Pluralistic Agricultural Extension in Malawi

Evidence and Lessons from 3 years of Research and Assessments

Lilongwe | November 13, 2019

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CGIAR RESEARCH PROGRAM ON Policies, Institutions, and Markets
Led by IFPRI

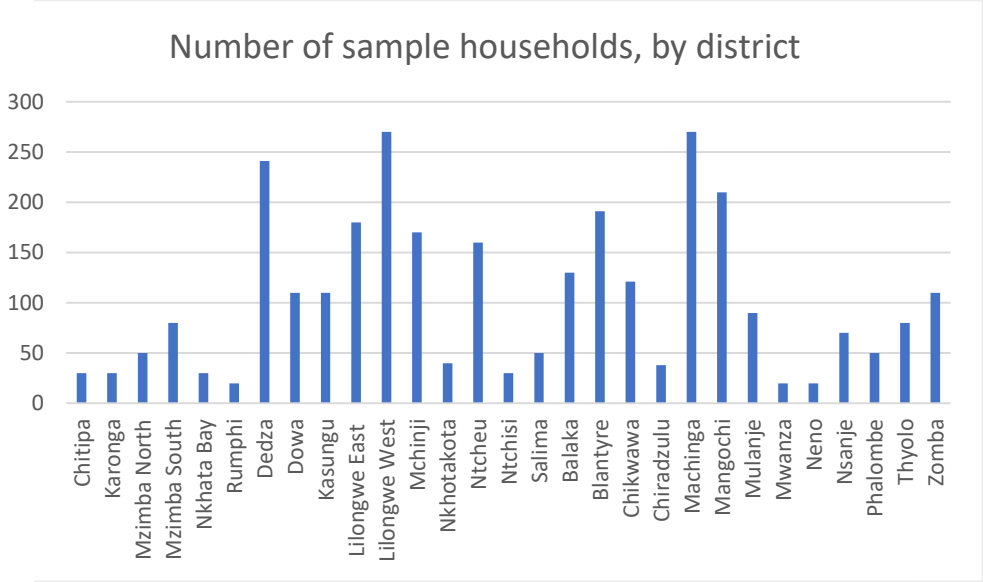
Pluralistic extension system project

(2016-2019)

Main objective

To provide evidence-based policy and strategy support to help coordinate and revitalize the pluralistic agricultural extension services provision in the Malawi

- assess the current status of demand for and supply of services
- monitor progress in key indicators over time
- identify approaches or interventions that worked (did not work)
- inform the extension policy and strategy development



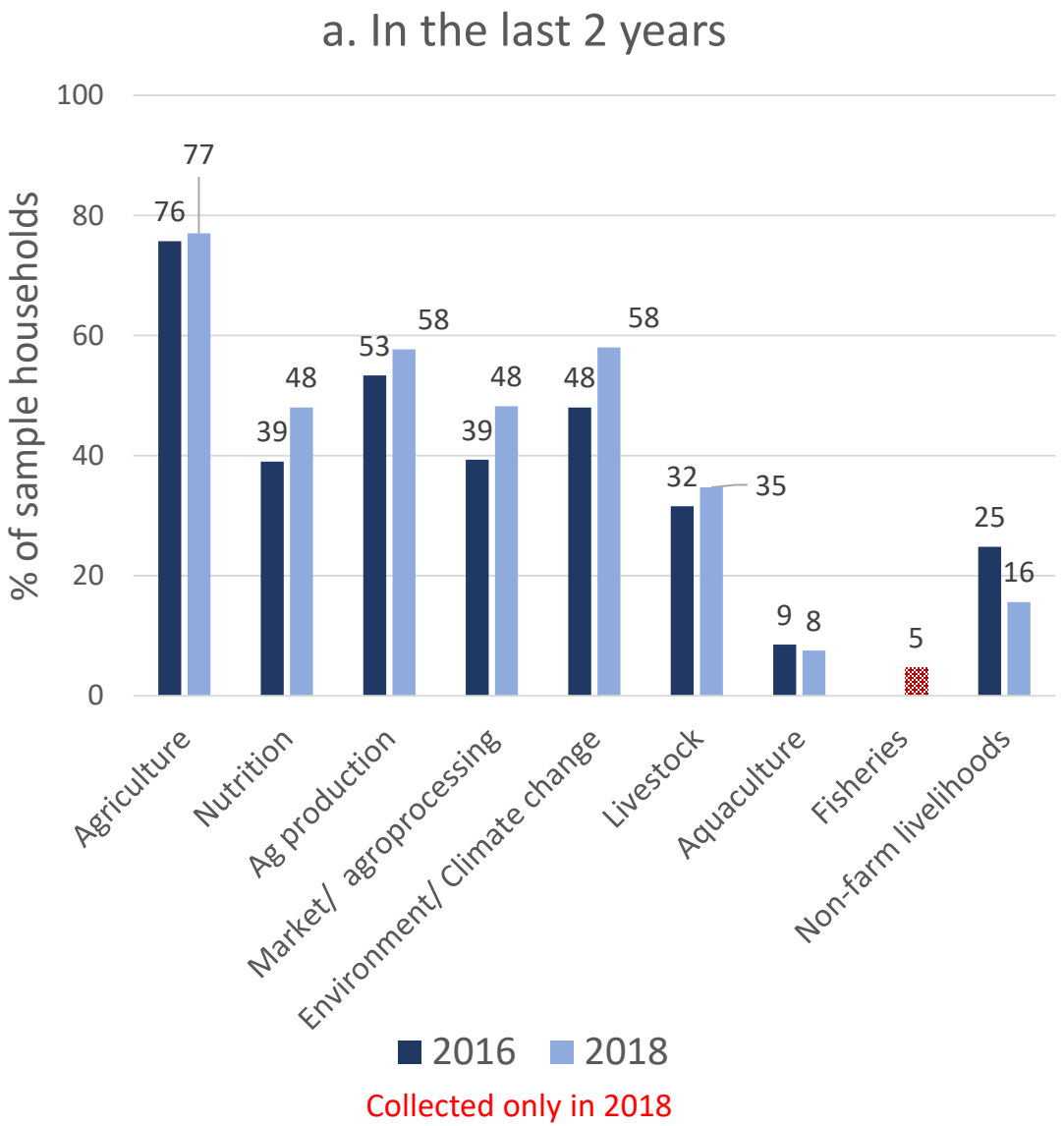
Data Collected

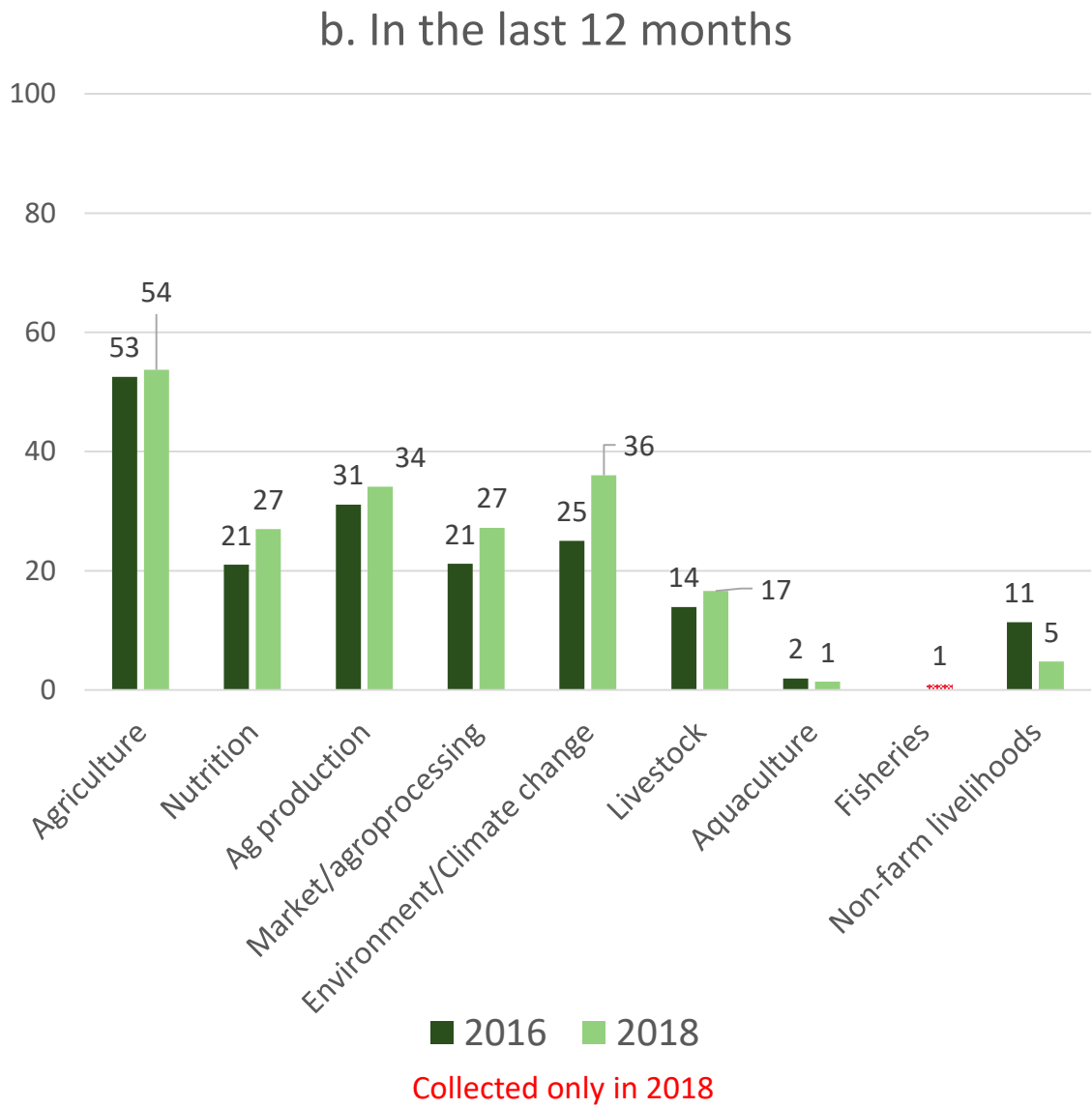
- Household and community surveys
  - nationally representative; 3001 HH; 299 sections in all districts
  - July-Sep 2016; July-Sep 2018
- Census and monitoring of 121 state and non-state extension service providers in 15 districts
  - shaded districts in map on the right
  - Dec 2016 - Mar 2017
- 531 lead farmers interviewed in randomly-sampled communities
- In-depth interviews with 30 service providers and 71 extension workers
  - Dec 2016 - Mar 2017
- Focus group discussions (55 FGDs) (dots on map)
  - Jan/Feb 2017, Jan/Feb 2019
- Census of ASP, DSP, DAECC and DAC in 10 USAID/FtF districts

Positive trends

- High coverage of extension services, comparable to Ethiopia and much higher than Uganda
- Improvements in access to extension services for both women and men (and both youth and non-youth)
- Consistently high subjective ratings from farmers on the usefulness of extension services
- More diversity in extension messages → more information regarding markets, climate change and nutrition
- Greater use of cost-effective tools →radio and community/group approaches
- Greater crop diversification → away from maize or tobacco, more into legumes (although the rate of change is slow)

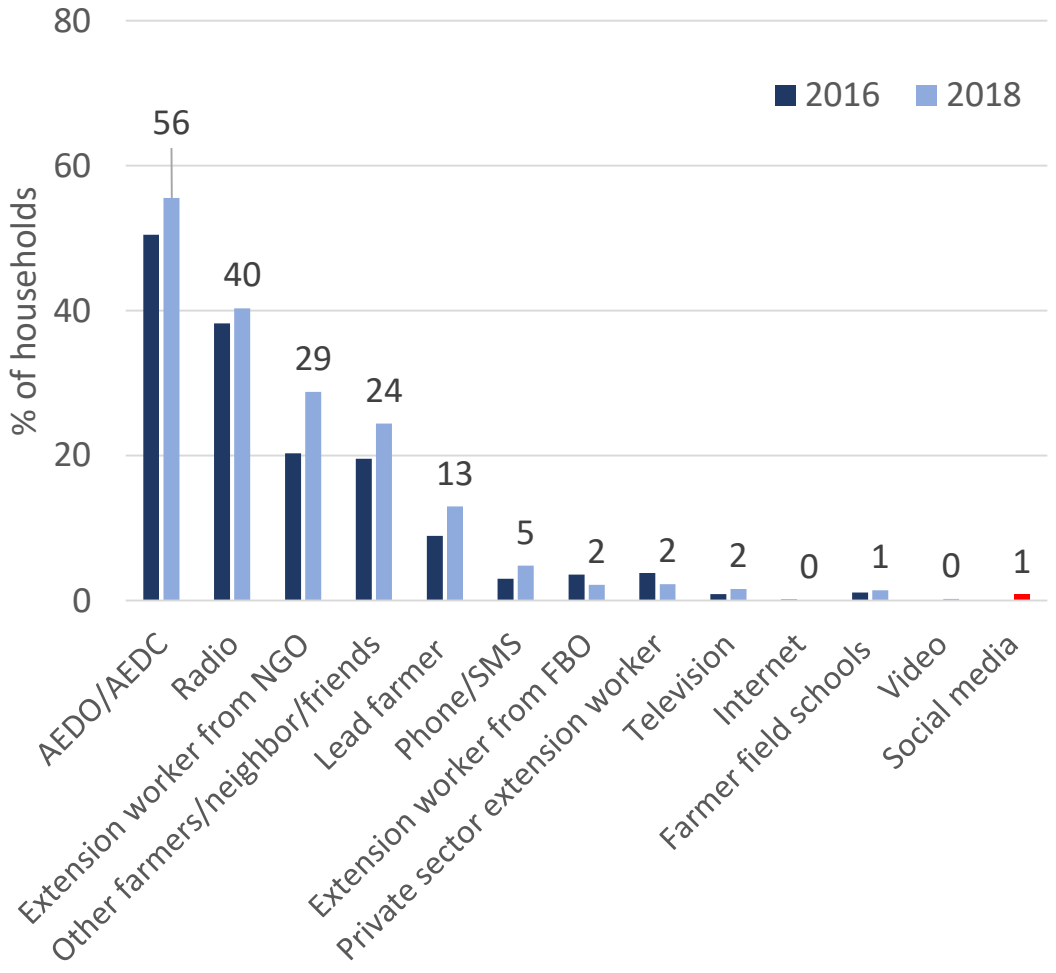
% of Households receiving agriculture advice



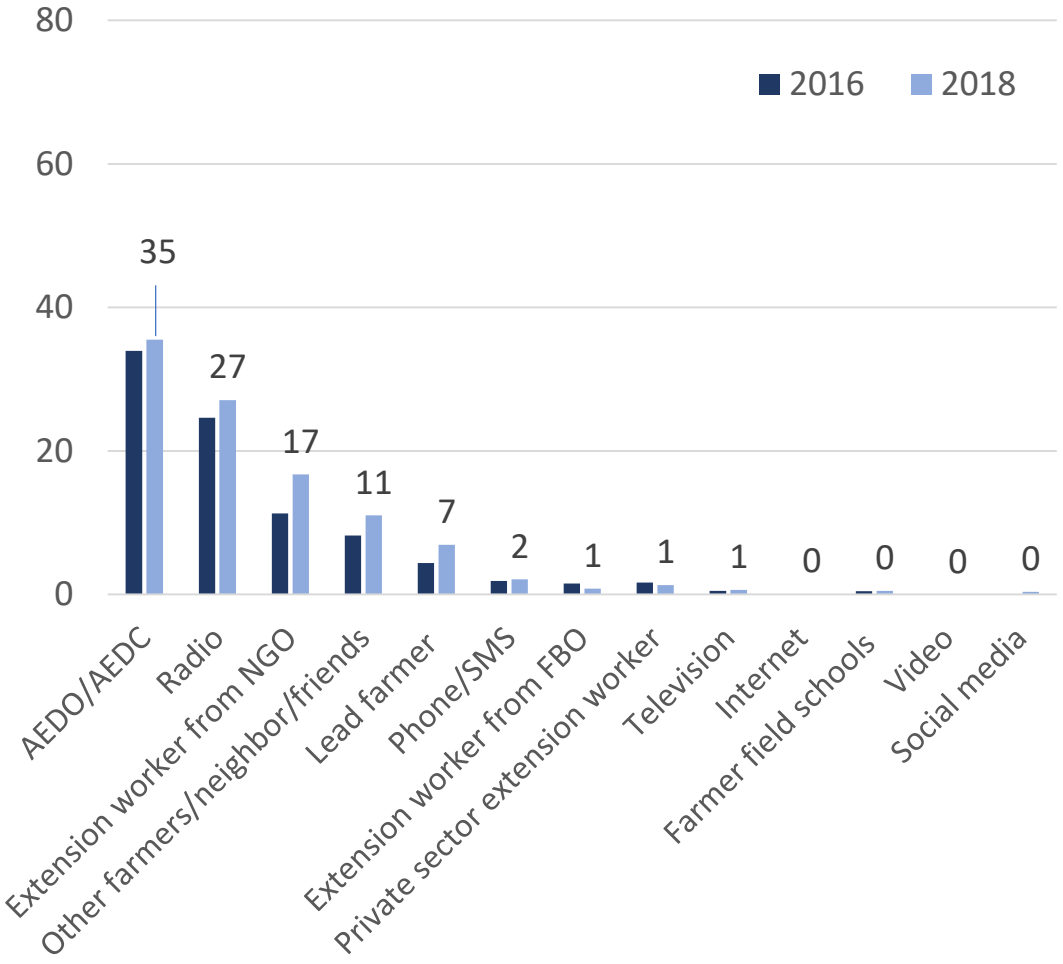


Access to agriculture advice, by source

a. In the last 2 years

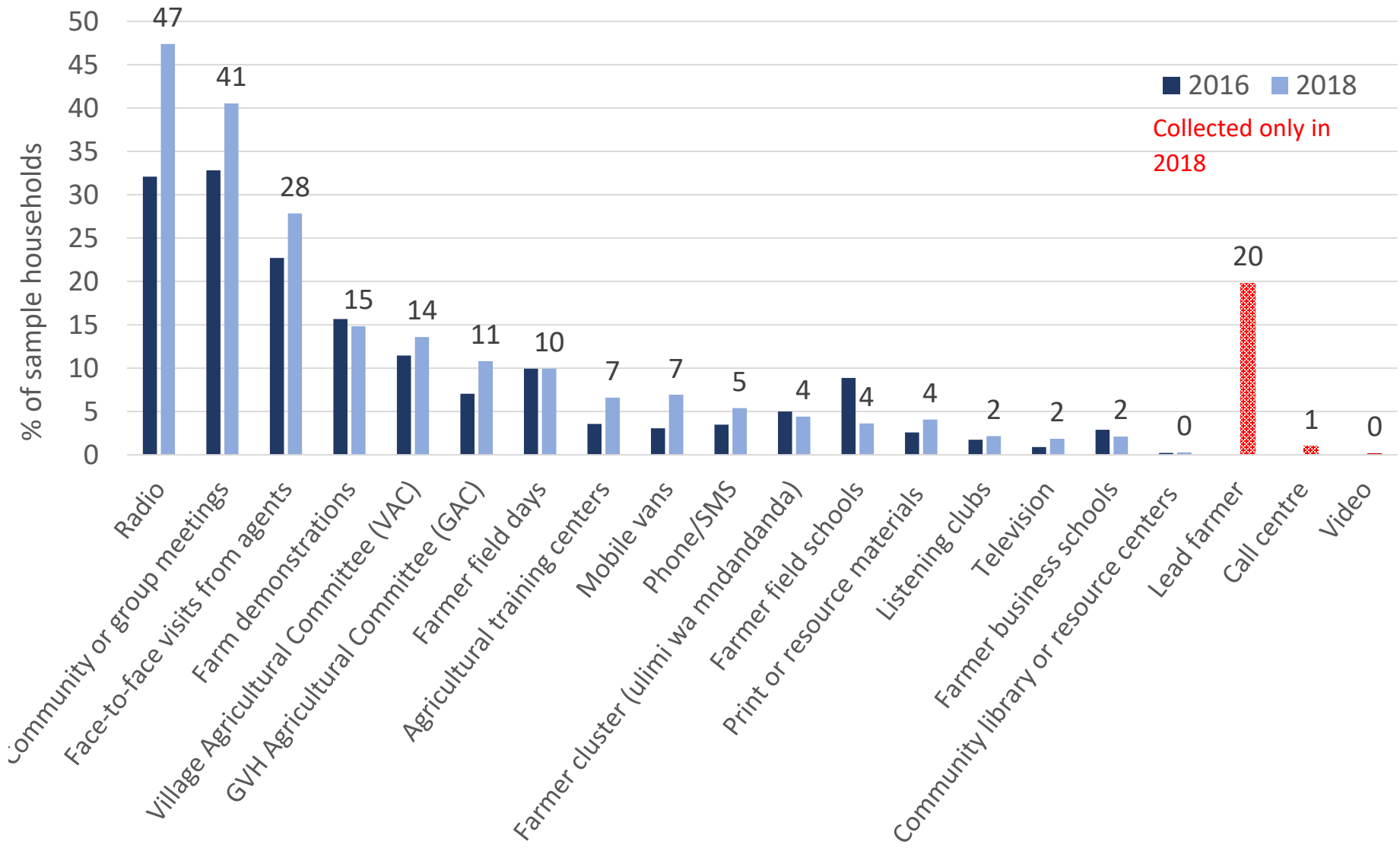


b. In the last 12 months

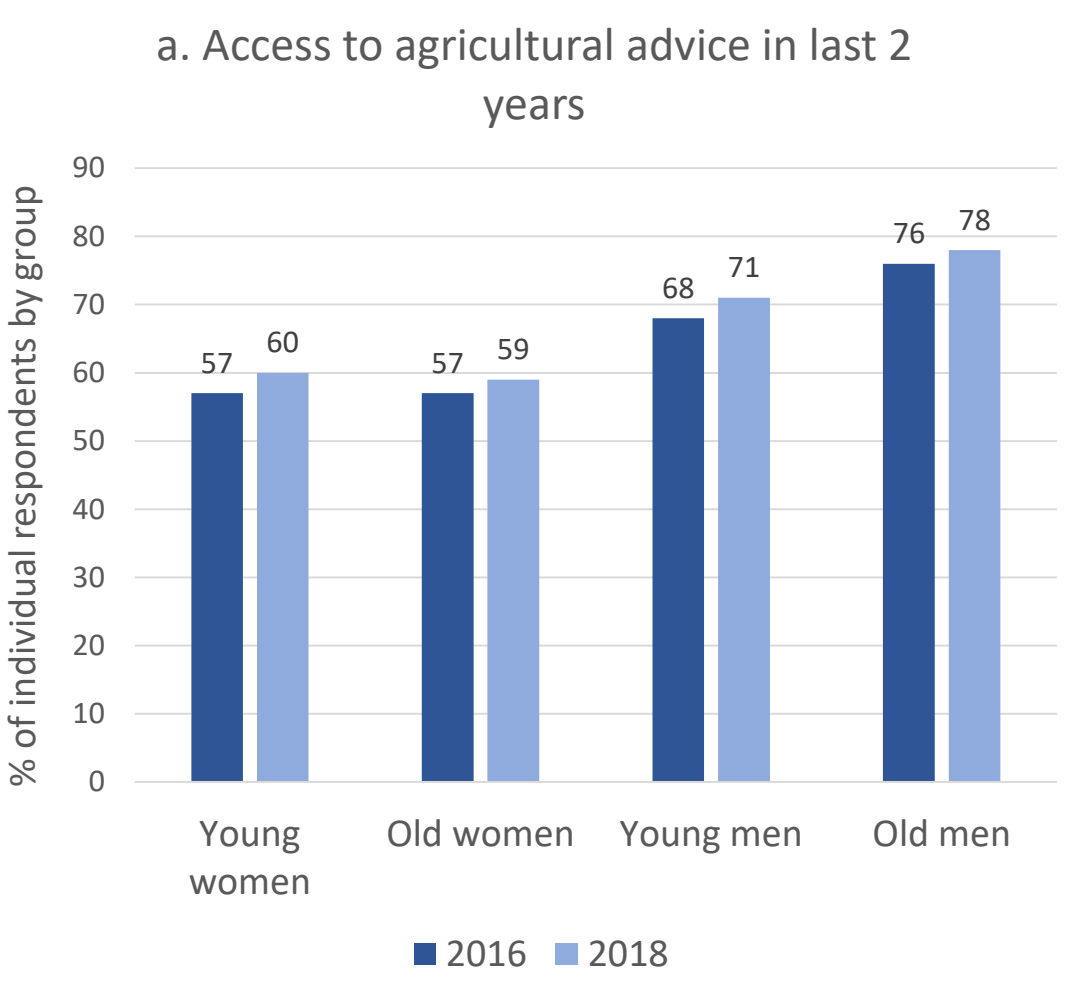


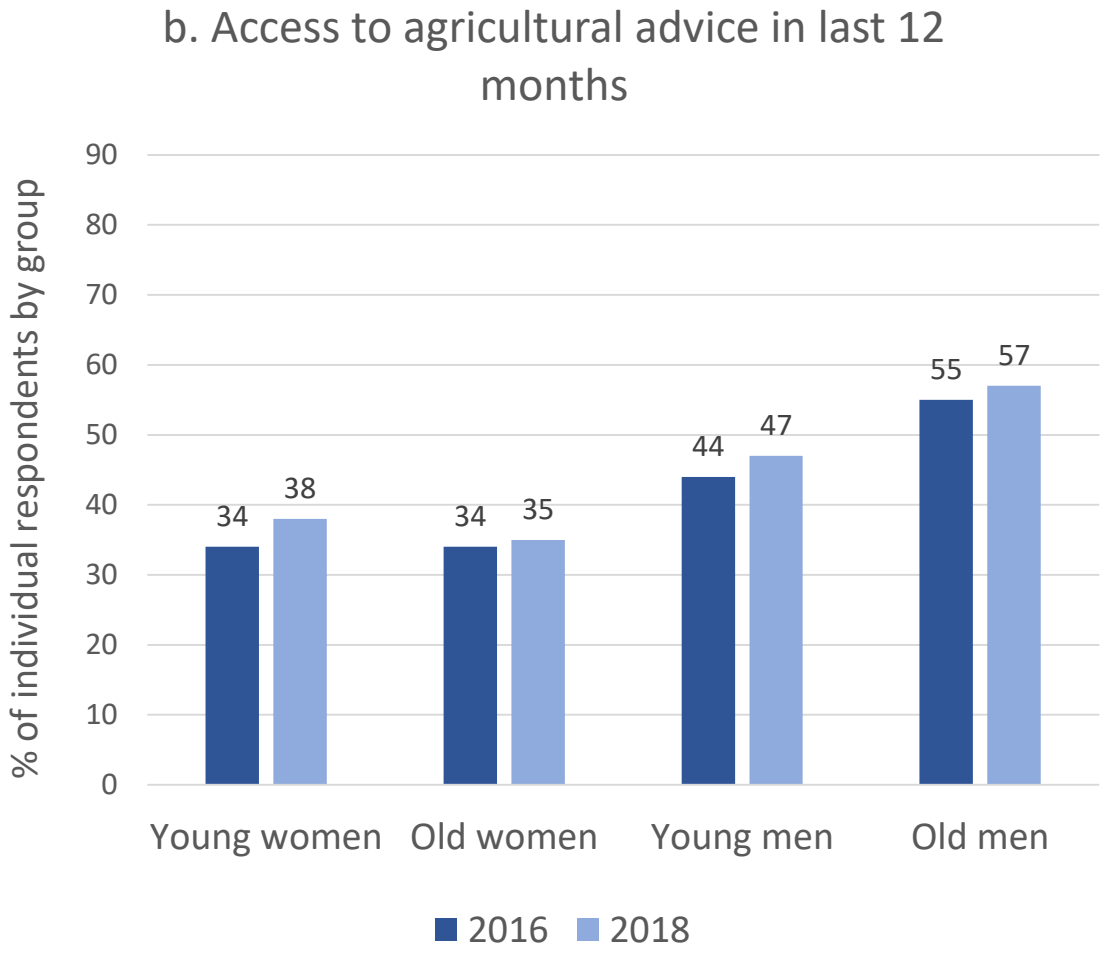
Access to extension services

by method/approach



Improving gender parity in access to extension services

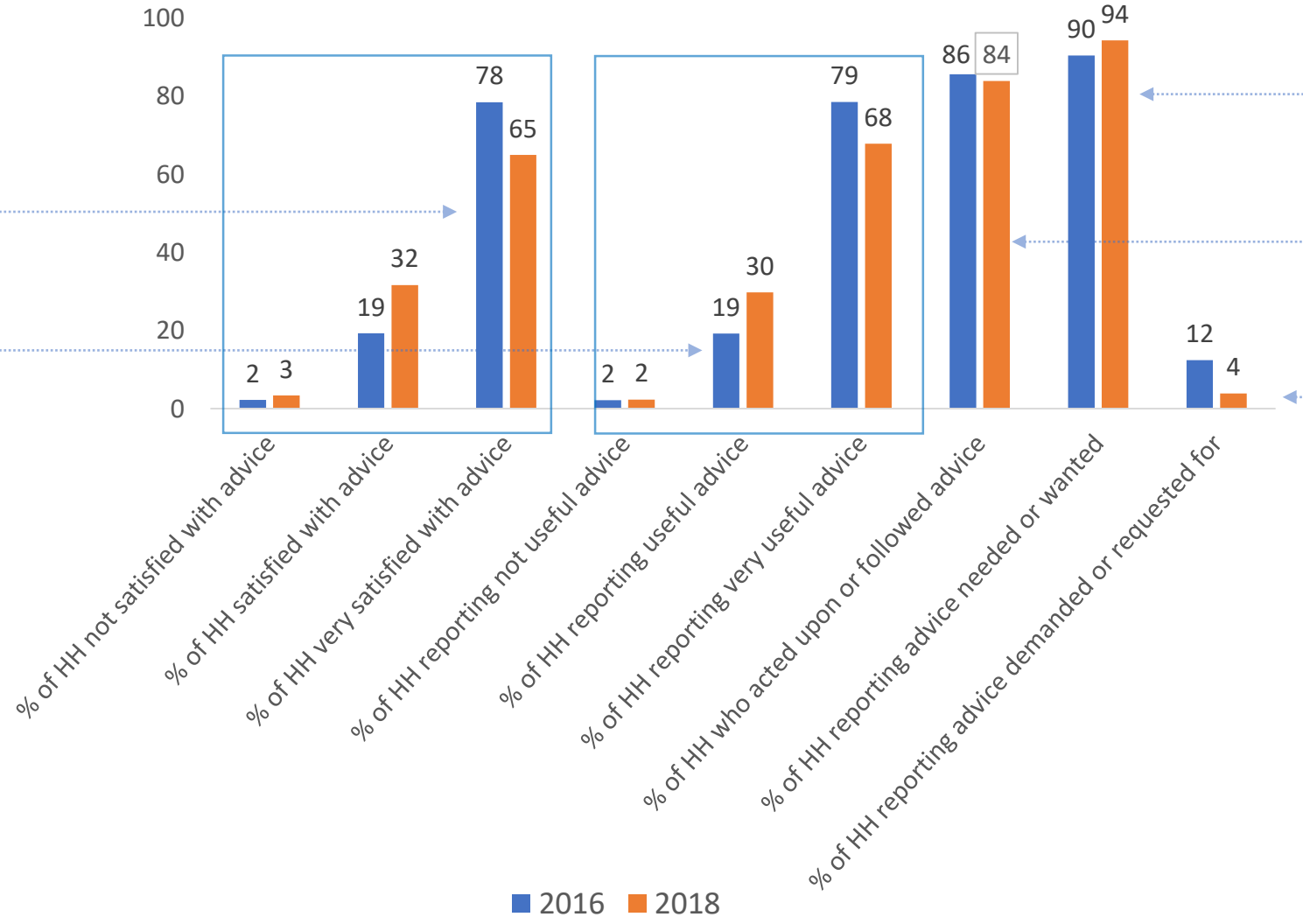




Consistently good perception of quality of extension services, but on a decline from 2016 to 2018

Were you satisfied with the advice?

Was the advice useful?



Was it something that you needed or wanted?

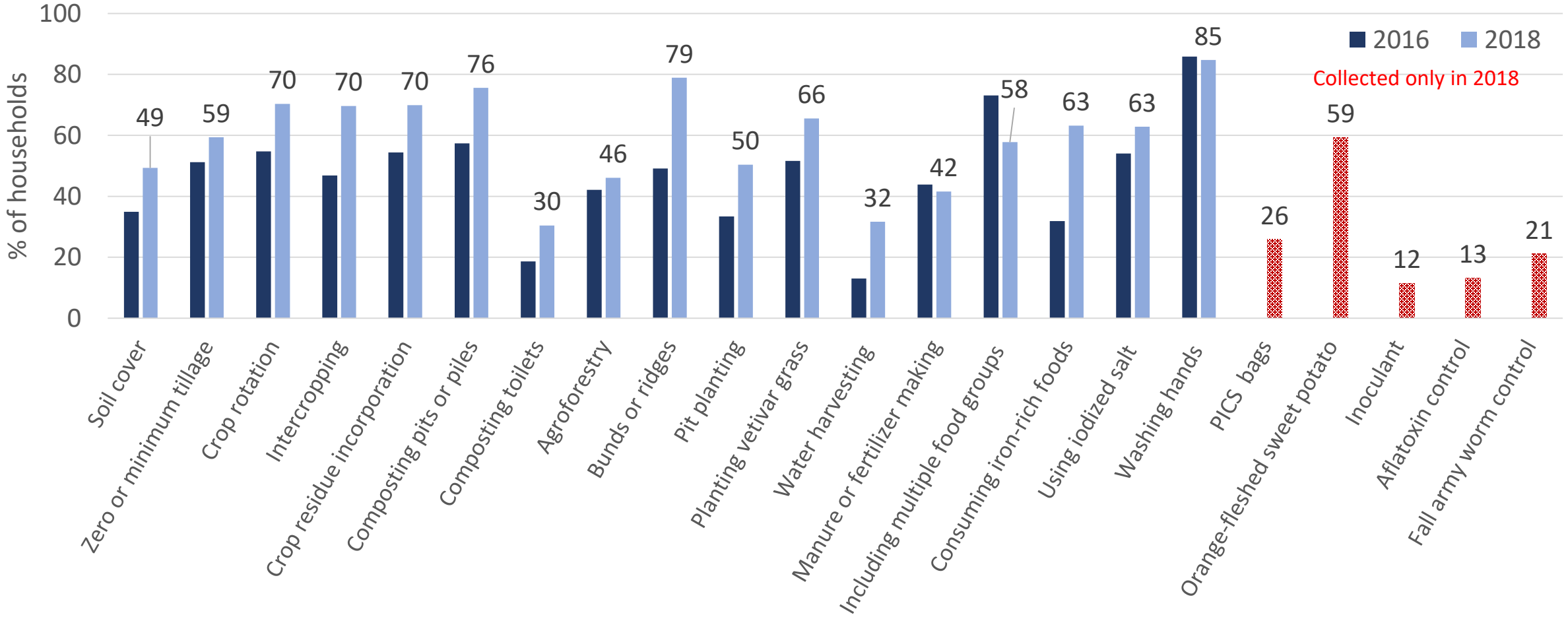
Did you act upon it or did you follow the advice on?

Was it something that you expressed demand for or have requested?

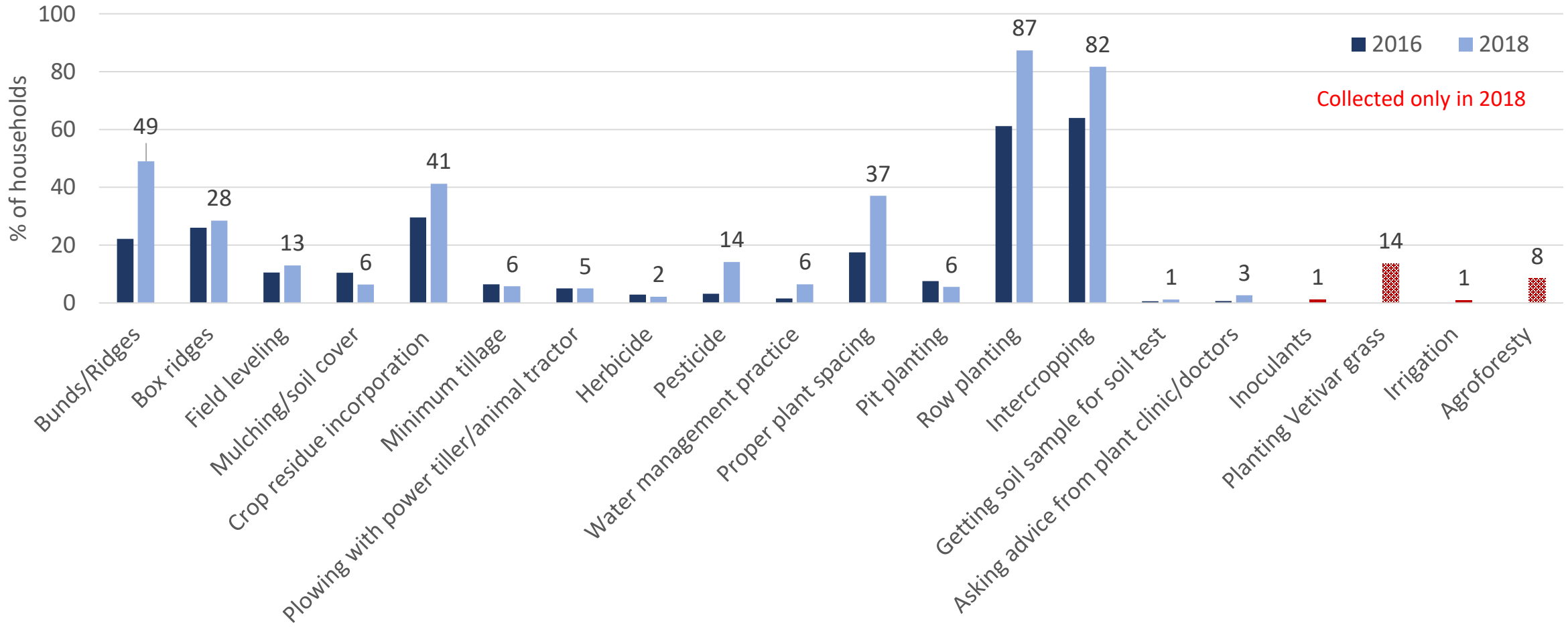
National trends revealing areas for improvements

- Extension services led to greater technology awareness
- But, extension services and greater awareness did not translate to great adoption of technologies
- Adoption of most management practices remains very low
- Large gap between technology awareness and adoption
- Farm productivity and commercialization remain low

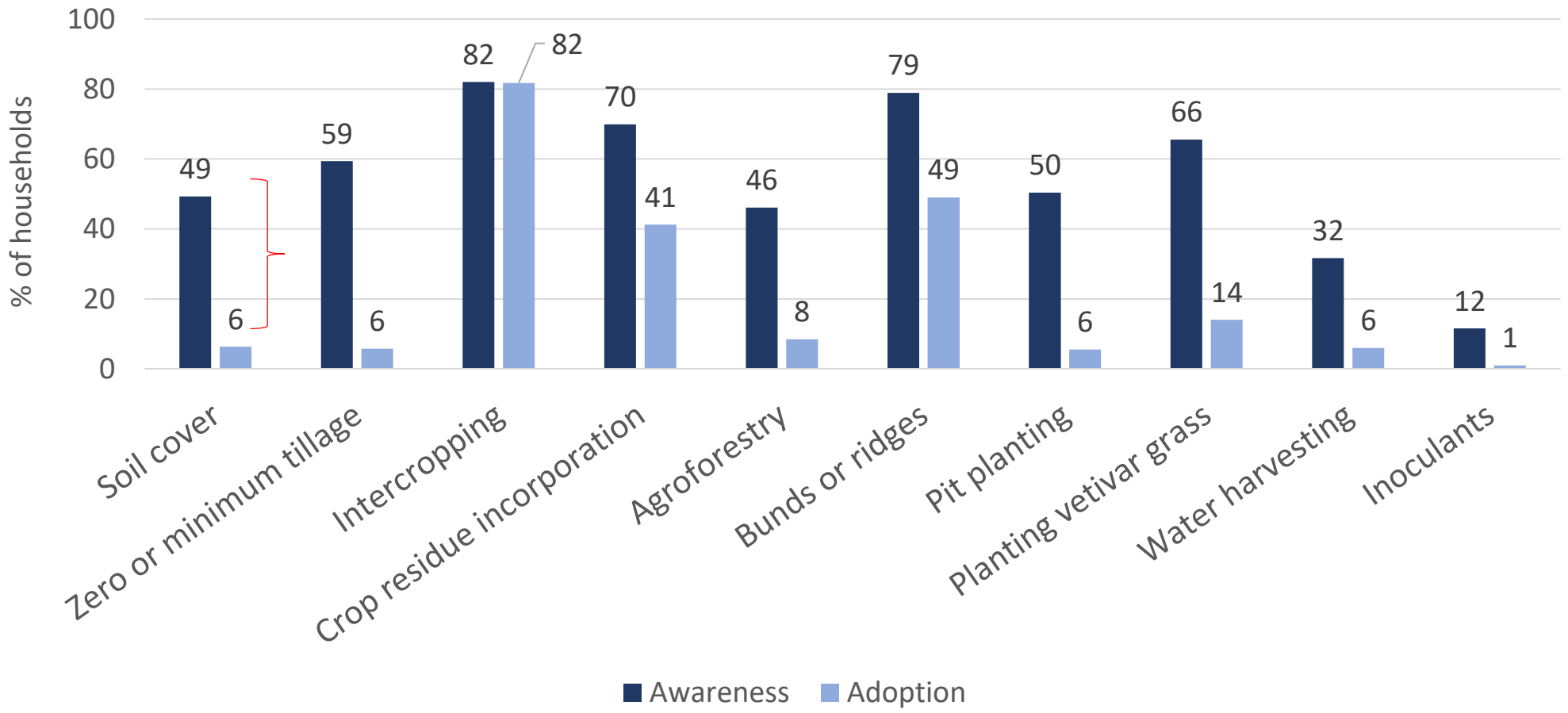
Greater technology awareness



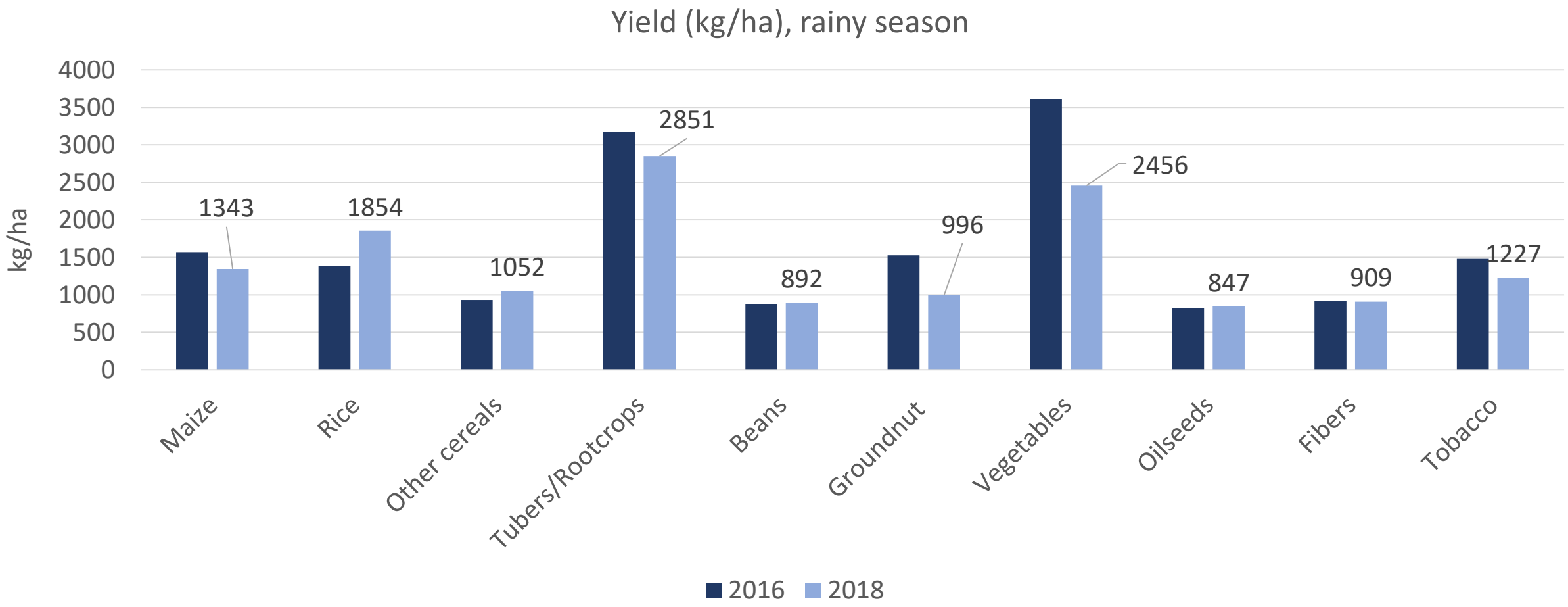
Improved adoption in some technologies; decline in others



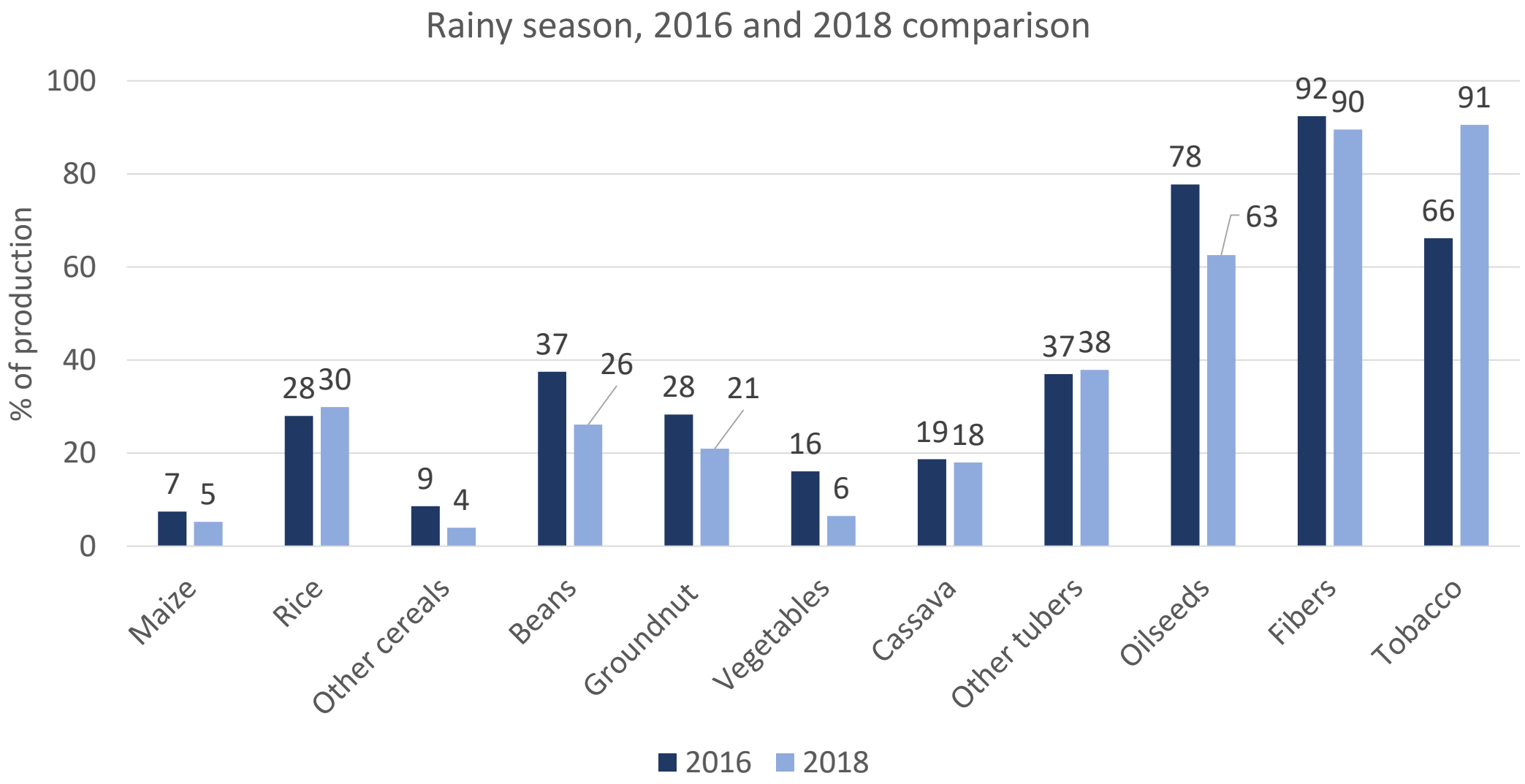
Large gap between awareness and adoption (2018)



Decreasing productivity in major crops



Level of commercialization for major food crops not improving



Detailed studies on effectiveness of extension services or specific approaches

✓ In search of pocket of successes, and what was working and not

- Ideal world, we work with projects to randomize the assignment of the intervention (e.g., extension services/training) while others do not get the intervention and compare the changes over time to measure impact
- Second best scenario, we work with projects and gather data on beneficiaries and comparable control group and see changes of outcomes over time
- Third best scenario, we work with panel data to see who had the "intervention" and who did not get the intervention (control group) and employ strategies like matching or fixed effects to ensure that both groups are comparable

. . . Integrated household panel survey (2010, 2013, 2016) and IFPRI panel survey (2016, 2018)

. . . Complemented with FGDs and in-depth interviews

At the national level, does access to extension services have an impact on technology adoption, productivity and food security?

No extension services

With extension services

Received “very good” advice

Received “good” advice

Received “no good” advice

Higher knowledge score (1-6)

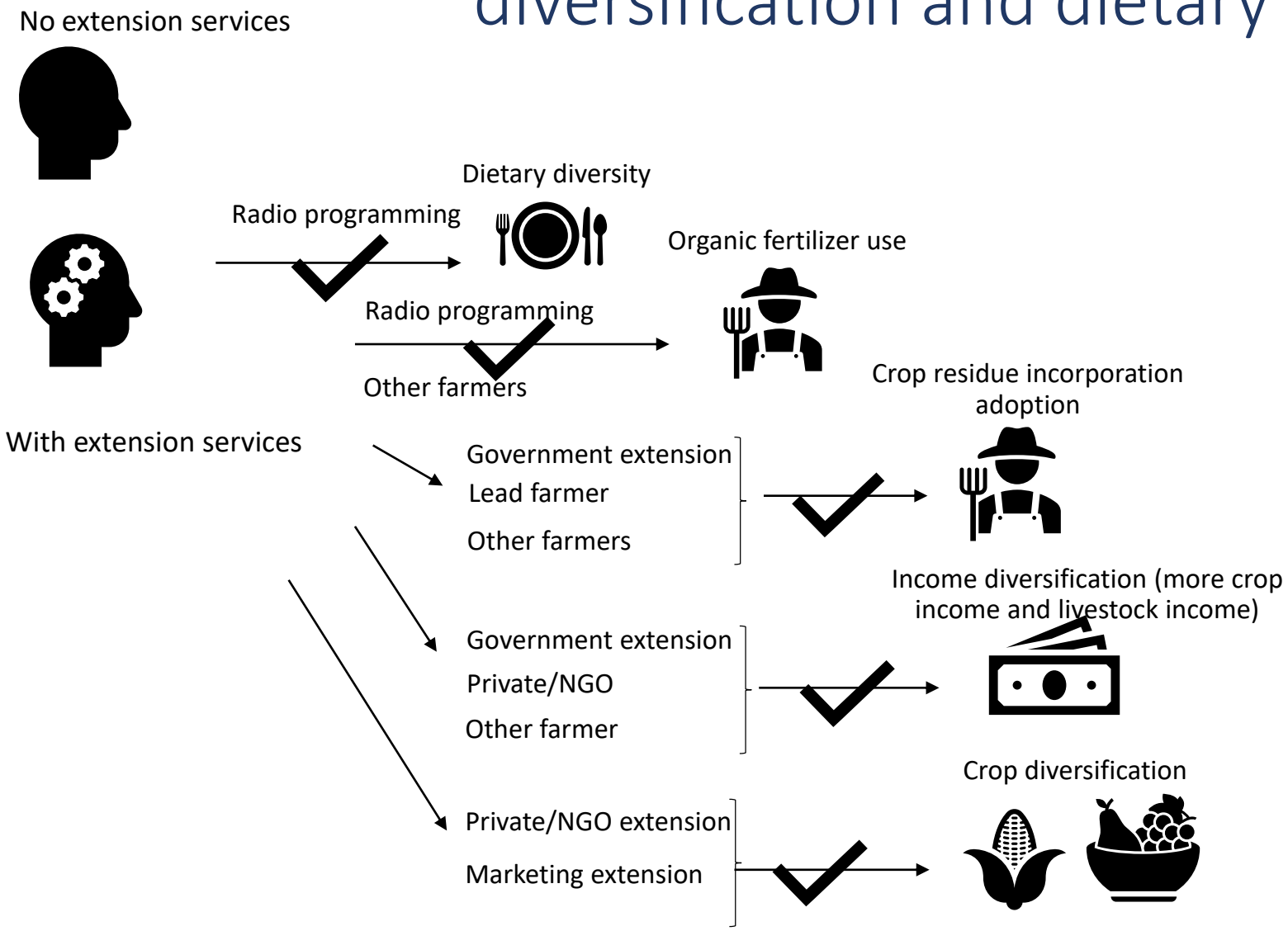
(1) Access to extension services has no impact on technology adoption, productivity, and food security on average at the national level

(2) Receipt of quality advice or greater intensity of knowledge on certain technology leads to greater adoption and higher productivity and food security

Quality= Intensive knowledge?

Quality= Better technologies?

At the national level, does access to extension services (type and source) have an impact on crop and income diversification and dietary diversity?



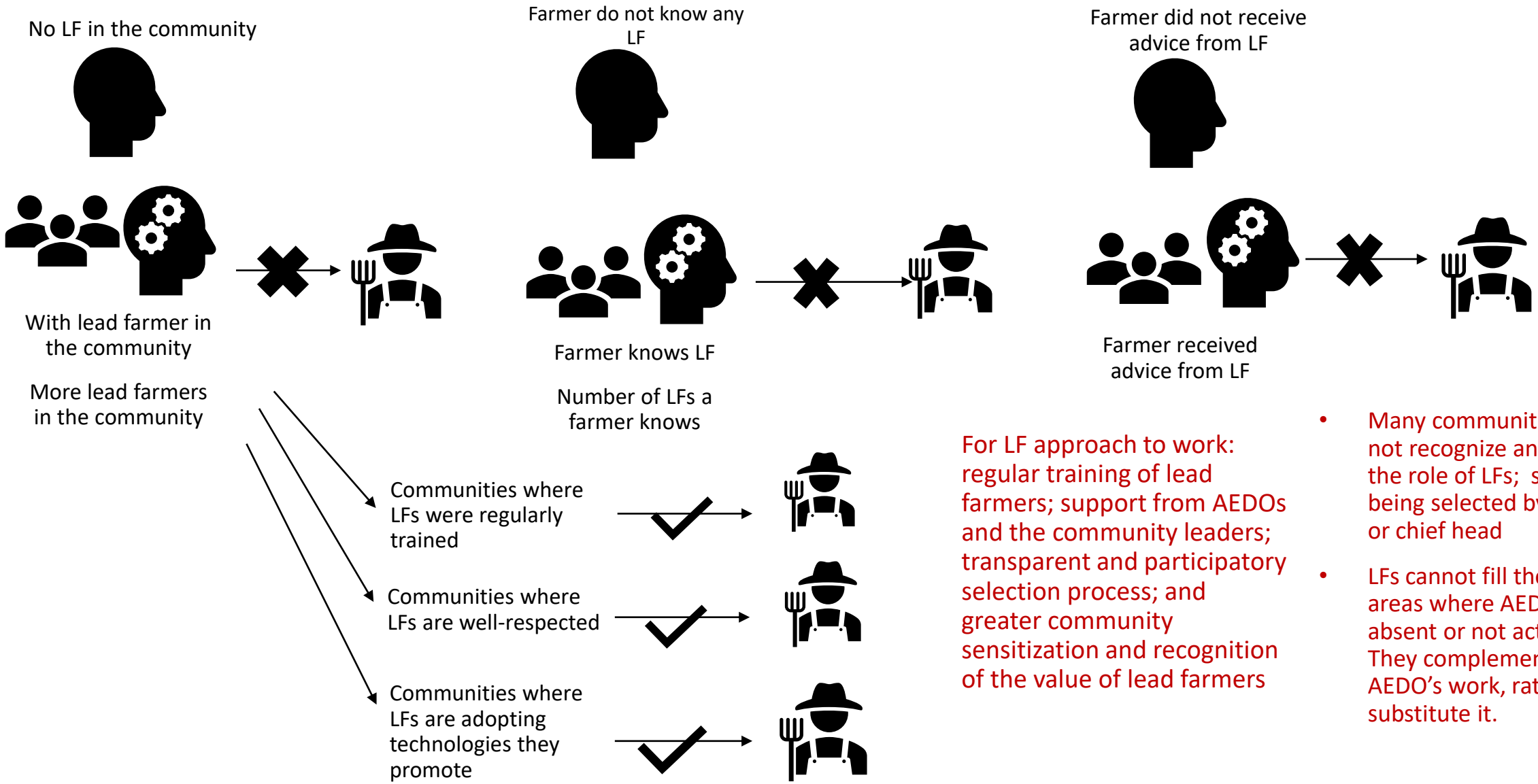
(1) Adoption of technologies is responsive to extension services provision (there is information barrier) → intensify information promotion in those technologies

(2) Delivery tool or method or source of information matters at times matters for impact

(3) Combination of different tools or methods can enhance impact

(4) Topic of extension services also matters for impact (e.g. marketing)

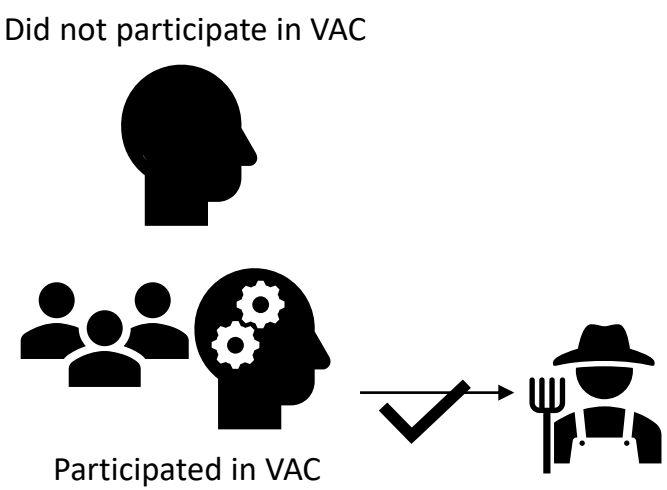
At the national level, does farmer's exposure to lead farmers have an impact on technology adoption?

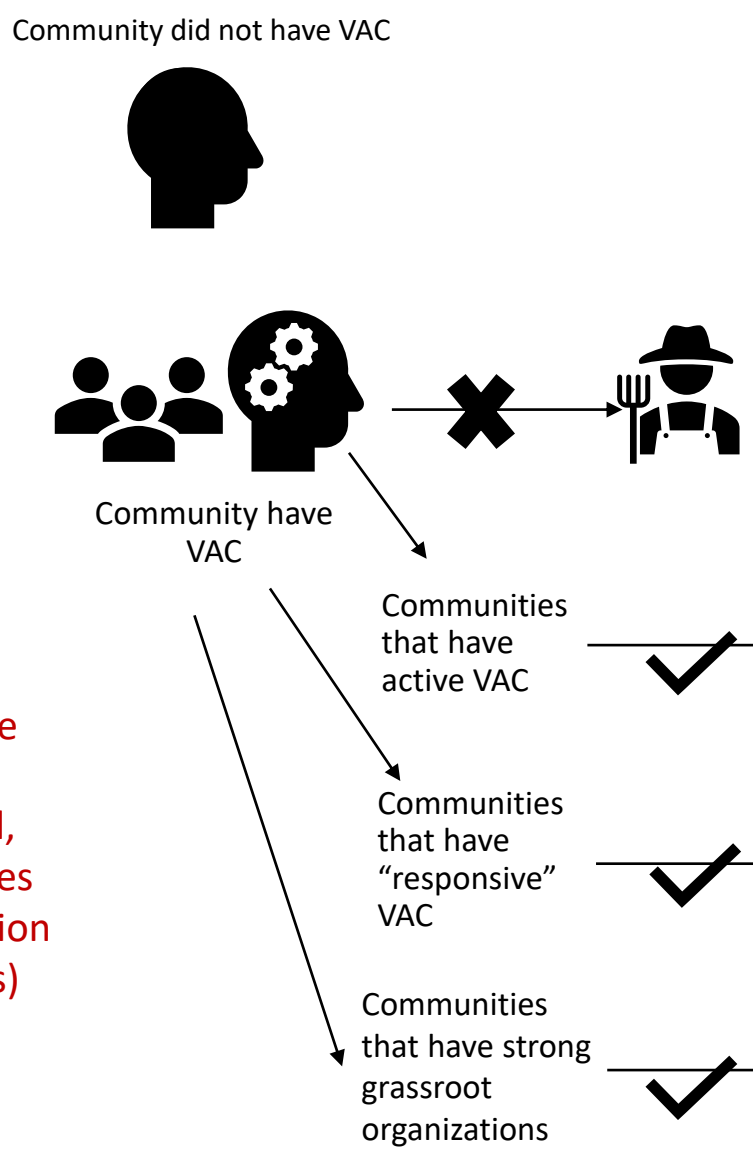


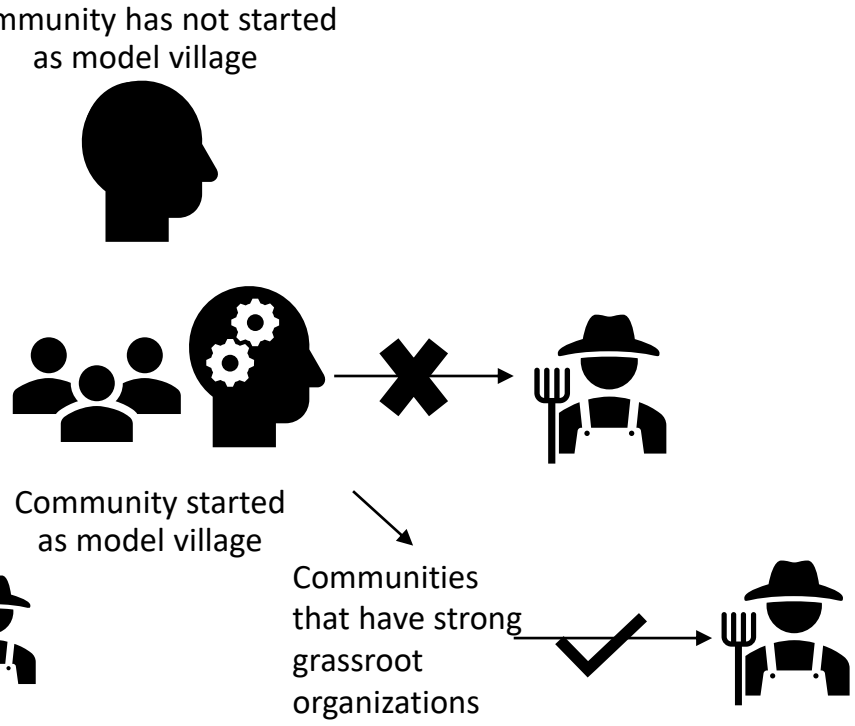
For LF approach to work: regular training of lead farmers; support from AEDOs and the community leaders; transparent and participatory selection process; and greater community sensitization and recognition of the value of lead farmers

- Many communities do not recognize and value the role of LFs; some are being selected by AEDO or chief head
- LFs cannot fill the gap or areas where AEDOs are absent or not active. They complement AEDO's work, rather than substitute it.

At the national level, does participation in Village Agricultural Committees (VAC) have an impact on technology adoption?





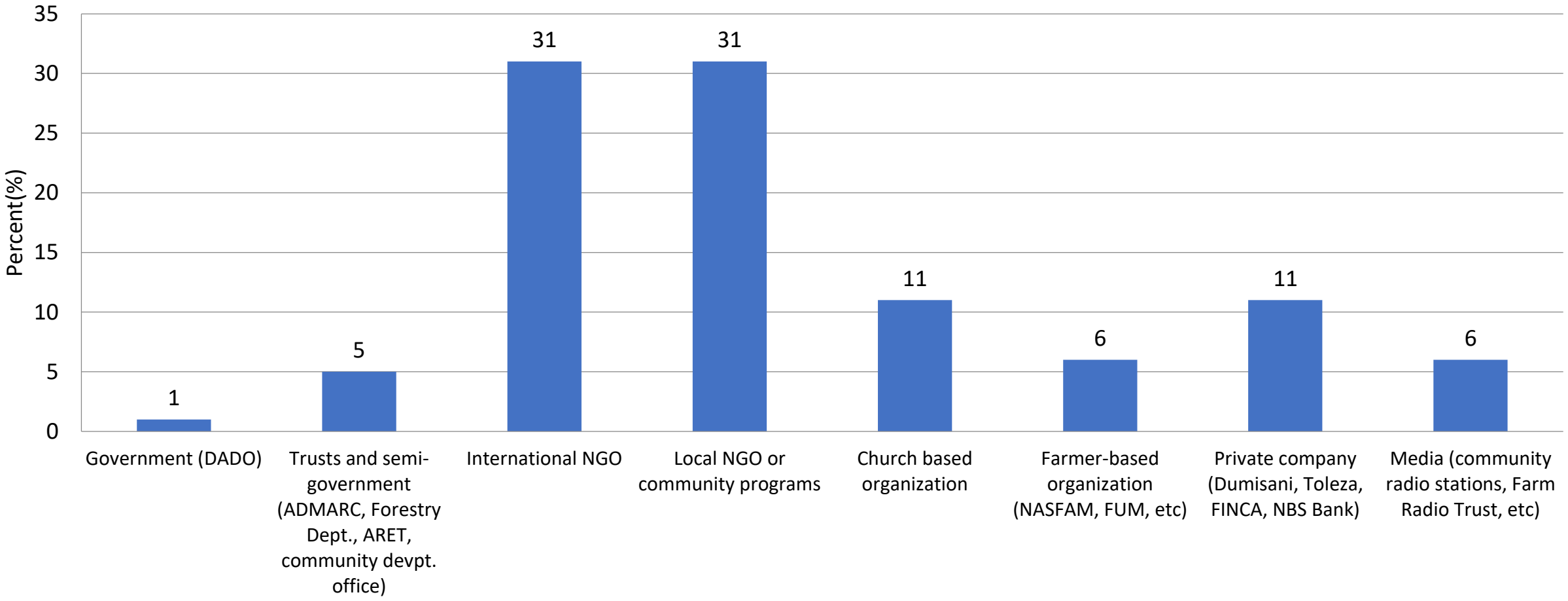


- Many of the VACs are not active, never met or met once
- While MV set-up have started, but most are in the early stages of implementation (sensitization stage, some have action plans)

Supply side

Supply side of extension service provision (2017)

- Growing pluralism of extension service provision (121 various organizations working in 15 districts)
- In a typical district, there are about 13 service providers on average (but ranges from 6 in Chiradzulu to 25 in Balaka and 35 in Lilongwe)



Human capacity

Very difficult to get reliable data, but some patterns emerge:

- 1:1 ratio of govt. technical staff to non-govt. technical staff (aggregate)
- 2:1 ratio of govt. frontline workers to non-govt. field officers (aggregate)
- All non-government service providers work with AEDOs
- Farmer-to-govt.-agent ratio is roughly 2,240 or 3,316 (Agr. Census or APES)
- Farmer-to-all agents ratio is roughly 1,544 or 2,294 (Agr. Census or APES)
    - Similar or better than many countries in SSA, but worse than that of Ethiopia and Kenya
- Gender balance, good but can be further improved
    - Roughly 19% and 25% of govt. SMS and frontline workers are female, and 32% for non-govt. female frontline workers
- Most do not have yearly trainings
    - 15% never ever received re-training since becoming extension agent
    - 40-60% had not received any re-training in at least 3 years
    - Training needs assessment (context of pluralism and complementarities)
- Various trainings going on; but largely uncoordinated; we could do a better coordination of these different initiatives

We need look more closely at capacity and incentives in the system

Lack of comprehensive data on funding for extension

- Mostly salary (73-83%), and 17-27% operating funds for extension services from public funding in 15 districts surveyed
- Roughly MWK740,000 per AEDO per year or MWK250 per farmer per year from public funding in 15 districts surveyed
- Excludes national level; exclude numerous NGO projects (not willing to share)

Performance targets (go beyond input metrics)

- Farmer-to-lead-farmer; Farmer-to-extension-agents
- Most AEDOs and NGOs report on number of trainees --→ outcomes

✓ICT and data analytics to provide frequent updates of input and performance metrics

Weak implementation, follow-up, and monitoring capacity

-- strengthening capacity is a joint responsibility

- Facilitators (AEDOs) were not able to implement and monitor numerous activities and approaches
- Lead farmers were not able to carry on their expected functions
- Community leaders were not able to facilitate transparent selection of lead farmers and monitor them and make sure they do a good job
- System coordination is lacking (government, NGOs and private sector not as competitors but as partners)

✓Active DAECC working on this; Innovation platforms focusing on priority value chains

Demand side

Demand-side approaches need to be strengthened

Farmers reported high ratings on the usefulness of extension services . . .

but the percentage of farmers requesting or demanding information was very low and decreased over time from 12% in 2016 to 4% in 2018

While radio coverage is wide, only a few households are member of listening clubs or ICT hubs (2%) or have used call-in services (1%) at national level

In the FGDs, listening clubs or ICT hubs were seen as useful platforms that strengthened social capital and cooperation among listeners.

Moreover, call centers and mobile apps, in which anyone can call or text for free, also helped those who used these services.

Greater community awareness and sensitization of these demand-side services will be crucial so that more people can benefit from them.

Capacity of these ICT-based demand-side mechanisms needs to be strengthened

What can we do to translate the increased information to lead to behavioral change, technology adoption and development impacts?

INPUT

(FARMER-TO-AGENT RATIO; FARMER-TO-LEAD FARMER RATIO; NUMBER OF TRAINEES)

OUTPUT

ACCESS TO INFORMATION

(HIGH COVERAGE IN MALAWI)

INTERMEDIATE OUTCOME

TECHNOLOGY ADOPTION

OUTCOME

SUSTAINED PRODUCTIVITY

IMPACT

INCOME, FOOD SECURITY

Takeaway messages

1. GO BEYOND INPUT METRICS

→ BOLD PERFORMANCE TARGET

2. INVEST IN IMPLEMENTATION AND COORDINATION CAPACITY & INCENTIVE TOWARDS THAT TARGET

. . . OFTEN, IT IS NOT THE DELIVERY TOOL OR APPROACH THAT IS THE PROBLEM, BUT THE CAPACITY TO IMPLEMENT AND SCALE THEM UP EFFECTIVELY

3. FOCUS ON PRIORITY VALUE CHAINS

(PUBLIC, PRIVATE, NGOS WORKING TOGETHER ON SET TARGETS FOR THESE VALUE CHAINS)

4. IMPROVE CONTENT AND QUALITY OF EXTENSION MESSAGING TO INDUCE BEHAVIORAL CHANGE AMONG FARMERS TOWARDS ADOPTION

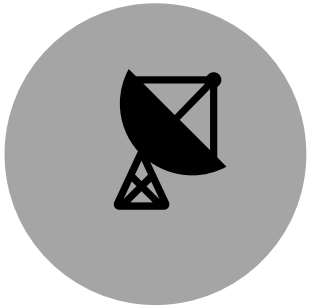
(FARM DEMO)

5. THOROUGH REVIEW OF TECHNOLOGIES AND PRACTICES

(PLATFORMS, ICT)

Takeaway messages

6. INTENSIFY CAPACITY STRENGTHENING AT GRASSROOT ORGANIZATIONS LEVEL



7. ICT METHODS SHOULD BE PART OF THE PACKAGE OF DIVERSE EXTENSION APPROACHES

8. PROJECT-BASED ADVISORY SERVICE PROVISION WORKS WELL IF IT IS WELL-FUNDED AND PROVIDES “ARTIFICIAL INCENTIVES” TO PARTICIPANTS, KEEP SUSTAINABILITY GOALS ON TRACK

9. INTERVENTIONS SHOULD BE RIGOROUSLY EVALUATED TO KNOW UNDER WHAT CONDITIONS THEY WORK, FOR WHOM, AND AT WHAT COST

For more details of our specific studies:

http://www.ifpri.org/project/pluralistic-extension-system-malawi

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GIZ

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Wadonda Consult

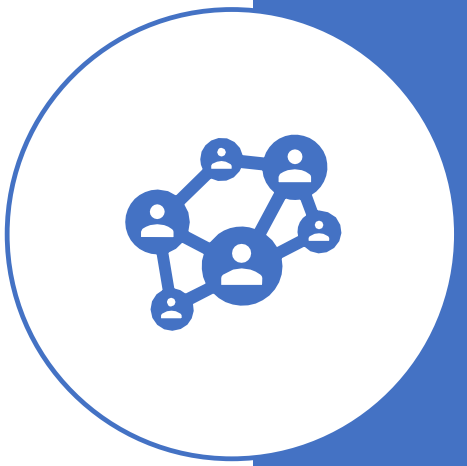
Various professors and students from LUANAR

Our special thanks to the many people who shared their precious time during our interviews:

Farmers, extension workers

Heads and officers of different extension organizations and programs

Other key informants



Graduate students guided and supported through the project

1. **Niu Chiyu**, PhD graduate from University of Illinois, working with the World Bank
    - "Selective attention and information loss in the lab-to-farm knowledge chain: The case of Malawian agricultural extension programs," A PhD dissertation paper, published in the *Agricultural Systems* journal
2. **Joanna Chilemba**, MS graduate from LUANAR, working with the MoAIWD
    - "Impact of Farmer Business School Participation on Farm Incomes: The case of Dedza," MS thesis, published in the reputable *European Journal of Development Research*
3. **Diston Mzungu**, MS candidate from LUANAR, working with IFPRI
    - "Effect of Farmer Field School on Promotion of Nutrition Messages in Kasungu District," forthcoming as IFPRI Discussion Paper
4. **Tihitina Tesfaye Andarge**, PhD candidate from University of Maryland
    - "Can information induce farmers to adopt riskier livelihood strategies? Evidence from Malawi," A PhD dissertation paper, selected paper for presentation during the International Conference for Sustainability and Development, Michigan, USA, October 14-16, 2019
5. **Cynthia Kazembe**, completing her MS thesis on effectiveness of extension approaches
6. **Martha Gazani**, completing her MS thesis on effectiveness of radio listening clubs