

IAM Institute of Applied Media Studies

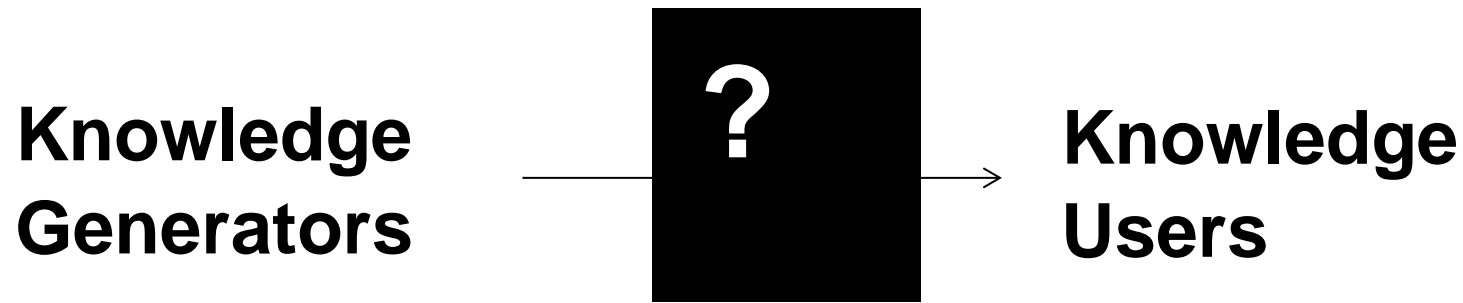
Shortcomings in communication on agricultural knowledge transfer

Selected Results

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Background



Many reasons for lack of up-take

- Access to capital/markets
- Access to Information
- Access to ...

The Survey

- 600 small holder farmer households
- Cluster approach: 6 districts selected

| AEZ potential | Districts | |
|---------------|--------------------------------------|--|
| High | Nyeri North (Horticulture) | Webuye (Maize, Bread basket) |
| Medium | Nakuru | Nyanza |
| Low | Machakos (semi-arid) | Makueni (arid) |

- **Randomization:**
 - Each district 2 locations were selected
 - 50 interviews in each location (random walk)
- **Interviews face-to-face:**
 - Media researcher + extension officer,
 - Mostly in vernacular

Sample - 612 households

- **Gender:** 46% men, 51% women
- **Age:** above Kenya's average

| | Number | Per cent |
|-----------------------|---------------|-----------------|
| Up to 30 years | 116 | 19% |
| 31-40 | 153 | 25% |
| 41-50 | 148 | 24% |
| More than 50 | 195 | 32% |
| Total | 612 | 100% |

Sample

- highly differentiated within small holders

| Formal Education | | |
|--|--------|----------|
| | Number | Per cent |
| None or primary incomplete | 232 | 39% |
| Primary complete and/ or secondary incomplete | 213 | 35% |
| Secondary complete or higher | 158 | 26% |
| Total | 603 | |

Sample: differences within group

- Scarcity of land affects also larger families

| Farm size by area | | |
|------------------------|-----|----------|
| | No. | Per cent |
| Less 1 acre | 173 | 28% |
| 1 – 2.4 acre | 246 | 40% |
| 2.5 – 5 acre | 138 | 23% |
| 5.1 – 10 acre | 39 | 6% |
| 10 acre or more | 15 | 3% |
| Total | 611 | 100% |

| Household Size | | |
|---------------------|-----|----------|
| | No. | Per cent |
| Small (1-3) | 83 | 14% |
| Medium (4-6) | 312 | 51% |
| Large (7+) | 212 | 35% |
| Total | 607 | |

Sample

- 75% mixed farming
- 50% staple food only - 50% staple + market-oriented crops

| Staple and market-oriented crops | | |
|---|-----|----------|
| | No. | Per cent |
| Staple food | 293 | 48% |
| Staple food plus market | 317 | 52% |
| N total | 610 | 100% |

Media access

- Radio is the dominant media channel
- Two thirds have access to mobile phone

| Access to media | | |
|-------------------------|-----|-------------------|
| | No. | Per cent of cases |
| Radio | 569 | 95% |
| Mobile phones | 394 | 66% |
| TV | 166 | 28% |
| Newspapers | 82 | 14% |
| Magazine | 27 | 5% |
| others | 27 | 5% |
| N = 597 | | |
| 15 missing cases | | |

Usage of radio

- General:
 - 62% listen to vernacular stations
 - 36% listen to English/Kiswahili stations
- District level: Dominance of specific vernacular radio stations

| District | Radio 1 | Radio 2 | Radio 3 |
|---------------------|-----------------|-----------------|----------------|
| Makueni | Musyi – 62% | Citizen – 14% | |
| Nyeri | Inooro FM – 45% | Kameme FM – 23% | Coro FM- 23% |
| Machakos | Musyi –FM 44% | Mbaetu FM – 21% | Citizen – 16% |
| Nakuru | Citizen- 27% | Kass FM – 22% | KBC – 18% |
| Bungoma East | West FM – 39% | Citizen- 22% | Sulwe FM – 17% |
| Nyanza | Ramogi FM – 72% | Citizen – 12% | KBC- 11% |

N = 488, 124 missing = respondents were not naming any station

Usage of mobile phones

- Nairobi hype on use of mobile phone questionable
- Confirmation by doctoral thesis Mutwiri (MMU):
 - Mobiles are used for social relations, contacts, appointments

| How is the mobile phone used? | | |
|--------------------------------------|--------|----------|
| | Number | Per cent |
| None | 206 | 39% |
| Calling | | 42% |
| Text SMS | | 37% |
| Applications | 58 | 11% |
| N = 526, 86 missing cases | | |

Multiple answer set

Using information sources for agriculture

- Clear-cut favorites for sources of information

| Frequency of using various sources | |
|------------------------------------|----------------|
| | High frequency |
| Other farmers | 72% |
| Family | 68% |
| Mass Media | 59% |
| | |
| Baraza | 42% |
| Govt Extension | 34% |
| Agrovet | 31% |
| | |
| Field days | 29% |
| Mobile Phone | 24% |
| Buyers | 23% |
| Research | 7% |

High frequency =

From three times a season up to weekly

Use of Government Extension differs greatly amongst locations

Credibility of information

- Trust is with govt extension

| Trust in sources | | |
|---------------------------------|--------|----------|
| | Number | Per cent |
| Govt Extension /Ministry | 270 | 44% |
| Farmers | 248 | 41% |
| Radio / TV | 185 | 30 % |
| Family | 103 | 17% |
| Agrovet | 101 | 17% |
| Neighbours | 44 | 7% |
| Friends | 39 | 6% |
| Experts in agriculture | 35 | 6% |
| Baraza | 22 | 4% |

What kind of information is received?

- Focus on technical information

| <i>Kind of information</i> | <i>Number</i> | <i>Per cent</i> |
|-----------------------------------|----------------------|------------------------|
| Basic info | 360 | 62.2% |
| How to do? | 355 | 61.3% |
| When to do? | 320 | 55.3% |
| How to prevent? | 302 | 52.2% |
| Circumstances | 149 | 25.7% |
| How to sell? | 158 | 27.3% |
| Future opportunities | 102 | 17.6% |
| Credit information | 71 | 12.3% |
| Other | 33 | 5.7% |

Mixed assessment of quality of information

- Information rather useful – but not sufficient

| Information is... | Number | Per cent |
|-------------------------------|---------------|-----------------|
| Adequate in timing | 591 | 56.2% |
| sufficient in quantity | 594 | 58.1 % |
| | | |
| Useful | 591 | 80.9% |
| Trusted | 591 | 84.6% |
| Easy to understand | 586 | 82.9% |

Information needs and contrasts

- In contrast to image of traditional knowledge?
- Farmers want market and income information
- Is information ready to implement?

| Over 80% “very important” | 70 – 80% | Below 70% |
|---------------------------------|------------------|-----------------------------------|
| Seeds | Breeds | Business ideas (63%) |
| More income | Market | Credit info (54%) |
| Fighting diseases | Storage | Alternative farming systems (64%) |
| Using fertilizer and pesticides | Weather rainfall | |
| Basic knowledge | New techniques | |

What farmers get and what they want

85% want comprehensive information!!

62% want variety of options

Actual mode versus preferred mode of receiving information

| | Actual | Preferred | Difference in % points |
|---|--------|-----------|------------------------|
| Top down - One option | 26.3% | 5.5% | +20.8 |
| Little explanation – One option with little | 22.4% | 8.9% | +13.5 |
| Lot of explanation – One option with large explanation | 36.9% | 23.5% | +13.4 |
| Delivers different options – Various options | 14.3% | 62.1% | - 47.8 |

Preferences for reception

- Personal and field visit – over 80%
- Radio – 52%
- Print material – 24%

| Preferences | | |
|-----------------------------|-----|----------|
| | No. | Per cent |
| Personal information | 523 | 86.2% |
| Field visits | 492 | 81.1% |
| Radio | 316 | 52.1% |
| Mobile phones | 162 | 26.7% |
| Written material | 145 | 23.9% |
| TV | 114 | 18.8% |

Innovation types and information

- Innovation types
 - 20% - not done nor planning any innovation
 - 40% - modest innovators
 - 40% - strong innovators (having done and planning innovations)
- Correlations
 - high mass media use and strong innovators are correlated
 - Non-innovators are using external information less frequent (but more family / friends)
 - cash crop and strong innovators are related a little bit
 - strong innovators have higher education level (low correlation)

Limitations of study

- Content of radio programmes was not investigated; we know too little about what kind of content farmers are receiving
- We know too little about information flow between science/research and extension services

Recommendations

- Radio is mostly used channel – should be widely used
- Govt extension most trusted source
 - should not be reduced any more
 - Extension should use radio and radio stations should integrate extension officers
- Farmers want comprehensiveness (enabling own decisions)
- Information needs to be
 - localized
 - just in time
 - Specific
 - Useful and implementable (economic issues)
- Research: Initiate flow of information, adapted to needs

THANK YOU – ASANTENI – Danke schön

Risk definition

| Answer options | | | |
|---|---------------------------|-----------|-----------------|
| | Attitude to risk | No | Per cent |
| we cannot afford new techniques due to lack of market | <i>Sceptical</i> | 101 | 17% |
| we cannot afford new techniques due to lack of credit | | | |
| We should not dare to change things | | | |
| I do not pay much attention to new things in agriculture | | | |
| Talk to other farmers first | <i>Cautious</i> | 397 | 67% |
| I look what other farmers do and copy them | | | |
| test it on a small piece of land | <i>Medium risk</i> | 394 | 66% |
| test it on large scale | <i>High risk</i> | 41 | 7% |

Usage of radio

- 62% listen to vernacular stations
- 36% listen to English/Kiswahili stations

| Station | No. | Per cent |
|------------|-----|----------|
| Musyi FM | 91 | 14.9 |
| Citizen | 77 | 12.6 |
| Ramogi FM | 53 | 8.7 |
| Inooro FM | 43 | 7 |
| KBC | 41 | 6.7 |
| Kameme FM | 24 | 3.9 |
| Mbaetu FM | 23 | 3.8 |
| Coro FM | 22 | 3.6 |
| West FM | 21 | 3.4 |
| Kass FM | 20 | 3.3 |
| Q FM | 9 | 1.5 |
| Sulwe FM | 9 | 1.5 |
| Chamgei FM | 8 | 1.3 |
| Jambo | 8 | 1.3 |
| Mwananchi | 6 | 1 |

100, 124 missing respondents were not naming any station

Challenges in Agriculture

- High priority for lack of capital and technical issues
- Less priority for lack of markets and economic issues

| Challenges | | |
|----------------------------------|-----|--------------|
| | No. | Per cent |
| Lack of capital - credit | 379 | 62.5% |
| New varieties of crops | 351 | 57.9% |
| Fighting diseases | 287 | 47.4% |
| Availability of water | 286 | 47.2% |
| Using fertilizer | 244 | 40.3% |
| Weather forecast | 206 | 34.0% |
| Access to markets | 184 | 30.4% |
| New techniques in farming | 176 | 29.0% |
| Gaining more income | 155 | 25.6% |
| Storage | 132 | 21.8% |
| Transport | 104 | 17.2% |
| Business ideas | 103 | 17.0% |

Mode of information

- Following orders or understanding information?
- 50/50

| Mode of information | | |
|-----------------------------------|-----|----------|
| | No. | Per cent |
| Top down | 149 | 26% |
| Little explanation | 127 | 22% |
| Lot of explanation | 209 | 37% |
| Delivers different options | 81 | 14% |
| Total | 566 | 100 |

Preferences in information

- Farmers want comprehensive information

| Mode preferred | | |
|--|--------|----------|
| | Number | Per cent |
| One option <i>without explanation</i> | 32 | 5.5 |
| One option <i>plus little explanation</i> | 52 | 8.9 |
| One option <i>with large explanation</i> | 138 | 23.5 |
| Delivers <i>different options</i> | 364 | 62.1 |
| | 566 | 100 |

Innovation and information

Strong innovators use media sources stronger

| High Frequency of using information source | | | | |
|--|----------------|-------------------|-------------------|------------------------|
| | Not-innovators | Medium innovators | Strong innovators | Differences btw. group |
| Family | 73.6% | 64.5% | 64.9% | small |
| Other farmers | 76.9% | 72.8% | 69.7% | small |
| Govt Extension | 23.1% | 35.9% | 33.2% | medium |
| Research | 2.5% | 9.7% | 3.8% | |
| Agrovets | 23.1% | 30.4% | 33.7% | small |
| Buyers | 24.8% | 18.0% | 20.7% | small |
| Mass media | 39.7% | 56.2% | 65.4% | high |
| Mobile phones | 14.0% | 24.4% | 21.6% | small |
| Field days | 21.5% | 28.6% | 28.4% | non |
| Barazas | 39.7% | 44.7% | 36.5% | |
| | | | | |
| Total | 121 | 217 | 208 | 546 |
| | 22% | 40% | 38% | |

Risk and innovation

- No correlation between risk and innovation practice. It looks like that even risk-averse persons do sometimes innovation. That means the innovation must be convincing. Then risk doesn't play a role. (34% of sceptical farmers are strong innovators)
- But risk takers corr. with information needs: Risk takers like more information on economic issues!!!
- Risk does not correlate with education.