

Report on Roundtable Session

***Don't diss my discipline –
synergising techos and “people” people***

*How can we capitalise on the strengths of biophysical
and social scientists to create integrated, balanced and
high-performing projects?*

Conducted Weds 3rd April 2019 within:

Gender Integration Approaches: Lessons from the Field
(Chair: Cynthia McDougall)

Gerard McEvilly Coordinator, ACIAR Pakistan Program

*‘Seeds of,
Change’*

**Gender Equality
Through Agricultural
Research for Development
2–4 April 2019, Canberra**

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The input from all participants is highly appreciated and further suggestions about the interpretation and conclusions presented here would be welcomed. gerard.aiksaath@gmail.com

Introduction

The “Don’t Diss my Discipline” roundtable was designed to “inspire some principles of good practice in planting rigorous R4D in the fertile ground between the biophysical and social disciplines”. This report is to fulfil the commitment of the organisers to “capture and consolidate the ideas that you share with us”. It may also prompt further interaction between participants to progress ideas about good practice in interdisciplinary agricultural Research for Development (R4D).

The roundtable was part of “Gender Integration Approaches: Lessons from the Field”, convened and chaired by Cynthia McDougall. It was preceded by three presentations about “Lessons from the Field”¹. Then, by way of a handout and slides, participants considered the following:

1. Any **Positive** example of a study that did well re integrating biophysical and social sciences;
2. Any **Challenging** experience where the disciplines failed to integrate; or
3. **Questions** we should be asking

The timeframe for the roundtable itself comprised: 2 minutes each for the presenters to share their own positive examples; then 3 minutes quiet reflection and recording ideas on cards; then 15 minutes discussing these ideas in “buzz groups”. Thirty-two record cards were submitted from the approximately 70 participants and 27 of these sought future updates. Clearly it would be unwise to draw any major conclusions from such a limited exercise. Instead, this report:

- a. Captures the written input for reference by all participants
- b. identifies some patterns from the input that could help to prompt further discussion and investigation of the topic

Summary of input

The input was provided as informal data on filecards rather than a formal survey, so does not lend itself to detailed analysis or conclusions. However the input did mostly align with the three categories above: **Positive, Challenge or Question**. Across these categories, some overall patterns can be observed relating to attitudes and approaches taken by the people involved. These approaches and attitudes can either relate to helpful (such as in **Positive** examples) or problematic (as in the **Challenges**) scenarios. Most of the **Questions** also related to approaches and attitudes. Much of the input also related to “the way forward” or **solutions**.

Therefore, the data has been sorted according to its focus: Approach; Attitude; and/or Solution in Appendix 2. There is no suggestion that this is a robust characterisation – it is only presented as one interpretation that could be investigated further.

The input in Appendix 2 is anonymous, although a few individuals identified themselves. In several cases the examples given enabled the author to identify the project and to seek further background – these references have been added to provide a richer source of potential case study material for solutions.

¹ Julie Newton - Integrating gender in agrifood systems research: Principles, pitfalls and ways forward
Munawar Raza Kazmi - Working innovatively for agricultural productivity enhancement and rural transformation through gender inclusiveness – A case study of Pakistan
Jemimah Njuki - Lessons and outcomes from integrating gender across agriculture and food security programs in the Global South

Approach

As could be expected, a wide range of approaches were mentioned in the positive examples and case studies shared by participants. Some were very general, others were specific strategies. Any or all of these could be reviewed for further insights.

The main challenges identified regarding approaches relate to the different methodologies used in social research and biophysical research. This extends beyond whether qualitative or quantitative methods are used, to the different categories of knowledge (empirical, authoritarian etc)

Solutions for improving approach

Structure

- having a mix of social and biophysical researchers in the team and undertaking joint fieldwork.
- Project leaders and senior management to actively encourage transdisciplinary² approach from the start

Process

- Adopting Participatory Action Research
- Teaching transdisciplinarity in projects (and at undergraduate level)
- Using a common language
- Acknowledging the need for high trust levels to bridge the gap and the advanced interventions over a long time needed to build these (eg shared “brownbag lunches” were suggested but these would need to be part of strategic approach)

Attitude

As expected in planning this roundtable, there are some attitude issues that work against the formation of cohesive teams of social and biophysical researchers. This was expressed by a biophysical scientist as “I feel there is resistance from the gender specialists to my involvement. They perceive that I am coming into their space”. A social scientist asked “How do we increase... appreciation by biophysical researchers?”

However, there were many positive examples, such as where initial resistance to allocate resources to social science broke down and resulted in better integrated projects and gender inclusive outcomes.

Solutions for improving attitude

Structure

- Putting a social scientist in charge
- Developing research questions from the perspective of end user
- Gender lens integrated with each research activity

Process

- Integrate Gender at project formulation
 - teams integrated to the point where they can effectively work together and trust each other's expertise
-

Conclusion

The strong attendance, engagement and input from the roundtable seems to indicate a strong interest in bridging the gap between social research and biophysical research disciplines. Some valuable insights were shared “from the field” on successes and challenges in addressing this gap. Solutions were also suggested, but the complexity of the issues calls for a comprehensive and strategic approach.

Some of the process and structural changes identified above could be introduced relatively easily by research planners and managers. However, these alone are unlikely to achieve the full potential of interdisciplinary research. A bigger challenge is to address attitudinal barriers – this may require an ongoing program to build mutual trust and respect for each discipline’s contribution to the work.

Appendix 1 – Handout and Abstract for Roundtable

Don't diss my discipline – synergising techos and “people” people

TEAL Room, the INSPIRE Centre, Building 25 1100 – 1225hrs Weds 3rd April 2019

Our Starter Question:

How can we capitalise on the strengths of biophysical and social scientists to create integrated, balanced and high-performing projects?

Summary

This Roundtable is preceded by three presentations on the topic of “Lessons from the Field”

All session participants are invited to share ideas about this issue as follows:

1. The three presenters will share 2 minute briefs on *a positive example of a study that did well re integrating biophysical and social sciences and explain why that mattered to the outcomes/quality of science and any enabling factors*
2. Individual participants (in 3 minutes) will capture on index cards their own ideas on:
 - a. **Positive** *example of a study that did well re integrating biophysical and social sciences.... explain why that mattered to the outcomes/quality of science and any enabling factors*
 - OR**
 - b. **Challenging** *experience where the disciplines failed to integrate... - What could we do differently next time?*
 - OR**
 - c. *The **Question** we should be asking is.....?*
3. In groups of three (15 minutes total time)
 - a. *Share your examples – briefly*
 - b. *Discuss ways forward/strategies –capture these on cards*

Feedback: Please leave all cards with us.

Include your name if you would like us to contact you for further info, eg references, case studies or email gerard.aiksaath@gmail.com or via the conference Whova app

Output: We will capture and consolidate the ideas that you share with us

Abstract

This participatory session will draw on attendees' experiences to build on three preceding reflections about gender integration in R4D. The topic is universal - the challenges inherent in designing and managing projects that straddle biophysical and social research.

A sound understanding of social norms and values can be a foundation for biophysical R4D - as well as a framework, “under construction”, to guide adoption, scale out outcomes and sustain impact. However, questions remain as to how to blend the “technical” and “people” perspectives in a way that is collaborative rather than competitive.

The roundtable will enable attendees to reflect on “How” as well as “How not”, or to come up with better questions!

The aim is to share these reflections, as far as possible, but also to capture them as a session output. We aim to inspire some principles of good practice in planting rigorous R4D in the fertile ground between the biophysical and social disciplines.

Appendix 2 – Input from Roundtable

1. Instruction to participants:

Individual participants (in 3 minutes) will capture on index cards their own ideas on:

| Idea | Type |
|--|--|
| 1. Positive example of a study that did well re integrating biophysical and social sciences.... (P1 = helpful approach P2 = helpful attitude) | P =Positive P1 – approach P2 = attitude |
| ...explain why | S = solutions |
| 2. Challenging experience where the disciplines failed to integrate... (C1 = differences in approach C2 = issues with attitude; | C = Challenge C1 = approach C2= attitude |
| - What could we do differently next time? | S = solutions |
| 3. Question we should be asking is.....? (Q1 = questions about approach Q2 = questions about attitude) | Q = Question Q1 = approach Q2= attitude |

2. Input received and sorted

| Type | P/C/S/Q | Input |
|----------|---------|---|
| approach | C1 | Differences in methodologies – biophysical emphasising quantitative analysis (numbers) → mainstreaming qualitative approach in training natural scientists |
| approach | C1 | Epistemological differences ³ |
| approach | P1 | M-POWER (Mekong Program on Water, Environment and Resilience) Action-research network focused on democratising water governance Knowledge brokering, deliberative fora etc |
| approach | P1 | Just completed a blog to publish on our MLR website ⁴ and had gone to Fairfax media of a case study from Laos where biophysical interventions (health & nutrition) have benefitted two farming families with positive impacts on household livelihoods including security for women and education of children |
| approach | P1 | ASLP Dairy project, Pakistan. The integration of biophysical information into a school curriculum in the form of simplistic messages resulted in children changing the ways that their parents reared dairy calves. |
| approach | P1 | Journey from current cultural norm (gender bondage to home) to entrepreneurial as to develop consumer to producer of society |
| approach | P1 | In my previous project I integrated agriculture women’s enterprises with the market. Such enterprises produced their dried fruit & vegetables, packed them and marketed in local and national markets. I learned how women can be engaged in marketing practices and how they sell their produce and manage their finances and support their family |
| approach | P1 | In PNG, womens roles included production and marketing. They were experiencing threat and harassment while taking their produce to the market. This was considered for market interventions |

³ <https://research-methodology.net/research-philosophy/epistemology/>
[https://www.researchgate.net/post/Can someone explain the ontology and epistemology in simple way](https://www.researchgate.net/post/Can_someone_explain_the_ontology_and_epistemology_in_simple_way)

⁴ <https://mekonglivestock.wordpress.com/2019/04/03/farmer-benefits-from-project-participation-in-laos-case-study-from-luang-prabang/>

| | | |
|------------------------|------|--|
| Approach/ solutions | P1/S | LPS/2016/011: Improving smallholder dairy and beef profitability by enhancing farm production and value chain management Basically integration social science within our project Trying to expand our extension/outreach with more organisations Have a Social Researcher in the team Their advice/guidance/input helped steer and advance: Research questions/ opportunity/ communities of practice Have learned – Reflection does help |
| approach/ solutions | P1/S | Multi-stakeholder framework for seed system ⁵ interventions involved biophysical, social & gender scientists. It led to: <ul style="list-style-type: none"> - Holistic, comprehensive framework - Social & technical interactions in seed systems Enabling factors: <ul style="list-style-type: none"> - Developing common language - Joint field work - Champions - Senior management support & encouragement |
| approach/ solutions | P1/S | ASLP Community Service Centre pilot Pakistan Punjab ⁶ <ul style="list-style-type: none"> - Place where women engage, plan, act and now able to reflect with confidence, skills and empowered - Providing enabling environment to women to participate – neutral place - “Now we are heard at home and in community” Way forward: Adopting Participatory Action Research embedded in ABCD (Asset-based community development), place-based development principle |
| approach/ solutions | P1/S | Crop Genetic Diversity & farmers seed management Research leadership (ecologist) meant that from the start the research appreciated the role of farmers management of genetic resources in the evolution & conservation of crop genetic diversity G x E x M (genotype x environment x management) |
| approach/ solutions | P1/S | Small-scale horticulture for womens empowerment in value chains and food security, Honduras Involved social scientists (sociologists, ag economists & gender studies) and agroecologists Conducted Farmer Field Days following agroecologist model, with gender sessions added to each module ie drip irrigation – womens leadership; new seeds – household decision-making |
| approach/ solutions | P1/S | Cassava breeding unit of IITA, Nigeria ⁷ <ul style="list-style-type: none"> - Training natural science research staff (technicians) on gender and collecting gender sensitive data Looking forward: Teaching interdisciplinarity |
| Approach/ solutions | Q/S | Are we catching researchers too late in their careers for behaviour change? |

⁵ <https://link.springer.com/article/10.1007/s12571-018-0874-4>
<http://www.rtb.cgiar.org/blog/2018/06/20/a-multi-stakeholder-framework/>

⁶ <https://asianstudies.info/wp-content/uploads/2018/12/Sajida-Taj.pdf>

⁷ <https://www.iita.org/crops/cassava/>

Cassava Trait Preferences of Men and Women Farmers in Nigeria: Implications for Breeding
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6267705/>

| | | |
|--------------------|------|--|
| | | Way forward: Should we be doing more to integrate/build principles of multidisciplinary into graduate training curricula? |
| Approach/solutions | Q/S | Question we should ask: “What are the necessary conditions/processes to improve success of Interdisciplinarity?” <ol style="list-style-type: none"> 1. Interdisciplinarity is itself a skillset/expertise – resources need to be allocated Ref Gabriele Bammer i2S⁸ 2. Biophysical scientists have an absolute truth and don’t understand a constructed reality or normative goals 3. Diversity can lead to worse outcomes in a “sandpit” setting if you don’t know how to do inclusion 4. Psychological safety xxxxxxx – it is the most important factor for any high-performing innovation team. And this is even more important when dealing with intersection of biophysical/social, contested values, complex problems, needs trust etc. Ref Brene Brown⁹ |
| attitude | C2 | My work in biophysical science working on climate resilience. I have in recent years started to integrate gender in my projects. Often I feel there is resistance from the gender specialists to my involvement. They perceive that I am coming into their space. However it is also for them to see the value of interdisciplinarity. I do not want to be a gender specialist, I only seek to understand gender research better and to integrate that into my climate resilience work, which is a field I absolutely love |
| attitude | C2 | Bringing in gender expertise on gender diversity. Very hard to bring in knowledge that gender isn’t binary |
| attitude | C2 | How do we reach our biophysical colleagues “where they are” to: <ul style="list-style-type: none"> - Introduce new content (eg why gender matters); and - To guarantee sustained engagement? |
| attitude | C2 | Social/gender community believing that all/most biophysical scientists are not genuinely interested in gender/cannot understand social issues. This is not necessarily the case and it is important that this does not get reinforced |
| attitude | C2 | Biophysical scientists don’t mind doing something different but don’t want extra work |
| attitude | Q | What level of appreciation/awareness are we expecting from biophysical researchers? How do we increase/encourage appreciation by biophysical researchers, particularly those working in the lab? |
| attitude/solutions | C2/S | As a scientist/research fellow working with female farmers – previously just focused on how to get livestock production and profit, but by mutual work with gender specialist have better understanding of household structures and can better develop strategies for project objectives of gender inclusion |
| attitude/solutions | C2/S | ENDURE postharvest and marketing project (RTB) ¹⁰ <ol style="list-style-type: none"> a. Women handled most of the RTB crops (production, postharvest) but were barely visible in marketing |

⁸ Integration and Implementation Sciences (i2S) <https://researchers.anu.edu.au/researchers/bammer-g>

⁹ <https://daretolead.brenebrown.com/wp-content/uploads/2018/10/BRAVING.pdf>

¹⁰ <http://www.rtb.cgiar.org/endure/>

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| | | <p>b. Biophysical scientists – we did not want to allocate money toward GR gender research activities/strategies (except one sub-project)</p> <p>Ways forward - Integrate Gender at project formulation</p> <p>Support a career path for female bioscientists</p> |
| Attitude/solutions | P2/S | <p>Colleagues that have backgrounds in biophysical sciences value their transfer into social science disciplines. This is where there are “ah ha” moments and makes collaboration easier</p> |
| attitude/solutions | P2/S | <p>Participatory epidemiology and gender success fostered by the willingness of the principle investigator & availability of research funds</p> <p>Why it mattered – Increased incidence of zoonotic diseases</p> <p>Ways forward – Funding gender strategic research. Considering womens knowledge in extension</p> |
| attitude/solutions | P2/S | <p>My PhD project in Indonesia – working primarily with engineers, focus was developing capacity for sanitation. Four years working together, often this involved long conversations about what we could ask people to do, experience to learn. The engineers often resisted strategies that were more engaging and considered the social dimensions, but at the end of the project my colleague said “I cannot only think of sanitation as technology now without thinking of the people. My thinking is now the relationship, trust are what enabled the change” (& ongoing conversations)</p> <p>Way forward: team-building, relationships, trust – important foundation for biophysical and social researchers</p> |
| solutions | S | <p>Way forward: Needs TRUST – teams integrated to the point where they can effectively work together and trust eachother’s expertise is leading towards a “better” project →process requires time Recommend Kirono et al 2014¹¹</p> |
| solutions | S | <p>Way forward:</p> <ul style="list-style-type: none"> - Putting a social scientist in charge - Developing research questions from the perspective of end user - Time to talk & facilitators |
| solutions | S | <p>Way forward: Gender lens integrated with each research activity will help to reach gender improvement. Without understanding gender lens, your project will be unable to achieve the target goals.</p> |
| solutions | S | <p>Way forward: Different approach: Brownbag lunches where present their work to one another to break down silos, find similarities, ways in, connections, spark collaborative points, increase understanding of one anothers disciplines</p> |
| solutions | S | <p>Recognise that we don’t have a shared language – need to spend time to work on this/clarify</p> <p>Looking forward:</p> <ul style="list-style-type: none"> - Invite social scientists to share their approach with Undergrad biophysical scientists – to build respect & cooperation (we do this and it works well) |

¹¹ Kirono DGC, Larson S, Tjandraatmadja G, Leitch A, Neumann L, Maheepala S, Barkey R, Achmad A, Selintung M (2014) Adapting to climate change through urban water management: a participatory case study in Indonesia. Reg Environ Change 14(1):355–367 (this & other case studies compared in Djenontin, I.N.S. & Meadow, A.M. The art of co-production of knowledge in environmental sciences and management: lessons from international practic Environmental Management (2018) 61: 885. <https://doi.org/10.1007/s00267-018-1028-3>)

| | | |
|---------|---|--|
| | | - Incorporate Qual/Participatory research methods unit into undergrad & postgrad Ag/Hort degrees |
| Z other | Q | How can gender studies help resolve the most important challenge of our time – 40% of feed in the world is wasted (part of another response above) |