CIP
INTERNATIONAL POTATO CENTER
A CGIAR RESEARCH CENTER

TECHNOLOGY IS NOT GENDER NEUTRAL

Factors that influence agricultural technology adoption by men and women

Paola Flores, Vivian Polar, Claudia Babini, Claudio Velasco

2018 Annual Scientific Gender Conference and Capacity Development Workshop

CGIAR RESEARCH PROGRAM ON Roots, Tubers and Bananas

CGIAR RESEARCH PROGRAM ON Policies, Institutions, and Markets

Addis Ababa, Ethiopia 25-28 September, 2018

Content

1. Theoretical framework and study design
2. The voices of men and women and the relationship between factors:
   - Internal factors
   - Technology attributes
   - External factors
3. Conclusions and recommendations

Theoretical framework and study design

FACTORS THAT INFLUENCE THE ADOPTION OF AGRICULTURAL TECHNOLOGY

- Studies show that **female farmers are less likely to adopt technology** compared to male farmers.
- **Some variables** that **have an explanatory power on technology adoption** in general are: gender, age, education, access to services, access to complementary inputs, access to labor, transport, energy among others.
- Some authors argue that **men and women do not necessarily make different adoption decisions**, and that adoption is influenced primarily by differential access to complementary inputs.
- Others argue that both **female and male, play different roles in the adoption of technology** and thus differ in their adoption patterns.

There is a **lack of research** that systematically analyzes whether women and men differ in their adoption decisions and whether these decisions are in fact due to differences in access to complementary inputs or resources or to the differentiated roles played by men and women in adoption.

RESEARCH QUESTIONS

- What factors influence the potential adoption of technologies by men and women in high Andean communities where production systems are based on potato cultivation?
- How do different factors identified influence the potential adoption of technology by men and women?

Qualitative research methodology based on case studies, considering the perceptions of men and women.

Context:

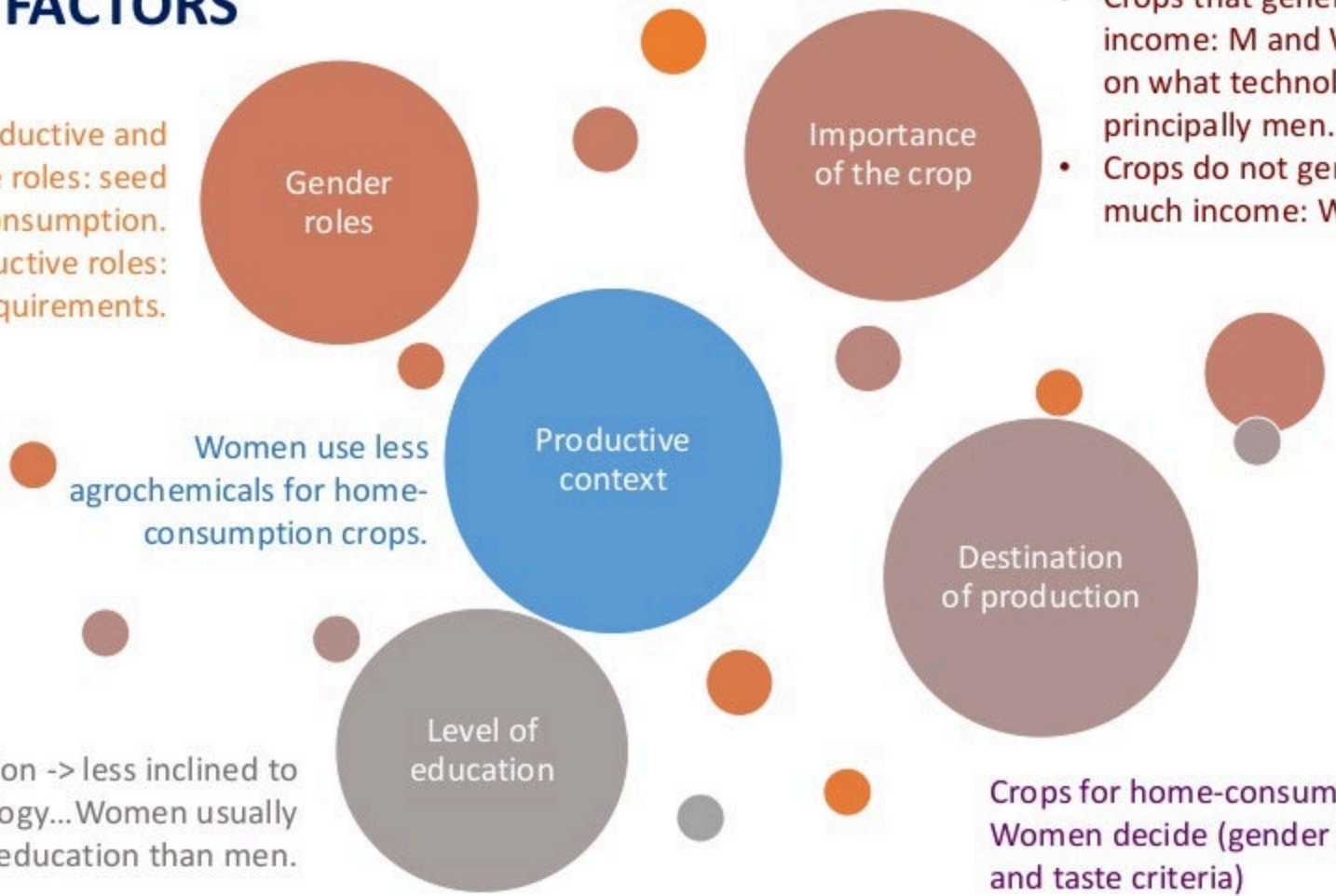
- Different types of high Andean communities in Bolivia, Ecuador and Peru.
- Production systems based on potato cultivation.
- Small and medium agricultural producers.

RESEARCH METHODS

- FOCUS GROUP with men (6 FG), women (6 FG) and jointly (2 FG): 71 men and 60 women participated.
- INTERVIEWS with technicians (15 in total)

The voices of men and women and the relationship between factors

INTERNAL FACTORS



- Women have productive and reproductive roles: seed selection and consumption.
- Men have productive roles: physical requirements.

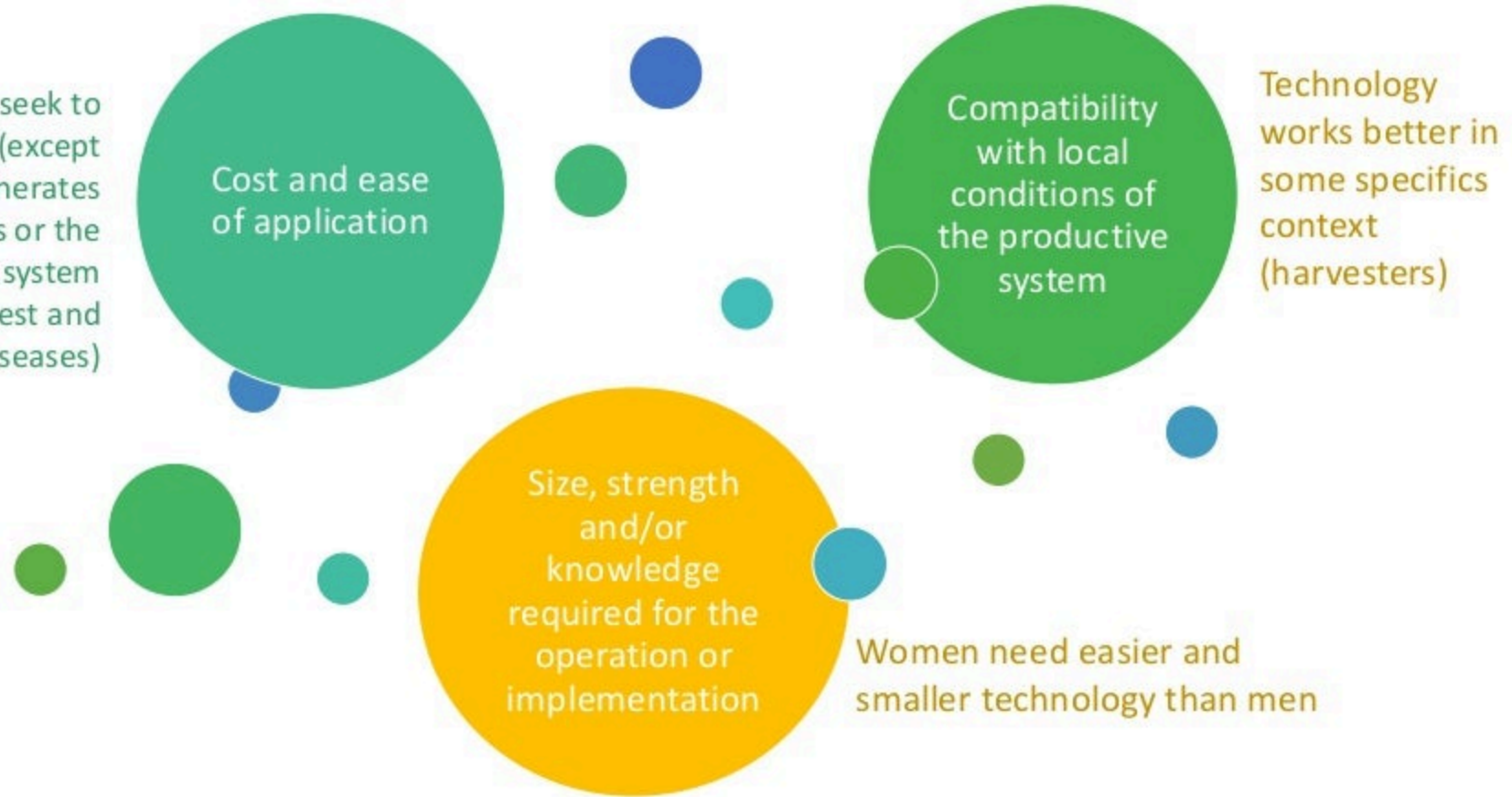
- Crops that generate more income: M and W decide on what technology use but principally men.
- Crops do not generate much income: W decide

Women use less agrochemicals for home-consumption crops.

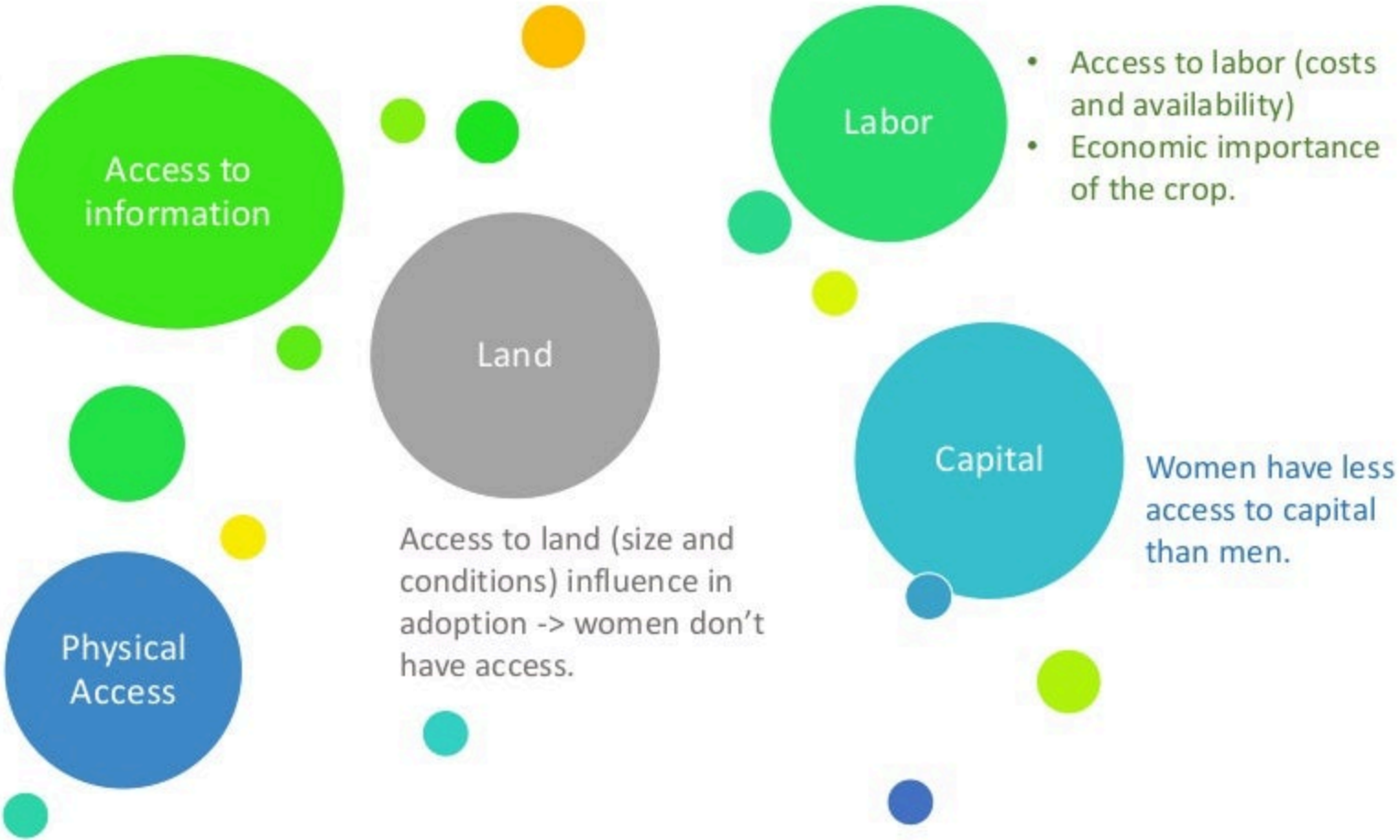
Less education -> less inclined to adopt technology…Women usually have less education than men.

Crops for home-consumption: Women decide (gender role: health and taste criteria)

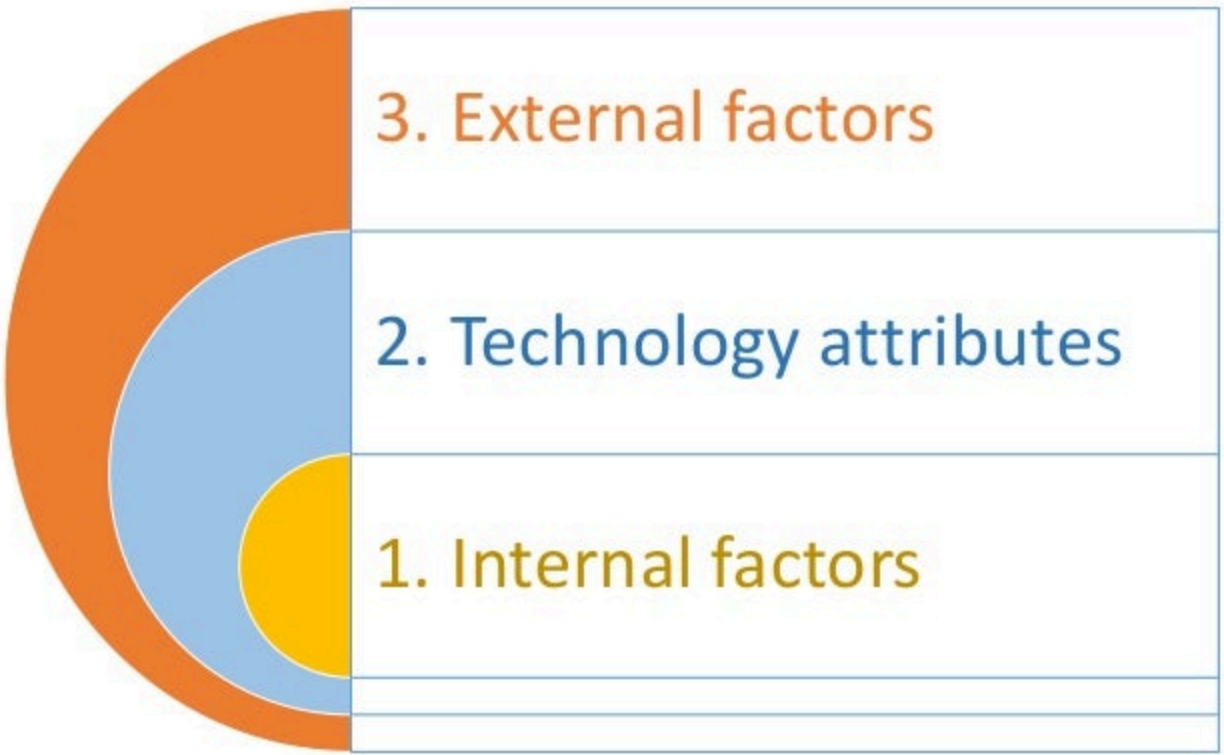
TECHNOLOGY ATTRIBUTES



EXTERNAL FACTORS



RELATION BETWEEN FACTORS: AN EMBEDDED INTERACTION



Technology attributes and **external factors interact with other factors** (education, gender roles, economic importance, destiny of crop among others)

High influence!

Conclusions and recommendations

- The potential adoption of an agricultural technology **is not gender neutral** and **different factors** (internal and external factors, and technology attributes) **influence adoption decisions** of men and women differently .

- These **factors do not act independently, it is the embedded interaction between them** that really determines the potential adoption by a man or a woman.

    - Internal factors may have a higher effect.

- The **"how"** and the **"extent"** of the influence of factors on adoption, **depends on the perceptions, experiences, preferences and priorities** established by men and women; and vary according to the gender roles.

- **Technology involves gender biases** that must be **considered** at the different stages of technology **design, validation and dissemination**. Internal factors can reduce the potential negative effect of these biases (crucial for research programs)

- Limitations of **access to production factors are a strong restriction** for the potential adoption of technology (particularly for women)

- The **effect of internal factors** and / or technological attributes is greater and **can** even **revert the limitations of access to external factors**.



CIP INTERNATIONAL POTATO CENTER
A CGIAR RESEARCH CENTER

CGIAR RESEARCH PROGRAM ON Roots, Tubers and Bananas

CGIAR RESEARCH PROGRAM ON Policies, Institutions, and Markets

THANK YOU!

p.flores@cgiar.org
v.polar@cgiar.org