Feature of socio-economic development paths based on the quality upgrading of existing products and processes

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with  
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Questions

Why is this project so relevant in nowadays international cooperation?

What are main innovations in this approach?

What are the main results obtained?

Tiberio Chiari, IAO, MAECI
Premise

Societies, development and international cooperation initiatives are increasingly characterized by complex multilevel governance mechanisms (horizontal + vertical)

The characteristics of the AVCPO project, relevant to understand its complexity and success, have already been presented so far and so well by several important speakers today

Therefore, scope of my presentation is to focus on the impact evaluation of this project and innovativeness of this Ethiopian-Italian development cooperation project
The objectives of this presentation are:

1. To introduce the core and the innovativeness of the AVCPO - Agricultural Value Chains Project in Oromia (Ethiopian-Italian development cooperation project)

2. To present the results of the impact evaluation of this development cooperation project based on a rigorous mixed-methods approach

This study has been conducted by ARCO LAB (Univ. of Florence) thanks to the collaboration of several research institutions (Italian: IAO and Univ. of Florence, Ethiopian: SARC, Sinana and German DIE)
Outline

1. The AVCPO project: main characteristics (multi-stakeholder, multilevel governance, ...)

2. Theoretical and practical innovations

3. Methodology

4. The main results: impact evaluation

5. Final Remarks
1. The AVCPO project (1/4)

Objectives (since 2011)

- To increase the well-being of local farmers by strengthening the agricultural value chains of durum wheat in Bale (and wild coffee in the Harenna forest) through support to local governments and farmers’ cooperatives
- To allow local farmers in the Bale Mountains Region to have a direct access to domestic and international markets
- To rely on – and upgrade – poor farmers and smallholders to produce high-quality food commodities on a large scale in order to meet the market demand

Approach

- Value Chain Development (VCD)
- Demand-driven approach
- Quality-driven approach to meet the market demand of large-scale and timing production
The AVCPO project (2/4)

Starting point
- Understanding the **nature of final markets** for the locally produced durum wheat
- Dealing with new patterns of multi-level relations and empowerment of a wider range of VC stakeholders (= **systemic governance** of the VC)

Implementation
- Targeting the **interface between producers and agro-processing industries**, in order to allow farmers to participate in markets beyond local levels by improving their bargaining power and by sustainably increasing value addition
- Assigning priority to **quality issues** and procedural aspects of **ownership and coordination** along the VC, which in turn can boost productivity and market expansion
Main actions by AVCPO on the key drivers of VCD

- **System Efficiency**
  - Strengthening of producers associations;
  - Strengthening of storage system;
  - Promotion of contract farming schemes with quality based prices

- **Product Quality**
  - Farmers training;
  - Provision of key devices to foster product quality (huller, seed grading, protein content, assessment etc.);
  - Strengthening of seed value chain

- **Product Differentiation**
  - Promotion of complementary value chains (e.g. pulses in the durum wheat area);
  - Promotion of awareness about product potentialities (e.g. wild coffee)

- **Social & Environmental Standards**
  - Involvement of communities and local institutions;
  - Promotion of peer learning and experience-sharing mechanisms;
  - Adoption of local varieties;
  - Promotion of crops rotation; Good nitrogen fertilisation

- **Business Environment**
  - Promotion of demand driven agricultural extension;
  - Promotion of awareness concerning earnings-quality linkage;
  - Strengthening of producers associations

*Source: Authors’ elaboration from Herr and Muzira (2009, p. 4)*

Simultaneous attention to **processes** to foster and enhance sustainable trajectories of VCD in Oromia
The AVCPO project (3/4)

Enabling factors
- Provision of sound economic incentives to farmers
  → Incentive-compatible structure
- Pre-existing administrative organisation of the Ethiopia State
  → Strong ownership concerning any development initiative implemented in country

Other complex factors encountered
- Difficulties in M&E of implemented activities
- Need of high capacities of coordination
- Just sufficient collective empowerment of farmers
The AVCPO project (4/4)
The expected impacts

DIRECT IMPACT (i.e. expected)
• Farmers Income → approximation through assets
• Farmers vulnerability
• Productivity
  • quantity (yield)
  • added value of agricultural activity
• Agricultural practices
  • land use
  • input use (fertilizer use, labor etc.)
• Nutrition (more concerned about quality than about quantity)
• Empowerment and collective action
2. Theoretical and practical innovations

- International cooperation: from inputs driven to empowerment processes

- The set-up of an innovative international cooperation strategy

- AVCPO project combines the traditional technical cooperation with innovative approaches with a special focus on market-demand, on farmers involvement
  - demand driven
  - M4P strategy
  - Farmers’ cooperatives empowerment
  - Institution and capacity building
  - Multilevel governance and multi-stakeholders involvement
Figure 1 Five types of global value chain governance. Source: Gereffi, Humphrey and Sturgeon (2005: 89).
The Market for the poor (M4P) systemic action
Making markets work for the poor

• The M4P approach recognizes that the lives of the poor are inextricably linked to the functioning of the systems around them. Too often, poorly functioning market systems - uncompetitive and unresponsive to producer, worker and consumer needs - have a disproportionately negative impact upon the poor, who lack the resources to overcome such dysfunctions.

• The M4P approach fosters understanding of the functions and players within market systems and how these can be strengthened in order to better serve the needs of the poor. The approach targets intervention at critical weaknesses in the market system, building capacity within the system to enable key players more effectively for the benefit of the poor.
Why is this project so relevant in nowadays international cooperation?

This project starts from the upgrading of the quality of durum wheat production in order to satisfy the internal market demand of pasta producers.

Most projects and programs of international cooperation are set up in very complex context but they very often ignore this complexity. → This project base its success on understanding the context and making it part of the change in the process.

Most of projects are supply driven → this is demand driven.

Most of food projects are pro-production increase but not pro-poor.

Tiberio Chiari, IAO, MAECI
3. Methodology

Mixed-methods impact evaluation

Quantitative and qualitative methods combined and integrated

Quantitative, based on an ad hoc survey to estimate objectively the results of the project (control and treated)

Qualitative analysis to evaluate the impact of the programme in terms of Development Effectiveness
## Durum Wheat: TARGETTED FARMERS

### Cooperatives to be involved on durum wheat

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<th>Members</th>
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**Durum wheat:**

- **5 woredas**
- **15 Multi Purpose Cooperatives and Seed Cooperatives**
- **4 Unions**
The architecture of quantitative IE

• Not possible to implement a fully randomized IE (ethically, practically and technical reasons)

• Quasi-experimental methodologies → propensity score matching
  • Identify a treated and a control group and compare units (i.e. households) that are similar
  • Definition of a similitude function (propensity score) by using X variables to reduce the selection bias

• In order to do this we need a good sample design, and a good survey and a distinction between treated (farmers participating at AVCPO project and a control group of farmers not part of the program)
The architecture of this IE (3)

- **Treated Group**
  - 3 treated woredas: Sinana Goro and Ginir (or Gololcha)
  - 350 interviews
  - 10 cooperatives
  - 35 interviews per cooperatives

- **Control group**
  - 3 non AVCPO but willing to participate areas: Gassera, Goba, non treated kebeles in Sinana
  - 450 interviews
The structure of the questionnaire

• The questionnaire is structured as an LSMS: not focused only on agriculture but on a wider picture of the reality

• Questionnaire elaborated starting from the questionnaire elaborated by Dercon

• Large part of this questionnaire already discussed with SARC and IAO researchers last year but then the questionnaire was deeply modified (contribution of DIE)
The sections

• Introduction
• General information about the household
• Information about household members activities
• Household assets
• Agriculture
• Household food security and food consumption
• Risks and Shocks
• Cooperative and participation
• Final notes about the interview
Procedure for qualitative methods

1\textsuperscript{st} STEP: Interpretation of the Paris Principles

$\rightarrow$ Identifying key elements for each principle and assessment focus according to the governance level (donor, federal state, grassroots)

2\textsuperscript{nd} STEP: Theoretical framework: Sen’s Capability Approach

$\rightarrow$ Being an agency-oriented and opportunity-based theory, it requests to move beyond mainstream “project approach” (Alkire, 2002, 2008; Frediani, 2007), giving salience to the real freedoms people have reason to value and to individual and community experiences, values and participation

3\textsuperscript{rd} STEP: Selection of tailored methods

- Semi-structured interviews with key informants
- SWOT Analysis with local governments, cooperatives, farmers
- Structured Focus Group Discussions (SFGDs) with Matrix Score with local governments, cooperatives, farmers (Biggeri and Ferrannini, 2014)
Qualitative and participatory methods

*Semi-structured interviews with key informants*

→ To gather general information on project implementation and compliance to Paris principles

*SWOT Analysis*

→ To collectively discuss on the strengths, weaknesses, opportunities and threats that characterise both AVCPO and the natural/wild coffee and durum wheat VCs

*Structured Focus Group Discussions (SFGDs) with Matrix Score*

→ To assess i) the expansion of the capability space for local VC actors in relevant dimensions, and ii) the level of engagement and contribution of different actors in the project implementation and VC activities (Biggeri and Ferrannini, 2014)

**Advantages:**

• Flexibility to gather information from different actors/institutional levels
• Translation of research questions in different “cultural languages”
• Comparison of different visions of the project and of the VC
Qualitative method sample

Key informants
→ International and national stakeholders in Addis Ababa

Woredas
→ 3 out of 5 woredas of project implementation for durum wheat, accounting for different climatic features of the area
→ 1 out of 1 woreda of project implementation for natural/wild coffee

Representatives of local governments
Leaders of cooperatives and unions
→ Representatives of every local government department related to VC activities and leaders of all cooperatives and unions were selected

Farmers
→ Randomly selected from different cooperatives
4. Results

→ Qualitative Analysis

→ Quantitative Impact Evaluation
Results of qualitative analysis: durum wheat VC

- **Ownership**
  + : widely participatory character, greater coordination and awareness of the functioning of the VC, increased capacities of collective action, budget support mechanisms
  - : weak capacity to govern the VC without the project management

- **Alignment**
  + : reaching beneficiaries in a short period of time, creating demand and interest for new opportunities of producing and marketing high-value crops, increasing life-span of the VC
  - : shorter time-span compared to Ethiopian GTP

- **Harmonisation**
  + : good level of harmonisation with other projects in the same weredas
  - : limited fragmentation of different technical experts supporting farming production

- **Managing for results**
  + : strong follow-up and monitoring through frequent field visits and feedbacks, increasing coordination among VC stakeholders, smoothing of bureaucracy
  - : need to improve M&E regarding seeds provision, payments, planting practices

- **Accountability**
  + : increasing trust among cooperatives and stronger linkages with processing industries
  - : not sufficient transparency and weak information (i.e. quality and payment of the product)
Quantitative Impact Evaluation: main results

Outcome variable:
Value of production (BIRR per ha) Difference 2013-2010

Table of treatment variables

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Value of production difference 2013-2010 (BIRR per ha)
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Outcome variable:
Value of production (BIRR per ha) Difference 2013-2010

At least one activity of the project

ATT estimation with the Kernel Matching method
Bootstrapped standard errors

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The balancing property is satisfied

a- DW value chain
b- DW Seeds
c- Storage facilities
d- Training
e- Processing
Outcome variable:
Value of production (BIRR per ha) Difference 2013-2010

DW land at least one DW plot

ATT estimation with the Kernel Matching method
Bootstrapped standard errors

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The balancing property is satisfied
Observation 1:
No significant differences in crop rotation prevalence in treated and not treated areas

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Observation 2:
In 72% of cases DW area expanded thanks to a reduction of BW area
Final remarks (1/3)

This research demonstrates through an objective and academic study:

- The outstanding success of this project

- The set-up of and innovative international cooperation strategy AVCPO combining in an efficient manner and with strong efficacy the traditional technical cooperation with innovative approaches with an attention to farmers (demand driven, M4P strategy, farmers’ cooperatives empowerment, capacity building and governance as well as multi-stakeholders involvement)

- AVCPO’s compliance to Paris principles to ownership (local actors as leaders of their own VC and development processes), alignment (to Ethiopian development priorities) and harmonisation (with international cooperation strategies of multilateral organisations)

The domains of accountability and management of results is fine but deserve stronger attention, concerning information diffusion and power relations along the VCs

In line with most EXPO 2015 principles

→ Such successful results are based on good ideas but ...
Final remarks (2/3)

General

This project is, to our understanding, sustainable and “unique”, but replicable in other areas and for other products under some conditions.

We have to recognize, at EXPO 2015, that we need at least four fundamental ingredients:

• Technical capacities (from the set up of systems of the seeds quality upgrading to institutional understanding and the governance issues)

• Human resources
  The capacity to coordinate such a massive and complex system (IAO/MAECI)
  The capacity to implement such a massive and complex project (Ethiopia)
  → The quality (human and technical) of people involved in the project (Dr. Tiberio Chiari - IAO, Genene, SARC and many others in Ethiopia)

• The political willingness (in IAO-MAECI and in Ethiopia) and its multilevel governance specification

• The people, the farmers and their cooperatives living in a specific territory and their collective empowerment, the food industry
Final remarks (3/3)

General for impact evaluation of international cooperation programs

• Going **beyond country assessments** of Aid Effectiveness

• Embrace a multilevel notion of **Development Effectiveness**

→ In this regard, **Paris principles** can keep representing pillars and guidelines to pursue Development Effectiveness only if conceived in terms of **dynamic complex processes** rather than outcomes

→ Flexibly **adapt assessment and evaluations** to the context and object of analysis, building on the **embedded local knowledge and capabilities**
Thanks for your attention!
Comments are welcome!

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andrea.ferrannini@arcolab.org