RURAL WOMEN'S ACCESS TO SCIENCE AND TECHNOLOGY IN THE CONTEXT OF NATURAL RESOURCE MANAGEMENT

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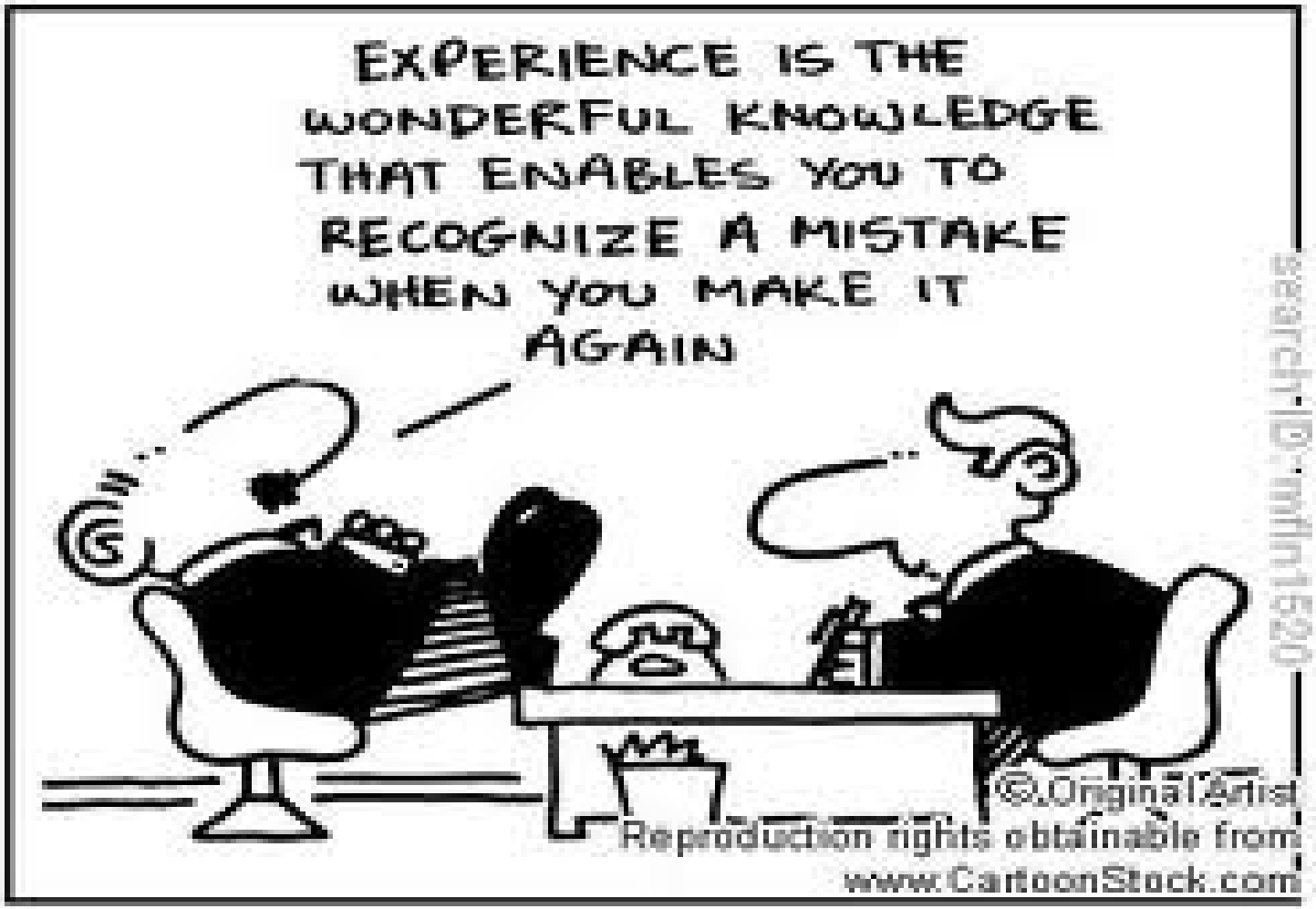
- Many technologies have been introducing without addressing gender differences
- Lessons can be learned from the last 30 years re differential impact of technologies on women versus men and rich versus poor.
- We now know that technologies must be introduced with a good understanding of local economic conditions and cultural practices.
- Huge need today for technologies to help poor households cope with increasing climate variability and long-term climate change, to improve crop yield and reduce time spent on laborious agricultural tasks.

WHAT DOES EXPERIENCE TELL US?



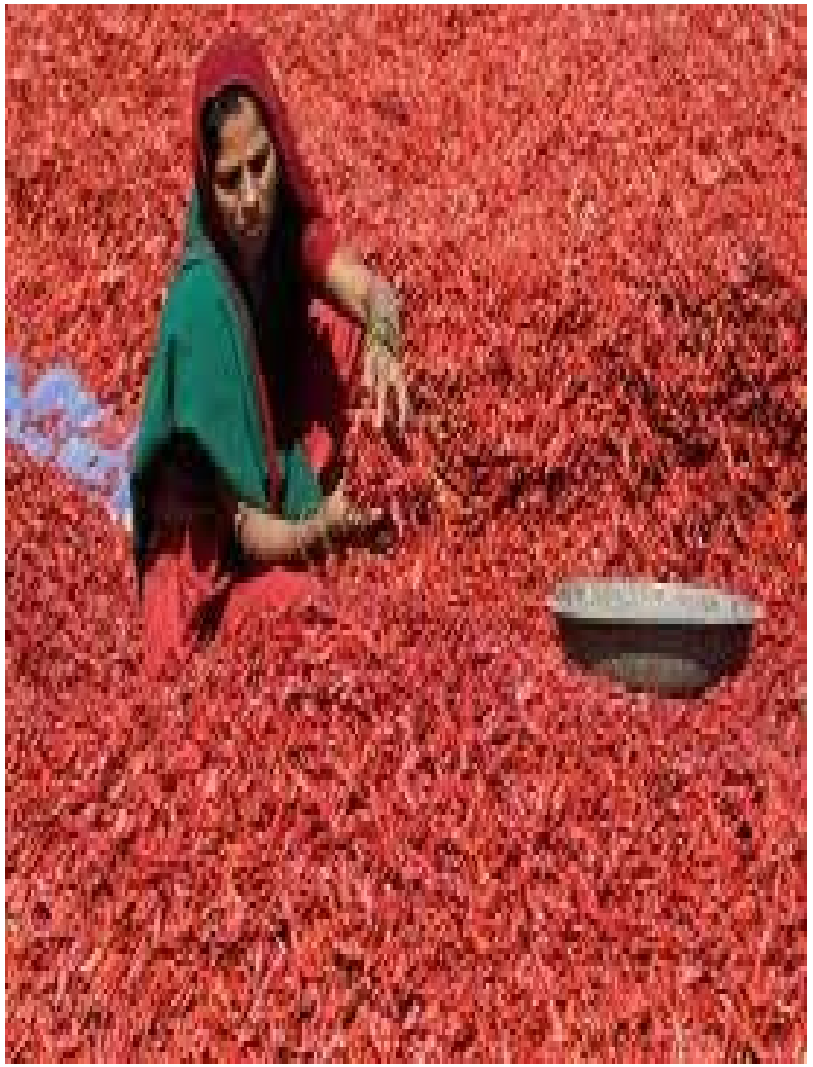
1. Gender roles in agricultural production change in response to economic and social conditions

- Many cultures traditionally assigned some agricultural tasks to men and others to women, but the boundaries have eroded as a result of migration, armed conflict, HIV-AIDs and other intervening factors

- Female-headed households are least able to mobilize additional labour when needed, because they are poorer and have fewer resources to pay for labour.

2. Technology adoption rates of male and female farmers are impacted by the different conditions under which they operate, including access to resources, secure land tenure, etc.

- Some researchers suggest that women adopt technologies more slowly but others have found that adoption rates are affected by women's specific needs and their access to resources



3. New technologies can have uneven impact on women's labour burdens.

- In India, the adoption of high-yielding varieties after the GR disadvantaged many poor women from landless or near landless households. Insufficient employment was generated to include all who needed work and wages remained low.

- On the other hand, labour saving technologies in the domestic/reproductive sphere can free women's time to allow them to work on irrigated plots or invest in other types of technology that will bring economic benefits

4. More technology research is needed on commodities and production processes dominated by women

- Agricultural technology researchers often bypass gender analysis in the selection of their research topics and in implementation of their projects

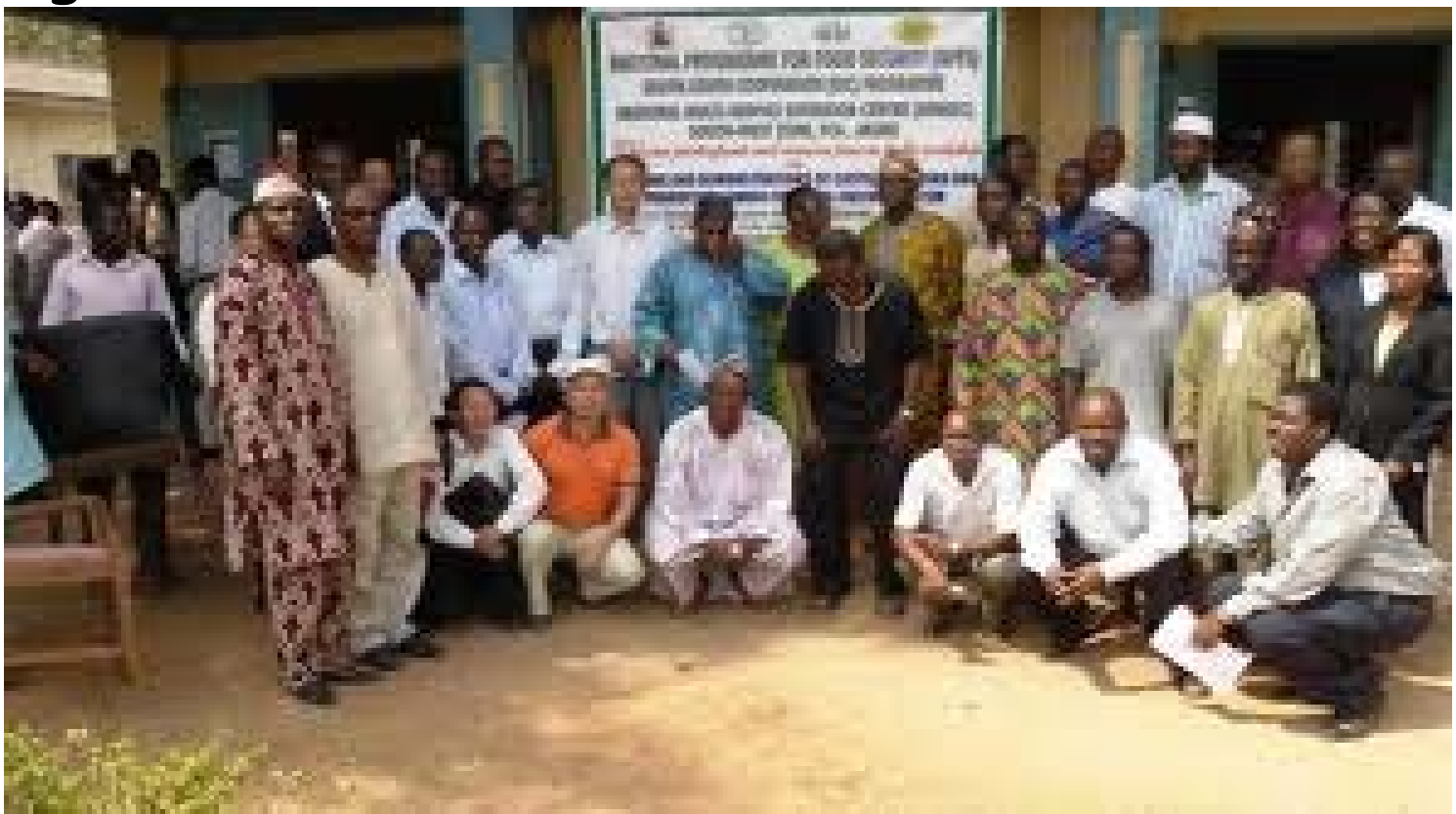
- For example, many women cultivate vegetables in kitchen gardens. Vegetables contribute to household food security, have important nutritional benefits and often are sold in local markets to generate cash incomes. But there is little technology research on vegetable production

5. Farmers' groups are effective in disseminating new technologies

- Farmers' groups can build a sense of shared purpose, and enable cooperative action in sustainable NRM and development.
- Researchers in Uganda, found that male participation in a farmers' group was high at the outset, but they tended to drop out while women remained. However, men still held the executive positions in the groups (with the exception of treasurer).

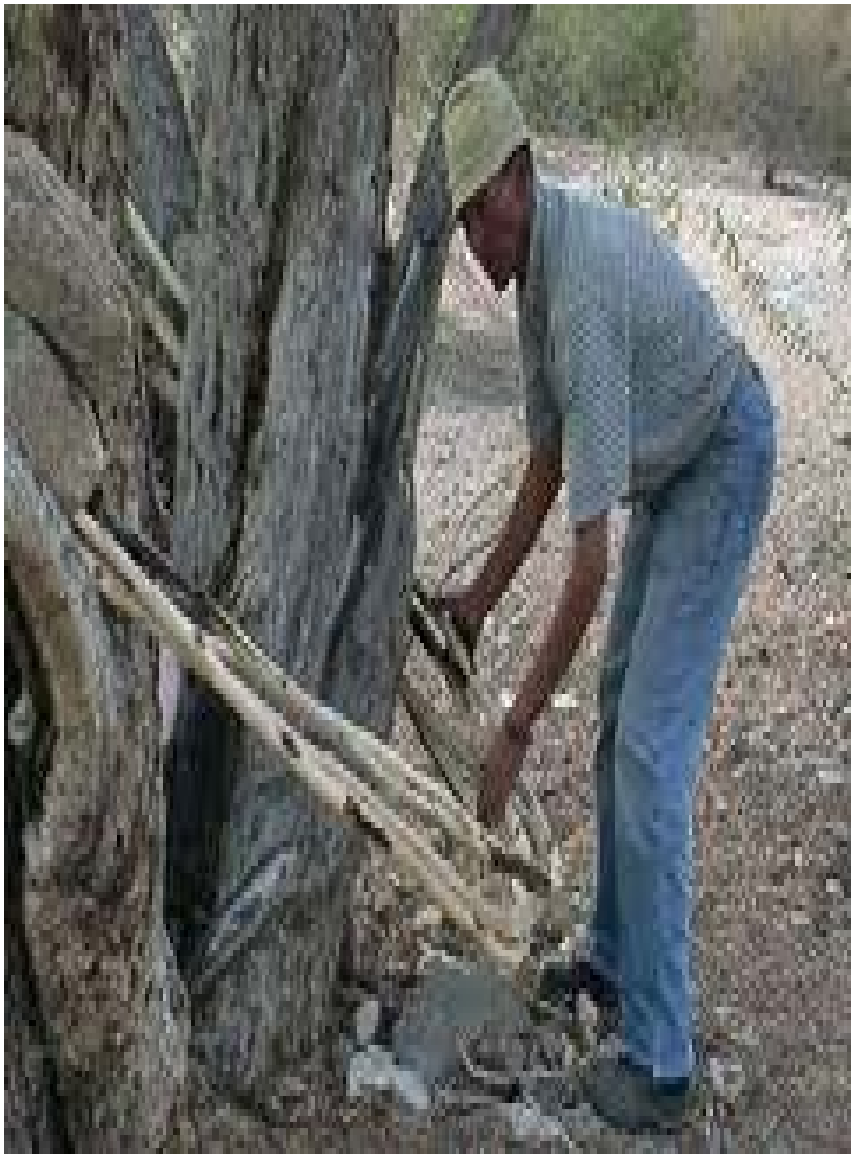
6. Agricultural extension is still an important driver in technology introduction and adoption

- Over the years, extension methods have moved towards more participatory approaches and increasingly they make use of communication technologies.
- However, some national systems are still gender insensitive



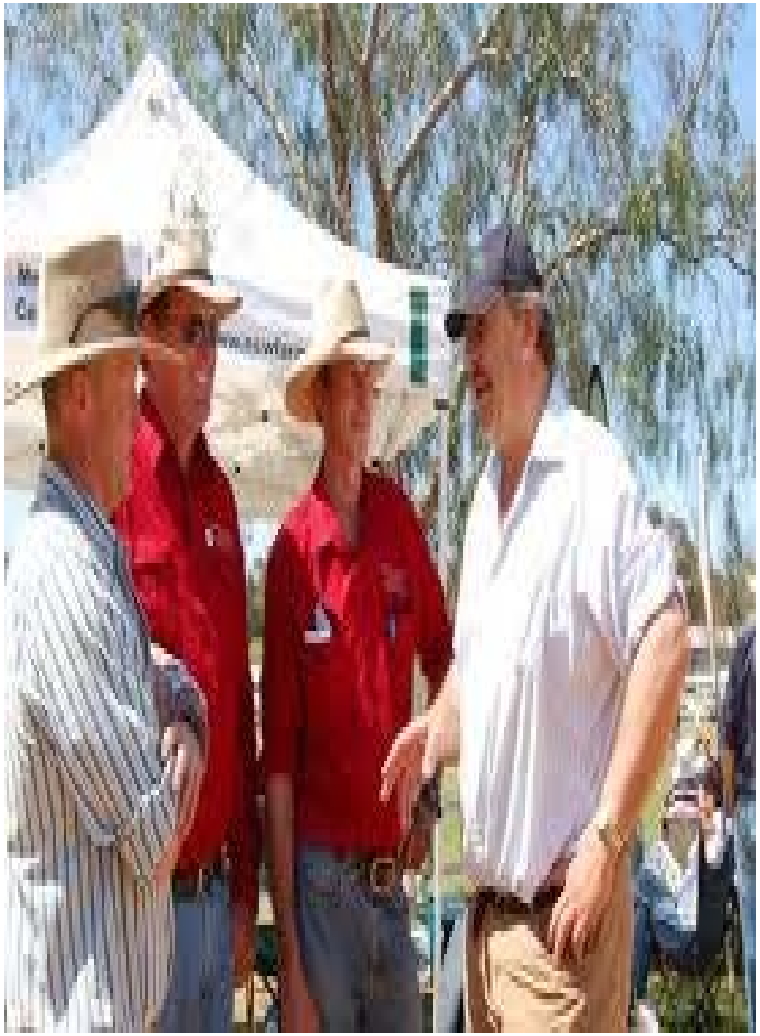
7. The indigenous S&T knowledge of poor farmers should be integrated into strategies for introducing new technologies

- Researchers often overlook the existing technical knowledge of male and female farmers.
- "Indigenous" or "traditional" knowledge is based on generations of experience and field testing.
- These knowledge systems are gradually being eroded



8. Participatory research methods alone are not sufficient to guarantee self-sustained adaptation of new technologies

- Many participatory projects have worked with "the community" without recognizing that this may consist of richer male farmers while the poor and/or female farmers are left out.



9. Gender mainstreaming into technical knowledge dissemination can help to ensure that women benefit

- FAO and IFAD have worked with government ministries and national extension systems to mainstream gender.
- Have promoted institutional reform leading to economic empowerment of rural women, giving them a greater role in decision making at all levels.
- Have also worked with local governance structures, to ensure that the voices and concerns of the poor are heard in decision-making

10. Successful participation in technology transfer projects has positive benefits in raising the self-confidence of rural women

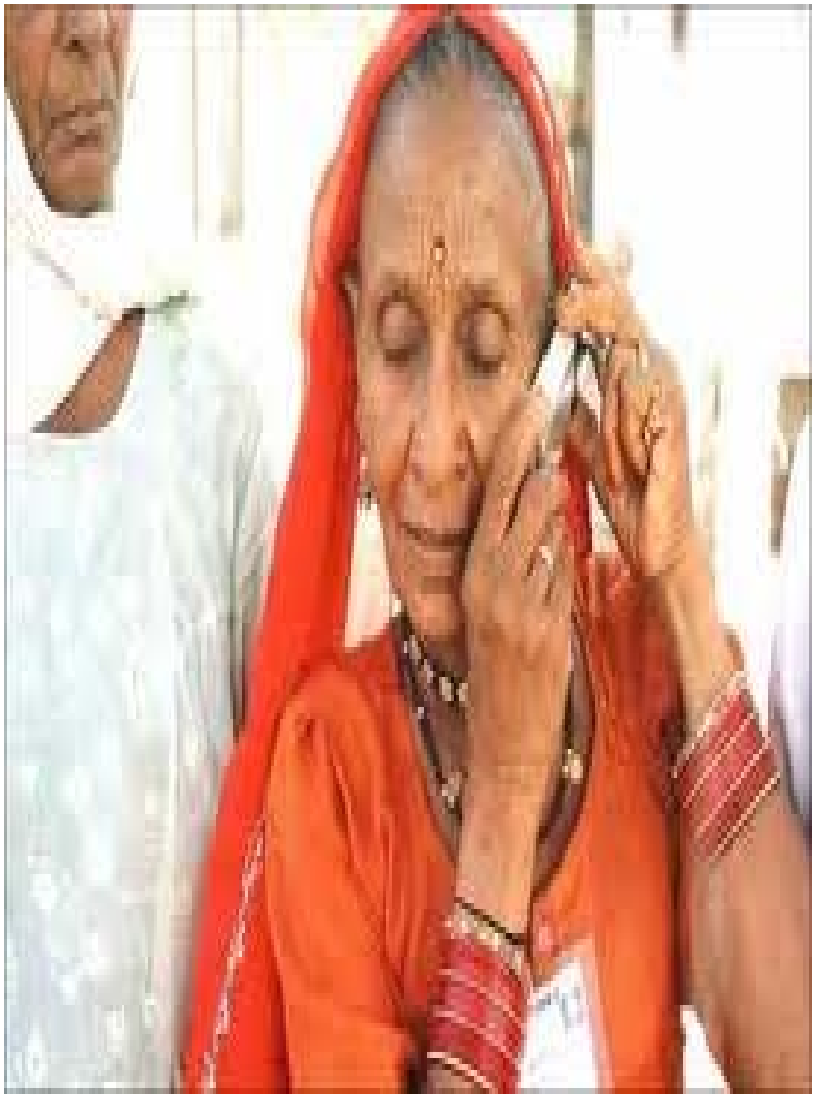
- Access to technology and improvement of farming and production systems can have economic benefits and also help to enhance the status of women.
- Research in Uganda suggested that over time female farmers became more confident about speaking up in public meetings.
- However, women farmers who successfully use new technologies and improve their socioeconomic status may also experience increased tension if husbands or community members have negative reactions to their new status

11. Gender responsive approaches to technology transfer can have a high level of uptake.

- Ideally, a comprehensive approach is used in which investments in infrastructure are matched with interventions in institutions, knowledge, and finance to offer the best return in poverty reduction

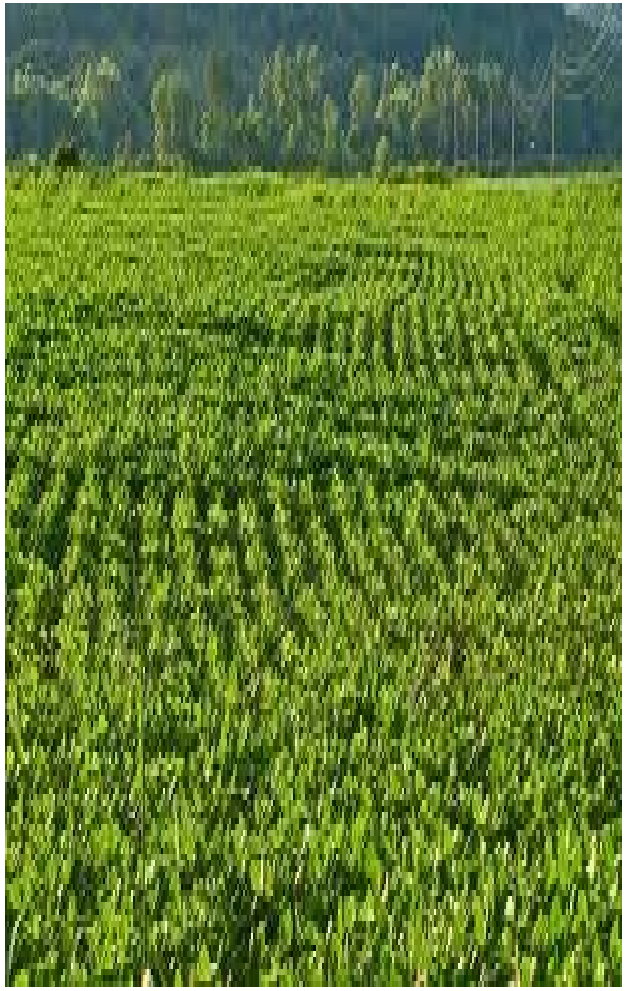
12. Improved rural communications can accelerate technology dissemination to poor men and women

- The rapid growth of mobile phone coverage and mobile phone users has created new opportunities for poor people to access information and technologies in a timely, cost effective manner.
- A wide range of applications and services are becoming available in many countries



13. Green technologies are becoming increasingly important

- Renewable energy is a key mitigation technology for climate change. Increased attention is being given to biofuels which have long been used as an energy source by women
- There is increased competition for available biofuels
- Fertile agricultural land is being diverted to biofuels



Turning food to fuel on the hungry continent