

Social Networks/Capital in Sustainable Agriculture

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Presentation Outline

- The problem/challenge*
 - Why are social networks/capital important?*
 - How can social capital be produced*
 - Conclusions*
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Introduction

- *Roughly 80 % of Africa's poor live in rural areas, and even those who do not will depend on increasing agricultural productivity to lift them out of poverty.*
- *Resource degradation remains the main threat, leading to food crisis & persistent poverty.*
- *New technologies offer great promise. E.g. rice breeders have created a radically new type of rice for Africa, one that combines the hardiness of African rice with the high yields of Asian varieties.*
- ~~How do we remove the resistance to such technologies?~~

Examples

- ❑ *Success in poverty alleviation depends on uptake of technology and overcoming resource degradation problems.*
 - ❑ *There are isolated success stories of resource restoration and improvements in Agriculture e.g:*
 - ❑ On the fertility of Africa's depleted soil. Researchers have identified ways to nurse the land back to health, in the process doubling the size of harvests.
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Introduction-2

- Kenya- Milk production, is the fastest-growing source of income for small farmers in Kenya. Some 600,000 small farmers milking fewer than four cows apiece produce 80 percent of the country's milk.*
 - Burkina Faso-Building stone dikes, capturing water and preserving topsoil.*
 - Liberia- Village associations manage local fishing rights to prevent over-fishing during spawning season.*
 - Sudan-traditional leaders in the Butana Region manage grazing rights and water access.*
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Lesson(s)

- ❑ These stories teach two important lessons.
 - ❑ First, agricultural research produces enormous benefits, and World's/African governments need to support it more generously.
 - ❑ Second, farmer adoption of new technologies requires favorable incentives. These in turn depend on both domestic and international policies affecting farm markets and prices.
 - ❑ **BUT:** an African “green revolution” won't be unleashed by a few magical inventions.
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Lessons (2)

- Many pieces need to fall into place:
 - new technologies,
 - better education and social services,
 - functioning local and national institutions
 - communication and transportation
 - infrastructure that allows farmers to find markets.
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Lessons(3)

- ❑ The most inspiring success stories are those that describe farmers, banding together to accomplish things that they could not do individually and which governments proved incapable of doing.
 - ❑ These successful experiences represent seeds of hope.
 - ❑ They are signals of Africa's potential. Yet they remain too isolated from each other, supported by too few resources, and beset by too many environmental and financial pressures.
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What is the real issue/challenge?

- Despite this success stories, it has not been possible to extend the success to national or regional or continental scales.*
 - Are there factors beyond “economics” that explain adoption of beneficial technologies?*
 - In this presentation we examine the role of social capital in beneficial technology adoption.*
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What are social networks/capital

- ❑ *Stock of social capital and its relation to effective political institutions, economic development and solving social problems.*
 - ❑ *Social capital refers to attributes of people & organizations that influence their responses to economic opportunities.*
 - ❑ *Understanding these attributes is important for recommendations on how to increase SC for up scaling technology uptake.*
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Need for collective action

- ❑ Successful management of land depends upon the collective decision making of individual land owners at a landscape scale.
 - ❑ Farmers share information on prices, farm practices etc.
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Soil erosion-Collective Action needed



Badly eroded land



Soil conservation structure in Melelo





Why is social/network capital important?

- ❑ Social networks can foster cooperative behaviour and ease coordination problems.
 - ❑ Collective action is needed to: implement soil conservation on individual farms (e.g. through labour exchange, marking out contours, credit provision, risk sharing).
 - ❑ Raise awareness of new technologies and provide farmer led, group based training in new practices, maintenance of links with government agencies
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Social networks/capital contd

- *Benefits from farm investments are uncertain, and may materialize with a lag. Faced with no possibility to save or borrow, as is typical in rural low wealth societies, investment is made at the expense of current consumption.*
 - *Under these circumstances, social ties through support networks and reciprocity norms fill the gap in consumption smoothing. - implicit insurances.*
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Social networks/capital cont'd

- ❑ While technologies are employed on individual farms, the techniques operate at the landscape level, thereby making collective action particularly relevant.
 - ❑ Technologies that operate on a watershed scale are more feasible where traditions of cooperation are strong.
 - ❑ Farm technologies like terracing (or pesticide application, cattle spraying) require widespread and coordinated adoption in order to be effective.
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How can Social Capital be produced?

- ❑ Social capital promotes cooperation among agents-(La Porta et al., 1997).
 - ❑ Notwithstanding the lack of a precise definition,
 - ❑ Promote the Putnam "P" group of associations and not the rent seeking Olson "O" Groups.
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Conclusions

- *Social capital has public good nature*
 - *It leads to trusting & entrepreneurial atmosphere suitable for investment & growth*
 - *Economic incentives to form and participate in P-groups should be provided.*
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Conclusions

- *Incentives could include:*
 - *Group loans at concessionary rates*
 - *Tax concessions to group activities*
 - *Agricultural insurance to groups*
 - *Supply of agricultural inputs through farmer groups*
 - *Free/subsidized technical assistance to farmer groups*
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