Report on the Fourth SAIRLA International Learning Alliance Meeting

MS-TCDC, Arusha, Tanzania

Tuesday, 28th May 2019 -Thursday 30th May 2019

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Contents

Acroymns

Acronym	
CAADP	Comprehensive African Agricultural Development Plan
CABI	Centre for Agriculture and Biodiversity International
DAESS	District Agricultural Extension Services Strategy
EU	European Union
FAO	Food and Agriculture Organization
FAW	Fall Army Worm
ICRAF	International Centre for Research in Agroforestry
IIED	International Institute for Environment and Development
IITA	International Institute for Tropical Agriculture
ILA	International Learning Alliance
KIA	Kilimanjaro International Airport
NLAs	National Learning Alliances
NRI	National Research Institute
OPM	Oxford Policy Management
SAI	Sustainable Agricultural Intensification
SAIRLA	Sustainable Agricultural Intensification Research and Learning Alliance
SEI	Stockholm Environment Institute
SITAM	Sustainable Intensification-Trade-offs for Agricultural Management
TACRI	Tanzania Coffee Research Institute
TAHA	Tanzania Horticultural Association
TCDC	Training Centre for Development Cooperation
UK	United Kingdom

Executive Summary

Sustainable Agricultural Intensification Research and Learning in Africa (SAIRLA) is a five-year (2015–2020), UK-AID funded programme, managed by the WYG International BV in collaboration with the Natural Resources Institute, University of Greenwich (UK). The programme seeks to generate new evidence and design tools to enable governments, investors and other key actors to deliver more effective policies and investments in sustainable agricultural intensification (SAI). SAIRLA's purpose is to generate new evidence and decision-making tools that lead to the design and implementation of policies and investments that enable women, youth and poorer smallholder farmers to engage in and benefit from sustainable agricultural intensification. The programme is funding eight research projects and National Learning Alliances in five countries namely Ethiopia, Ghana, Malawi, Tanzania and Zambia.

The International Learning Alliance (ILA) aims to facilitate multi-stakeholder learning to inform SAI policy and investment decision making and for building institutional capacity to share the lessons from the programme at the global level. It comprises members of the National Learning Alliance (NLA) facilitation teams, policymakers, donors, researchers, investors, the private sector and others interested in SAI. The 4th ILA meeting was held on the 28th -30th May 2019 in Arusha, Tanzania.

The 4th ILA meeting addressed the following themes: (i) Sharing research outcomes: share lessons on research methodologies and implementation; and give other research teams and NLAs the opportunity to learn about, discuss and experience key findings and tools (ii) Informing policy and investment processes: sharing successes and results, lessons and opportunities for effective engagement with decision makers (iii) Social learning: identifying examples of different kinds and levels of social learning in the programme, and (iv) Towards impact and sustainability: vision and priorities for the final 6 months of the programme including external sharing of lessons and findings (what, with whom and how?), and continuing the programme's agenda, both in-country and internationally.

The main activities were as follows: Day 1: Poster sessions followed by plenary discussions. organised around SAIRLA's key themes of equity, trade-offs and services. Day 2: Social learning framework presentation and discussion. Introduction to open sessions for day 3. Field trips to TAHA and TACRI; Day 3: Reflections on field visits through an equitable SAI lens. Open sessions on: The evolution and future of NLAs; Policy engagement and knowledge transfer; Special IJAS journal; the Final ILA.

Participants identified issues, conclusions and recommendations relating to SAI at various levels, mainly during the poster presentations with associated plenaries and during the general discussions. These centre on the SAIRLA themes of equity, trade-offs, services and decision-maker engagement.

Key learning points and outcomes emerging were;

- A strengthened shared understanding of the programme's SAI themes and how the different aspects of equity, trade-offs and services explored by the research projects and NLAs fit together to begin to tell a coherent story of the programme's work as a whole.
- Improved collaboration between the research projects and NLAs. This was most visible through presentations of joint activities during the poster sessions, an articulated greater understanding of the part each participant plays in delivery of the programme and appreciation of progress made in reaching national level decision makers by working together. There were also significant discussions in the margins of the meeting around opportunities for further collaboration.
- The Open Session structure of the final day worked well. With participants able to choose what the sessions should be and which sessions to attend, participation was strong and there was significant learning from each other.
- The Open session on Social Learning led into a discussion on the future of the NLAs. This provided useful input for the development of a data collection plan for the Social Learning study and began to give some shape to exist and sustainability strategies for the programme.

1   Background

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2   The Meeting Process

2.1   Aims and objectives

The ILA meetings provide members with the opportunity to reflect on actions and results over the previous learning cycles, re-visit various SAI-related concepts and jointly plan for the upcoming cycle. Therefore the 4th ILA meeting was specifically organized in Arusha, Tanzania to focus on achieving the following objectives:

- Sharing research outcomes: share lessons on research methodologies and implementation; and give other research teams and NLAs the opportunity to learn about, discuss and experience key findings and tools
- Informing policy and investment processes: sharing successes and results, lessons and opportunities for effective engagement with decision makers
- Social learning: identifying examples of different kinds and levels of social learning in the programme
- Towards impact and sustainability: vision and priorities for the final 6 months of the programme including external sharing of lessons and findings (what, with whom and how?), and continuing the programme's agenda, both in-country and internationally

2.2   Participants

 The three-days ILA meeting attracted 31 participants from 10 countries including representatives of the NLAs, research projects and the SAIRLA programme coordinating team from the UK. The full list of participants is attached as annex 7 and the results of the presentations and discussions are presented in subsequent sections.

2.3   Venue

The meeting was held at the MS-Training Centre for Development Cooperation (TCDC), the development management training institution located in the East African region, situated in Arusha, Tanzania. Located along the Arusha-Moshi highway, 32 KM from the Kilimanjaro International Airport (KIA) and 18 KM from Arusha city, the institute offers among other services the conference, seminar and workshop facilities. Almost all participants were hosted within the MS-TCDC for 3-days and the end-of-workshop evaluation feedback showed that conference facilities met the expected standards while accommodation facilities needs better attention.

2.4 Meeting activities

The main activities were organized as follows:

Day 1: Introduction. Poster sessions followed by plenary discussions. Members from SAIRLA research projects and National Learning Alliances were invited to share their lessons and experiences and share key findings and tools through poster sessions. The three sessions were organized around SAIRLA's key themes of equity, trade-offs and services. After each of the three sessions, there was a plenary, in which participants were asked to consider two questions: i)What is your main observation regarding equity in relation to SAI in sub-Saharan Africa and ii) What is your main observation on how to engage policy and investment processes on equity?

Day 2: Social learning framework presentation and discussion on kinds/levels of social learning in the programme discussion. Introduction to open sessions for day 3. Field trips to TAHA and TACRI.

Day 3: Reflections on field visits through an equitable SAI lens. Participants were split into groups of their choices and discussed in open sessions. The sessions included: The evolution and future of NLAs; Policy engagement and knowledge transfer; Special IJAS journal; the Final ILA.

See Annex 1 for details.

3   Results

3.1 Sharing SAIRLA experiences, lessons, findings and tools

Members from SAIRLA research projects and National Learning Alliances were invited to share their lessons and experiences and share key findings and tools through poster sessions. The sessions were organized around SAIRLA's key themes of equity, trade-offs and services.

After each session, there was a plenary, participants were asked to consider two questions:
- What is your main observation regarding equity in relation to SAI in sub-Saharan Africa
- What is your main observation on how to engage policy and investment processes on equity?

3.1.1 Equity: How are issues of equity being considered in relation to sustainable agricultural intensification

Two research projects and two NLAs presented on the theme of **equity** under which the SAIRLA programme explores why and how issues of equity should be considered in relation to sustainable agricultural intensification and the implications of different agricultural development pathways for marginalized farmers – in particular, women and young people. Here we summarise the presentations and highlight the key discussion points from the plenary that followed.

AFRINT IV: Policy for Equity in African Agriculture

The overarching aim of AFRINT IV is to analyse patterns of SAI in Malawi, Tanzania and Zambia with particular attention to gender and youth and ways in which rural institutions can be enabled and incentivised to improve equity.

Research highlights include:

- In Zambia yields have increased for both male and female-headed households but there is a sizable gender gap.
- There is no gap based on age group in Zambia, so youth have benefited equally from the intensification process. In Tanzania yields among youth have fallen and in Malawi they have been unchanged.
- Limited possibilities for access to land is a major constraints for young people living in households headed by older relatives
- Women are constrained by lacking mobility, restrictive social norms, labour and capital.

IITA: Tools for Evidence and Decision-making on Gender-SAI Interactions

SAI interventions require farmers to make changes in their agricultural practices. These practices are embedded in broader gender roles and relations (including intersections with youth). IITA's tools for evidence and decision making for gender-SAI interactions are grounded in participatory action and learning principles. The decision-making tool guide includes an introduction on SAI, gender and youth analysis tools, contextualisation and tools for making the decisions such as SWOT Analysis and T-Charts.

Tanzania NLA: Analysis of Budget Allocation and Expenditures on Agriculture, the case of Kilolo District Council, Tanzania

In a move to transform agriculture, the Government of Tanzania implemented the CAADP, allocating 10 per cent of the national budget to agriculture. Tanzania NLA have been analysing budget allocation and expenditures on agriculture and presented the findings from the Kilolo District Council, Tanzania. The aim is to inform stakeholders about district spending priorities, budget performance and challenges.

Among other things, they conclude that the government should issue guidelines for managing a special development fund for youth, review financial policies and laws to enable LGAs to collect resources and increase subventions to disadvantaged or resource poor LGAs.

Malawi NLA: Facilitating Dialogue on Issues around the New (2016) Customary Land Act in Malawi

Following consultations at the community, district and national level, the Malawi NLA has been facilitating dialogue on issues around the new (2016) Customary Land Act in Malawi. During these discussions, the NLA found that people are aware of the law but still need further information and knowledge in order to make informed decisions. Although the law is perceived by people generally to be a 'good idea', the NLAs have identified a number of 'sticky' issues which need to be address if the Land Act is to work, these include:

- The wider implications of land registration and concerns of the creation of land markets where land is traditionally believed to be a gift of nature that should not be regarded as individual property or sold out.
- That the law is now sensitive to culture or traditions – that the government should respect how land is owned along matrilineal and patrilineal lines.
- Payment fees for registration are considered unfair, particularly to poor people.

A summary of the outcomes the Equity Plenary session is provided below.

Summary of participants' observations regarding equity in relation to SAI in Sub-Saharan Africa

What is equity in relation to SAI? There is lack of clarity in terms of what "we" mean by equity. In order to understand equity issues, it is important to go beyond, for example, men-women comparisons to explore deeper complexities. The link between equity and SAI needs to be made much more explicit. For some

participants, equity in relation to SAI is related to equitable access to resources such as land and labour, but also access to associated services such as extension.

Cultural perspectives and norms are important in considering equity. This was particularly important in relation to gender equity in general and specifically to SAI. It was suggested that people want to retain their culture, but that culture is not static. "We" don't have a clear understanding of current social cultural systems. Equality is recognized as a universal human right, but this may be interpreted differently according to cultural context. An example was given of the Malawi land question and the Customary Land act: Government Laws vs. Cultural understanding of Equality (Identity).

Gender equity. Several observations referred to gender and equity. It was suggested that there has been a significant increase in efforts to address gender inequity and that there is increased consciousness about addressing inequalities. However, the gender gap persists. For example, a gender (and generational) gap still exists because, in many areas, men, rather than women are are still owning the land, and youth are not able to access the land. Women may be "catching-up" in some respects with respect to SAI interventions, especially where they are facilitated (e.g. targeted subsidies), but in other respects SAI interventions may increase the workload and don't benefit women (e.g. those that are labour intensive/need capital investment).

Equity findings / how to achieve equity in SAI. It was noted that there are a lot of lessons and evidence from research, but the challenge is how to move from micro to macro experience (scaling-up). A number of policies support equity in SAI, but there is insufficient resource allocation to enable their implementation. Budget allocation is critical and deeper analysis is needed of the implications for youth, women and marginalized groups. To what extent can government subsidies solve equity issues in SAI? There is a long path toward achieving equity.

Summary of participants' observations on how to engage policy and investment processes on equity

The issues are not new (gender differences in access to land, labour, implements, extension services) but what should be done beyond donor projects? To what extent are policy makers aware and to what extent do they care about equity?

Aligning interests. It is difficult to gain the interest of policy makers, unless something is really "catchy". It was suggested that there is a big dilemma in finding a balance between the broad interest of policy/investment in equity issues and context specific interests of people on the ground.

Engagement with decision-makers. Long term, on-going and closer engagement between decision makers, researchers and other stakeholders is needed. This will contribute to strengthening policy makers' understanding of the contribution of research to policy and planning. Diverse SAIRLA stakeholders need to engage on a policy continuum at different scales from grass roots to national or international level. A combination of approaches is needed to engage decision makers taking into account seniority, personality, context and timing. Continued engagement with decision makers can help to bridge the gap between policy design and implementation.

Different forms of evidence need to be available to decision makers. Evidence from grassroots is needed to inform decision making . This includes quantifiable data/evidence. Evidence/feedback is needed for decision makers to assess how well their policies and actions are doing on the ground. Evidence needs to be made available in an appropriate form, but there is also a need to be closer to decision makers.

Timing. The timing of the intervention on equity and SAI within a clear wider policy timetable can be important.

Institutionalizing equity. There is a need to go beyond the understanding of equity issues. Guides/ toolkits can help, but ultimately institutional issues need to be addressed. What sort of recommendations would this involve?

3.1.2 Trade-Offs: What are the trade-offs involved in SAI pathways and choices?

Three research projects and one NLA presented on the theme of trade-offs under which the SAIRLA programme is exploring how the economic, social and environmental trade-offs associated with sustainable agricultural intensification (SAI) can be managed. Here we summarise the presentations and highlight the key discussion points from the plenary that followed.

Zambia NLA: Sustainable Agriculture Intensification Trade-Offs- Case of Zambia

The Zambia NLA is facilitating stakeholders to engage with evidence and tools on SAI in Zambia. SAI has been mostly been promoted to smallholder farmers through projects such as the Conservation Agricultural project. The NLA conducted a participatory activity developed using a social learning approach to gather perspectives from various stakeholders on the synergies and trade-offs of the various SAI practices – at the village/community level with farmers, then at the district/provincial level with the private sector, CSOs, public sector and farmers. Among their findings, they discovered that:

- All stakeholders had a limited conceptualisation of SAI in relation to landscape sustainability and livelihood systems because different stakeholders and projects have chosen some components of SAI over others.
- SAI has both positive and negative influences on all trade-off domains
- Nearly all stakeholders report positive results of SAI that contradict actual practices

SITAM: How do smallholder farmers manage the trade-offs between production, sustainability, and other socioeconomic and environmental factors?

SITAM's research focuses on supporting smallholder farmer's decision making in managing the trade-offs for SAI. The presentation focused on how smallholder farmers manage the trade-offs between production, sustainability and other socioeconomic and environmental factors. The research project uses a trade-off domains model (adopted from USAID's Sustainable Intensification Assessment Framework) that takes into consideration issues of productivity, economic, environmental, human and social factors and are mapped against the different trade-offs and management strategies as identified by farmers in each of the research focal countries (Burkina Faso, Ghana and Malawi). Emerging messages from the research include:

- Farmers manage trade-offs through a diversification of farm management and livelihood strategies
- Some unsuitable farming practices (such as burning of fields, irresponsible use of agrochemicals) need to be avoided but systems level support is needed to encourage pro-sustainable alternatives. So far, development interventions have pushed specific technologies.

ResLeSS: The Transformation Game: using the CLEANED R tool to negotiate inclusive and sustainable vision of transforming livestock value chains

The project uses the CLEANED R tool to help model the environmental impact of transforming livestock value chains. It combines open access GIS data with participatory modeling to develop a quick but 'good enough' context specific environmental impact assessment for decision makers.

Among the lessons the project has learned:

- In **Burkino Faso:** Crop farmers and pastoralists can co-exist in peace
- In **Tanzania**: Improved cattle fed with bran, oil seed cake and locally produced fodder will reduce pressure on land – at the cost of buying staple food from elsewhere.

- In **Ethiopia**: Meat and milk production can be increased without increasing the environmental impact from livestock.

[Bringing evidence to bear on negotiating ecosystem service and livelihood trade offs in SAI in Tanzania, Ethiopia and Zambia](#)

The overarching goal of the project is to influence policy and practice that are expected to culminate in: uptake of contextually appropriate SAI interventions with corresponding increases in food security among small holder farmers and urban and rural consumers in Ethiopia, Tanzania and Zambia.

The participatory trade off activity was designed to facilitate discussion around various trade-offs and synergies and identify what is needed to help overcome constraints. A multi-dimensional tool (TOA-MD) was used to assess climate change and adaptation strategies and their impacts on livelihoods. The results from these (along with other SAI data) are stored and shared via the SAI Dashboard and presented in a way which is easy and quick to understand.

A summary of the outcomes from the Trade-Offs Plenary session is provided below.

Summary of participants' observations regarding trade-offs in relation to SAI in Sub-Saharan Africa

Clarity and importance of trade-off concept. For some participants, the concept of trade-offs need more clarity, together with explanation of how it is different from other terms and why it is important.

Framing the trade-offs. There are different ways of approaching trade-offs in SAI. For example, can start from a technology perspective (analysing how a technology performs along the five dimensions of social, economic and environmental sustainability). Alternatively, can start from an actor perspective, analysing people's objectives and strategies and then giving them additional options (technology, institution). Each way has its own advantages, together they are complementary.

Complexity. SAI/ agricultural development is a complex process which is constantly on-going and occur at many levels - individual, household, communal, nation and global.

Scale. Research results shared are often very localized and this presents a challenge going to scale. May need to make less expensive versions of the trade-off analysis and decision making tools.

Communicating trade-offs to decision makers. *Given the complexity and scale issues, it can be a challenge* to communicate trade-off concept/ issues with policy makers. Trade-off analysis could be used to inform implementation of existing agriculture policies.

Diverse stakeholder perceptions and priorities. The analysis of trade-offs can be approached from different stakeholders perspectives. It is important that trade-offs should be understood from the point of view of farmers and their practices. The perceptions of farmers should consider different members of the household. Farmers may have different objectives to researchers (eg biodiversity, GHG emissions) and this is related to issues of scale (local vs global) and time frame (short vs long term). Who sets the agenda?- There may be conflicting priorities between, for example, farmers and donors in setting the agenda. Is there a mismatch between the model (trade-offs analysis tools) and the reality on the ground (the way the farmers operates)? For trade-offs in relation to SAI to be sustainable, important to use participatory methods and consider inclusivity

Types and availability of data. Different types of data/ evidence are needed for trade-off analysis and decision making. Good evidence may be available, but may be difficult to influence policy because it is based on a few cases. Under imperfect conditions, with data limitations, "quick and dirty" methods to produce "good enough" evidence for decision making may be appropriate.

Who to use Trade-off tools? Targeted users for the tools need to be clear. For example, what is the potential for extension workers explain trade-offs when training farmers/stakeholders on certain technologies?

Summary of participants' observations on how to engage policy & investment processes on trade-offs

Engagement. It is important to promote a pro-active approach (rather than reactive) to policy engagement. Involving policy-makers in trade-off analysis exercises and discussions can be an effective form of engagement. However, policy makers work on their own discretion and therefore need to be clear on links between projects and decision making processes. A policy engagement plan could be developed showing potential trade-offs for different stakeholders and different technology packages.

Align application of tools with decision maker and other stakeholders' priorities and realities. To what extent do stakeholders consider/see SAI trade-offs as "trade-offs" and for whom are they trade-offs? There is a need to align SAI initiatives focusing on trade-offs based on priority commodities/ geographical locations and social groups. Need to ground analysis of trade-offs in local realities. Politics can be an important driver of policy, rather than data. Tools can be used to look at local priorities and then consider incentives to nudge people into more sustainable direction. To be sustainable, this should go beyond a project timeframe or context.

Capacity to use the tools. Tools developed by the SAIRLA projects must be easily accessible and user-friendly to the target stakeholders for decision making. People may not be able to use tools without facilitation. Research projects are developing interesting decision making tools, but decision makers have their own tools that they are using, so how can these be integrated? Capacity building of decision makers is important so that they understand and are able to use these tools. It needs to be clear how trade-off analysis can inform decision making. Should capacity to design such tools also be strengthened?

Need to match data with trade-off decision making. Data availability is key to trade-offs analysis in relation to SAI. Trade-off analysis tools, in some cases, depend on the perception of people instead of understanding the context. When it comes to change or switching groups you may get different opinions/answers. The pulling forces/factors have not been properly established e.g. whether farmers are driven by market, cost or simply productivity and the need to conserve biodiversity.

3.1.3 Services: What processes can improve smallholder farmers' access to services for SAI?

Two research projects and three NLAs presented on the theme of **services** under which the SAIRLA programme explores the services are needed to support SAI outcomes for smallholder farmers. Here we summarise the presentations and highlight the key discussion points from the plenary that followed.

GALA: Integrating multi-media communication approaches and input brokerage

The research project ran a series of communication campaigns to raise awareness of sustainable legume practices and technologies using among other channels; radio, SMS, comics and radio listening groups. Project outcomes include:
- In **Tanzania**, as a result of the campaigns, farmers have increased their awareness and adoption of sustainable practices. The dissemination of GALA's findings on the high use of Soya Njano by Tanzanian farmers resulted in the registration of the seed enabling it to be legally produced and sold in Tanzania.
- In **Zambia**, as a result of the video campaigns and the dissemination of GALA findings, the government recognised inoculants for soybean among the pool of inputs to subsidise.

Malawi NLA: Co-Learning for a Functional District Agricultural Extension Services System in Malawi

The Malawi Agricultural Extension Policy (2000), envisions that "all farmers are able to demand and access high quality extension services" through a pluralistic and decentralised extension system. The Malawi NLA is jointly planning with the Department of Agricultural Extension Services to conduct action-research aimed at generating evidence of processes influencing the District Agricultural Extension Services System (DAESS). The anticipated outcomes include: Increased awareness and changed perceptions about DAESS among stakeholders in agricultural system of Malawi; Evidence to inform operationalisation of DAESS; Capacity of district level actors to formulate a shared vision of extension, how it should be implemented and what it should achieve in the district; Processes for improving agricultural policy, extension strategy, extension system guidelines at national level informed.

Ethiopia NLA: ICT for Agricultural Extension in Ethiopia

The Ethiopia NLA organised a national level stakeholder dialogue on ICT for extension market place, held in collaboration with the Ministry of Agriculture (MoA) and other partners. SAIRLA research by Bioversity International and its local partners on an ICT approach was used as an entry to scale up to a national level. Over 90 senior experts, decision makers, researcher and investors attended. A technical working group to support the MoA's Extension Directorate has been set up. A website showcasing the different ICT tools available was also launched

SRMS: Smallholder risk management solutions in Malawi and Ethiopia

The research project focuses on increasing smallholders' access to inputs and participation in the development of commercial value chains in Ethiopia (teff) and Malawi (pigeon pea).

The project introduced their replicable business model – a continuous loop which begins with providing certified seeds to farmers and moves towards farmers returning two per cent of their harvest to a co-operative who in turn sells the harvest and use the profits for more certified seeds which are again, distributed to farmers. The researchers found that instead of money being put back into buying more certified seed, the profits were spent on food consumption instead – for example, in Ethiopia, farmers were exchanging teff with Sorghum which they could feed their families on easily and cheaply.

Ghana NLA: Multi-stakeholder social learning around the Fall Armyworm (FAW) menace in Ghana

In 2016, the Ghana NLA played a key role in the sensitisation and dissemination of evidence towards dealing with the devastating outbreak of Fall Army Worm. Through evidence sharing and social learning processes, the NLA contributed to a shift in the focus of decisions makers and other stakeholders from over-reliance on conventional synthetic pesticides to bio-rational pesticides. Activities included social learning field visits, information and evidence sharing workshops, and one-to-one engagement with decision makers. Social and print media were also used including WhatsApp, videos and newspaper articles. Key messages included:

- Middle-level policy decisions stands to benefit from FAW information sharing and learning using multi-stakeholder groups.
- Partnerships among stakeholders have provide to be the strength in the management of FAW in Ghana.
- Consideration should be given to the institutionalization of multi-stakeholder groups such as the NLA in finding solutions to problems in agriculture.

What works where for which farmer: Adaptive SAI advisory through voice messages 'Ushauri' mobile information service

SAI means farmers need continuous access to information that his highly context-specific. The project has co-created 'Ushauri', a digital information service for SAI together with extension services and farmers in Tanzania and Kenya. An automated hotline provides access to a series of pre-recorded audio messages

about kitchen garden horticulture (Kenya) or Aflatoxin control in the groundnut value chain (Tanzania). Farmers can also record further questions through their phones which appear on an online dashboard. Agricultural advisors record replies and send as automated replies. Key insights include:

- For farmers, the possibility to ask questions anytime as more important than the access to pre-recorded advice.
- User attrition due to lack of airtime was strong. Business models around advertisement could make the service toll-free.

'Ushauri' generates useful insights about farmers' knowledge and information needs, which can be used to improve the service as well as general extension programming

A summary of the outcomes from the Services Plenary session is provided below.

Summary of participants' observations regarding services in relation to SAI Services in Sub-Saharan Africa

How to research and improve agricultural services without reinventing the wheel? There is a risk of re-visiting the same ground relating to extension services. An important change in context is that ICT capability and systems have improved. Are services sufficiently driven by farmer's problems? Action research on extension services can be achieved through various models.

How to develop ICT information services relevant to local context? *Farming systems are complex* (e.g. uncertain weather conditions) and services need to respond to local context. How can locally appropriate ICT services be developed without loss of quality?

Inclusive Access to Extension and Advisory services. *I*mportant in SAI to consider gender, culture and economic status of farmers.

What is the difference between services for SAI and non-SAI practices? Need for innovative extension approaches to equip farmers to increase productivity while protecting environment.

Lack of well-functioning extension services in many countries. In many areas, the extension systems are not working. Hence many extension projects try to bypass the system. How should the models/ services being developed align with existing systems? To be sustainable is it better to invest and improve existing systems? This will need additional resources. The design of the services options for investment should be considered from the beginning of the research project

Measuring delivery of services. There was no interaction among the "services" projects on how they are measuring delivery of services.

Adapting and learning. *There is n*o one best way to engage- and no proven method, but there is a need for adapting and learning to improve on the strategy.

Coordination. Interesting work on extension services and ICT information services. Potential dilemma of conflicting messages/use of SAI related resources. How can these strands be brought together as options that could be mutually supportive to benefit farmers?

Pushing technologies v. improving the enabling environment. Pushing technologies (or package of technologies) on their own doesn't work and is not sustainable as it does not address famers' priorities and resources. Instead, "tweak"/improve the enabling environment

Scalability issues. Extension needs can be broken down to identify those that can be addressed through improved access to information and then see what investments, skills, institutions are needed to make it work. This may involve a feasibility study, Cost Benefit Analysis and rate of return on investment).

Summary of participants' observations regarding policy and investment processes in relation to SAI services in SSA

Engaging decision makers and other stakeholders. There is need for consistency and to speak to national priorities in order to maintain interest of the policy makers/ politicians. It is important to understand who the key decision makers. There should be policy engagement in extension services to link with the new tools. The ICT dialogue and market place process in Ethiopia is an example of a dialogue approach which attracted different decision makers and had a clear policy engagement strategy.

Gap between extension services and policy. There is often a variance between extension policy and practice. The link needs to be strengthened if extension services are to work effectively.

Coordination of different donor investment processes. Donor investment in extension services is not always well coordinated and this can result in conflicting messages and services. Strengthening this coordination is therefore important.

Improving the cost-effectiveness of extension services. Funding of extension services is an on-going issue. Resource funding pooling in pluralistic model is weak. Small holder farmers make their own investments, but how to link with other investment. ICT-based systems can be a means of improving the cost effectiveness of extension services, but need to be considered alongside a range of capacity issues.

3.2 SAIRLA Social Learning Framework

This session provided an opportunity to discuss the concept of social learning and to introduce the framework that has been developed to learn lessons around the application of multi-stakeholder social learning processes in SAIRLA.

An initial presentation was made which included the background to a planned study which aims to assess social learning in the SAIRLA programme and to generate lessons to inform future social learning (SL) initiatives; a brief review of different interpretations of SL; how SL is being used in SAIRLA; the main evaluation questions and the Theory of Change (derived from the SAIRLA TOC) for the study. This was followed by a discussion in plenary.

1. Introduction

This study is designed to assess social learning in the SAIRLA programme and to generate lessons to inform future Social Learning SL) initiatives. The study is guided by a set of evaluation questions and is linked to the Monitoring and Evaluation of the SAIRLA team, guiding and drawing upon the data collected by the MEL team.

2. What is Social Learning?

There are varying interpretations of Social Learning according to Armitage et al (2008i) and Rodela (2011ii). From its origins in social psychology, Social Learning may be understood as imitation or other forms of learning through a social context (von Schönfeld et al, 2019iii). Another definition focuses upon the types of learning involved: Diduck et al. (2012iv) suggests that for individuals there are two types of learning: (a) instrumental learning (acquiring knowledge and skills that are task and performance oriented), and (b) communicative learning (understanding what others mean when they communicate with us and understanding their purposes, values and intentions). This distinction is useful in a) emphasizing the social context aspect of Social Learning, as opposed to learning by an individual on their own (e.g. one person acquiring knowledge and understanding through reading and reflecting on information in a book or policy brief) and b) emphasizes from whom and how learning occurs (e.g. learning about values as opposed to solely gaining knowledge and skills in a didactic training approach). Similarly, Brymer et al (2018v) view Social Learning processes as leading to a change in understanding through enhanced communication of cognitive, relational and epistemic positions, and the creation of opportunities and stimulus to change those positions (rather than purely reinforcing existing knowledge, norms and beliefs).

The concept of Social Learning is increasingly applied in contexts of complex multi-stakeholder, natural resource management challenges and processes. A commonly used definition in such situations is that Social Learning involves a 'change in understanding that goes beyond the individual to become situated within wider social units through social interactions between actors within social networks' (Reed at al., 2010vi). In natural resources management, Cundill and Rodela (2012vii) suggest a key feature of Social Learning processes is sustained interaction between stakeholders, with on-going deliberation and the sharing of knowledge in a trusting environment. The key outcome of such learning is improved decision making underpinned by a growing awareness of human environment interactions, better relationships and improved problem-solving capacities for participants (Cundill and Rodela, 2012).

There is less extensive evidence of Social Learning -orientated approaches being purposively applied in national policy, planning and investment processes, especially in low and middle income countries. Hall (1993viii), referring to Heclo, suggests that much political interaction is a process of social learning expressed through policy. The question then becomes who is involved in the social learning? Von Schönfeld et al (2019, p18) explore Social Learning as a common component of on-going planning processes, and suggest 'that "what" one socially learns is dependent on "who learns" and "from whom" ' and that more analysis is needed of what types of 'social interaction and knowledge exchange are most suited for the goal in hand' to avoid reinforcement of prejudices and to optimize positive outcomes. The focus in SAIRLA on facilitating Social Learning with respect to national policy and investment decision-making processes is innovative and may offer insights into who learns what, from whom and under what conditions.

Social Learning may be achieved though diverse approaches, methods and scale, such as Citizen Assemblies or more structured experimentation, national processes to sub-regions or at a local level etc. In SAIRLA, Social Learning processes are facilitated primarily through the SAIRLA Learning Alliance and particularly National Learning Alliances.

Learning processes and outcomes can also be assessed in terms of the extent to which single, double and triple loop learning takes place. On a spectrum defined by Johannessen et al (2019ix), different depths of learning are outlined and we suggest that SL processes should in many circumstances seek to go beyond single loop learning, to involve double and/or triple loop learning. The latter are more likely to challenge received wisdom and help to constructively change norms and relations.

Box 3.1 Single, double and triple loop learning

Learning processes and outcomes can be assessed in terms of the extent to which single, double and triple loop learning takes place.

Single loop learning: 'Are we doing what we do right?' For example, 'Are we applying this pesticide in the correct way to control this pest?'

Double Loop Learning: 'Are we doing the right things'? For example, this could mean 'Are we using the right pesticides to control this pest or should we be using alternative means?

Triple Loop Learning: This involves reflection and analysis of dominant framings and underlying assumptions, so the key question is: 'How do we decide what is right?' and 'Who should be involved in deciding the best course of action'?

For example, this could be asking 'How has this pest problem emerged? Has the full range of causes and approaches to respond to this and pest problems in general been sufficiently considered, including the overall approach to sustainable agriculture?'; and 'Who should be involved in deciding pest and disease management policies and strategies and the overall direction of agricultural systems?

Social Learning in SAIRLA

SAIRLA aims to: Generate, share and facilitate use of knowledge/ evidence by decision makers (policy makers and investors) and other stakeholders to develop SAI in ways that enable poorer smallholders, particularly women and youth in Africa to participate in and benefit from agricultural development

SAIRLA is aiming to enable SL in a multi-stakeholder context, which is consistent with Reed et al's definition: 'A change in understanding that goes beyond the individual to become situated within wider social units through social interactions between actors within social networks'.

3. Evaluation Questions

The study is guided by four main evaluation questions:

1. Is a Social Learning-oriented approach being used? If so, what different kinds of 'Social Learning for improved policy and investment decision-making processes' have been facilitated? Compared with the original aims and approaches envisaged, how has implementation evolved over time?

2. How effective have the Social Learning approaches facilitated in SAIRLA been in strengthening capacity at individual, network and system levels, for improved decision-making on SAI in different national contexts?

3. How and when has the Social Learning process contributed to improved policy and investment process decision-making relating to SAI?

4. What lessons can be generated to inform future social learning processes especially focused on good policy and investment processes? Key success factors and barriers?

4. Conceptual Framework

To answer the evaluative learning questions, a more detailed conceptual framework has been developed (Figure 3.1) which articulates how SL facilitated within the SAIRLA Programme is anticipated to occur and what types of outcomes are envisaged at individual, network and system levels.

Changes for individuals within the NLA and senior decision-makers include not only changes in knowledge, skills and understanding, but also relational and normative changes as a result of social interactions.

At the network level (NLA) changes in relations and norms are anticipated which support better decision-making processes at the system level.

Figure 3.1 SAIRLA Social Learning Theory of Change

Figure 1: Social Learning Theory of Change
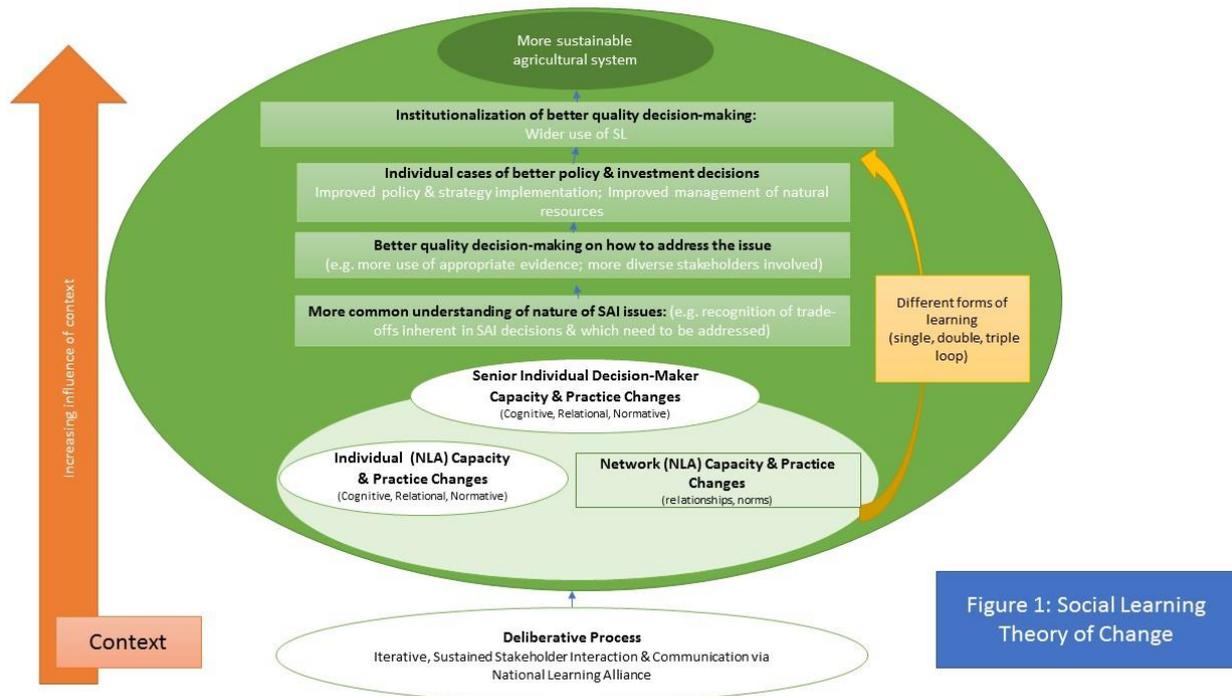
A number of points were raised following the presentation.

Does the Theory of Change assume that people want to learn? From experience, politicians are interested in political gains (rather than learning). One way of interpreting this is that politicians may be interested in learning how to make political gains[1].

Social learning can be so broadly defined that almost anything can be considered social learning. In this case, social learning is being, at least partially, defined by the deliberative process which sets out to achieve change.

There was discussion around whether social learning may be considered a "neutral" concept. From the perspective of the individual learning it is clearly not neutral. In terms of how a social learning approach may be applied and its outcomes these may be positive or negative.

Multistakeholder learning and innovation processes are being widely promoted by donors, but the quality of the process is variable. If the management of such processes is not effective and results are not yet achieved this is a disincentive to make future investments in such processes.

In the open session we discussed how to operationalize the framework. Firstly, the question was asked as to whether the framework describes the theory underpinning the NLA processes? There was agreement that it does, but the challenge would be how to capture the changes. Policy change is an iterative process. Sometimes it may be possible to attract a policy maker to your evidence, but then when they want to use it to make changes, they may have to engage with the original generators of the evidence. It may be a challenge to track changes in individuals as they leave their positions before capturing their learning. The question of how much time is needed to complete the social learning process was raised and that the project nature of

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[1] "All politics and policy issues involve the accumulation of data about problems and solutions in context of social interactions. Drawing on these data, policy actors acquire, translate, and disseminate new information and knowledge toward achieving political endeavors and for revising or strengthening their policy-related beliefs over time". Stéphane Moyson, Peter Scholten & Christopher M. Weible (2017) Policy learning and policy change: theorizing their relations from different perspectives, Policy and Society, 36:2, 161-177, DOI: 10.1080/14494035.2017.1331879

this social learning process creates some pressure to search for results before they are fully "mature". This is an argument for the importance of establishing a network beyond the boundaries of a project When decision makers want more evidence, they will be able to use their network to ask more questions and seek more evidence.

3.3 Exploring dimensions of sustainably in agriculture through field visits: Summary of findings

In order to jointly explore dimensions of sustainably in agriculture through an equitable SAI lens, visits were organized to two organizations which are providing agricultural services to farmers and others in Tanzania. The two organizations were the Tanzania Horticultural Association (TAHA) in Arusha and the Tanzania Coffee Research Institute (TACRI) in Moshi. Each group held discussions with the experts in the office and later met farmers in the field.

Participants were free to choose between these two organizations, but in both cases the visits were guided by four overall questions:

1. What is the vision of the organization; which services are being provided, to who and how?
2. How are economic, social and environmental trade-offs being taken into account (implicity or explicitly)?
3. How are equity issues being considered?
4. How are the organizations engaging with policy processes?

Following the visits, participants jointly summarised their answers to the above questions and shared their findings with the other group. Summaries of findings are presented in Boxes 3.2 and 3.3 below.

Box 3-2: Summary of Presentation for the TAHA Group

Question 1: What is the vision of the organisation; which services are being provided, to who and how (including any role of ICTs)?

Vision: "To have an economically vibrant, sustainably prosperous horticultural industry"

Services:
*   Linking farmers to markets (market information via ICTs and logistical solutions)
*   Agricultural advisory services (including training) through community based facilitators and ICTs
*   Access to finance and input subsidy programmes
*   Infrastructure (storage warehouse, refrigeration)
*   Policy platforms for advocacy and supporting an enabling environment

To Whom:
*   Comprehensive (larger companies)
*   Allied members (agro-input dealers, financial service providers etc.)
*   Small and medium size farmers (total 30,000 beneficiaries)

Question 2: How are economic, social and environmental trade-offs being taken into account (implicitly or explicitly)?

*   Explicitly: Not much explicit attention to environment and social / inclusion issues, unless they affect productivity (BUT they target young people and generate employment for them – we don't know whether there is gender balance there)
*   Implicitly: Ambition to link with international markets (EU, Arab countries) and receive funding from donors means they have to comply with certain environmental and social regulations (emphasis on food safety). This has enhanced env and social considerations.

Question 3: How are equity issues being considered?

*   Do not target vulnerable groups – work with who is able to do it, which requires a minimum of land and capital (recruit by word of mouth)
*   Community facilitators have targets that include proportion of women (but not sure how many women are actively involved in their own right)
*   Young farmers with some resources benefit most (we think – not sure)
*   Training manuals are produced in Swahili to increase access
*   "Five rural worlds": They deal with the top 2-3 categories but benefits go beyond members such as employment of farm labour by members, and by sweet potato farm and capacity development beyond members
*   ICTs are available to non-members

Question 4: How are the organisations engaging with policy processes?

- Support dialogue with policy makers (exposure visit)
- Reviewed large number of regulations, including around taxes, then - then have dialogue on how to adapt regulation, using ppolicy platforms for advocacy and supporting an enabling environment
- Tactics: join forces with other institutions / partnerships

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Box 3-3: Summary of Presentation for the TACRI Group

Question 1: What is the vision of the organisation; which services are being provided, to who and how (including any role of ICTs)?
Vision: To contribute to the transformation of the Tanzanian coffee industry to sustainable prosperity"
Services:
- Research
- Training
- Extension – 420,000 farmers, 2,000 extension officers for coffee
- Varieties – planting material for replacement

To Whom:
- Provided to smallholder coffee farmers
  - Extension services are provided
  - Virtually no use of ICT (no support tools, only leaflets)

Question 2: How are economic, social and environmental trade-offs being taken into account (implicitly or explicitly)?
- Trade-off analyses appear to be missing in TaCRI's research portfolio
  - Farmers are implicitly dealing with trade-offs in their fields by
  - Planting maize, followed by beans, in between the coffee trees for shorter-term (food security and economic) objectives
  - Bridging the variety replacement transition period by growing food crops
  - IPM: planting Tephrosia trees for production of botanical pesticides
  - ISM: Returning the berry pulp/hulls back to the field to address the low-input problems farmers deal with

Question 3: How are equity issues being considered?
- Equity issues were not taken into full consideration
- Equity issues seem not to be fully understood by TaCRI, e.g.:
  - Seedlings are being made available for free, so they feel there is no price barriers for uptake, but gender/cultural barriers are still there
  - Their view was that their varieties were "gender-neutral"
  - But in reality coffee trees are primarily owning/managing the coffee trees, while women are mainly involved in food crop production for household food security purposes

Question 4: How are the organisations engaging with policy processes?
- They are passive recipients of policy, they are not engaging
- Private company owned by government (governments is in control of most, if not everything)
- 2 out of 6 board members come from ministries
- They are trying to be autonomous, but they couldn't articulate how to achieve that
- Lack of functional business model to generate income and gain more autonomy
- Staffing is a function of the market price of coffee
- No negotiation is being undertaken with the government about policies (e.g. seedling need to be provided for free)
- Lack of collaboration – working in isolation with limited number of staff

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3.4 The Open sessions

Participants were split into groups of their choices and discussed in open sessions. The sessions included: The evolution and future of NLAs; Policy engagement and knowledge transfer; Special IJAS journal; the Final ILA. (annex 5).

4 Issues, Conclusions & Recommendations

Participants identified issues, conclusions and recommendations relating to SAI at various levels, mainly during the poster presentations with associated plenaries and during the general discussions. These centre on the

SAIRLA themes of equity, trade-offs, services and decision-maker engagement. Key points are summarised below:

Equity

There is need for greater clarity and deeper understanding around what is meant by equity in relation to SAI. The SAIRLA Equity paper will make a contribution, including a framework for analysis of equity in relation to SAI.

Cultural perspectives and norms are important in considering equity.   What is meant by equity, or what is prioritised in terms of equity, may be context specific in terms of local cultural perspectives and norms.

Gender equity remains a key issue and SAI interventions need to explicitly consider gender equity issues at all levels.

There is a need to go beyond the understanding of equity issues to enabling processes of change. Guides and toolkits can help, but ultimately institutional issues need to be addressed

Trade offs

There are different ways of approaching trade-offs in SAI (e.g. from a technology perspective or from an actor perspective). Each way has its own advantages, together they are complementary.

Complexity and scale issues means it can be a challenge to communicate trade-off concept/ issues to decision makers.

Trade off analysis and management needs to consider diverse stakeholder perceptions and priorities. The application of trade-off tools needs to be aligned with decision maker and other stakeholders' priorities and realities on the ground.

Different types of data/ evidence are needed for trade-off analysis and decision making. Good evidence may be available, but may be difficult to influence policy because it is based on only a few cases or is too localised. Under imperfect conditions, with data limitations, "quick and dirty" methods may be appropriate to produce evidence that is " good enough" for decision making.

Stakeholder capacity to use and design tools for trade-off analysis and management needs to be strengthened within SSA countries.

Services

There is a need to develop ICT-based information services relevant to local context without loss of quality.

Inclusive access to Extension and Advisory services for SAI needs to consider gender, culture and economic status of farmers.

What is the difference between services for SAI and non-SAI practices? There is a need for innovative extension approaches to equip farmers to increase productivity while protecting the environment.

In many areas, the extension systems are not working well. Innovative models/ services being developed need to take this into account and consider how they contribute to strengthening capacity at individual, organisational and systems.

There is often a variance between extension policy and practice. The link between the two needs to be strengthened if extension services are to work effectively.

Donor investment in extension services is not always well coordinated and this can result in conflicting messages and services. Strengthening this coordination is therefore important.

ICT-based systems can play an important role in improving the cost-effectiveness of extension services, but this needs to be considered in the light of capacity issues at individual, organization and systems level.

Improving the quality of SAI policy and investment decision making

Improving the quality of decision making involves not only the use of evidence, but also the good governance of the evidence[2].

Longer term and effective engagement between decision makers, researchers and other stakeholders is needed to help develop a common understanding, and where possible align interests, to inform SAI decision making processes

2 Parkhurst, Justin O. (2017) The politics of evidence : from evidence-based policy to the good governance of evidence. Abingdon, Oxon ; New York, NY : Routledge, 2017. https://www.routledge.com/The-Politics-of-Evidence-Open-Access-From-evidence-based-policy-to-the/Parkhurst/p/book/9781138939400

[i] Armitage, D., M. Marschke, and R. Plummer. 2008. Adaptive comanagement and the paradox of learning. Global Environmental Change 18(1):86-98. http://dx.doi.org/10.1016/j.gloenvcha.2007.07.002

[ii] Rodela, R. 2011. Social learning and natural resource management: the emergence of three research perspectives. Ecology and Society 16(4): 30. http://dx.doi.org/10.5751/ES-04554-160430

[iii] Kim Carlotta von Schönfeld, Wendy Tan, Carina Wiekens & Leonie Janssen-Jansen (2019): Unpacking social learning in planning: who learns what from whom?, Urban Research & Practice, DOI: 10.1080/17535069.2019.1576216

[iv] Diduck A, Sinclair A. J, Hostetler G, and Fitzpatrick P (2012) Transformative learning theory, public involvement, and natural resource and environmental management, Journal of Environmental Planning and Management, 55:10, 1311-1330, DOI: 10.1080/09640568.2011.645718

[v] Bentley Brymer, A. L., J. D. Wulfhorst, and M. W. Brunson. 2018. Analyzing stakeholders' workshop dialogue for evidence of social learning. Ecology and Society 23(1):42. https://doi.org/10.5751/ES-09959-230142

[vi] Reed, M. S., Evely A. C, Cundill G.,. Fazey I, Glass J., Laing A., Newig J., Parrish B., Prell C., Raymond C., and Stringer L. C.. 2010. What is social learning? Ecology and Society 15(4): r1. http://www.ecologyandsociety.org/vol15/iss4/resp1/

[vii] Cundill, G., and R. Rodela. 2012. A review of assertions about the processes and outcomes of social learning in natural resource management. Journal of Environmental Management 113:7-14. http://dx.doi.org/10.1016/j.jenvman.2012.08.021

[viii] Hall, Peter A. (1993) Policy Paradigms, Social Learning, and the State: The Case of Economic Policymaking in Britain. Comparative Politics, Vol. 25, No. 3 (Apr., 1993), pp. 275-296 Published by: Ph.D. Program in Political Science of the City University of New York. Stable URL: http://www.jstor.org/stable/422246.

[ix] Johannessen, Å., Gerger Swartling, Å., Wamsler, C., Andersson, K., Arran, J. T., Hernández Vivas, D. I. and Stenström, T. A. (2019). Transforming urban water governance through social (triple-loop) learning. Environmental Policy and Governance. DOI:10.1002/eet.1843