The PRCI-Africa Technical Training Program: Accomplishments, Impacts & Next Steps

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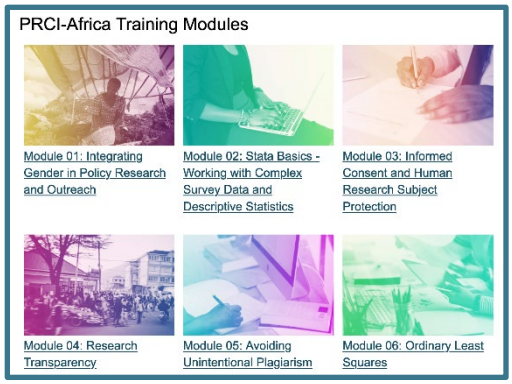
1. Accomplishments

A key component of the Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence (PRCI) is the PRCI-Africa technical training series. Initiated during the COVID-19 pandemic, this activity has been constantly evolving and innovating over the course of PRCI.

A total of 43 trainings were conducted between June 2020 and February 2024 under the program. The average number of participants per training was 35. All training materials are publicly available and can be downloaded via the PRCI-Africa technical training modules website (Figure 1). To date, the modules have collectively received over 14,000 page views.

Figure 1: PRCI-Africa Training Modules Page



Key Messages

1. Leadership from African centers stated that each Center's capacity to: (i) conduct rigorous policy research, (ii) conduct effective policy outreach, and (iii) train and mentor junior researchers had improved through the technical trainings.

2. A large majority (>70%) of respondents to a 2024 training evaluation survey indicated that their skills in the following areas had improved relative to before PRCI: integrating gender, research-to-policy, journal article writing, navigating the peer review process, generating more transparent and reproducible research, and avoiding unintentional plagiarism.

3. The co-trainer approach created opportunities for center staff to hone their skills as trainers, deepen their understanding of the material, gain insights and perspectives by connecting with new collaborators, and rediscover or newly appreciate their colleagues' expertise.

4. Looking forward, a series of trainings on specific topics-from basic to advanced- should be prioritized. The topics covered should be well aligned with the Centers' research priorities and should offer opportunities for practical application and hands-on experience.

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The trainings were primarily designed for researchers and communications staff affiliated with the PRCI Centers for Policy Leadership (CPLs). These are the Economic Policy Research Centre (EPRC) in Uganda, Innovation Lab for Policy Leadership in Agriculture and Food Security and the Center for Petroleum, Energy Economics, and Law (PiLAF/CPEEL) in Nigeria, and Institut Sénégalais de Recherches Agricoles – Bureau d'Analyses Macro-Économiques (ISRA-BAME) in Senegal.

Affiliates of the African Network of Agricultural Policy Research Institutes (ANAPRI) were also invited, with one ANAPRI center designated as a "Core Center" along with the CPLs each year. This ANAPRI Core Center for PRCI-Africa technical training purposes was Sokoine University of Agriculture in Tanzania in the first year of the program, and Tegemeo Institute of Agricultural Policy and Development in Kenya in subsequent years. Finally, Asian partners affiliated with PRCI were invited to the technical trainings, as were fellows of the Structural Transformation of African and Asian Agriculture and Rural Spaces (STAAARS+) program.

The co-trainer approach

One key accomplishment of the PRCI-Africa technical training program was the co-trainer model. Under this model, one or more Core Center collaborators served as a co-trainer or lead trainer in partnership with researchers or communication staff from Michigan State University (MSU) or the International Food Policy Research Institute (IFPRI).

The co-trainer approach was first implemented in July 2022 and a total of 14 Core Center affiliates served as a co- or lead trainer during a PRCI-Africa technical training. The benefits of the co-trainer model were highlighted during a panel discussion at the first PRCI Global Gathering in Accra, Ghana in April 2023. Further details on the co-trainer approach and its benefits are provided in the annex.

"Being included as a lead/co-trainer for some of the sessions is much appreciated and is a guarantee of the sustainability of the project's actions." ~ ISRA-BAME co-trainer

2. Technical trainings that responded to Core Centers' needs

The topics covered in the PRCI-Africa technical trainings were identified via a series of needs assessments.

2020 initial needs assessment

The initial needs assessment was conducted in May 2020 and entailed a Qualtrics survey completed by Core Center leadership teams, researchers, and communications staff. From the survey responses, priority training topics for June 2020 through June 2021 were identified. Many of the trainings during this initial period aimed to establish a strong, common foundation in the use of Stata for data processing as well as the theory and practice (including Stata implementation) of common econometric tools used in agricultural and applied economics and policy research. Other trainings during this period covered research ethics, avoiding unintentional plagiarism, integrating gender in policy research and outreach, integrating mixed methods in research, navigating peer review, writing journal articles, giving effective research presentations, and writing grant proposals.

2021 needs assessment

A second needs assessment was conducted in September 2021 to identify priority technical training topics for fiscal year 2022 (FY22). As most of the technical training participants from EPRC, PiLAF/CPEEL, and ISRA-BAME slated to participate in FY22 trainings had participated in the first year of trainings, the team took a different approach to the needs assessment. Rather than a Qualtrics survey, each Core Center team (i.e., EPRC, PiLAF/CPEEL, ISRA-BAME, and Tegemeo Institute) was asked to answer a series of questions about their Center's PRCI research project, the methods to be used, how gender would be integrated, and their training needs related to these two topics as well as to policy outreach and stakeholder engagement (i.e., research to policy (R2P)) and grant proposal writing. These responses were synthesized and used as the starting point for a needs assessment discussion with the directors and research directors of each Core Center held in September 2021, to identify priority technical training topics for FY22. Topics identified by two or more Core Centers were prioritized, while other resources (e.g., online training videos) and approaches (e.g., capacity strengthening through the collaborative research process) were recommended as avenues to address needs expressed by only one Core Center.

2022 needs assessment

The third and final PRCI-Africa technical training needs assessment took place in November and December 2022 to plan for technical trainings for calendar year 2023 through the first quarter of calendar year 2024. The approach was similar to the 2021 needs assessment in that information was gathered from the Core Centers on their self-identified training needs via a needs assessment survey. In addition, PRCI-Africa collaborative research and communication partners from MSU, IFPRI, Cornell University as well as the leads of the R2P and gender components of PRCI were invited to respond to the survey. The synthesized results from the needs assessment survey were discussed in a joint meeting in December 2022 with the Core Center directors and research directors, PRCI Research-to-Policy (R2P) and gender leads, and collaborative research partners, with priority technical training topics identified for 2023 and early 2024.

Technical training feedback

An additional dimension of the 2021 and 2022 needs assessments was reflecting upon what had gone well in the previous year's trainings as well as identifying challenges and solutions to improve the trainings in the year ahead. In addition to these needs assessments, toward the end of each individual technical training, participants were asked to complete a brief post-training feedback survey in Qualtrics. The main questions were:

1. How likely are you to use the information covered in this training in your future work? [Extremely likely, somewhat likely, neither likely nor unlikely, somewhat unlikely, extremely unlikely]
2. How do you assess the training overall? [Very good, good, acceptable, poor, very poor]
3. What did you find most useful about the training and why?
4. What suggestions do you have for how to improve the training (with the same objectives) were it to be offered again in the future?
5. What further topics related to today's training would you like us to cover in future trainings?

After each training session, the technical training team reviewed the training feedback and shared a summary with each trainer. This feedback was used on an ongoing basis to continually improve the technical trainings and identify potential future training topics.

3. 2024 evaluation of the PRCI-Africa technical training program

A two-part approach was used to evaluate the overall effects of the PRCI-Africa technical training program: (i) a Qualtrics survey completed by training participants (henceforth, the "participants survey"); and (ii) one-hour reflective conservations with the leadership of each Core Center. All conversations and the survey took place between January and early February, 2024.

The purpose of the participants' survey was: 1) to evaluate the impact of PRCI-Africa technical trainings on participants' capacity as researchers to conduct rigorous policy research and effective policy outreach; and 2) to gather feedback on what improvements could be made to the technical training activities going forward as well as to identify potential future training topics. All individuals that had participated in a PRCI-Africa technical training were invited to complete the survey. Thirty-four (34) total respondents (18 men and 16 women) out of 50 Core Center invitees ultimately completed the survey. A total of 13 respondents (6 men and 7 women) participated in the reflective conversations. Their purpose was to gather feedback on:

1. The impacts of the PRCI-Africa technical trainings on the Core Center's policy research, policy outreach, mentoring of junior researchers, other capacity-building activities, and professional networks.
2. Any challenges encountered that affected the Core Center's participation in the trainings.
3. Recommended changes going forward.
4. Priority technical training topics.

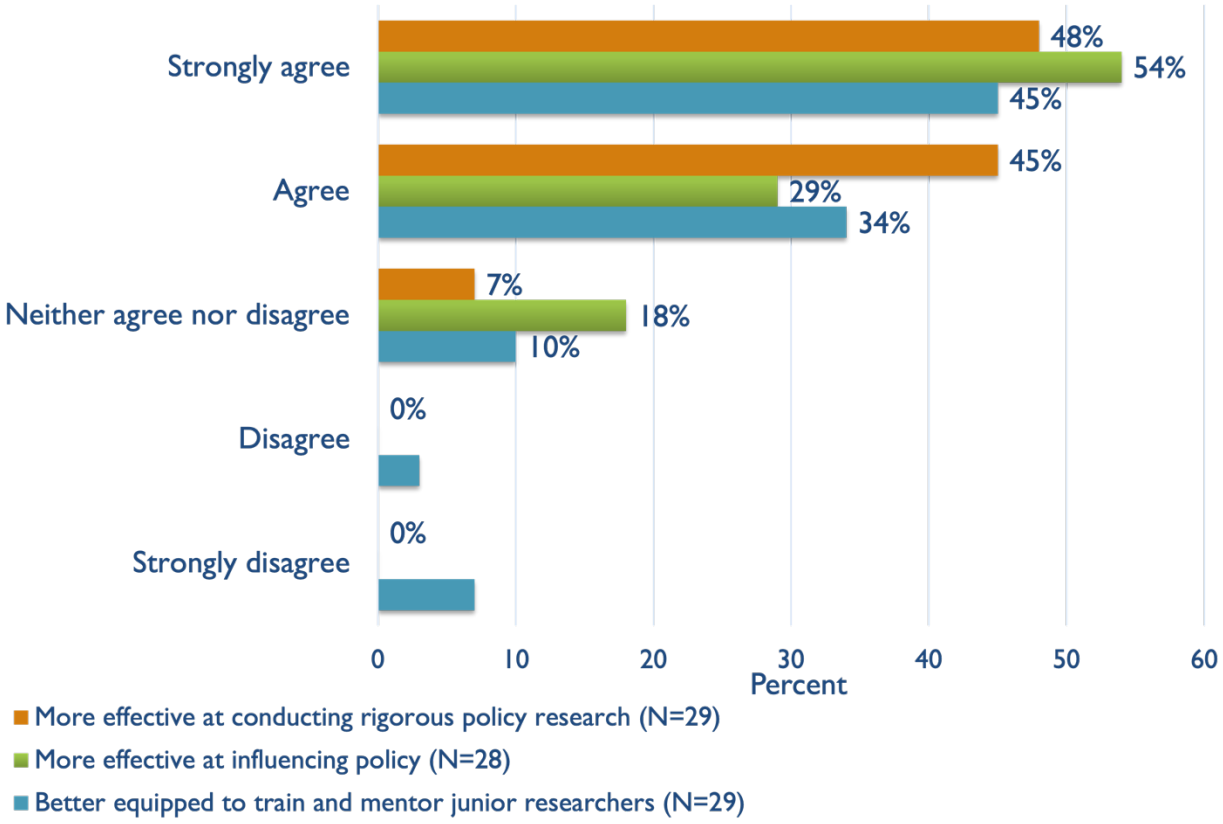
Participants survey main takeaways

The core section of the participants survey asked respondents about the extent to which they agreed or disagreed with the following statements:

1. "My organization is more effective at conducting rigorous policy research now than it was prior to PRCI."
2. "My organization is more effective at influencing policy now than it was prior to PRCI."
3. "My organization is better equipped to train and mentor junior researchers now than it was prior to PRCI."

The results are reported in Figure 2. Twenty-nine (29) respondents answered the first question and 93% (27) agreed or strongly agreed that their organization is more effective at conducting rigorous policy research now than it was prior to PRCI. Twenty-eight (28) respondents answered the second question and 83% (23) agreed or strongly agreed that their organization is more effective at influencing policy now than it was prior to PRCI. Lastly, 29 respondents answered the third question and 79% (23) agreed or strongly agreed that their organization is better equipped to train and mentor junior researchers now than it was prior to PRCI. Note, however, that these improvements cannot be solely attributed to PRCI-Africa technical trainings.

Figure 2: Participant responses to the statement, "My organization is ___ now than it was prior to PRCI"



Source: PRCI-Africa technical training 2024 participants survey.

Note: N in parentheses is the number of respondents answering each question.

Technical training participants were also asked to indicate to what extent they agreed or disagreed with the following statements:

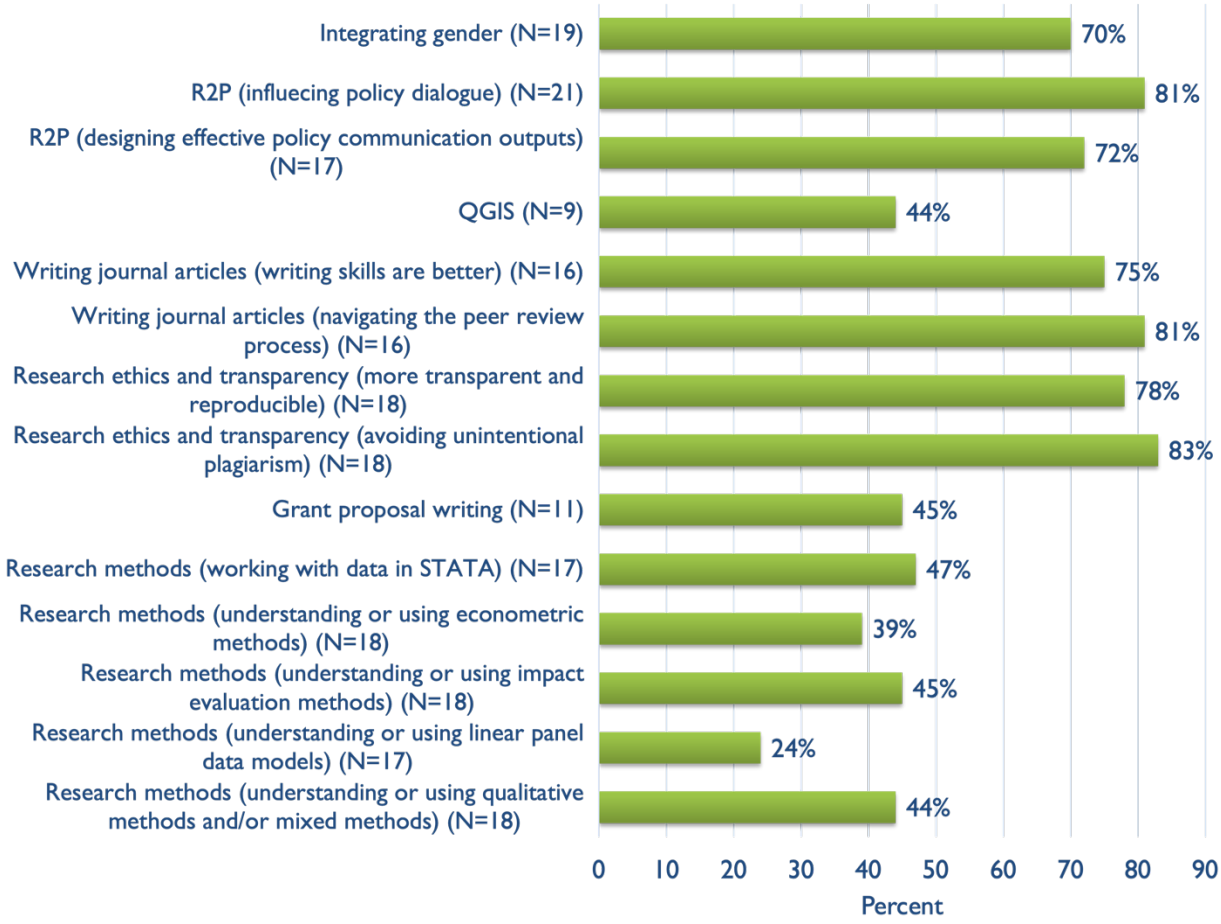
- Gender: "I am more confident integrating gender in my research and policy outreach now than I was prior to PRCI."
- R2P:
  - "I am more confident influencing policy dialogue now than I was prior to PRCI."
  - "I am more confident designing effective policy communication outputs now than I was prior to PRCI."
- QGIS: "I am more confident understanding or using QGIS now than I was prior to PRCI."
- Writing journal articles:
  - "My writing skills are better now than they were prior to PRCI."
  - "I am more confident navigating the peer review process now than I was prior to PRCI."

- Research ethics and transparency:
  - "My research is more transparent and reproducible now than it was prior to PRCI."
  - "I am more confident avoiding unintentional plagiarism now than I was prior to PRCI."
- Grant proposal writing: "I am more confident writing grant proposal now than I was prior to PRCI."
- Research methods: "I am more confident ___ now than I was prior to PRCI" with questions for:
  - "Working with data in Stata"
  - "Understanding or using econometric methods"
  - "Understanding or using impact evaluation methods"
  - "Understanding or using linear panel data models"
  - "Understanding or using qualitative methods and/or mixed methods"

Only respondents that had attended one or more relevant trainings were asked to respond to the question about that topic.

Figure 3 summarizes the percentage of respondents that agreed or strongly agreed with each statement. For all topics- except for research methods and grant proposal writing, over 70% of respondents agreed or strongly agreed with the statement, indicating that their individual capacity had improved in the areas of integrating gender, R2P, journal article writing, navigating the peer review process, generating more transparent and reproducible research, and avoiding unintentional plagiarism. Relatively fewer (<50%) agreed or strongly agreed that their capacity related to research methods, QGIS, and grant proposal writing had improved. This may be because the research methods and grant proposal writing-related trainings were mainly conducted in 2020 and 2021, several years before the 2024 participants survey. The QGIS result may be related to participants wanting and needing more than two brief trainings to master QGIS. Overall, all trainings receiving positive feedback on their respective post-training feedback surveys.

Figure 3: Percentage of respondents indicating that they agreed or strongly agreed with the topic-specific statements listed above



Source: PRCI-Africa technical training 2024 participants survey.

Note: N in parentheses is the number of respondents answering each question. See LINK for additional detailed results from the participants survey.

Main takeaways from the reflective conservations with the Core Center leaders

Overall, the Core Center leadership teams indicated that PRCI had positively affected their Center's capacities. However, it is difficult to separate the impacts of the PRCI-Africa technical training initiative from those of other PRCI components. The main takeaways from the reflective conversations with the Core Center leadership teams were as follows:

- Each Center's **policy research capacity improved** through the technical trainings, especially with the co-trainer approach, which had the unexpected benefit of also increasing awareness of Core Center staff of their colleagues' capacities and expertise.
- Each Centers' capacity to conduct **effective policy outreach improved** through the technical trainings.

- Each Centers' capacity to **train and mentor junior researchers improved** through the training trainings.

Several Core Center leadership teams highlighted that their organization's capacity to integrate gender has improved as a result of the PRCI-Africa technical trainings. This has been reflected in, for example, incorporating more sex-disaggregated data collection into their survey work and conducting more gender-sensitive analyses.

The leadership teams also noted that the technical trainings had improved their staff's confidence in their skills. For example, one of the Core Center leadership teams mentioned that there was greater appreciation of what colleagues brought to the table. In a recent project, they had a better understanding of internal capacity and how to effectively deploy that capacity. This has helped them be more efficient and get deliverables out faster.

4. Next steps

Changes to consider going forward

Several changes to consider going forward were highlighted in the results of the 2024 participants survey and the reflective conversations with the Core Center leadership teams. Several recommendations regarded scheduling aspects of the trainings. For example, the Core Centers suggested setting training dates farther in advance to avoid schedule conflicts. Participation would likely have been greater if the Core Centers' work plans and the training program had been better synchronized. It was also recommended that Core Centers send internal reminders about upcoming trainings. Slowing the pace of trainings and having longer sessions (e.g., 2 hours instead of 90 minutes) was recommended.

Other recommendations clustered around the general idea of more integrated and in-depth training tied more closely to research. For example, one suggestion was to create space after the trainings for participants to gain additional hands-on practice with the topic or skills covered in the training (e.g., a dedicated work session with technical support to start designing an infographic or QGIS map). It was felt that it would be helpful to have a series of trainings on a given theme (e.g., integrating gender) starting from the basics, then proceeding to more advanced topics. Another suggestion was to have more intensive and interactive sessions, including more exercises during the session or afterward, and a follow-up training to review and provide feedback on the exercises. Finally, some Core Centers suggested quizzes over the course of the program, with participants receiving a certificate of completion at the end.

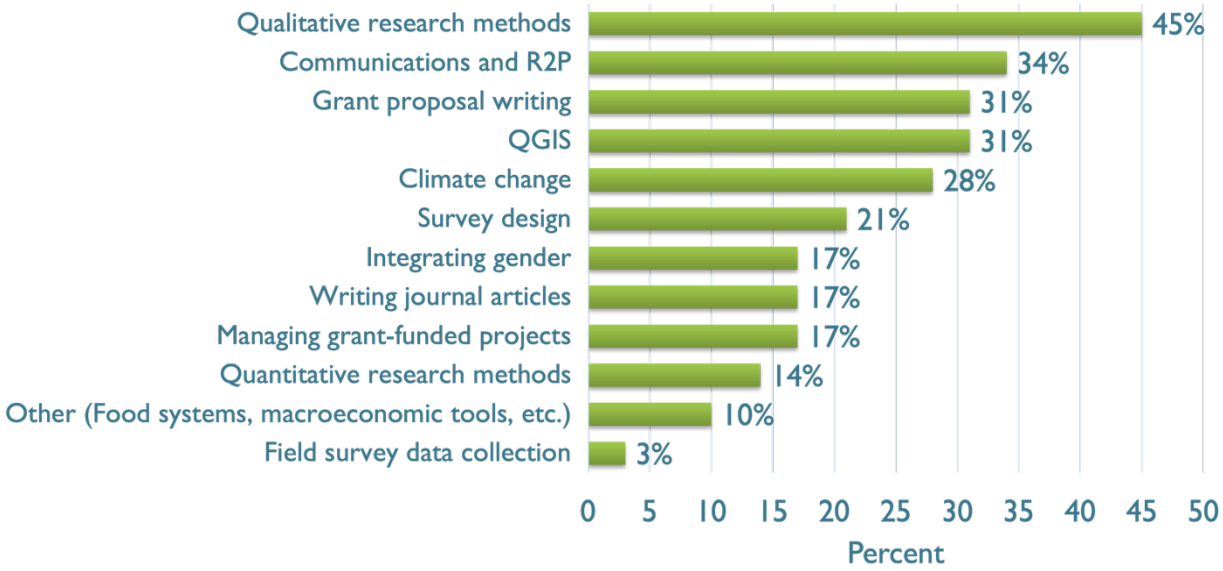
Topics suggested by Core Center leaders

During the reflective conversations, the Core Center leadership teams provided suggestions for future training topics. These included a series of trainings on integrating gender, how to use the latest technologies in research (e.g., Chat GPT and machine learning), more trainings on QGIS and spatial analysis, and micro-simulation and scenario building analysis trainings (i.e., on CGE models).

Topics suggested by training participants

Participant survey respondents were asked to select up to three broad topic areas on which they would like to see more training. The results are summarized in Figure 4. The top four most commonly requested topics were qualitative research methods, R2P, grant proposal writing, and QGIS.

Figure 4: Training topics suggested by participants survey respondents



Source: PRCI-Africa technical training 2024 participants survey.

Note: The number of respondents answering the question is 29.

Overall, the feedback received on the PRCI-Africa technical trainings suggests that this program had positive impacts in strengthening the research, policy outreach, and communication skills of Core Centers' participants. Given the dispersed nature of the various teams, the online approach enabled us to involve all teams in the trainings in a cost-effective way. It also facilitated communication and coordination among co-trainers from different institutions. The recording and posting of the recorded training sessions further broadened the audience benefiting from the trainings, and enabled participants to revisit the materials as needed.

Looking forward, we recommend that the needs assessment approach be tailored to the objectives of each program and to the nature of the participants. Although a lot of efficiency is gained by doing an online training program, we suggest exploring the possibility of offering some in-person trainings when resources permit. For example, the in-person infographic training session at the PRCI global convening in Ghana in April 2023 was well received and impactful. An in-person training could be complementary to a previous online training session or be on a topic that is only of interest to a particular team. Future efforts should also build in sufficient time for participants to practice the skills covered in the trainings.

The PRCI-Africa technical training team looks forward to working with the Core Centers and other partners in the future to build on the accomplishments of the technical training efforts under PRCI from 2020-2024.

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Annex

PRCI-Africa technical training co-trainer/lead trainer model supports collaboration and research capacity strengthening

By the PRCI-Africa technical training team (Yeyoung Lee, Nicole M. Mason, and Veronique Theriault) – October 9, 2023

A key component of the Feed the Future Innovation Lab for Food Security Policy Research, Capacity, and Influence (PRCI) is the PRCI-Africa technical training series. Initiated during the COVID-19 pandemic, this activity has been constantly evolving and innovating over the course of PRCI.

One such innovation is the co-trainer/lead trainer model, featuring one or more collaborators from the Centers for Policy Leadership (CPLs) or the African Network of Agricultural Policy Research Institutes (ANAPRI) as co-trainers or lead trainers in partnership with Michigan State University (MSU) or the International Food Policy Research Institute (IFPRI). The African CPLs are the Uganda-based Economic Policy Research Centre (EPRC), the Nigeria-based Innovation Lab for Policy Leadership in Agriculture and Food Security and the Center for petroleum Energy Economics and Law (PiLAF/CPEEL), and the Senegal-based Institut Sénégalais de Recherches Agricoles - Bureau d'Analyses Macro-Économiques (ISRA-BAME). The core ANAPRI partner in the final phase of PRCI is the Kenya-based Tegemeo Institute of Agricultural Policy and Development.

The co-trainer approach was first implemented in July 2022 in a two-part training on avoiding unintentional plagiarism. Two CPL researchers co-led each part of the training with backstopping from the PRCI-Africa technical training team (including previous team member, Hanna Carlson, of MSU). Nkechi Oranye (Research Associate, PiLAF) and Dr. Madina Guloba (Senior Research Fellow, EPRC) led the session on different types of plagiarism and how to avoid them. And Dilinna Lucy Nwobi (then graduate research assistant with the University of Ibadan and CPEEL) and Dr. Cheick Sadibou Fall (Economist, ISRA-BAME) led the session on citations and authorship. Dr. Fall shared that through the process of being a co-trainer, he learned many new things and significantly deepened his understanding of the topic. In addition, he observed that many of his colleagues at ISRA-BAME started using Zotero (a free reference software) as a direct result of the training. Like Dr. Fall, Dr. Guloba emphasized how serving as a co-trainer helped her deepen her understanding of the material beyond what she would have gained had she only been a participant. She also noted that being a co-trainer offers great opportunities to connect with new collaborators, as she did with co-trainer, Nkechi Oranye.

Building on the success of the first co-trainer-led sessions, Tegemeo Institute Research Fellows Drs. Timothy Njagi and John Olwande led a Stata Basics two-part training in October and December 2022. Reflecting on their first experience leading an online training, Dr. Njagi remarked, "For us, in terms of research networks, being a trainer helped us focus on enhancing the training application." He further emphasized how working with the PRCI-Africa technical training team helped him and Dr. Olwande identify what worked well and what could be improved based on the first training and adjust the approach for the second training. The Tegemeo team plans to conduct more online training in the future, building on the experience and insights gained through the PRCI-Africa technical training.

Another example of the PRCI-Africa co-trainer model in action was the "Creating Infographics for Policy Outreach" training, co-led by Melissa Hill (MSU), Elizabeth Birabwa (EPRC), and Dr. Kristin Davis (IFPRI) and held during the PRCI Global Gathering in Ghana in April 2023. The CPL co-trainer, Elizabeth Birabwa, said of the experience, "It was thrilling to work with fellow communication professionals under PRCI to plan and design a training session on infographics for research publications. It was also my first time designing a remote training programme. The experience was worthwhile given the different technical approaches and experiences shared and most importantly the practical skills obtained on how to use Canva to design both presentations and publications."

Most recently, in July and August 2023, Dr. Lilian Kirimi, Senior Research Fellow at the Tegemeo Institute, co-led with Drs. Ruth Meinzen-Dick and Elizabeth Bryan of IFPRI a two-part training focused on integrating gender into each stage of the project cycle and strategies for effectively presenting results of gender-related research to different audiences. Reflecting on her experience as a co-trainer, Dr. Kirimi shared, "It was an honor to be given a platform to work alongside experts with many years of experience in gender issues in agriculture and a great opportunity to share knowledge with peers. It is a great opportunity for learning and professional development. One learns a lot and often gains new insights and perspectives by teaching something to somebody else."

The PRCI-Africa technical training model has also inspired training efforts by the CPLs, such as the virtual Stata training series offered by PiLAF. Dr. Benjamin Oyelami of PiLAF, who has participated in numerous PRCI-Africa technical trainings, shared, "The PRCI technical training sessions have been of tremendous benefit. It significantly enhanced researchers' capacities and spurred PiLAF to undertake similar training that ended up with great success, including the virtual STATA training."

Going forward, PRCI-Africa technical training will continue to feature CPLs and ANAPRI trainers as much as possible to foster collaboration and strengthen research and training skills**.** As highlighted by Dr. Fall, "Being included as a lead/co-trainer for some of the sessions is much appreciated and is a guarantee of the sustainability of the project's actions."

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