

Consumer Perceptions towards Introducing a Genetically Modified Banana in Uganda.

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Introduction

- Genetic engineering:
 - Started 2000 to date; currently GM banana plants with resistance to Black sigatoka are in confined field trial undergoing biosafety field assessments
 - Promising though empirical evidence about consumer acceptance is limited
- Consumer acceptance:
 - Varies among consumers (Colson et al., 2008; Dannenberg et al., 2008)
 - Africa; limited research is available yet population could benefit substantially (see Kimenju & De Groote, 2008)

To understand consumer acceptance in Uganda, a study among banana-consuming households was conducted in 2007



Objectives

- To determine consumers' level of awareness of, and trust in organizations involved in education, mass propagation and regulation of GM crops
- To assess consumers' attitudes toward introducing a GM banana in Uganda



Methodology

■ Study sites

- Sample domain (purposive) - Eastern, Central & S-Western
- Stratified into rural & urban consumers
- 22 villages were randomly selected (14 rural & 8 urban)
- 440 households randomly selected (20 per village)

■ Data

- Face-face interviews- using a pre-tested questionnaire
- First, respondent informed about biotechnology & biosafety (CONSENT brochures)
- Demographics, organization awareness/trust (7 private & 11 public) and perceptions/attitudes (22) was gathered



Results : Consumer Characteristics

Characteristic	Rural	Urban	All
Gender : Female	36.6***	55.6***	43.5
Male	63.4***	44.4***	56.5
Education : No education	13.5***	8.8***	11.8
Primary	58.7***	31.8***	49.0
Secondary	22.4***	38.8***	28.3
University/college	5.3***	20.6***	10.9
Annual Household Income (UGX)			
≤ 0.5 Million (<i>Low</i>)	41.3***	11.9***	30.6
>0.5 Million to < 5 Million (<i>Medium</i>)	54.8***	60.6***	56.9
≥ 5 Million (<i>High</i>)	3.9***	27.5***	12.5
Banana engagement status:			
Grow banana	95.7***	45.6***	77.6
Buy banana	45.2***	78.7***	57.4
Sell banana	44.8***	13.8***	33.6



Result cont.. organizational awareness & trust

■ Awareness

- Most known: local leaders (100%), Politicians (99%) and MAAIF (97%)
- Least known: UNCST (26%) CONSENT (18%), and AGT (11%)

■ Trust (most trusted)

- Not to produce - MAAIF, local leaders & extension workers
- Not to sale – UNBS & CONSENT
- Not to release – NEMA, MAAIF, NAADs & local leaders



Results cont... Consumer perceptions

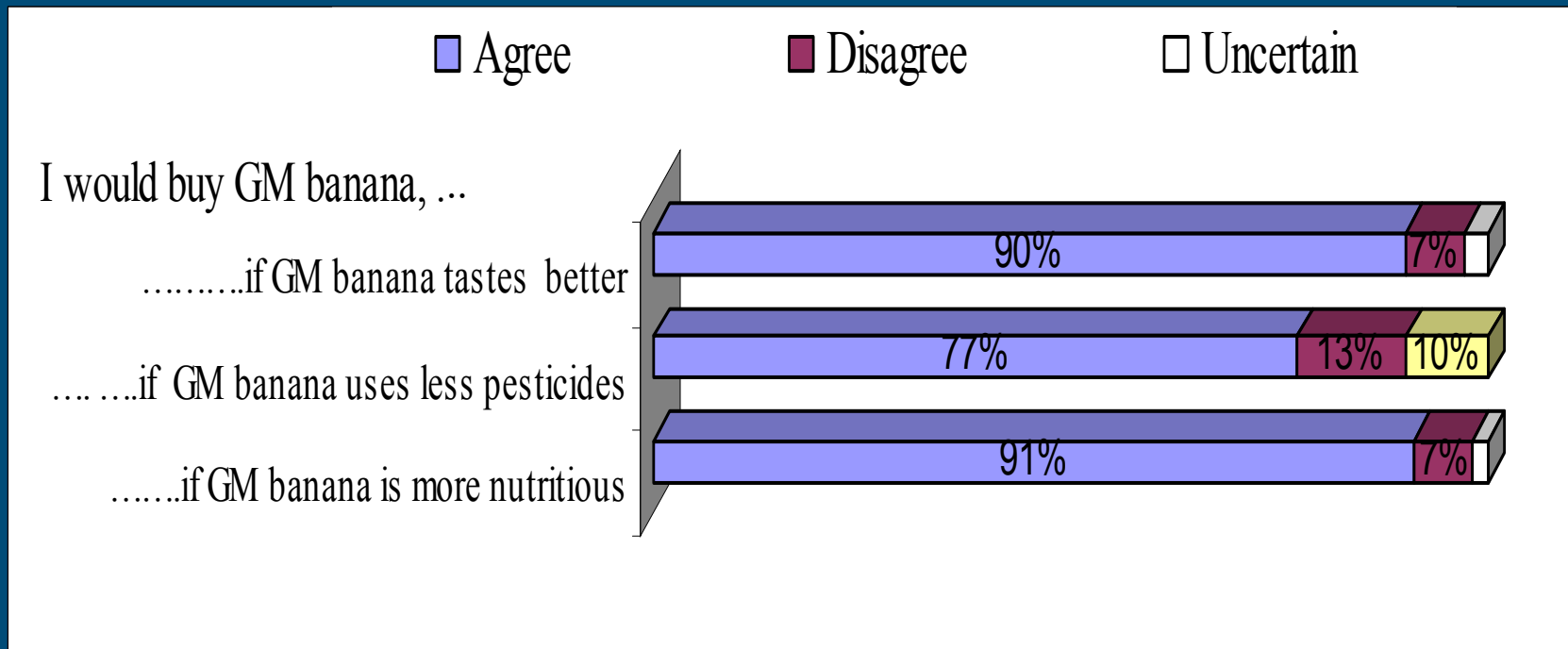


Fig. 1: Benefit perception



Results cont...

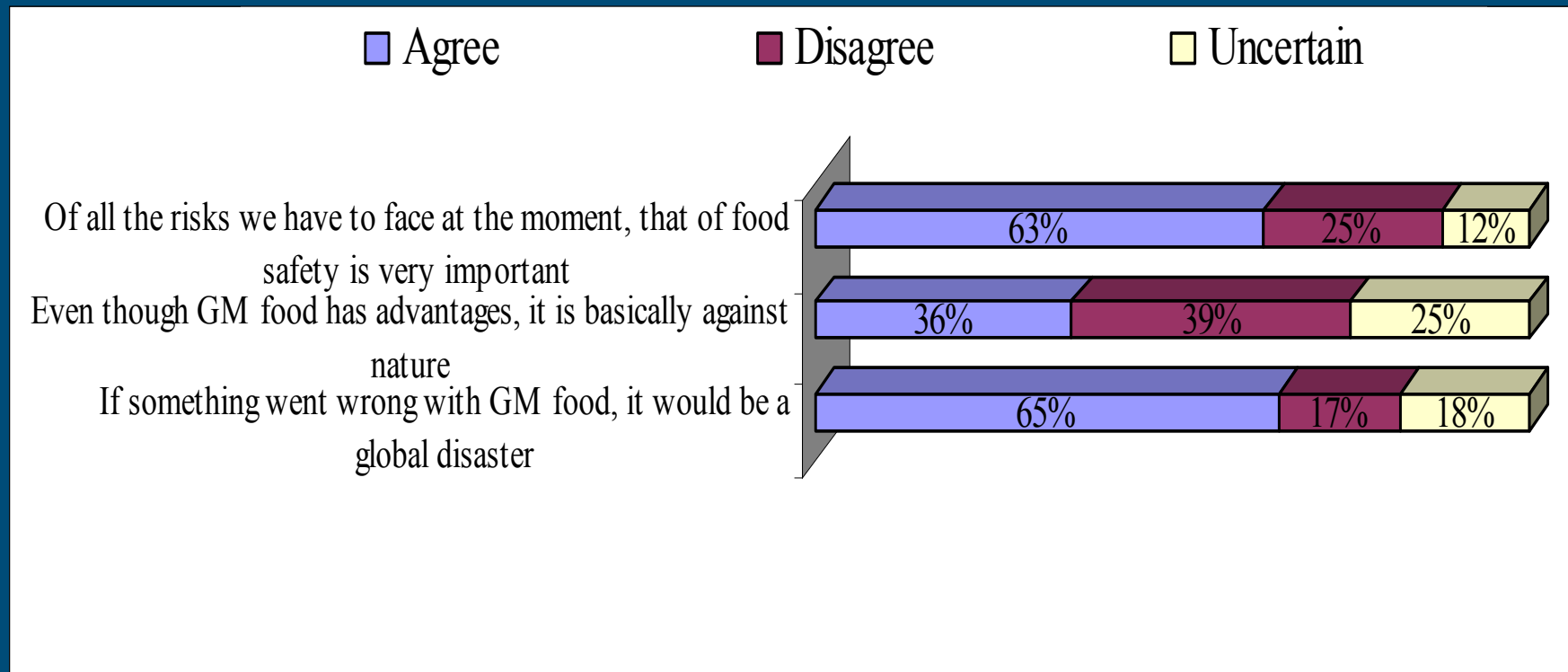


Fig. 2: Food/environmental risks perceptions



Results cont...

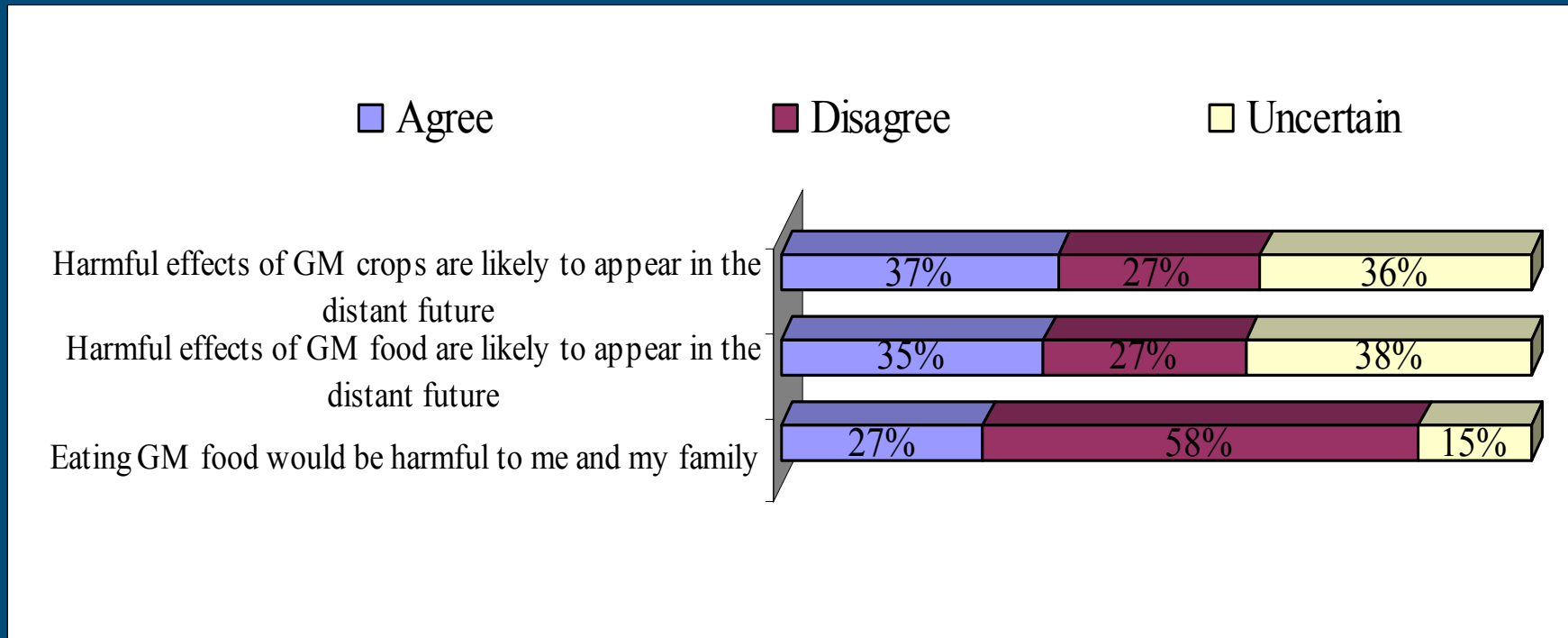


Fig. 3: Health risks perceptions

Results cont.. Perceptions Vs. consumer characteristics

- Comparison with consumer characteristics
 - Rural consumers more likely to buy GM banana based on benefit perception (81 – 94%) whereas urban consumers were more concerned about negative effects of the technology (33 – 70%)
 - Gender does not seem to influence benefit perception, though Men were more worried about health risks
 - College/University graduates; less likely to buy GM banana & exhibited more concern about food/environment & health risks
 - Consumers with low income were more likely to buy GM banana compared to high income earners
 - Consumers who grow banana were more likely to buy GM banana compared to others



Conclusion

- Public institutions were more known to consumers than private ones & consumers exhibited higher confidence in public than private institutions
 - Results suggest that public institutions could play a vital role in awareness creation and communication of biotechnology and biosafety. In cases where private institutions are involved, as a starting point, such institutions should be known to the people before embarking on the assignments
- There was a general appreciation of tangible benefits of GM banana (particularly in rural areas), in spite of the negative concerns on food/environment and health safety (esp. among urban consumers & consumers with higher formal education & incomes)
 - Scientific facts about the technology need to be communicated to people in order to enhance public awareness & acceptance
 - Urban consumers need to be targeted first since they play a fundamental role in acceptability of the technology



Thank you for your attention!



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Methodology: Selected sites

