

Meeting Report

RTB Flagship 5.4 meeting – Scaling Readiness

White Sands hotel and resort, Dar Es Salaam, Tanzania

13-14 March, 2017

Rapporteur: M. McCampbell

Day one – March 13, 2017

Present: Murat Sartas (IITA/WUR), Marc Schut (IITA/WUR), Cees Leeuwis (WUR), Peter Kromann (CIP), Dindo Campilan (CIAT), Graham Thiele (CIP), Anne Rietveld (Bioversity), Inge Van den Bergh (Bioversity), Dietmar Stoian (Bioversity), Mariette McCampbell (IITA/Bioversity/WUR)

Morning

Opening

Graham Thiele, Director RTB

- It might be better to have a broad toolset including existing RTB tools
- Learning from the previous experiences both RTB and Humidtropics, rather than WUR guru telling what to do
- FP 5.4 already reaching to RTB projects, which is good
- Innovation and Scaling Fund as a key platform for 5.4
 - o Cross crops, geographical are key factors to consider for selection of proposal
 - o It is a learning experience not a single crop scaling work
 - o We should not make the process political in a way to distribute it to all centers etc. If only few center can contribute than only them need to be involved
 - o Guidance by FP5 to select the proposals, Since PMU and FP5 have information on substance or context or the content
 - o The money available is not enough for scaling so it is more about learning
 - o We need to have a quick win (at least research outcome)
 - o RBM Pilots??? (How you learn together and see value for money) There was a workshop, then an M&E system, it was very useful for scaling in RBM

Marc Schut, Flagship Leader FP 5

- 4 cases are planned to validate scaling readiness
- scaling might mean different things
- scaling readiness linked to other FP5 clusters
- gender or youth readiness???
- How to serve broader RTB community
- RTB Inventory and indexing all to Scaling Readiness Map
- In the end, the idea should move without us
- The scaling readiness and indexing can be even a model for RTB (Graham)

Cees Leeuwis, Cluster Leader FP 5.4

- Ownership of the Scaling Readiness by the team is critical
- We are trying to unpack scaling (the dolls look similar but indeed have different characteristics)
- We do scaling research
- We do selective scaling support

- Our objective is a new theory or practice
- Changes never coming alone
- Talking is actually an indicator of scaling, society starts talking (every day talk matters) things happen
- People need stories to tell

Discussions

- Graham: ISPC is very methodical so using their language is a must
- Peter: The term institutional development is confusing for biophysical scientist
- Try to keep the terminology with RTB
- Actually we can go for market creation instead of market response, so demand drivenness is not a must. There was no demand at all for the World Food Prize Winning Orange fleshed sweet potato.
- Technological Readiness resonate well with other RTB (Pitching it with RTB scientist)
- You will need technical validation for assessing technological readiness
- Technological readiness mapping for all RTB innovations can be very useful

Brainstorm 1: Discuss concepts of technical, enabling environment, innovation and scaling readiness

General note: need to clarify what other approaches to measure scaling potential and/or readiness exist

- We should assess the potential to use both readiness concepts in parallel during a project? E.g. There is a new seed variety which we know is not yet technologically ready, however, same counts for enabling environment readiness. Hence, while further fine-tuning the technologies, first steps can be made towards establishing a ready enabling environment.

Technology readiness:

- Need to rethink the range of technologies or innovations that we are working with in RTB and their suitability to measure their development stage along the EU or NASA scale. Some think that the current scale is immediately applicable for technologies, but not for other types of innovations e.g. policy, methodology
- Suitability for the end-user is a separate category that we still need to work on as its absent in the current application of the concept captured in the EU and NASA scales
- Question in which stage of the scale comes suitability for target users in the picture?

Enabling environment readiness:

General requirements for a measurement framework:

- Longlist of variables/indicators (public/private good)
- Start with selecting relevant indicators
- Possibility to differentiate per target category?
- Score on a scale (1-5)

- Need for descriptors of scaling grades for each indicators
- Percentage of total possibly relevant score (e.g. 40%)
- Actor readiness is incorporated in score description
- Qualitative or quantitative factor to correct for risk issues in the environment
- Need for a set of strategies corresponding with variables/indicators, including e.g. advocacy

Measure readiness off the following enabling environment elements:

- Regulatory policies (national/local)
 - Policy priorities
 - Input market
 - Output market
 - Investment environment
 - Mobility and,
 - Infrastructure
 - Technical, business, financial service provision
 - Demand side → end-users
 - Cultural preferences
 - Information and communication
 - Partnership
-

Afternoon

General comment Graham: need to determine an optimum in ‘readiness’ since one cannot optimize everything and there will always be some trade-offs or unready elements somehow.

Scaling readiness presentation Murat

Comments

1. Alternative innovation options in the enabling environment can either be strengthening or threatening the innovation. Need to consider both established and ‘under development’ options.
2. Dietmar: This is an intermediate step towards a conceptual framework for scaling. Need to think about the combination; when we are ready, what comes next?
3. Need to strengthen link of technological elements to elements in the enabling environment
4. Need to rethink and clarify some of the terminology, e.g. scaling readiness, innovation (latter because innovation appears more at the beginning of the process, while we aim to move from proof of concept, intermediate scaling and continue unto massive scaling.
5. Need to make the approach more actor oriented, in addition to action oriented. Why do(n’t) people do what they do(n’t) do?
6. Are we only going to use a network approach, or will we include elements of the enabling environment too?
7. Fundamental choice to take a project as a starting point rather than a technology → big impact on implementation of the approach.

- a. Dietmar: if we take a project as starting point and map the interventions we need to add an additional dimension, based on the idea that much is already out there however these are not connected and as a result the interventions do not yield the expected result.
 - b. Marc: fact that such connections are not present suggests that there is need for creation of an intervention and/or incentive to enhance development of such connections.
 8. Innovation use stands for use of project interventions related to the technology within different levels of the innovation network.
 9. Discussion on the use of innovation readiness vs. technology readiness.
 - a. Ceas: technology readiness x enabling environment readiness = innovation readiness for scaling;
 - b. Third dimension: Actor readiness, which is currently represented as the innovation network only, but not as the (end-)user.
 10. Inge: Understands that innovation readiness is based on technological vs enabling environment readiness, however she believes that more technical oriented people are not yet ready to combine these two and would rather see the individual scores (first).
 - a. Peter: making scientists look at technological and environment in comparison is already a step forward in their thinking, we should not overlook this.
 11. Marc (based on break discussion): So far the concept has only been tested on existing strategies, but we should also explore how we can apply it to new projects.
-

Case study presentations

Case study 1: Scaling BXW-control in DR Congo and Uganda (and beyond)

Presented by: Dietmar Stoian, Enoch Kikulwe (Bioversity)

Next to Dietmar Stoian and Enoch Kikulwe, Eldad Karamura, Walter Ocimati and Guy Blomme are working on this topic as agronomists, Boudy van Schagen as communication specialist, Susan Ajambo as gender specialist are involved in the case.

Two promoted management practices:

- SDSR for DR Congo (where banana is more subsistence oriented)
 - o Important technology that is less disruptive for farmers and puts less pressure on the seed system as entirely new plant material is not needed
- Complete mat uprooting in Uganda (where banana is more commercial oriented)

Scaling approach:

- DRC: Multi sector approach, establishment of new MEL system → key partners FAO and local/int NGOs (Diobass, World Vision, Food for the Hungry, ADRA)
- Uganda: Multi sector approach piggybacking on existing ME system → Key partners NARO, local/int NGOs, private sector, media

Marc: How did adoption of the approach take place. Directly through you or also through intermediaries? Both. Need to think broader about institutional arrangements in this regard

Institutional arrangements:

- DRC:
 - Creating sense of ownership through stakeholder meetings
 - Pooling of resources
 - Establishment of MEL system
- Uganda:
 - Creating sense of ownership through stakeholder meetings
 - Pooling of resources
 - Piggybacking on existing system

Constraints to further scaling: Resources/funds required for further technology refinement, expansion, surveillance, etc. plus engaging with additional partners.

Scaling approaches in Uganda and DRC need to be quite different since both the institutional and the production environment differ immensely.

Comments

Cees: currently scaling constraints are only related to resources, but what about other constraints?

Marc: If talking about engaging with additional partners then you really need to be aware of the specific bottleneck(s) that you want to address through these partners → why do you need them? What for? Through what type of collaboration? Scaling readiness could be a good approach to determine this.

Cees: Massive scaling is usually self-organised, it happens without intervention of the developer. Why is it not happening to e.g. SDSR?

Peter: this work is very similar to what we do with potatoes and positive selection: It's a simple and effective technology, but the question is what the incentive for the farmer is. It's an old and 'non sexy' technology. Additionally need to consider what happens when working with the public sector only, because what will happen when the money dries up.

Inge: Linking to also the project that Peter is working on, how do we respond to disease recognition? This is where e.g. ICT can come in

Case study 2: Emergency response schemes for cassava pests and diseases

Presented by: Dindo Campilan, Kris wyckhuys (CIAT)

Cassava in Asia is different from Africa due to its largely diversified marketing of the output which is influencing the spread of pests and diseases due to the complex distribution chains and regional commodity trade.

Large influence of large scale commercial producers (Chinese) which bring in material from china that has possibly introduced Mosaic disease but are hard to control → e.g. issue with willingness to adopt CMV biosecurity quarantine in the region.

Currently based on emergency response schemes, but want to combine with early warning system including both farmer capacity building and use of technology (e.g. mobile phones) for determination.

Comments

Marc: Based on the discussions we had today, do you still feel that the presented standalone technologies are indeed standalone?

No, however they do have different target actors, and could be seen as standalone in terms of that.

Dietmar: Based on the various technologies/innovations presented; you could draw these as a daisy flower, in the heart you find the goal to address (IPDM), and the various petals correspond with the innovations/technologies. Depending on the size of the petal you can see how mature/scaling ready they are.

Dietmar: Would you think that the scaling readiness tool would be useful in this stage. Yes, this far we only considered technological readiness and what we did not take into account is the enabling environment, this would be very useful.

Case study 3: Scaling Potato late blight management

Presented by: Peter Kromann (CIP)

Late blight is an enormous issue in the Andes resulting in immense commercial/economic losses. Elsewhere in the world there are high-tech monitoring options to monitor disease incidence. However, such types of high-tech decision support tools are not accessible to developing country farmers and even many farmers in the develop region are not willing to invest in it. Hence there is a need for a simplified decision support tool that can support disease management and reduce use of fungicides.

Goal of the tool is to provide farmers with support on the use of fungicides in an optimal manner, to prevent under and overuse of fungicides. Basis is to integrate host resistance (susceptibility) versus management strategy for fungicides with the aim to optimize fungicide use. → exists of manual tool in combination with an extensive user manual.

Scaling approach based on linking with a partner(s) that already work on fungicide reduction/late blight addressment. This requires to evaluate institutional readiness of the tool, adaptation to partner interests and a new cycle of validation in the local context together with partners, disseminate results and raise awareness about the developed technologies/management of pests and diseases.

Additionally, invite public and private sector in an early stage to allow them to take ownership and conduct validation with farmers. Also, identify options to collaborate with the private sector for tool dissemination. Potential partners are EUROBLIGHT, CropLife International.

Scaling potential:

- Currently only working in Ecuador, but there are opportunities in other countries in Andes, Asia and Africa too.
- Development of a smartphone application

Scaling constraints:

- Funding
- Time required to sensitize the market
- Build trust relationships with the public and private sector to take over ownership

Comments

Dietmar: Have you considered to directly contact some of the large agri-chemical companies who are interested in ecological approaches (e.g. Bayer, Syngenta).

We did, but found that we have to go through their head-offices.

Dietmar: To refer again to the daisy, usually what we want to bring to scale is the center of the daisy, and the various petals are what enables that to happen.

Marc: Would the social responsibility these large companies be enough to convince them to invest in this technology and take losses in their businesses.

They say they are, but we don't know how they act because they are salesmen.

At higher levels there's increasingly interest and pressure to look at the environmental issues.

There is an incentive for companies when it enables them to introduce new types of, more expensive, fungicides as a result of bringing down the use of conventional ones.

Case study 4: Agronomy at scale (ACAI)

Presented by: Marc Schut, presentation made by Pieter Pypers (IITA)

Traditionally cassava received little attention in terms of agronomy and extension as it was considered an emergency crop that wasn't for commercial use. This is increasingly changing and hence interest is shifting.

Project works in Tanzania and Nigeria and focuses on fertilizer recommendations and planting calendar optimization.

Combining GIS data with agronomic data to get to an optimum recommendation depending on the region. Using a mobile decision making system that is going to be launched by 2018 and is linked to ODK for automatic data collection from extension officers and feedback to the same officers regarding fertilizer recommendations. Tool works with existing data.

Comments

Cees: What are we trying to scale, the communication tool or the agronomic innovation?

Dietmar: Comes back to the picture of the daisy

Inge: If they manage to scale the communication tool without any impact on agronomy they will feel that they did not achieve their objective. But if they achieve agronomic impact without the tool they've had impact on the larger objective of the tool.

Cees: These are interdependent technologies, the one is influencing the other.

Inge: Important to consider the item that you are scaling when you determine the indicators that you are measuring. Will you measure impact of the intervention on agronomy or impact of the app?

Closing statement about tomorrow

We did not discuss the integration of the two individual approaches and the issue of measuring suitability, this has to be covered tomorrow morning.

Day 2 – 14 March, 2017

Present: Murat Sartas (IITA/WUR), Marc Schut (IITA/WUR), Cees Leeuwis (WUR), Peter Kromann (CIP), Dindo Campilan (CIAT), Graham Thiele (CIP), Dietmar Stoian (Bioversity), Mariette McCampbell (IITA/Bioversity/WUR)

Morning

Scaling readiness concept discussion wrap-up

(wrap-up of yesterday's brainstorm and discussions)

- Measuring the readiness of the enabling environment elements provides chance to determine desired social innovations. E.g. if the agri-input availability scores a 1 it can be translated into a desired social change towards improved input availability
- The currently suggested graph that combines technology readiness, enabling environment readiness and innovation readiness would be difficult to read. Better to take the two indexes apart in two graphs first (technological readiness, enabling environment readiness) to communicate the difference between the two, then combine in a graph that presents overall scaling readiness.
- The enabling environment indicators are more fuzzy and subjective than the technological indicators. As a result the scaling readiness line/score will have a certain level of subjectivity. The tool needs to become a learning tool that works indicative for project management and strategizing, rather than a tool for hard measurement.
- Based on the graph results one can take management decisions; strategic development for scaling based on identified opportunities and gaps. → What is strong? What is weak? What can we do about it? Which partnerships would be required? → next define matches and mismatches in partnerships.
- We integrate suitability within both the criteria/descriptors within technology assessment and enabling environment assessment tools.
- Question is when we introduce this approach, at what stage in the technology development process. When do we want researchers to start thinking about the enabling environment? Currently this happens once the technology is fully developed/ready from the viewpoint of the researchers, but we probably want this to introduce in an earlier stage.
- Question from Graham: What is the role of evidence for scaling? How is this put into the framework that you are currently developing under RTB FP5.4? E.g. ACAI would never have been given the funding from Gates foundation without providing a certain level of evidence. So far this did not feature in your discussions.
 - o Response from Marc: The framework will give input for decision making, and show how you are having impact within the enabling environment and our progress within the scaling readiness scale of EU or NASA.

Brainstorm 2: the process through which readiness can be simultaneously assessed and enhanced

- Do we do a technology readiness and an enabling environment assessment in parallel, or in sequence?

Parallel would probably be better. Also allows to identify competing/substituting technologies. Alternatively we have to do it integrated.

If we do it in a workshop then who would have to be present? Are those assessing the technical readiness and the enabling environment readiness the same people? Do we want to ask them separately? Or do we want to make it participatory and interdisciplinary? What happens when we want the technical people and other stakeholders to talk with each other?

What will a case study look like? What will be included? Which methods do we use to assess the readiness of the methodology?

Are we talking about a methodology for us (the earmarked funding project) or for use outside RTB? In the project we talked about developing tools for self-assessment, which has consequences for how we do it now.

Focus for 2017

For 2017 we start with four case-studies that are each based on an existing project (mapping technological components against their technological readiness and enabling environment readiness), rather than starting with assessing individual technological and social innovations developed under RTB.

With who do we conduct the initial (methodology prototype testing) exercise (Ibadan April with ACAI)? With the project and their direct partners, or external actors too?

Suggestions for data collection for 4 case studies in 2017

- Focus groups discussions (min. 3, max. 6 per case study)
- Stakeholder workshop (1 per case study)

Sequence of activities to implement scaling readiness concept

- Develop overall product package: (online) self-assessment/guide/methodology/framework.
- Assess Technological readiness and Enabling Environment readiness individually either during two separate events or in a workshop.
- Suggested activities
 - 1) Case study customized guidelines
 - 2) Desk exercise to consolidate existing information → state of the art report
 - 3) Initial stakeholder assessment → FGD? Individual survey? → evaluation on individual basis (e.g. focus groups), information as input for stakeholder workshop
 - a. Who do we sample?
 - b. What specific output/data do we want in this stage?
 - 4) Multi-stakeholder workshop → likely with existing project members and partners
 - 5) Ground truth exercise

- 6) Need for a second workshop later on in the year/first half next year to validate outcomes of the first workshop and action plans for scaling acceleration developed based on these workshop outcomes.

Phase	Step	What/Activity	Inputs needed	How/Tool	Output

End of year meeting (Tentative)

Location: Wageningen University

Date: December 2nd week (11-15), 3 day meeting (12-14)

Tentative list of participants:

- Bioversity:
 - o Boudy
 - o Dietmar
 - o Guy
 - o Elisabetta
 - o Enoch?
 - o 5.2?
 - o 5.3?
- IITA/WUR
 - o Murat
 - o Marc
 - o Mariette
 - o Cees
- CIP:
 - o Graham
 - o Claudio
 - o Peter
- CIAT:
 - o Dindo
 - o
- add representatives from other FPs/Clusters to capture the broader linkages and interconnectedness

Non-earmarked funding

Generally the non-earmarked funding activities match well with the earmarked funding activities

Need to reconsider all of the 49 non-earmarked funding outputs that we committed ourselves to for 2017 (Cees, Dietmar)

Action points

- Confirm availability in 2nd week of December for end of year meeting to synthesize experience and plan for the next year.
- Readiness environment has to be operationalized (Cees, Murat)
- Methodology write up (Cees, Murat, Marc)
- Develop newsletters/policy briefs → develop draft and ground truth with technical/biophysical people
- Go through non-earmarked funding outputs document (Cees, Dietmar)