



## OUT OF THE THEORY & INTO THE FIELD



# Gender, crops & animals: How women's choices are critical for nutritional health

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# Innovations in Agricultural

- Breeding – emphasis on input responsive species
- Technology – chemicals, pesticides, machines
- Introducing exogenous crops, often through colonialism
  - Corn to Europe, Africa and Asia
  - Wheat to the Americas



# The process

- Indigenous people were healthy, and their diet was based on maize
- The Conquistadores took maize seed back to Europe, first as a decorative plant in the Veneto and then spread to the peasants in the countryside, resulting in polenta.
- Corn was taken by Europeans to Africa, where it was widely planted, as the imposition of hut taxes meant either growing a crop to sell or selling one's labor

# The result?

- Polenta
- Mealy-Meal

But the health results were not the same.  
People were full but not nourished.

Soils deteriorated



# What went wrong?

- Those who took the corn never talked to the women to learn how it was prepared
- Preparation of the corn for tortillas, tamales, arepas, and piki bread was done by women
- Who always added ashes or lye to the masa
- Which released key amino acids that allowed people to work for days only consuming different types of corn cakes

# Nobody asked the women

- Only recently has CIMMYT instituted a program of *nixtamalization* to share this female cultural practice across continents.
- We are increasingly understanding the need for system approaches, which include bio-physical and human systems. Human systems, like biophysical systems are diverse.



# Producing more of a single crops is not the answer to world hunger

- The World Food Prize this year went to two men involved in economics and nutrition who made clear the importance of food quality (food diversity) over food quantify
- FAO has announced that we reposition food systems from feeding people to nourishing people

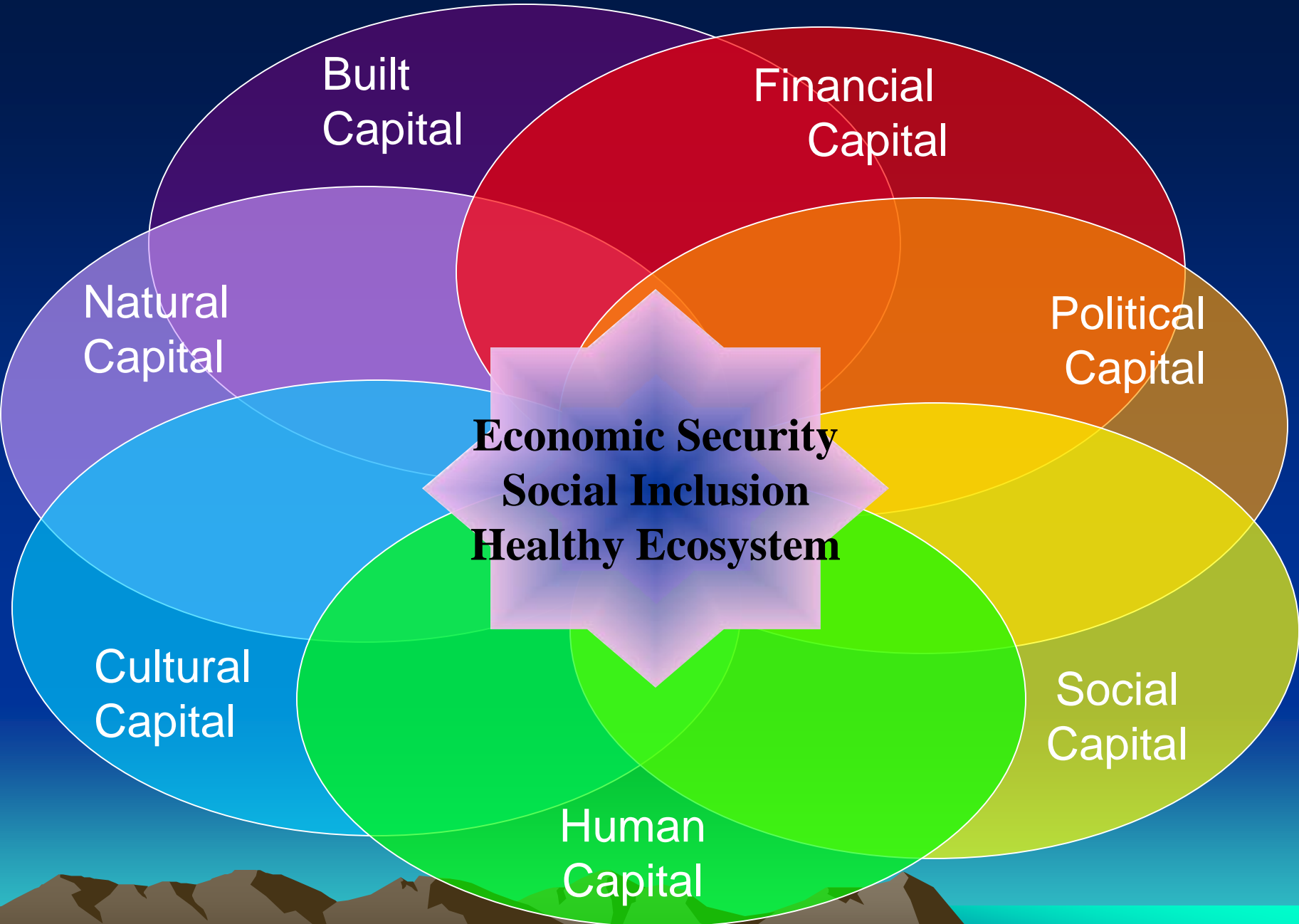


# Healthy food (nourishment) is more than high production

- Variety
- Correct preparation
- Food safety
- Access
- Control
- **Gender and Nutrition matter and are linked**







Built  
Capital

Financial  
Capital

Natural  
Capital

Political  
Capital

**Economic Security**  
**Social Inclusion**  
**Healthy Ecosystem**

Cultural  
Capital

Social  
Capital

Human  
Capital

# NATURAL CAPITAL



- Air
- Water
- Soils
- Biodiversity
- Landscape

Men and women have different access to & use of natural capital. Women often have responsibility without control for both communal and individual land. Women are responsible for providing water and food for their families

# NATURAL CAPITAL



Women in vulnerable communities adapt to variable weather



- Save seed from diverse sources
- Plant differently according to the weather (mix different varieties of a same crop in the same plot)
- Have complex and diverse agricultural systems
- Access variety of wild foods.
- Closely observe changes in flora and fauna and adapt their livelihood strategies to them.

# CULTURAL CAPITAL

- Symbols
- Cosmovisión
- Ways of knowing
- Language
- Ways of being
- Ways of doing

Cultural capital is how we see the world, what we value & what can be changed. Cultural hegemony devalues women's cultural capital & their knowledge of how to manage natural resources



# HUMAN CAPITAL

- Education
  - Abilities
  - Health
  - Self-esteem
  - Leadership
- As males migrate elsewhere as part of the family adaptation to climate change, women take over many productive activities that were traditionally performed by males.
  - Education and community organizing can encourage younger women to take leadership roles.



Mutual trust  
Reciprocity  
Groups  
Collective  
identity  
Sense of a  
shared future  
Working  
together



# SOCIAL CAPITAL

Women form informal  
and formal associations

- Women's collective enterprises include crops and animals
- In Africa, innovation platforms increasingly include women

Social capital has two dimensions: bridging and bonding. Women's social capital tends to be bonding. There are barriers to women forming bridging social capital.





Women  
showing  
advantages  
of  
Conservation  
Agriculture

# POLITICAL CAPITAL



- Norms & values → rules & regulations → enforced → determine access to & distribution of resources
- Grassroots organization
- Connections between the base & organizations at other levels.
- Formalize women's norms & values into regulation, increasing their ability to influence the distribution of family, community or regional resources.
- Officially recognize rural women's organizations. Facilitate women's participation in organizations managing resources to increase their comfort around powerful people. Include women's strategic interests part of the resource management agenda.



# FINANCIAL CAPITAL

- Loans and credit
- Investments
- Taxes, payments for ecosystem services
- Earnings, Savings
- Grants
- Women are often the traders and “dominate in economic activity”. Their value chains are different than those of the men.
- Women’s livelihood strategies often focus on cash replacement/savings that than cash generation.
- Women’s use of financial capital is different from and complementary to men’s use



# BUILT CAPITAL

- Machinery
- Inputs
- Animal pens
- Fencing
- Irrigation
- Meeting space



- Facilitate women's access to infrastructure to decrease their domestic work and increase their productive efficiency.



