

Effectiveness of Agricultural Extension Programs in Desert Lands-Case study of Sugar Beet Program in Egypt

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Introduction

The key challenges of the effective extension programs are:

1. The implementation of outreach programs in desert areas as a part of the central planning nationwide,
2. The absence of target categories participation.

The aim of the study is to identify problems that limit the effectiveness of extension programs in desert areas.

Material and methods



Figure 1: map of northern part of Egypt showing Nubaryia region

Table 1: Distribution of the 117 beet growers under the study

Village	Extension type	Beet area (Hectare)	Beet growers	
			Total no.	Interviewee
Al-Huda	Demonstration plot	147	92	28 (30%)
Belal	Regular extension	315	300	89 (33%)

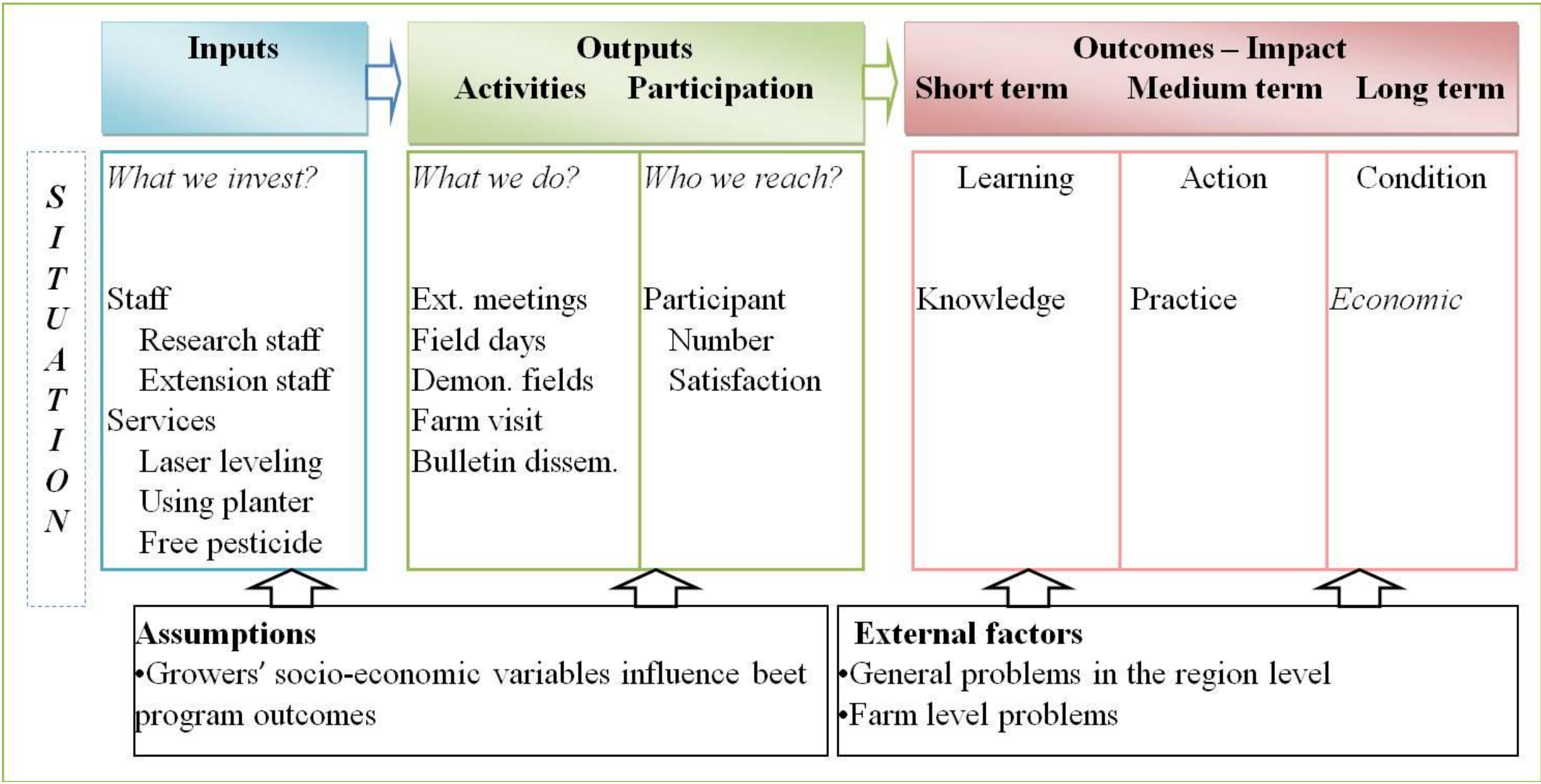
An Ex-post assessment designed to explore the effectiveness of sugar beet program as a case study of the extension programs in the dessert lands

Two interview questionnaires were designed one for the selected beet growers and one for all 22 extension staff

Three analytical methods were applied:

1. Content analysis of a number of 36 reports covering the extension activities
2. Evaluation logic model to represent visual descriptions of logical relationships among program resources (inputs), activities (outputs), and (outcomes)
3. Path analysis to explore causality between the participation in beet program activities and beet growers’ knowledge, applications, and profit.

Figure 2: Logic Model of Sugar beet program



Results

Half of the extension staff age more than 50 years old, meanwhile, 45% have experience less than 10 years in the extension work. Less than 30 % have a university degree.

Table 2: Shortages of the extension activities from beet growers point of view (n=117)

No.	Shortages	Freq.	%
1	Lack of the extension activities	63	54
2	No extension personal on the village level	45	38
3	Insufficient advertisements regarding the extension activities	38	32
4	Absence of practical aspects in the extension activities	35	29
5	The information doesn't meet the needs or solve the problems	35	29
6	The extension activities doesn't meet the cultivated crops	28	23

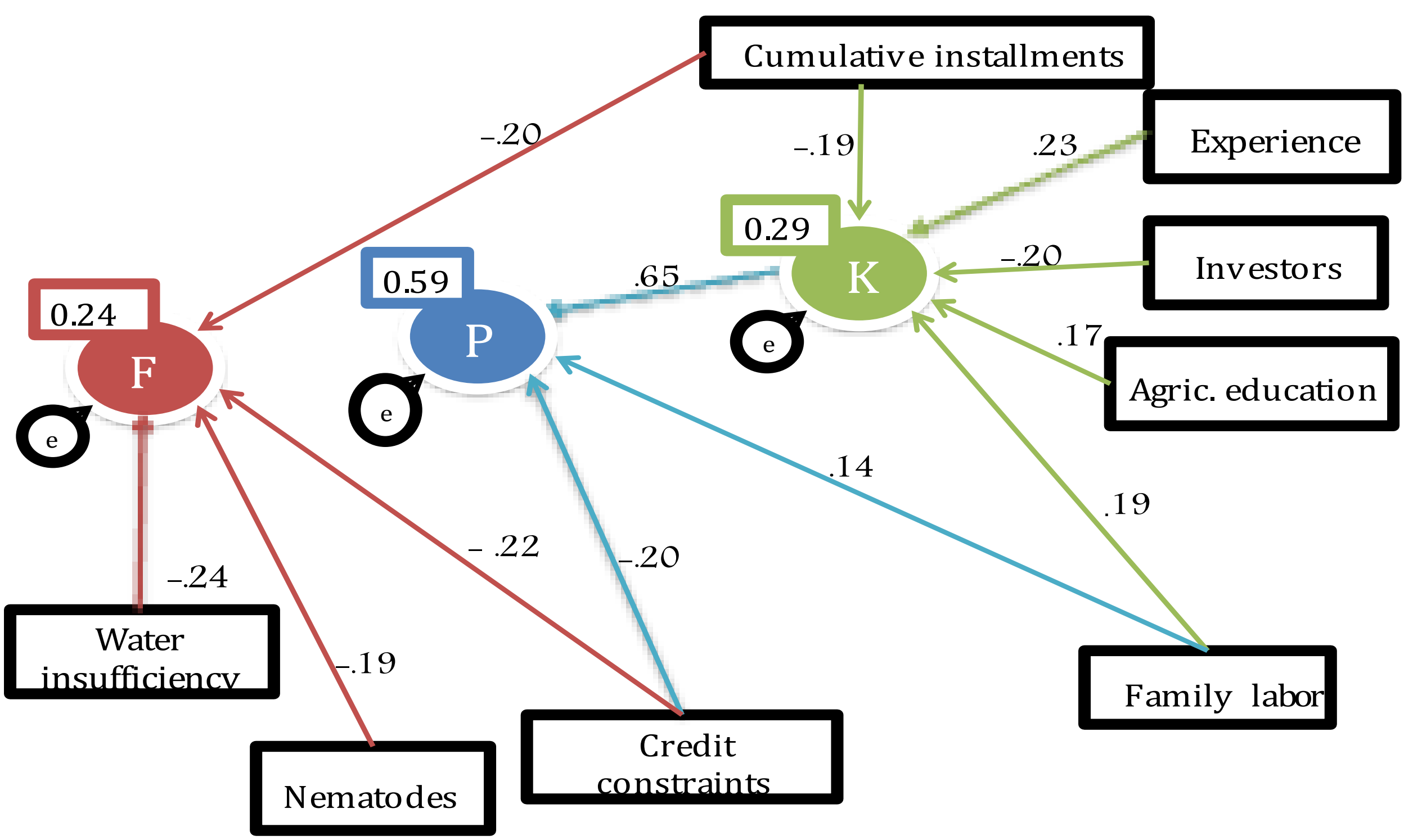


Figure 3: Output of beet program’s path diagram

Bold arrows are significant at 0.01 , non bold arrows are significant at 0.05
Numbers close to arrows are the path coefficient
Numbers in colored rectangles are adjusted R²

- The studied model explains 29% 59% and 24% of the variance of knowledge (K), applications (A), and profit (P) ,respectively.
- For example ,variance in profit is due to credit constraints, cumulative installments, nematodes, and water insufficiency.
- No significant impact can be verified for the beet growers participation in the beet program’s activities on their knowledge, applications, and profit.

Conclusion

- Extension activities have a limited outreach and no significant impact on beet growers’ knowledge, applications, and profit.
- The extension staff have a small number, lack of qualification, and poorly equipped.
- Improving public extension system should go hand by hand with integrating new actors e.g. non governmental organizations, farmers associations, and private sector to transform extension towards pluralism

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