

Special issue: 2019 Africa RISING Program Learning Event, Malawi

## Operationalizing the Sustainable Intensification Assessment Framework: An interview with Vara Prasad

The launch of the [Sustainable Intensification Assessment Framework](#) (SIAF) in November 2018 by the [Feed the Future Innovation Lab for Sustainable Intensification](#) (SIIL) marked a turnkey moment in agricultural research and development.

Borne out of collaborative efforts by scientists from SIIL, the [United States Agency for International Development](#) (USAID), [Michigan State University](#) (MSU), [University of Florida](#) (UF), [Kansas State University](#) (KSU) and [Africa RISING](#); the SIAF has brought with it a significant point-of-view change in how the net effect of agricultural interventions introduced to communities can be evaluated to comprehensively assess their performance in terms of direct and indirect consequences within and across five domains: productivity, economic, environment, human and social.

The framework has been adopted and is currently being applied by SIIL and the Africa RISING program. Discussions are ongoing for more projects and programs to start applying the evaluation framework.

To learn more about the SIA framework, its applications, the lessons learnt since it was unveiled and why it is the go-to tool for assessing systems research interventions; Africa RISING Communication and Knowledge Sharing Coordinator [Jonathan Odhong](#) caught up with SIIL director, [Vara Prasad](#), during the Africa RISING Program Learning Event 2019 held on 5–8 February in Malawi. Below is a truncated transcript of the interview.

Q: Thank you very much, Vara, for the great opening remarks. You mentioned



Vara Prasad (left) being interviewed by Jonathan Odhong (right) at the Africa RISING Program Learning Event held on 5 - 8 February 2019 in Malawi. Photo credit: Simret Yasabu/ILRI.

(in your opening remarks) that the framework was at first seen only as a tool to measure sustainable intensification in agriculture, but then over time this thinking changed. Please elaborate how the framework has evolved.

A: There has been significant change in terms of the value of the SIAF to multiple audiences. When we were first developing it, we thought of just three domains—productivity, economics, and then environment. But then the human and social domains also needed attention (perhaps more urgently than the others). So that is why, this morning, we had discussions on whether you need to collect data on all the SI domains. The answer is yes, you really need to measure all the five domains to get the big picture for a systems perspective.

Another thing that has really evolved is the use of multidisciplinary (or transdisciplinary) teams in research. The framework provides an appropriate tool for specialists from different professional backgrounds to collaborate in solving a problem in a more holistic way. The biggest problem is, however, how to manage a perfect connection between the different specializations working together.

The other aspect of the evolution is the fact that the framework's value proposition/utility is now beyond just a tool for scientists; it now has great value for the policymakers too. So, an intervention like digging a dam to irrigate crops and enhance productivity is a good idea, but the SIAF will help you for example to tell: (a) whether the

pond actually increased productivity, (b) whether it is economically viable, (c) whether nutrition in the area where the pond was dug has improved, (d) whether the pond has resulted in a spike in Malaria infections within the area... and so on. So, when a policymaker looks at that, they get a big picture to decide whether or not that intervention should proceed.

**Q:** If the framework were a car, one would say that data is the fuel that it needs to operate. However, within Africa RISING, one of the challenges has been that data is in the hands of different scientists and either knowingly or otherwise they have not been in a position to share the data effectively amongst themselves to generate the 'big picture view' you have just described. Is this an issue you also face within SIIL? If yes, how are you overcoming it?

**A:** Great question. I think the situation you are referring to was also the case in SIIL. I use the word 'was' because it was a problem for us at the beginning. I think there are ways to handle those types of issues.

At SIIL we have taken certain approaches, one of which is the top down approach. This means that we are putting this requirement into partner contracts, saying that you have to collect this information and make it available to the management and other partners after a certain period of time, using whatever kind of database you want—could be Dataverse or any other.

Most importantly, we are now working on the bottom up approach. Like I said, other research components in various regions are based on thematic areas. For example, we are working in three different regions: West Africa, East Africa, and Asia. In West Africa (Burkina Faso and Senegal) the thematic area is crop-livestock interaction. The idea for crop-livestock interaction did not come from me or from Kansas State University. It came from a conversation with stakeholders on the ground—the people who are actively involved in that region.

These are the people who really determined that for them in this region, in terms of ground area sustainable intensification, crop-livestock interaction is the key. In East Africa the stakeholders chose cereal-legume systems. For Asia, rice systems was chosen in Cambodia and Bangladesh.

So, that is how we brought the scientists together in the beginning. After this, then we selected the targets for measurement, we included some component of all the sustainable intensification (SI) domain and then everybody had to collect data relevant to their specialty. In most of the countries where SIIL operates, there is a significant involvement of (local) students in the research work. We therefore select a student also to collect data on each SI domain, then at the end they sit together and showcase their results on the SIAF.

This process is of course not easy, but I think researchers now understand the value of systems research and how the SIAF is bringing that to a level where other people can appreciate it. This is because there are always a few organizations involved in systems research. At the end of the day, it is our responsibility to communicate our research. And the best way of doing this is to find a method, where we can bring people together—researchers, policymakers, and students.

**Q:** Adopting this framework is fraught with many challenges, particularly for the scientists who are supposed to collect the data. In some conversations, it has been said to be an extra bit of work. Why would you still insist that people continue to use the framework faithfully?

**A:** Yes, it is very important not to quit on the SIAF. Again, I think I would like to indicate that unless we all come together and work as a team, we will not be successful in addressing these challenges. At the same time, we will not be able to attract more funding if we do not show the value of systems research.

One thing you need to remember is that this framework is not about the success or failure of your project, or the success

of innovation. Do not think that this framework is evaluating your innovation or technology. It is not. It does not have any M&E measure. It is a way to look at the opportunities for synergy. Where are the synergistic groups happening? Where are the trade-offs? If you identify a trade-off, what are the innovations with which we can work to improve that trade-off?

I think we are at the point where we need to show the value of systems research, otherwise the funding is going to be very low. Just throwing in the word systems research is not going to be good enough. We need to show that farmers are actually adopting and showing results on the ground. This framework provides a way for multidisciplinary or transdisciplinary teams to work together on a common thematic area.

I really liked your question this morning about the issues and the research areas where a systems approach is needed. I think, as you know, the systems approach is needed in multiple areas. I have come up with five or six of those components: integrated pest management, integrated water resource management, integrated soil fertility management, crop-livestock interactions, and seed systems.

**Q:** Should risk be included as an indicator in the SIA framework?

**A:** Great question. I think risk analysis is very critical. Very important. Actually, the SIAF captures it because the framework is so broad. Just look at the domains—productivity, environment, social, human, and economic. Risk is built into these domains because an innovation is riskier, especially if it is not beneficial or it requires too much labor or does not address family nutritional needs, etc. So risk analysis is already captured in all the five different domains. You just need to pick the right indicator and the right metrics at the right scale to make sure you are trying to find the risk.

## Got a story to share?

Please send your story with photos and captions every Tuesday to [iita-news@cgiar.org](mailto:iita-news@cgiar.org) or Katherine Lopez ([k.lopez@cgiar.org](mailto:k.lopez@cgiar.org)) and Uzoma Agha ([u.gha@cgiar.org](mailto:u.gha@cgiar.org)) for headquarters and Western Africa, Catherine Njuguna ([c.njuguna@cgiar.org](mailto:c.njuguna@cgiar.org)) for Eastern and Southern Africa, and David Ngome ([d.ngome@cgiar.org](mailto:d.ngome@cgiar.org)) for Central Africa.

## What's in a name? Africa RISING partners aim for common understanding of terminologies

Words like 'innovation', 'spillover', 'adoption', 'technology', and others are often parts of the daily lexicon of agricultural researchers and development practitioners. But what's in a name? Does everybody mean the same thing whenever they use these terminologies? More importantly for a research-in-development project like [Africa RISING](#), does everybody apply the same parameters when measuring them?

These questions and more served up an interesting conversation at the recently concluded Africa RISING Program Learning Event 2019 held on 5–8 February in Lilongwe, Malawi. This discussion underlined the need for a common understanding of the terminologies commonly used by implementing partners from the six Africa RISING project countries.

"What do the words innovation, spillover, adoption, and technology mean to you?" posed [Haroon Sseguya](#), Africa RISING NAFKA Project Scaling Specialist at the session where this topic was discussed at the learning event.

This question quickly generated different definitions for each terminology from participants. After breakout group discussions whose output was read out in plenary, one after the other, participants proposed definitions, each seeming to suggest a different meaning/ understanding of a particular term from the definition proposed by the preceding

group. The whole exercise confirming the need for common understanding of these terms in the program.

Since late 2017/early 2018, Sseguya and other scientists in Africa RISING have been drafting a document aimed at outlining common definitions for terms such as 'reach', 'adoption', 'spillover', 'technology', 'innovation', 'dis-adoption', etc. The draft document has undergone various reviews, and this was yet another step towards generating this common reference document to be used by project partners working in the

three Africa RISING regional projects – West Africa, Ethiopian Highlands and East/Southern Africa.

The input and feedback generated during this session of the Learning Event will be reviewed and some of it used to generate a near-final document that will be presented to the program coordination team for possible use within the whole program. Maybe then, William Shakespeare's famous quote in Romeo and Juliet – 'a rose by any other name would smell as sweet', will hold true.



*A group discussion in progress during the Africa RISING Program Learning Event held on 5 - 8 February 2019 in Malawi. Photo credit: Simret Yasabu/ILRI.*

## Africa RISING Learning Event 2019: Participants reflections and takeaways

Partners from six project countries converged in Malawi on 5–8 February for the Africa RISING Program Learning Event 2019. The goal of the annual meet was for partners to synthesize valuable lessons learnt in the previous year and harness them for improved project implementation this year.

The meeting brought together Africa RISING scientists, researchers, and communications specialists from Ethiopia, Ghana, Malawi, Mali, Tanzania, and Zambia to assess the project's implementation experiences, knowledge gained, and products generated in the different regions.



*Annet Mutema  
International Livestock Research Institute (ILRI) Africa RISING Ethiopian Highlands Project*

“Social and human domains of the SIAF remain a challenge to prioritization and measurement. We need mixed methods to validate these indicators and prioritize what is appropriate from researchers and farmers’ point of view.” - Annet Mutema

Mixing a regular workshop format with field visits to Africa RISING activity sites in Malawi, this year’s learning event focused on three primary topics: (i) experiences with implementation of the Sustainable Intensification Assessment Framework (SIAF), (ii) systems research for agriculture in practice, and (iii) common understanding of terminologies used within the Africa RISING program.

At the end of the event, the communications team caught up with a few of the participants to get insights into their key takeaways from the event. Below is an excerpt of the reflections from Annet Mutema of the [International Livestock Research Institute](https://www.international-livestock-research-institute.org/) (ILRI). For reflections from other interviewed participants, follow [this link](https://africa-rising.net/2019/03/11/africa-rising-learning-event-2019-participants-reflections-and-takeaways/): <https://africa-rising.net/2019/03/11/africa-rising-learning-event-2019-participants-reflections-and-takeaways/>

## Africa RISING releases training manual for building the capacity of scientists in gender sensitive research

Systematic integration of gender analysis in the design and activities of a project or program is now globally acknowledged as a prerequisite and best practice for development and deployment of sustainable agricultural interventions. But for most projects (and individual scientists by extension), the question of capacity in gender sensitive research is still a stumbling block for meaningful progress.

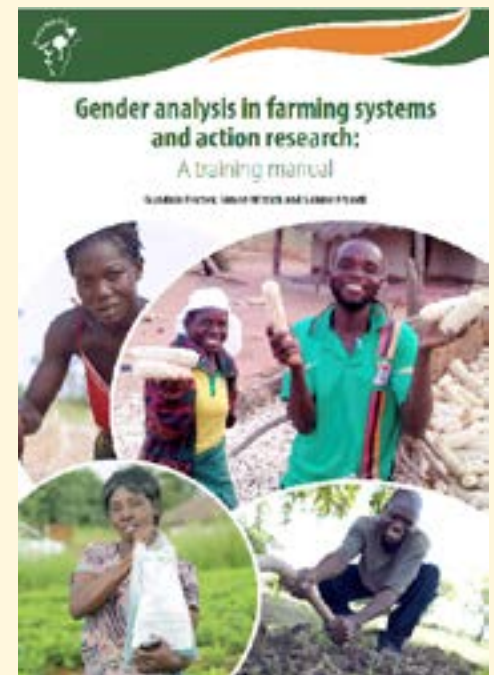
In this new publication co-authored by Gundula Fischer, Simon Wittich and Sabine Fründt, scientists now have a resource that will offer them tips and guidance for a spectrum of topics about gender mainstreaming. The publication, which is targeted at trainers working with newbies on the subject and even the fairly experienced, tackles a rich selection of topics ranging from the basic concepts for investigating gender in agriculture to how best to conduct a gender-sensitive technology evaluation.

Although tailored to a specific program ([Africa RISING](https://africa-rising.net/)), the manual covers aspects of gender analysis that are relevant to other actors working with similar objectives. More specifically,

these are researchers that engage with smallholder farmers and other stakeholders to jointly develop and test agricultural technologies – technologies that not only enhance productivity and profitability and are environmentally sound, but also adapted to the differential needs of women and men farmers and benefit both in an equal manner.

Gender sensitive research that promotes equity is a major crosscutting issue in CGIAR’s Strategy and Results Framework (2016–2030). And gender capacity development as well as stronger cooperation between social and biophysical researchers will facilitate this. The USAID-funded and IITA, [International Livestock Research Institute](https://www.international-livestock-research-institute.org/) (ILRI), and [International Food Policy Research Institute](https://www.ifpri.org/) (IFPRI) led Africa RISING program has now published its own contribution towards stepping up efforts in this direction – a training manual on how to do gender analysis in farming systems and action research.

So far, the manual has been used for Africa RISING gender trainings in Ghana, Mali, Tanzania and Malawi.



*Gender analysis in farming systems and action research: A training manual.*

It can also serve as a resource for individual learning.

Follow this link to get a copy of the manual: <https://cgspace.cgiar.org/handle/10568/100149>

## Photo report on the Africa RISING Program Learning Event 2019



*Participants at the first stop of the field visits.*



In more than a thousand words, this collection of elegant photos taken

during the [Africa RISING](https://africa-rising.net/) Program Learning Event, provides a summary of how the whole meeting unfolded. The event also featured field visits to Africa RISING activity sites in Malawi, which gave participants an opportunity to interact with farmers and get first-hand feedback on the value of the interventions.

Click the following link to access the photo report: <https://www.slideshare.net/africa-rising/arle19>

## Missed the Africa RISING Learning Event 2019? You can access all the material here

We understand, that sometimes, it is not possible to keep up with all items and discussions at meetings. But you don't need to worry. We have got you covered. Below is a list of links to where we have archived all the presentations, discussions, and photos from the [Africa RISING Learning Event 2019](#) for your reading and viewing pleasure – at your pace.

- [Meeting notes](#) are captured on the event wiki page.
- You can also view or download our repertoire of [elegant photos](#) from the event.
- PowerPoint presentations and posters from the meeting are also downloadable. Just click on the titles below.

### Presentations

- [Operationalizing 'adoption' in the Africa RISING Program](#)– Haroon Sseguya, International Institute of Tropical Agriculture (IITA)
- [Harmonization and cross-program learning](#)– Irmgard Hoeschle-Zeledon, IITA
- [Communication and knowledge management in Africa RISING](#)– Jonathan Odhong, IITA
- [Monitoring, data management, and impact assessment in Africa RISING](#)– Belyou Haile, International Food Policy Research Institute (IFPRI)
- [Lessons from the SIAF workshop 29 Oct - 02 Nov 2018 in Accra, Ghana](#)– Mateete Bekunda, IITA
- [How to create and nurture effective partnerships](#)– Mictor Chaola, Catholic Relief Services, Malawi
- [How can research partner with development partners better?](#)– Likawent Yehyis, Amhara Agricultural Research Institute, Ethiopia
- [Program Coordination Team \(PCT\) decisions 2018/2019](#)– Siboniso Moyo, International Livestock Research Institute (ILRI)
- [Systems research for agriculture—A call to action](#)– Peter Throne, ILRI

### Posters

- [Experiences with implementation of the Sustainable Intensification Assessment Framework \(SIAF\): An example analysis from Ethiopia](#)– Lulsegad Temene, International Center for Tropical Agriculture (CIAT)
- [Sustainable intensification of groundnut production in northern Ghana](#)– Nurudeen Abdul Rahman, IITA
- [Experiences with implementing the Sustainable Intensification Assessment Framework \(SIAF\) in East and Southern Africa](#)– Lieven Claessens, IITA
- [The Feed the Future Sustainable Intensification Innovation Lab activities in Tanzania](#)
- [The Sustainable Intensification Assessment Framework](#)
- [The Feed the Future Sustainable Intensification Innovation Lab activities in Senegal](#)
- [The Feed the Future Sustainable Intensification Innovation Lab activities in Ethiopia](#)
- [The Feed the Future Sustainable Intensification Innovation Lab activities in Cambodia](#)
- [The Feed the Future Sustainable Intensification Innovation Lab activities in Burkina Faso](#)
- [The Feed the Future Sustainable Intensification Innovation Lab activities in Bangladesh](#)
- [Appropriate scale mechanization consortium](#)
- [Mechanized rice production in Bangladesh: Utilization of the SI Assessment Framework for system analyses.](#)
- [Improved Production System in the Polders of Bangladesh through Community Water Management](#)
- [Utilization of the SI Assessment Framework for System Analyses - Burkina Faso](#)
- [Foregrounding Gender in the SI Assessment Framework for Systems Analyses.](#)
- [Small-scale Irrigation Water Management: SI Assessment Framework for Systems Analyses](#)
- [Sustainable Intensification Assessment Framework for Dual Purpose Millet and Livestock Integration in Senegal](#)
- [Raising the Crop Response: Bidirectional Learning to Catalyze Sustainable Intensification at Multiple Scales](#)
- [Geospatial Techniques for Measuring SI Assessment Indicators](#)

## SI toolkit helps researchers assess the sustainability of their innovations

Five years ago, [Africa RISING](#) scientists were [looking for better ways to measure](#) and assess the sustainability of sustainable intensification measures. This work led to the development of a [sustainable intensification assessment framework](#) (SIAF) to help assess and measure an innovation's performance in terms of its direct and indirect consequences within and across five critical domains: productivity, economic, environmental, human, and social.

In November 2018, the Feed the Future Innovation Lab for

Collaborative Research on Sustainable Intensification [launched](#) the next iteration of this effort – the SI Toolkit – at the Agronomy Society of America's annual meeting.

The SI Toolkit is a dynamic, online platform to help researchers and development workers select appropriate indicators and metrics for their innovations, visualizing tradeoffs and synergies using a Radar Chart Generator.

[Try out the toolkit and radar chart generator.](#)



*The five domains of sustainable intensification.*