

# 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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