Agricultural Extension in Latin America: Limiting Factors

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Introduction

Although a large amount of capital has been invested in the design and operation of agricultural extension1 in Latin America, the results have been quite unsatisfactory. The reasons that could explain this inefficiency are probably found in the limited level of training -in this topic- by engineers (agronomists), extension agents and even postgraduate teachers. In addition to the lack of interest in the study of regional culture and the absence of theoretical-methodological models, which ultimately result in little interest from public and private institutions to develop research in extension.

Theoretical Analysis

Although Rogers [1] had already warned in his classic book "Diffusion of Innovations", when the assassination of JF Kennedy occurred in 1963, the information spread to a region hidden in the mountains of Colombia, while that the extension programs had not been able to disseminate technology based on the work of extension experts on biological-ecological elements, but certainly not on cultural, social and human aspects.

But what did agricultural culture mean for extension workers in Colombia? Probably they thought about traditions, indigenous behaviors or parties in the village. Although the previous thing if they are cultural manifestations, they are not the culture. In this sense, we will define a theoretical position that interprets the theory of social systems of Luhmann [2]. The culture of the people is rather a historical process in which the producers have been adapting to their surroundings, building a solid process of identity between the inhabitants and the groups of these regions. In this process, through a complex of relationships and communication, which matures over time, it becomes a collective memory and then a social memory, which nobody sees and nobody can explain, becomes the guide to social behavior of those regions.

Why do they "mano vuelta"2 or "mayordomía"? We could ask: "I do not know, that's how it's always been done here" the interviewees would reply. It is likely that the cultural agreement is to avoid doing something in the city or not welcoming strangers without the approval of peasants meeting. It is also possible that they manage their work productivity because they cannot manage the productivity of capital and they do not own it and therefore they ask their relatives and friends for help to do jobs that, even if they are worth capital, but do not cost them.

If the extensionist, his boss, public and private institutions and the government itself do not understand the above, they are more likely to never understand the limiting factors of extension. Thus, without systemic agricultural research, without cultural and social sensitivity and without knowledge of the subject, the extension models will always be incomplete and the efficiency of the programs on the subject will spend enormous amounts of capital, but will not achieve that the producers adopt new technologies.

Methodological Discussion

Even when Shutter & Orozco [3] had already suggested psychological approaches to extension, based on the achievement of: 1) Changes in producer knowledge when attending the demonstration of a technology specific for the first time; 2) Changes in the attitude of the same producer when testing the same technology on his farm. Finally, considering that he knew the technology, he tried it and he liked it, we would go to 3) Changes in the use of the aforementioned technology, considering that it adopted it. This process has been proven in commercial

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activities, with a high level of efficiency in adoption. It only remains to observe that the technology is in force for the needs of the producer and if it maintains an acceptable profitability. The producer will keep it in use, as long as the profitability is greater than one. As can be seen in Figure 1, the producer subject of the study (observer of the first order) when achieving technological adoption, becomes an Innovative Producer. This will now receive visits from producers from other regions and the same process of changes will be developed, at least in 10 locations and now we will probably have 10 more innovative producers. Following the process in expansion we will have adoption of technologies in use when expanding the program in predesigned regions.
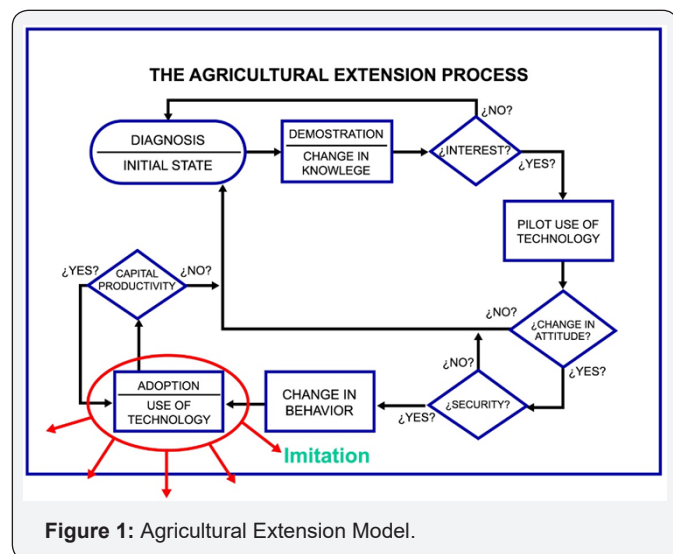

Figure 1: Agricultural Extension Model.

When implementing an extension program, such as the previous one, the interdisciplinary group must attend a community meeting and offer knowledge of the program to the vast majority, request permission and study their culture before initiating actions. In addition to the above, we must understand the reasons why they carry out their agricultural activities and through this we will understand how they do it

and the environmental and economic factors they have come to adapt and adapt their environment to the needs of family and community life. A theoretical and methodological element that probably contributes to the achievement of the extension program is the use of systems theory adapted to agriculture. The use value of such a procedure would make it possible to speak now of Agroecosystem, as a system, to design, implement, implement and evaluate agriculture from an ecological and systemic approach, of course more realistic than other theoretical perspectives. But, what is an agroecosystem. Based on the postulation of García [4] on the concept of system, we will say that: "The agroecosystem (AES) is a representation (a model) of a cut of the regional agricultural reality to which the observer of second order aims to modify. The AES is studied as an organized whole, related to the cutting of the AES is studied as an organized whole, related to the cut of the mentioned reality, so it should not be studied in parts, nor separated from its regional environment at least (system=reunited).

Conclusion

We could conclude, that the AES is an element of episteme (science) therefore it is an abstraction (It is not real) what is real is the Doxa, which contains the everyday and that for our case would be the crops, plantations and the cattle. The advantage of considering the AES as a model is that it is now possible to model the structure and functioning of the Agroecosystem design in a computer.

References

1. Rogers EM (1962) Diffusion of innovations. Free Press, New York, USA, pp. 434.

2. Luhmann N (2006) La Sociedad de la sociedad. Editorial Herder y Universidad Iberoamericana. ISBN 968-5807-20-5. pp. 1024.

3. Shutter AY, Orozco F (1988) Extensión y capacitación rurales. Editorial Trillas. ISBN-968-24-1168-8. México, p. 224.

4. García R (2006) Sistemas Complejos. Editorial Gedisa. Buenos Aires, Argentina, ISBN 978-849-784-164-1. p. 100.