur has the knowledge,

skills and abilities to manage it, the subsidy that is granted contemplates providing liquidity to this company that has evolved from the previous segment. {15}

Route 4. The next segment provides resources from \$ 5,000,000 without a clearly defined ceiling (250-300000000) This is aimed at companies or organizations that have demonstrated their strategic level in order to ensure food sovereignty, guarantee the permanence of the company in the sector and strengthening capitalization and impact on raising the living standards of the Mexican population associated with this activity.{16}

To participate, the company must include the respective investment project where it is indicated how the project affects the business by integrating not only capital assets but all those factors necessary for its viability, the company must demonstrate its roots in this activity and its capacity of leadership, also presenting its business curriculum where its history in the market, its portfolio of clients and portfolio of suppliers stand outas well as its financial record, which clearly demonstrates the ability to live and grow in a highly competitive market environment. The contribution of the company depends on the project and must be guaranteed through its own resources or financing that may come from national and international development banks. In addition to checking the legal provenance of all the resources with which it operates.

In its attempt to cover all the links of the agri-food chain (of the business), it is even possible to integrate venture capital that participates in the capitalization of the sector, as a critical input that guarantees the liquidity of agricultural operations. Let's see the following outline where we propose to future or present the subsidy process of the resource for the agricultural sector, based on the proposal of Capgemini:



Forces and Trends Driving the Future Value Chain

Source: Future Suppy Chain 2016, Capgemini. Translated: Future supply chain of subsidies and improved by Romero Torres and Pérez Mayo, 2016

Where the value chain should be promoted, based on the behavior of three variables: Consumer Promoting the value chain), Information flow (Management of complexity through transparency) and product flow (Redesign of the supply chain), taking into account the following principles:

- The subsidy system that attends to different actors in different evolutionary stage in relation to the levels of operations and financial needs.
- The system that privileges the organization of producers which allows integrating volume and links of the chain for the best use of economies of scale.
- The system that seeks to balance the conditions of the different actors and links of the chain in relation to the distribution of income and risk.

CONCLUSIONS

In order to avoid the immediate negative consequences of reductions of subsidies to the agricultural sector that would have on the well-being and income of farmers, they could be gradually diminished to the extent that the programs for improving productivity, financed and properly reformed, induce equivalent income increases for farmers.

The Mexican countryside requires considerable increases in public and private investment in support services that promote technical progress, intensification of the productive process and productivity, and a profound reform of State institutions related to the sector, so that they can exercise these resources with efficiency and with greater social commitment.

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- In this sense, the Agricultural Product System (SISPROA) (2016). was taken as a reference, which aims to integrate producers, traders, suppliers, industrialists and, in general, all those that make up the economic chain based on a product or system of products that allow specialization and the use of the advantages of economies of scale preparing these producers to form companies in the sector.
- As a support to this segment, the components operated by the Shared Risk Trust (FIRCO) were analyzed: Agro-food Productivity, Generation and energy saving in the agricultural sector, South-East production development and Incentives for production without Financing.
- The components of the Capitalization and Investment Fund of the rural sector, of the Ministry of Economy 2015, Impulse to Agroparks and productivity (high impact) where amounts for different parts of the business are established from the project were analyzed, the acquisition of infrastructure, rural transformation centers and agro industries.
- For this, the principles for the constitution of risk capital through type funds were analyzed: Fund for the Development of Agribusiness where subsidy and private capital are included, constituted as an Investment Promotion Company (SAPI) and that can be a Non-Banking Financial Intermediary type SOFOL, SOFOM, SOFIPO, Warehouses, Unions, Cooperatives, financial leasing and factoring companies