

PATCA

Dominican Republic

Program for Support of Innovation in Agricultural Technology



PROGRAM

The Program aims to increase agricultural productivity and income of small landholder producers by promoting technological adoption.



UNIVERSE

Type of Evaluation

Two-stage randomized controlled trial

Database

2,146 producers = 447 effectively treated beneficiaries, 318 non-treated, beneficiaries, 463 indirect beneficiaries, 583 controls, and 335 social network nodes



INTERVENTION

Non-reimbursable vouchers to finance a portion—between 33 and 59 percent—of the cost of an agricultural technology chosen by the farmer

Technologies:

- (1) pasture and grassland rehabilitation & improvement
- (2) modern irrigation

WHY ARE WE DOING THIS EVALUATION?

To measure the direct impacts and spillover effects of agricultural technology adoption on income and agricultural production

Grassland Technology



Increased their probability of adopting the technology by **approx. 70 pp**



DIRECT EFFECTS

Increased **agricultural income** (627%); the probability, number and extension of **land divided into paddocks**; the probability and extension of land with **fortified grass**; and the probability of producing **livestock products** (17 pp)



TIME EFFECTS

Increased the **ownership livestock units**, and the likelihood of producing **livestock products**



RESULTS

Compared to the control group, program beneficiaries



We find evidence of **knowledge spillovers** among farmers in close proximity to program beneficiaries, especially through **social networks**.

Irrigation Technology

Increased their probability of adopting the technology by **approx. 60 pp**



DIRECT EFFECTS

Increased the likelihood of having **modern irrigation** (34 pp); but the program had a negative effect on the **value of production**, input and labor **expenditures**, and the likelihood of **harvesting** and **selling**



TIME EFFECTS

Switching towards the production of **permanent crops**



CONCLUSIONS

The Program improved the agricultural income of grassland beneficiaries, but had a negative effect on the total household income of irrigation beneficiaries; however, producers are undergoing a learning-by-doing process, as these effects intensify over time.

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