



Rethinking Food Markets
and Value Chains for
Inclusion and Sustainability

Parallel Session 1

Digital innovations for product tracing and making market information accessible - I

Presentations:

- **Sudha Narayanan, IFPRI-Delhi**
- **Federico Ceballos, CIAT-Honduras & Jenny Wiegel, Alliance Bioversity-CIAT, Nicaragua**

Moderator: *Kate Ambler, IFPRI*

Discussants:

- **Guillermo Alvarado, Secretary General, Honduran Chapter of the Global Coffee Platform**
- **Daniel Dubón López, Secretary General, PROMECAFE (Online)**
- **Brian King, Senior Manager at the Technology Integration office of the Alliance of Bioversity and CIAT**
- **Liaquat Ali Choudhury, Policy Adviser & Director, Bangladesh Shrimp and Fish Foundation (Online)**



Rethinking Food Markets
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Inclusion and Sustainability



Improving vertical and horizontal coordination in fragmented value chains

**Federico Ceballos-Sierra on behalf of the Honduras
team**

Washington D.C, December 10th, 2024

Rethinking Food Markets and Value Chains: Coffee in Honduras

Private intermediation markets

- Activating intermediaries in private sector-dominated value chains for inclusive and lasting impact.
- RCT w/ four treatment arms combining information flows from Point of Purchase and Technical Assistance

Typologies of women in coffee

- Building more equitable supply chains through the commitment of agribusinesses with a special focus on gender equity.
- Gender Equity Toolkit (see link)

Digital Public Infrastructure

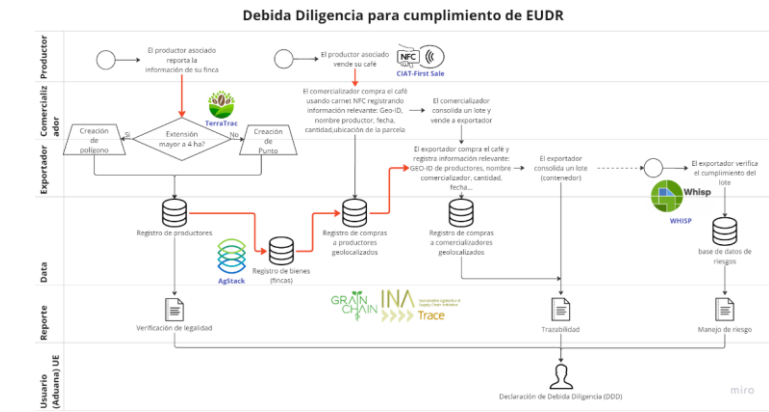
- Developing a practice for building trust between actors of disorganized value chains towards the creation of an initial public good/service: a shared data layer.
- Trust framework

Key outcomes

Private intermediation markets: trust relationship built with two intermediaries and one exporter, leading to a better understanding of their rationalities. Increased understanding of the value of capturing and sharing information. Journal article forthcoming. Picked up by USAID, now funding our partners for trebling their TA.

Typologies of women in coffee: Age, socioeconomic status, and women's subjective experiences shape how they navigate gender norms, influencing their roles, limitations, and benefits within the chain—an approach that can also be applied to understand other marginalized groups. Journal article forthcoming. Soon to be replicated with a different exporter, interest in replicating in other VCs.

Digital Public Infrastructure: Prototyping the first public-interest digital infrastructure to facilitate product traceability and information exchange among actors. Expanding geographically and thematically. Geographically: soon to be replicated in Kenya (DIASCA) and maybe Guatemala. Thematically, looking at more value added to the infrastructure (loans, climate risks, etc.).

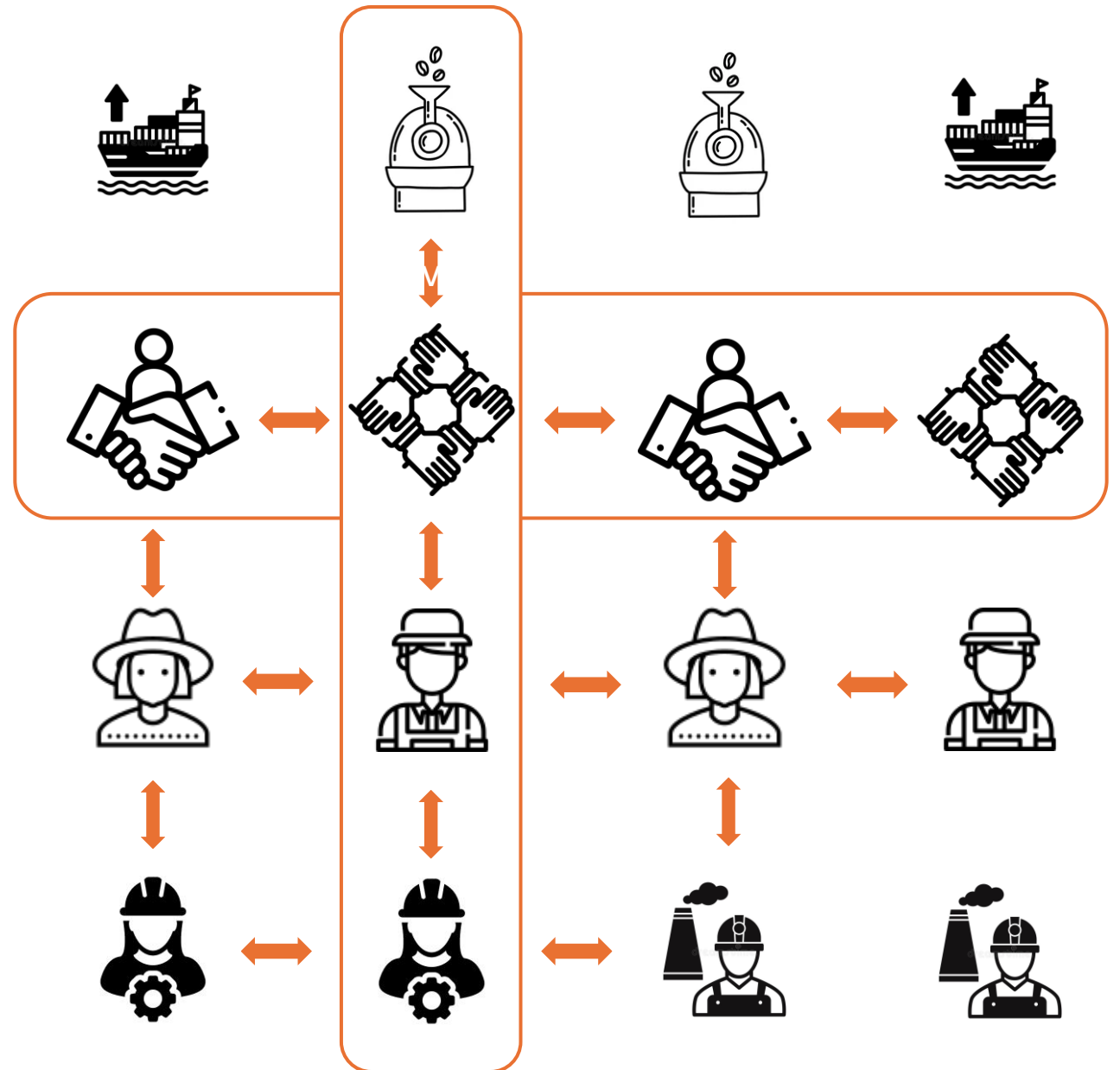


Improving coordination and inclusion

Vertical coordination: improved data flows originating at point of purchase.

Inclusion: Methodology for identifying typologies of women, with an eye out for causes of marginalization.

Horizontal coordination: Digital Public Infrastructures for EUDR compliance and financial service provision.



Evidence of impact: Private intermediation markets

Methods

RCT with two treatment levels and 4 treatment arms:

- **T1:** Control,
- **T2:** Technical assistance (individual and group trainings),
- **T3:** Point-of-purchase quality assessments
- **T4:** Technical assistance and point-of-purchase quality assessments

Stratified randomization by trader
N=1407

Main outcomes of interest: quantity sold, % of production sold to associated intermediaries, perception of improvement on market outcomes.

Secondary outcomes of interest: increased awareness of agricultural practices, adoption of agricultural practices.

Results

Comparison of means:

$$y_{i,t=1} = \alpha + \beta T_i + \gamma y_{i,t=0} + \varepsilon_{i,t=1}$$

Regression Model Summaries

	<i>Dependent variable:</i>		
	(log of) Amount coffee sold (kg)	(log of) Amount coffee produced (kg)	Share sold to associated intermediaries
	(1)	(2)	(3)
Technical assistance	0.059 p = 0.736	0.092 p = 0.276	0.043** p = 0.040
Point of purchase information	0.397** p = 0.033	0.296*** p = 0.002	-0.029 p = 0.194
Technical assistance + point of purchase information	0.537*** p = 0.003	0.196** p = 0.024	-0.017 p = 0.430
Constant	4.173*** p = 0.000	1.191*** p = 0.000	0.666*** p = 0.000
Observations	1,084	1,084	1,069
R ²	0.104	0.548	0.721
Adjusted R ²	0.099	0.545	0.719
Residual Std. Error	2.015 (df = 1077)	0.981 (df = 1077)	0.240 (df = 1062)
F Statistic	20.801*** (df = 6; 1077)	217.373*** (df = 6; 1077)	457.042*** (df = 6; 1062)

*p<0.1; **p<0.05; ***p<0.01

Outcomes and impact

Farmers: Strengthened relationships with technical experts and intermediaries, facilitating knowledge transfer and capacity building. **Intermediaries:** Increased integration into the value chain by adopting improved practices and technologies, enhancing their role and profitability. **Exporters:** Strengthened long-term relationships with producers and intermediaries, fostering a more resilient and sustainable supply chain.

Evidence of impact: Typologies of women in coffee

Methods

Application of qualitative methodology using an intersectional approach to create typologies of women and men in supply chains, identifying the benefits and challenges they face.

Intersectional: understanding gender as shaped by and in relation to other social categories.

With the aim of bringing to light the experiences and needs of **underrecognized or marginalized** groups.

Results

Co-development and application with partners in Honduras (coffee) and India (tea) of a methodology to gain a deeper understanding of the diversity of women involved in agrifood supply chains.

Partners (export companies and international organizations) will use the methodology to guide tailored investments in gender equality and women's empowerment in a particular supply chain.



Outcomes and impact

Agribusinesses and other stakeholders target gender and social inclusion investments in supply chains.

Evidence of impact: Digital Public Infrastructure

Methods

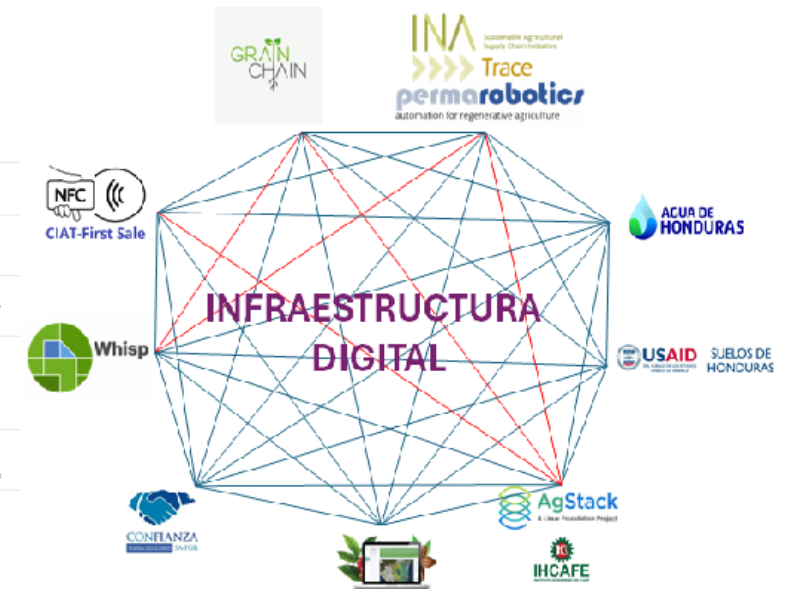
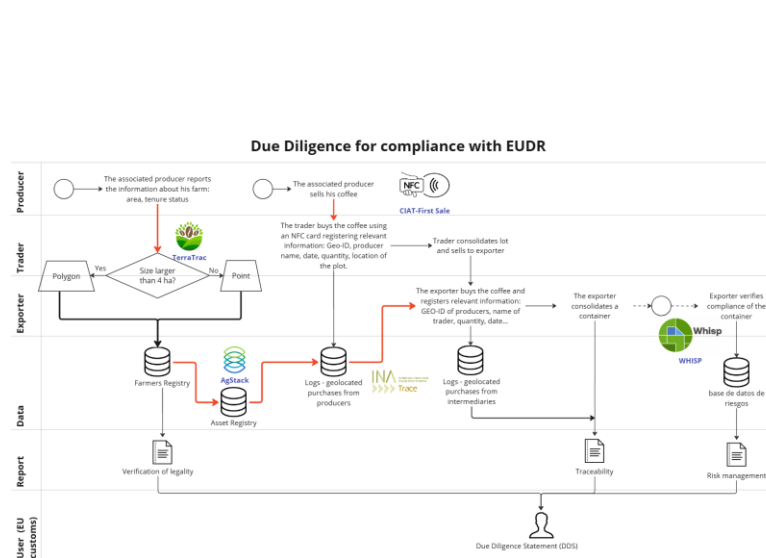
Trust framework (stakeholders involved):

- Stakeholder mapping (180),
- Consultation (19),
- Group mediation to identify shared concerns and interests (22),
- Prototyping group for agile development (8).

Outputs:

1. Joint statement on the need for multi-stakeholder Digital Public Infrastructure,
2. Data flows and building blocks around a shared data layer,
3. Open access, auditable, modular, “by us for us” digital twin for compliance with EUDR.

Results



Outcomes and impact

Digital twin being tested with 1200 farmers, with the goal of exporting at least one container during the 2024/20245 harvest whose traceability is supported by this infrastructure.

Seeking integration with IHCAFE and Confianza SA-FGR data infrastructures to test whether this infrastructure can strengthen IHCAFE’s farmers’ monitoring system and if it can inform loan provision.