

International Initiative for Impact Evaluation

3ie Transparency and Accountability Thematic Window

Behavioural Responses to Information on Contaminated Drinking Water: Randomized Evidence from the Ecuadorian Amazon

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Structure of presentation

- 1. Introduction
- 2. Context: issues, opportunities, policy relevance
- 3. Intervention
- 4. Theory of change
- 5. Evaluation questions, outcomes
- 6. Identification strategy
- 7. Baseline findings
- 8. Engagement and evidence uptake
- 9. Capacity building
- 10. Lessons, challenges and mitigation
- 11. Next steps and feedback session



1. Introduction

 Behavioural Responses to Information on Contaminated Drinking Water: Randomized Evidence from the Ecuadorian Amazon

Collaboration between:

- International Institute of Social Studies (ISS), Erasmus University, The Netherlands
- University San Francisco of Quito, Ecuador
- ICTA-UAB
- FDA, Amazon Defence Front, Ecuador
- UDAPT, Union of People Affected by Texaco, Ecuador



2. Context: issues, opportunities, policy relevance





2. Context: issues, opportunities, policy relevance

Water is contaminated in the Amazon basin in hydrocarbon extraction areas associated with high levels of heavy metals in humans (Yusta et al., Forthcoming; Orta-Martinez, 2007, San Sebastián et al., 2001)

But: Information on water quality is unavailable at the community/household level

<u>and</u>

There are alternative sources of water for many communities/households



3. Intervention

 Transparency initiative: Provision of information on water quality --at community/hh level

Treatment: Provide information on water quality,

+ Control

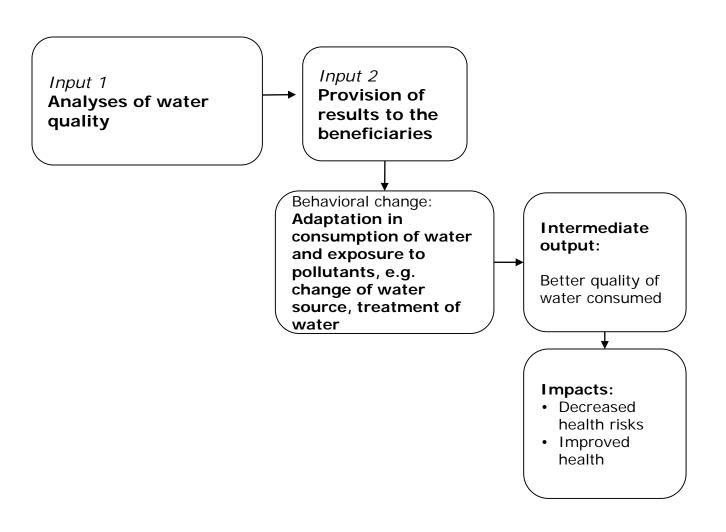
- SENAGUA
- Municipalities
- Social movements and NGOs (UDAPT, FDA, Give Clear Water...)

• Others: INEC, etc.





4. Theory of change





5. Evaluation questions, outcomes

 There is little knowledge about water quality and exposure to pollutants

 Are families that use polluted water sources going to adjust their behavior and find alternative sources? Are families going to treat their water?

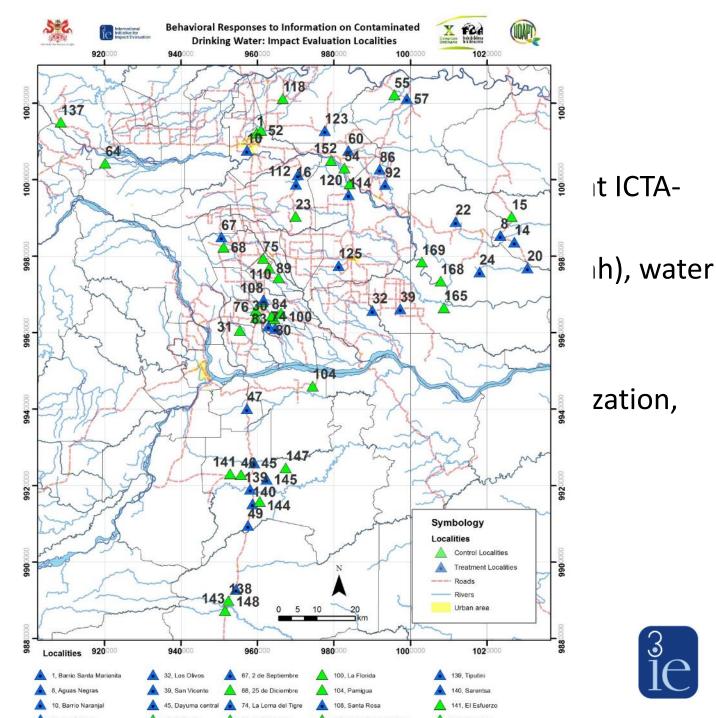
 The outcomes of interest: quality of water used (intermediary outcome) and health outcomes (ultimate outcome)





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7. Baseline findings

• Analyses:

 Little variability in the results across contaminants: few samples with contamination from heavy metals and PAH, large majority of samples show biological contamination

• Household survey: balanced, representative...

	Treatment		Control	
Natural sources – rainwater	149	25%	156	27%
Piped water to the dwelling	129	22%	156	27%
Dug well – uncovered	108	18%	63	11%
Dug well – covered	69	12%	93	16%
Processed water – bottled	58	10%	21	4%
Natural sources – spring	30	5%	44	7%
Piped water to the lot	18	3%	31	5%
Natural sources – streams	9	2%	18	3%
Processed water – drinking water network	17	3%	1	0%
Natural sources – river	0	0%	3	1%
Piped water from the neighbor	2	0%	0	0%
Piped water of public tap	0	0%	1	0%
Other	0	0%	1	0%
Total	589	100%	588	100%



8. Engagement and evidence uptake

• SENAGUA, INEC, Municipalities, IAs, NGOs...



9. Capacity building

- Local research capacity: collaboration with USFQ
- Culture of evidence use and evaluation: 'All eyes on the Amazon'



10. Lessons, challenges and mitigation

• Peru

Lack of variability in results, switch of focus

 Strategies for overcoming and troubleshooting challenges: flexibility

Political change?

Value for money?



11. Next steps

• Complete treatment: workshops and return of information

Follow-up survey



Thank you!

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