

THE CHANGING NATURE OF ICTs FOR AGRICULTURAL EXTENSION IN DEVELOPING COUNTRIES - A REVIEW

INTRODUCTION

- Information Communications Technologies (ICTs) and their applications in agricultural extension have witnessed significant changes over the last seven decades (1950-2020)
- The study reviews the potential and limitation of ICTs (print, radio, television, video, cell phone, smartphone) in different phases of agricultural development from a historical perspective



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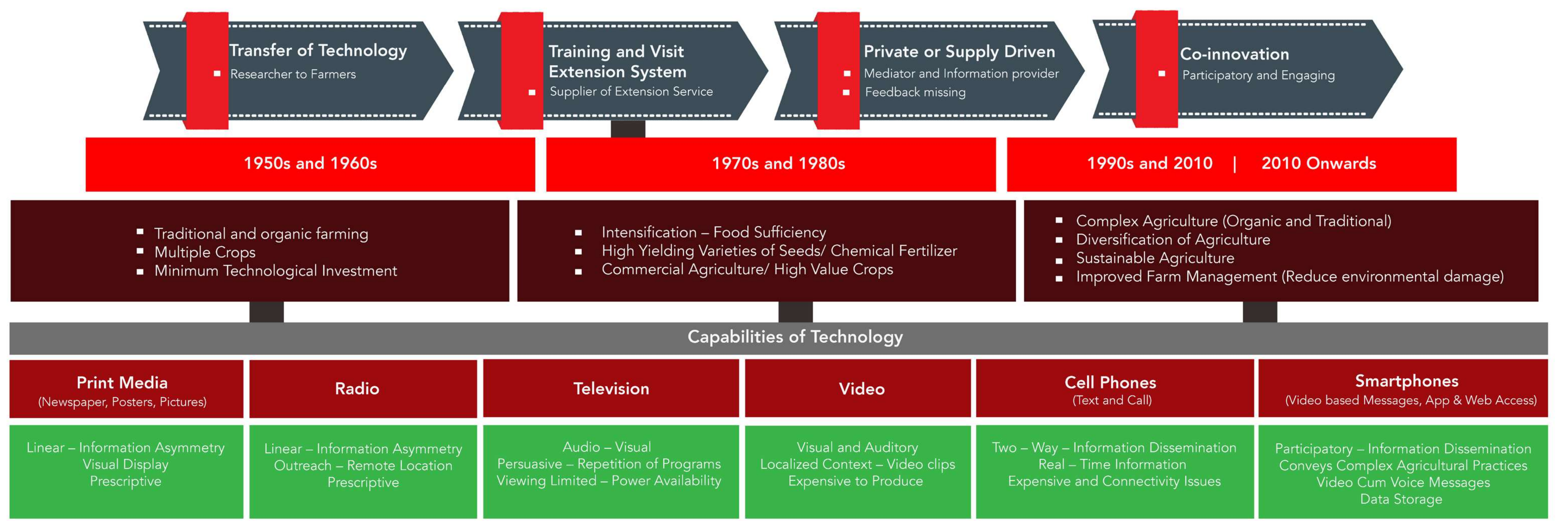
OBJECTIVES

- To review extension literature on the role of ICTs in agricultural extension in the development world
- To assess the potential of latest technology (smartphone and mobile internet) for catering the requirements of modern agriculture including Climate Smart Agriculture and gender dimensions

CONCEPTUAL FRAMEWORK AND METHOD

- The literature search was guided by the development of the conceptual framework:

Evolution of ICT's for Agriculture Extension



RESULTS

Rural women and men access different information channels

- Men are more likely to attend farmer association events, demonstration farm events and farmer field schools
- Men have more access to government supported extension systems than women. Community meetings are a major source of information for women

Gender ignored with earlier technology, mobile phones have potential

- Demonstration farms and farmer field schools are time intensive and can interfere with women's domestic responsibilities and are thus less likely to reach women with information
- Farmers can connect and get real-time information in the form of text, audio, and video messages

Gendered differences in preferred climate smart agriculture practices - EX Uganda

- Men are more likely to adopt water harvesting, efficient use of fertilizer, improved high yielding varieties, and switching to drought and pest tolerant measures, whereas women are more likely to practice pig management

Potential of Smartphone

- Agriculture learning of women farmers have improved through mobile phones, removing barriers to attending demonstration farms or farmer field schools, information can be seen "on-demand" better fitting with women's busy schedules
- Locale-specific information on climate smart agriculture can directly serve locale-specific needs, i.e. higher granularity possible with smartphones compared to newspapers or radio

CONCLUSION

- Traditional ICTs (radio, and television) used for accessing agriculture information are limited in conveying simple information
- Conveying complex agriculture practices requires the use of modern ICTs like smartphones
- Video based messaging through smartphones can support dissemination of complex agriculture information