

# THE STIMULUS PROGRAM FOR LIVESTOCK PRODUCTIVITY IN MEXICO

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## Introduction

During the last decade, the Mexican cattle industry faced an accelerated and growing competition of imported products, which provoked a decrease in the national production, caused by a significant drop in prices and loss of profit. The cattle producers increased the stocking rate in their pastures, causing as a reaction to the loss of profit caused by the falling prices, thus provoking an accelerated degradation of the swards and grazing lands, entering a vicious cycle of more cattle, more overgrazing and less income.

The Stimulus Program for Livestock Productivity (PROGAN) was created as a measure to promote technological innovation in the Cattle Production Units (UPP), to improve the plant cover and forage production, which addresses a key problem in the development of extensive cattle sector in Mexico. The objective of the Program was to promote the productivity of extensive cattle exploitations and to increase its profits, by improving the plant cover and forage production of the UPP that were benefited, as well as the incorporation of technological practices. The programmed goals of PROGAN were as follows: the attention of 200,000 UPP, with a total of 4.5 million dams in production. For this purpose, a budget of six billion Mexican pesos (MXN) (546,544,654 USD) was assigned to the program to be applied in the period 2003-2006. The producers were paid 1,800.00 MXN (164 USD) per dam in reproductive age, over a period of four years. The payment of the subsidy followed an increasing pattern, which began with a payment of 300.00 MXN (27.3 USD) per subsidized head and ended with a payment of 600.00 MXN (54.7 USD).

The payment of the subsidies was conditioned to the adoption of 10 technological practices, which were to be selected from a catalogue that was specifically designed for the Program. To verify the adoption of these practices, the beneficiaries were subject to annual technical evaluations. At first, all of the producers were to carry out the evaluations; later on, this condition was limited to the producers with herds of more than 10 dams and finally, only those with herds of over 30 productive dams. The evaluations were made by accredited PROGAN technicians. In addition to verifying the progress in the adoption of technological practices, it was expected that when the contact of the beneficiaries with the providers of the service was promoted, a greater number of producers would privately contract the technical assistance.

Taking advantage of the economic stimulus offered to the beneficiaries of this Program, the Mexican government implemented the Individual Livestock Identification System (SINIIGA), through which a cattle identification system was installed with the support of PROGAN, with the purpose of giving traceability to the beef products from their place of origin to their final distribution point. The information provided by the beneficiaries in the application form was taken as the basis to initiate the National Livestock Census (PGN).

This evaluation was made in the year 2006 and was oriented toward measuring the degree of success obtained in the achievement of objectives, results and impacts, along with advances in the solution to the problem which motivated the implementation of PROGAN. The purpose of the evaluation was to generate arguments for deciding on the continuity or cancellation of the program, and given the case, to elaborate recommendations for making the necessary adjustments to improve its efficiency and effectiveness.

## Materials and methods

A survey was applied to a probabilistic sample of 1,033 beneficiaries and a representative sample of 92 functioning PROGAN technicians; case studies were made in six Mexican states (Chiapas, Veracruz, Tamaulipas, Sonora, Chihuahua and Tabasco), in which the functionaries responsible for the operation of the Program were interviewed, along with the leaders and technical personnel of the cattle producers' organizations. Other sources of information were: official documents related to the Program, reports of achievement of physical and financial goals and the official data base of beneficiaries.

## **Results and Discusión**

Until 2006, PROGAN applied a total of 6,363 million pesos (579,465,564 USD), in attending 213,585 applications for support, benefiting slightly over 5.7 million dams in reproductive age, and 57,754,772 hectares, with which the programmed physical and financial goals were achieved.

Due to the fact that the demand for support was higher than the amount of assigned resources, PROGAN required an important increase in the budget allotment (318,732,481 USD), over 50 per cent of the programmed budget, which will be distributed during the year 2007.

It is considered that the plan of increasing payments was inadequate, given that the producer received a smaller amount of subsidy at the beginning of the support period, when the investment requirements in the adoption of technological practices were greater.

The problem attended to by PROGAN still exists. Improvements were found in the plant cover of the production units subsidized by the Program (the ranges of increase vary from 1.22 to 73 per cent in swards and from 0.92 to 29.37 per cent in grazing lands). If these changes are sustainable, they could contribute to solving the problem of overgrazing of the ranch lands in the mid to long term. However, this problem can not be completely solved by the implementation of PROGAN alone; therefore it is necessary to form, on the national level, a larger number of technicians specialized in the management of swards and grazing lands, so that they in turn may train the producers in this area, among other factors.

In general, the subsidies granted by the Program were destined for the implementation of technological practices oriented toward improving the swards and grazing lands, along with improving animal health and cattle management. However, it was found that the selection of practices took place in a disorderly manner, without adhering to state and/or regional plans of technological change. The research and/or academic institutions that were involved remained on the sidelines in the definition of practices that were adequate for each region. It is considered necessary that the Program focus its actions even more on the planning of the technological change; for which the participation of the diverse institutions involved in the sector is recommended. On the other hand, the technical evaluations were seen only as a requirement for permanence in the Program, with no repercussions on the contracting of specialized technical assistance in the UPP.

With respect to the SINIIGA, during the first phase of ear tagging, practically all of the cattle subsidized by PROGAN were identified, which laid the foundations for the system to move on to the following stages in which the rest of the cattle in the production units will be identified, and in the ranches not subsidized by the Program. Advancements were registered in the integration of the PGN, although they have not been evaluated as yet.

## **Conclusions**

It is concluded that the Program generated direct and indirect effects that satisfactorily justify the use of the allotted public resources, and had influence on the most important response variables. However, its efficiency and effectiveness should be improved in the achievement of objectives and goals. From the results obtained, it is considered that PROGAN should continue, incorporating important changes directed on a greater focus on its target population, simplifying its operation and reducing its conditionality.

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