



Mobilisation of indigenous and local knowledge for community and ecosystem wellbeing

Experiences from piloting a Multiple Evidence Base approach

Report from an international exchange meeting and walking workshop, Tharaka, Kenya, 6–11 March 2017



CO-PRODUCED BY:

Communities
of Tharaka,
Kenya



SwedBio

A programme at Stockholm Resilience Centre

Cover image: Walking together to Kibuka sacred site. A walking workshop is about learning from one another and from the landscape while walking through it. Photo credit: P. Malmer

Funding: This report was funded by Sida, through SwedBio at Stockholm Resilience Centre.

Citation: Malmer, P., Tengö, M. (eds) Abudulai, S., Chituwu, C., Gebeyehu, F., Gichere, N., Daguitan, F., Mburu, G., Muriuki, M., 2018.

International exchange meeting and walking workshop: Experiences from piloting a Multiple Evidence Base approach for mobilisation of indigenous and local knowledge for community and ecosystem wellbeing. Tharaka, Kenya. 6–11 March 2017. Workshop report. SwedBio at Stockholm Resilience Centre, Stockholm, Sweden.

Table of content

Preface	4
List of acronyms	4
Executive Summary	5
Part 1. Introduction:	5
The need for dialogue	7
Multiple Evidence Base piloted in communities	8
Community Based Monitoring and impact from local to global	9
Hin Lad Nai walking workshop – summarising community experiences of piloting the mobilisation of indigenous and local knowledge by a Multiple Evidence Base approach	11
Part 2: The Tharaka Workshop	12
Aims and structure for the workshop	12
Day 1:	13
Opening session	13
Introduction to the dialogue process across knowledge systems, that has been ongoing since Guna Yala dialogue, Panama, 2012	14
Introduction of the walking workshop and the Multiple Evidence Base pilot project	17
Day 2:	19
Seed Festival and Celebration of women’s knowledge	19
Reflections on Women’s Day celebration	20
Afternoon session: Presentation from the Tinoc community piloting of a Multiple Evidence Base in the Phillippines	23
Evening session: Presentation from the community piloting in Hin Lad Nai, Thailand	25
Summary of discussion: Rotational farming in Thailand and Philippines	26
Day 3:	27
Walking session 1: Visiting sacred site at Kathita river	27
Day 3 afternoon: Reflections from sacred site walking session	29
Afternoon session: What are ways of evaluating knowledge in communities?	31
Evening session: Presentation from MELCA Ethiopia and Kenyan organisations	34
Day 4:	36
Walking session 2: Visiting the agroecological landscape of Ntugi Hill	37
Afternoon session: Where to go next? How to promote MEB and sharing knowledge on equal footing?	38
Evening celebrations and concluding ceremony	42
Conclusion – Reflections on walking workshop process and outcomes	43
References	46
List of Annexes	47
ANNEX 1: Workshop schedule	47
ANNEX 2: List of participants	49
ANNEX 3: Evaluation of the Dialogue by the Participants	50

Preface

This report is a summary of the “*International exchange meeting and walking workshop: Experiences from piloting a Multiple Evidence Base approach for mobilisation of indigenous and local knowledge for community and ecosystem wellbeing*”, held in Tharaka, Kenya 6–11 March 2017. The meeting was kindly hosted by Institute for Culture and Ecology (ICE) and the Tharaka community, and arranged in collaboration with African Biodiversity Network (ABN) and SwedBio at Stockholm Resilience Centre. The report summarises the presentations and discussions during the workshop, which dealt with how indigenous and local knowledges, values and practices are mobilised, generated and shared across knowledge systems for the benefit of biocultural diversity, nature’s contribution to people and human wellbeing. The workshop was held as a contribution to an on-going dialogue process aiming at nurturing and investigating methods for learning and exchange on an equal level across local, indigenous and scientific knowledge systems and between partner organisations making up a community of practice that is passionate about these issues, including the IIFB (International Indigenous Forum for Biodiversity) network, the African Biodiversity Network and their partner organisations.

The workshop practiced and further explored a Multiple Evidence Approach where indigenous, local and scientific knowledge systems are seen as equally valid and contributing

useful knowledge for ecosystem governance. It further used an interactive “walking workshop” method, facilitating participants to interact with the farming landscape of Tharaka, articulate their experiences and talk to community representatives and others. It brought together community representatives from Kenya, Ethiopia, the Philippines, and Thailand, and researchers and representatives from organisations working with communities from Kenya, Tanzania, Benin, Ghana, South Africa, Zimbabwe, Uganda and Sweden.

Acknowledgements:

We wish to thank the Tharaka Elders and leaders who generously shared their wisdom about their landscape with the visiting communities and representatives of organisations. We also want to thank the whole Tharaka community, for their hospitality and all their openness and support. We also wish to thank the Elders, youth and women from other visiting indigenous communities from partner organisations in Philippines, Ethiopia and Thailand. The walking workshop and international exchange meeting was financed by support from the Swedish Development Cooperation Agency (Sida) through SwedBio at Stockholm Resilience Centre. The Swedish Research Council [VR 2015-03441] contributed travel support for reserachers.

List of acronyms

ABN	African Biodiversity Network
CBD	Convention on Biological Diversity
CBMIS	Community Based Monitoring and Information Systems
FPIC	Free Prior and Informed Consent
FPP	Forest Peoples Programme
GBO	Global Biodiversity Outlook
ICE	Institute for Culture and Ecology
ICCA	Indigenous and Community Conserved Areas and Territories
IIFB	International Indigenous Forum on Biodiversity
ILK	Indigenous and Local Knowledge
ILKS	Indigenous and Local Knowledge Systems
IPBES	Intergovernmental Science Policy Platform for Biodiversity and Ecosystem Services
IPLC	Indigenous Peoples and Local Communities
LBO	Local Biodiversity Outlooks
MEB	Multiple Evidence Base
SRC	Stockholm Resilience Centre
TEK	Traditional Ecological Knowledge
TK	Traditional Knowledge
UN DRIP	United Nations Declaration on the Rights of Indigenous Peoples

Executive Summary



At Tana river. Photo: African Biodiversity Network

This report is from an intercultural meeting and walking workshop in the community of Tharaka, Kenya, where about 50 holders of knowledge met, representing a wide range of indigenous, local and scientific knowledge systems and cultures from Kenya, Ethiopia, the Philippines, Thailand, Tanzania, Benin, Ghana, South Africa, Zimbabwe, Uganda and Sweden.

This space demonstrated in practice that it is possible to meet across knowledge systems based on equity and explore issues related to diverse knowledges and practices about biodiversity governance, with rich and innovative outcomes. While initially agreeing on problems and common challenges, new solutions can be found through cross fertilisation and weaving of knowledges. Local communities and elders from all parts of the world, practitioners and advocacy leaders, and scientists of different disciplines met and enjoyed the same activities and shared knowledge on biodiversity governance on an equal level, where all contributed.

The gathering was co-organised by Institute for Culture and Ecology (ICE), Kenya, African Biodiversity Network (ABN) and SwedBio at Stockholm Resilience Centre (SRC), with the Tharaka community as the local host. It followed up on earlier dialogues in a process aimed at facilitating meetings across knowledge systems for sharing and learning. The workshop practised and further explored a Multiple Evidence Approach where indigenous, local and scientific knowledge systems are seen as equally valid and contributing

useful knowledge for ecosystem governance. It further used an interactive “walking workshop” method, facilitating participants to interact with the farming landscape of Tharaka, articulate their experiences and talk with community representatives and others.

During the workshop, participants took part in a celebration of women’s knowledges of seeds and biodiversity on March 8th, including a rich display of the seed diversity from Tharaka. The group also walked through the biocultural landscape of sacred sites along Kathita river, and visited and exchanged with a community that has continuously been testing and including agroecological methods along with their traditional and local farming methods. The experiences from the celebrations and walks provided a setting for inquiry, sharing and innovative thinking for new solutions embedded in the local biocultural system, and formed the base for in depth discussions and explorations about what knowledge means in different knowledge systems and practices, and about methods and practices for validation in different knowledge systems.

There was strong recognition that validation of knowledge happens within knowledge systems, with insights and examples from a range of knowledge systems, and with possible relevance for synthesis and application of knowledge and policy development at national and global levels. Discussing joint experiences of the biocultural landscapes



Sharing agroecology experiences from around the world. Photo: P. Malmer

with local knowledge holders, men and women, as well as elders and youth, can elicit new reflections and insights of other places and contexts, as well as understandings of a more general nature. Sharing and learning between different indigenous knowledge systems is as important and valuable as sharing between science and indigenous knowledge, or between scientific disciplines.

It was reconfirmed that mobilisation of knowledge by the knowledge holders themselves is critical before embarking on a process of further interaction, sharing and learning with others, based on equal values, reciprocity and usefulness for all involved. This can be particularly important for empowering communities to be spokespersons for their own knowledge, and in interaction with governments and other decision making bodies that impact their lives. There is a particular need to ensure spaces for such mobilisation of knowledge where women and men, youth and elders in communities can meet. Local research groups and cultural centres are examples of such spaces. It is also important that the official education system from primary school to university, recognises the value of diverse knowledge systems in their curricula.

Old and new methods for mobilising and documenting

knowledge by communities, referred to as Community Based Monitoring and Information Systems (CBMIS), can be explored and developed further, to the benefit of local management and resource control, but also for compilation of important knowledge to feed into assessments, such as for the Intergovernmental Panel on Biodiversity and Ecosystem Services (IPBES) and for monitoring of the CBD Aichi targets.

Spiritual values are important to ensure sustainable biodiversity conservation. Reclaiming lost and disappearing cultural traditions and indigenous knowledge is critical, as it would help to address the environmental degradation and strengthen the resilience of the territories of indigenous peoples and local communities.

Creating an environment of trust, respect, equity, reciprocity and transparency is indispensable in all sharing across knowledge systems. This has to be paid attention to through all relations and scales when a dialogue or walking workshop is planned. The Multiple Evidence Base approach has been shown to be particularly helpful in dialogues where there are power imbalances among actors, and where bridging of knowledges is urgently needed to take advantage of synergies from the richness of experiences, perspectives and worldviews across diverse knowledge systems and practices. This is also to be recognised in the relation between men and women's diverse knowledges.

In its procedures for working with indigenous and local knowledge, IPBES calls for developing methods and practices that mobilise relevant indigenous and local knowledge, and ensuring validation through the indigenous and local knowledge system from which they come, while avoiding the loss of legitimacy. This walking workshop in Tharaka has contributed progress on how to meet this critical challenge. It is important for IPBES, CBD and related arenas to continue to encourage and learn from efforts where validation across knowledge systems based on equity and reciprocity, with respect for the integrity of each knowledge system along with a Multiple Evidence Base approach, are explored.

Part 1. Introduction:

The Knowledge Dialogue Project and piloting a Multiple Evidence Base approach.



Sharing knowledge and seeds across cultures. Hin Lad Nai, Thailand and Tharaka, Kenya. Photo: Pernilla Malmer.

This report is from a meeting in the community of Tharaka, Kenya where holders of knowledge from different knowledge systems and cultures met. It is part of a series of reports¹ that follows an ongoing dialogue across knowledge systems. Earlier reports have shared experiences from community mobilisation of knowledge through various methods of community based monitoring such as ecocultural mapping, and how evidence mobilised from different knowledge systems can be brought together as part of an enriched picture of evidence, that is described as “the Multiple Evidence Base approach” (MEB). Through the dialogue process we are envisioning a mindshift in our knowledge culture, where diverse knowledge systems are recognised and respected as equally valid and useful for ecosystem governance and nurturing nature’s benefits to people.

The need for dialogue

Dialogues across knowledge systems are based on the conviction that a diversity of experiences, perspectives and

worldviews coming together can craft a suite of solutions, that would not appear if we as human beings engaged in isolation, without interaction about knowledge gaps and presumptions. Dialogue between different actors and across knowledge systems and cultures, based on equity, reciprocity and usefulness for all involved, is key for innovative solutions and pathways for the future.

This approach, that we call “The Multiple Evidence Base approach” has been shown to be particularly helpful in dialogues where there are power imbalances among actors, and where bridging is urgently needed to take advantage of synergies from the richness of experiences, perspectives and worldviews across diverse knowledge systems and practices. This report is about a meeting and walking workshop, where representatives from a diversity of indigenous, local and scientific knowledge systems met to share experiences and methods for generating and mobilising knowledge based on the integrity of their knowledge systems, values and practices, within their own culturally specific institutions.

The MEB approach has evolved and been piloted in dialogue with knowledge holders and experts from diverse knowledge systems. It has been a recurrent feature in a

¹ <http://swed.bio/stories/mobilisation-and-revival-of-indigenous-and-local-knowledge-for-enhanced-ecosystem-governance/>



Kathita river. Photo: P. Malmer

dialogue process convened by SwedBio at Stockholm Resilience Centre in collaboration with key partners such as the International Indigenous Forum on Biodiversity, IIFB and the African Biodiversity Network, ABN and Forest Peoples Programme, FPP. Indigenous peoples and local community organisations who had been engaging in policy processes or interaction with western science from their local experiences, felt frustration over not being recognised for their knowledge and its values on its own terms in these processes. They saw a clear need for enhanced understanding and respect across knowledge systems, to inform better policy decisions for ecosystem governance. A process was initiated to explore the gaps in understanding and exchange between indigenous, local and scientific knowledge systems, and to elicit and develop new methods for collaborations based on equity and reciprocity, and usefulness for all involved.

A key event for building trust across different actors and start sharing experiences of respectful and constructive collaborations, was a dialogue meeting in the community of Usdub, Guna Yala, Panama in April 2012². One outcome of the dialogue in Guna Yala was the identification of essential principles for exchange across knowledge systems: trust, respect, reciprocity, equity, transparency and Free Prior and

Informed Consent.³ The Guna Yala dialogue was held the week before the Panama meeting that established IPBES, the Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services. IPBES is an independent intergovernmental body, that aims to provide policymakers with objective assessments about the state of knowledge regarding the planet's biodiversity, ecosystems and the contributions they provide to people. Many of the indigenous participants in the Guna Yala dialogue took the opportunity to also take part in the IPBES Panama meeting the week after. Their presence, along with their explanations regarding the importance of indigenous, local and scientific knowledge as equally valid and important in biodiversity assessment, contributed to the IPBES affirming its commitment to "Recognise and respect the contribution of indigenous and local knowledge to the conservation and sustainable use of biodiversity and ecosystems".

Multiple Evidence Base piloted in communities

Energised by the window of opportunity for exploring equity across knowledge systems in local to global policy processes, piloting of a Multiple Evidence Base approach was initiated as a collaborative partnership based on co-generation of

2 Organised by SwedBio at Stockholm Resilience Centre, International Indigenous Forum on Biodiversity (IIFB) and the Swedish Biodiversity Centre by its programme NAPTEK. The local host was the indigenous organisation Fundación para la Protección de Conocimiento Indígena (FPCI).

3 Tengö M. and Malmer P. (eds), Borraz P, Cariño C, Cariño J, Gonzales T, Ishizawa J, Kvarnström M, Masardule O, Morales A, Nobrega M, Schultz M, Soto Martinez R, Vizina Y. 2012. Dialogue workshop on Knowledge for the 21st Century: Indigenous knowledge, traditional knowledge, science and connecting diverse knowledge systems. Usdub, Guna Yala, Panama, 10 – 13 April 2012. Workshop Report. Stockholm Resilience Centre. http://swed.bio/wp-content/uploads/2017/05/Guna_Yala_Dialogue_Workshop_Report.pdf

knowledge and methods for mutual learning between SwedBio at Stockholm Resilience Centre, Sweden; Tebtebba Foundation, Philippines; Pgakenyaw Association for Sustainable Development (PASD), Thailand; African Biodiversity Network with Institute for Cultural Ecology (ICE), Kenya and MELCA, Ethiopia; and Forest Peoples Programme (FPP) with Fundación para la Promoción de Conocimiento Indígena (FPCI), Panama.

The objectives of the piloting of MEB have since then been to develop methods, procedures and good examples for how evidence can be mobilised for multiple needs, at local to global levels, and across knowledge systems. The community research that was initiated as part of the piloting has been conducted by the communities themselves, based on their own needs and priorities. Methods were selected based on the local context and engaged with multiple facets of knowledge, including cultural and spiritual dimensions. For example, eco-cultural mapping and calendars, the elders' traditional way of observing and their stories and poems, participatory and inclusive research, and walking workshop's. Biodiversity, food and culture were the unifying topics. The participating communities had earlier experiences of mobilising knowledge e.g. to recover lost seeds or to protect and revitalise sacred natural sites and rituals connected to them. Some communities mobilised knowledge as part of efforts to demonstrate the sustainability of their traditional management and governance systems – as a way of creating an evidence base for policies and decisions that protect rather than counteract their rights and capacities to manage their ecosystems and resources. It was also part of the objectives to generate knowledge that would be relevant for feeding into local and national policymaking, as well as to processes such as assessments for the Convention on Biological Diversity (CBD) and the IPBES, and other fora where working with synergies across knowledge systems are essential. The participating communities formulated further aims including: contributing to changing the views that governments hold about indigenous governance and management systems towards respect and benefit for indigenous peoples and local communities; strengthening livelihoods and well-being within the communities, based on their indigenous governance systems, and finally, promoting joint learning across the participating communities and other partners.

A number of insights emerged across the piloting communities from their experiences in the community research. The most prominent one was the importance and role of mobilising knowledge before engaging with other knowledge systems. Another insight the communities shared was the relevance for co-production of knowledge, starting with the problem formulation, across knowledge systems to connect interests and needs of all actors involved, across scales. For all the communities, mobilisation of knowledge was part of securing territory, authority and rights to govern their ecosystems in a sustainable way. The outcomes were generally well received by local and regional authorities and collaboration has improved.

Community Based Monitoring and impact from local to global

Community Based Monitoring and Information Systems (CBMIS) is a unifying term covering these methods and strategies initiated by communities. An example that demonstrates how their collective efforts have been aggregated on their own initiative and attracted attention in international policy is the Local Biodiversity Outlook (LBO)⁴. LBO presents the perspectives and experiences of indigenous peoples and local communities from their contributions to the implementation of the Strategic Plan for Biodiversity 2011 – 2020. The LBO is a complement to the fourth edition of the Global Biodiversity Outlook (GBO)⁵ which is the Convention on Biological Diversity's (CBD) regular summary report of the status and trends of biodiversity globally. It illustrates how far the Parties have come to achieve the goals set up in the CBD Aichi Biodiversity Targets.

The indigenous peoples and local community organisations working with CBMIS are aiming at collective contributions to enhanced ecosystem management and governance globally. The recognition of indigenous rights to territories and the synergies between biodiversity conservation and human rights are taking shape, and their efforts are recognised in several international decisions recently. Examples of international recognition for this are the decision at the CBD Twelfth Conference of the Parties (CBD COP12) that welcomes the work of indigenous organisations to operationalise the CBMIS as a tool for assessing the progress towards the Aichi Targets. Furthermore, the same decision requests Parties to continue to explore the added value of contributions from indigenous and local communities' CBMIS, and of applying a Multiple Evidence Base approach when monitoring indicators in order to assess progress towards achieving the Aichi Biodiversity Targets.⁶ At its fifth Plenary meeting in March 2017, the IPBES agreed on procedures for working with Indigenous and local knowledge, which also recognises indigenous and local knowledge as valid on its own terms. Most importantly for the Multiple Evidence Base approach, the IPBES procedures for working with indigenous and local knowledge recognise that it is important to “Promote and catalyse the mobilisation of indigenous and local knowledge, as appropriate, where such knowledge does not exist in readily available formats in ways that reflect the concepts of parallel validation or co-production processes”. However, it also concludes: “mobilising relevant indigenous and local knowledge, and ensuring validation through the indigenous and local knowledge system from which it comes, while avoiding the loss of legitimacy, represents a major challenge”. This was one of the challenges the Tharaka walking workshop took on, to contribute to envisioning how this can be done.

4 <http://localbiodiversityoutlooks.net>

5 <https://www.cbd.int/gbo4/>

6 CBD COP12, Decision XII/12 <https://www.cbd.int/decision/cop/default.shtml?id=13375>

Box 1. A Multiple Evidence Base approach for equity across knowledge systems

The Multiple Evidence Base approach for connecting knowledge systems is being shaped in a collaborative process involving a network of SwedBio’s core partners who come from a diversity of experiences and knowledge systems. It has received significant attention in the science-policy-practice community, and piloting is going on in communities as well as testing in dialogues and processes where a diversity of knowledge systems is meeting based on equity and reciprocity.

The Multiple Evidence Base (MEB) approach for connecting knowledge systems views indigenous, local and scientific knowledge systems as generating different manifestations of knowledge. When combined, these can generate new insights and innovations for sustainable governance of biodiversity and ecosystem services. The MEB approach emphasises

complementarity and equitable and transparent processes for connecting across knowledge systems. If applied in ecosystem assessments, for example, evaluation of knowledge would occur within rather than across the contributing knowledge systems. A MEB approach on a particular issue creates an enriched picture of understanding as a base for policy decisions or as a starting point for joint problem formulation and further knowledge generation. In an inclusive and iterative process, a MEB approach can enhance the legitimacy and relevance of the assessment outcomes for a wide range of actors.

The development of a MEB approach started as a part of the on-going “Dialogue on connecting indigenous, local and scientific knowledge systems”, emerging through collaborations between SwedBio, core partners and a network of experts taking part in the Guna Yala Dialogue.

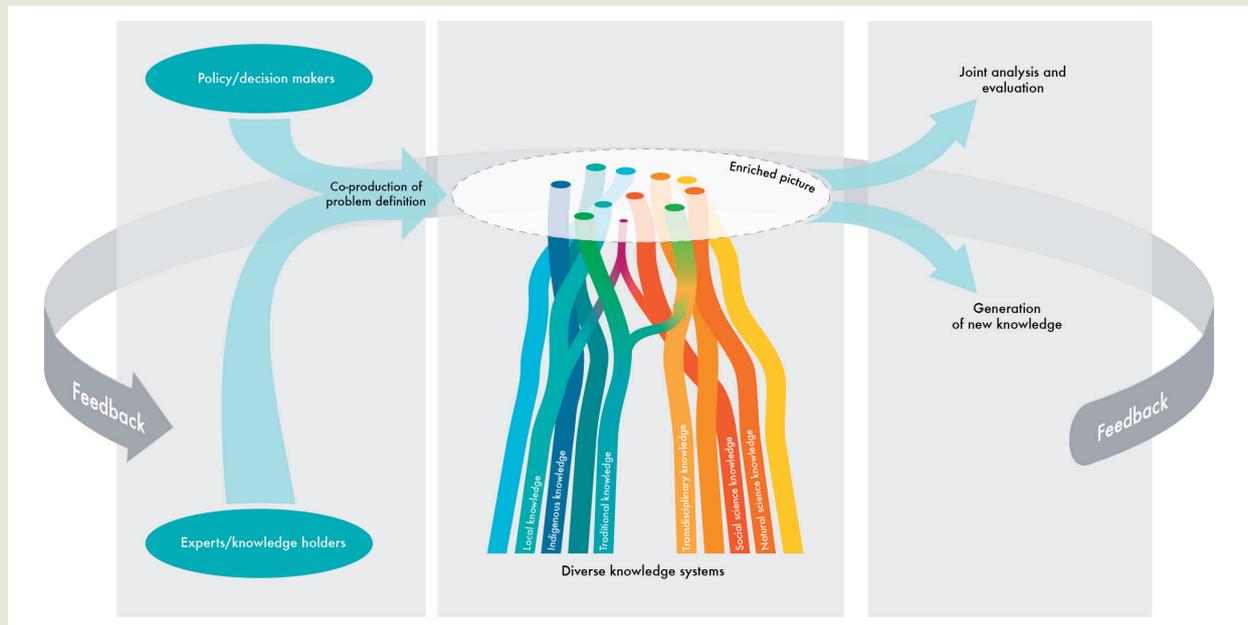


Figure 1a. The figure outlines the three phases of a Multiple Evidence Base approach: joint problem definition, generating an enriched picture with contributions from multiple sources of evidence, and joint analysis and evaluation of knowledge.

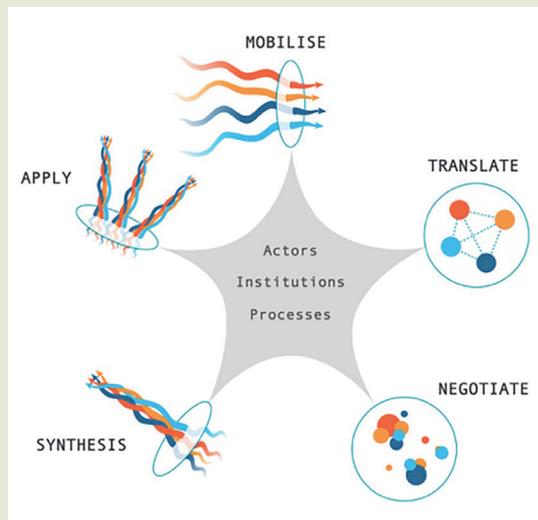


Figure 1b. The figure illustrates how actors, institutions, and processes are at the core of five tasks that are required for successful collaboration across diverse knowledge systems. **Mobilise** means to bring out and articulate knowledge into a form that can be shared with others. **Translate** implies interactions between knowledge systems, indicated by the dotted lines, to enable mutual comprehension of the shared knowledge. **Negotiate** means joint assessment of convergence, divergence and conflicts across knowledge contributions, illustrated here by the combination of some coloured strands (convergence), whereas others may remain contradictory. **Synthesise** concerns shaping a broadly accepted common knowledge that maintains the integrity of each knowledge system, illustrated here by braided strands, rather than ‘integrating’ into one knowledge system. **Apply** emphasises knowledge usable for decision making for all actors involved, at different scales, that can feed back into respective knowledge system, represented here by multiple braids. (Tengö et al. 2017)

Hin Lad Nai walking workshop – summarising community experiences of piloting the mobilisation of indigenous and local knowledge by a Multiple Evidence Base approach.

In February 2016, the community of Hin Lad Nai, northern Thailand, hosted a walking workshop and exchange meeting in Hin Lad Nai aimed at sharing experiences from community research in Thailand, the Philippines, Ethiopia, Kenya and Panama where communities have been part of the MEB piloting. The workshop was kindly hosted by Pgakenyaw Association for Sustainable Development (PASD) and the Hin Lad Nai community, and arranged together with Inter Mountain Peoples Education and Culture in Thailand Association (IMPECT) and SwedBio ⁷.

The “walking workshop” method consist of sharing knowledges and insights while walking through the landscape, in this case the rotational farming of Hin Lad Nai. Participants, both local and visiting, shared and discussed while walking in cultivated fields, fallows, sacred sites, and water sources composing the landscape. In order to explore problems, reflect on experiences and elicit different perspectives, the host community guided the group, facilitating dialogue and seeking explanations, answers and possible solutions together. The exchange dealt with some specific areas of expertise, for instance rotational farming, marketing and selling products from produce, revitalisation of seed systems, and eco-cultural calendars.

⁷ Malmer, P., M. Tengö, M. Belay Ali, M.J. Cadalig Batang-ay, M. Farhan Ferrari, G.G. Mburu, S. Mitambo, C. Phokha, P. Trakansuphakon. 2017. International exchange meeting for mobilisation of indigenous and local knowledge for community and ecosystem wellbeing. Hin Lad Nai, Chiang Rai province, Thailand. 13 – 15 February 2016. Workshop report. SwedBio at Stockholm Resilience Centre, Stockholm, Sweden.

Based on this, a discussion on validation methods in different knowledge systems was held. It was built on the communities’ experiences in generating and validating knowledge such as in the piloting of the MEB, where an enriched picture of knowledges from diverse knowledge systems is emphasised as a critical source for deeper understanding on the issues at hand (See figure 1a). Indigenous and local knowledge systems have their own ways of securing empirical and social legitimacy, and hence validating their knowledge. The MEB approach emphasises the value of letting each knowledge system be validated within its own context, which helps to bridge and interact with other knowledges including western science with equity and reciprocity. This experience was confirmed by the discussion in the walking workshop.

Weaving together knowledge systems ensures that the expertise of each knowledge holder observing and managing biodiversity on the ground is taken into account. This contributes to creating a space for better policy decisions, related to biodiversity and ecosystem governance. Participants coming together in Hin Lad Nai, reflected on how to best use the outcomes of their community research, and share the progress made. Ultimately, they envisioned that the richness of this knowledge could contribute to better laws and better conservation, from local decision making, to national biodiversity monitoring, to international processes such as the Convention on Biological Diversity Aichi Biodiversity Targets.

Another vision was to contribute to scientists’ capacity building for working with diverse knowledge systems. Thus, the next step was to invite more western scientists to a walking workshop. This became the Tharaka experience outlined in this report.

Part 2: The Tharaka Workshop

Aims and structure for the workshop

The Tharaka workshop used an interactive “walking workshop” method that facilitated the interaction between participants and the farming landscape in Tharaka, helped to articulate experiences and inspired discussion with community representatives.

The walking workshop is an indigenous methodology, but also used in many other contexts. It supports implementation of a MEB process in a way that is on the terms of local and indigenous knowledge systems and its representatives. Participants, local and visiting, shared knowledge and insights while walking through the landscapes and sacred sites of Tharaka. The discussions were situated in and around cultivated fields that constitute the landscape and the Kathita river with its series of sacred sites. Unlike more formal workshop settings, being outside, visiting fields and other sites enables the participants to see innovations for themselves, exchange practical knowledge and respond to ideas. The host community decides where to walk – in order to explore problems, reflect and bring up different experiences and perspectives, to seek explanations and possible solutions together in the landscape. The approach used in Tharaka, was inspired from the earlier exchange meetings in Hin Lad Nai, February 2016 described above in part I, and of the International Network of Mountain Indigenous Peoples (INMIP)⁸. The opportunity to connect across knowledge systems starting from observations and practice, stimulates innovation and experimentation based on experiences.

A prerequisite for building an atmosphere of trust was to establish that all knowledge shared and generated during the workshop had to be based on Free, Prior and Informed Consent (FPIC). Consent forms were signed by representatives of all partner organisations, as ‘guardians’ of how the process and outcomes of the dialogue workshop may be used and shared in the future. It was also important to discuss where and how the learning and information would travel. No information from the meeting should be used or interpreted in a way that was different from what it was aimed at. In particular, since researchers and others present in Tharaka for the dialogue are also engaged in processes beyond the community, control of the information emerging from the meeting, and how it is used was important. This is also part of FPIC.

The organisers stressed that information about how knowledge is mobilised and the further process of creating impacts on decision-making locally and beyond – i.e. the interpretation of knowledge as a process – was an important outcome of the meeting, in addition to sharing knowledge about management of landscapes and biodiversity. Insights from the knowledge processes including how institutions and holders of knowledge are collaborating on validation and the use and distribution of knowledges is important in applying a Multiple Evidence Base approach.

Translation was organised between local languages and English, by bilingual participants to ensure good interactions between all. Visiting community participants who were not fluent in English were supported by their accompanying organisations for translation into their local languages.

The objectives of the Tharaka workshop were the following:

General objective: To share and advance methods for learning across knowledge systems and practices based on equity, reciprocity and usefulness for all involved.

Specific objectives:

- Exchange experiences across community projects piloting the MEB approach, and invite additional communities representing diverse knowledge systems, including science, to learn more.
- Exchange on areas of particular focus in Tharaka; protection of sacred sites, agroecology and revitalisation of indigenous seed systems.
- Share the specific methods used in Tharaka, about eco-cultural mapping and eco-cultural calendars and other ABN methodologies as necessary.
- Celebrate 8th of March, International Women’s Day, with a seed festival that highlights women’s knowledge on seeds
- Contributing to conservation and protection of indigenous territories
- Sharing methods and practice for reviving and mobilising knowledge, and how diverse knowledge systems generate and validate new knowledge and innovations.
- How to best use the outcomes of our research, and make our progress useful for others?
- Share with scientists from the MEB research project, and selected other scientists from the IPBES regional Africa assessment, the outcomes and learning from the piloting projects.
- Continue the discussion on validation, across the different knowledge systems

⁸ Swiderska, K. Malmer, P. 2016. Climate Change and Biocultural Adaptation in Mountain Communities. IIED. UK. <http://pubs.iied.org/pdfs/14657IIED.pdf>

Day 1:

Arrival in Tharaka. Warm welcome by community with dance and song.

Opening session

On arrival to Tharaka and the beautiful place under the shade of an old Baobab tree, where the group stayed during the workshop, we were warmly received by dancing and the singing of women from Tharaka. This became a feature of the whole workshop process; the dancing and singing of what we are experiencing together, that revives and creates new energy for generous and engaging discussions. Women's group leader, Sabela Kaguna led the Tharaka community in a traditional welcoming ceremony.

Elders and leaders presented the community of Tharaka and its history, including an update on the ongoing process of reviving traditional knowledge, agricultural biodiversity and rehabilitation and protection of Kathita river and its sacred sites. The elders were proud to show the ecocultural maps and calendars and they shared the process of recovering seeds and revitalising customary rules and sacred sites along Kathita river.

All participants, local as well as international, introduced themselves along with their expectations for the coming meeting and walking workshop.



Bathing in Kathita river. Photo: P. Malmer

Box 2. Introduction to Tharaka

Tharaka lies on the low plains between Mt. Kenya on the West and the Upper Tana River in the east. The area is mainly plains, with the major ecosystem type being scrubland. The area is generally hot, with unreliable rainfall, which quite often leads to crop failure. Drought is a recurring challenge to the livelihoods of the people of Tharaka, from the lowest slopes of the mountain to the banks of the Tana River.

Due to the effects of climate change, rains have become erratic in the area. The area experiences a bimodal rainfall pattern with annual rainfall averaging between 500–800 mm per year. Rainfall varies in amount and effectiveness in the rainy seasons (from March to May, and from October to December) as well as the inter-annual and inter-decadal rainfall variability that characterises Sub-Saharan climatology.

Tharaka has 13 permanent and seasonal rivers flowing

through the land. Out of these, the Kathita River is the most important. It is a 120 km long permanent river, flowing from the top of Mt. Kenya to join Tana River and flow into the Indian Ocean. It has 14 sacred sites along its course. The river provides a significant proportion of the people of Tharaka and Meru with water. However, the river is facing challenges due to pollution coming from towns, abstraction and damming (leading to reduced river water volumes), destruction of riparian reserve and catchment areas, destruction of sacred sites along its course, and disregard for cultural ecological laws which were used to govern the use of the river. Other rivers in the area have changed from permanent to seasonal character, and the community now fears that the Kathita River might disappear in the coming few decades.



Ecocultural maps and calendars for Tharaka. Photo: P. Malmer

Introduction to the dialogue process across knowledge systems

Gathuru Mburu, ICE Kenya

Gathuru from ICE, Kenya was part of the Guna Yala dialogue in 2012 that initiated the exploring of respectful ways to connect across knowledge systems. He has since then been closely engaged in the piloting of a MEB approach for knowledge generation together with Tharaka and Kivaa communities. In the introduction, he shared this journey as reflected below.

Gathuru explained how bringing all of us to Tharaka, is pivotal to how we can devise a way to connect different knowledge systems, and to solve the problems of the world by bringing in indigenous and local knowledge. The Convention on Biological Diversity commits in Article 8(j) to protect, preserve and maintain traditional knowledge, information and practices of indigenous peoples and local communities, and calls for their full and effective participation in all the work of the Convention. CBD shows great concern at the alarming rate at which valuable traditional knowledges are disappearing and the CBD addresses this through the Programme of Work on article 8(j). These actions were not very well delineated initially in the implementation of CBD, but have become much more visible now after IPLC lobbying, coordinated by IIFB. As an example, the Article 10 on in situ conservation, protects and encourages

customary sustainable use. Based on continuous gathering of evidence from cases, and proposals from IPLCs, an Action Plan has been agreed upon, to strengthen actions supporting ILK and culture. It has also been shown in international bodies how ILK is being used in addressing issues such as climate change. IPBES, the Intergovernmental Platform on Biodiversity and Ecosystem Services has tried to give ILK an opportunity to contribute. IPBES is an independent inter-governmental body that aims to provide policymakers with objective assessments about the state of knowledge regarding the planet's biodiversity, its ecosystems and the contributions they provide to people. One of the key aspects that IPBES has taken on is to address the interplay between western science and ILK. This is needed to ensure that ILK is not marginalised as has happened in so many other processes. How science and other knowledge systems could actually collaborate and how to raise respect between different knowledge systems was discussed in the dialogue workshop in Guna Yala, Panama in 2012, (organised by SwedBio, IIFB and NAPTEK), right before the meeting that established the IPBES. Gathuru also mentioned here that there is a huge diversity of knowledge systems within indigenous knowledge, and they are generally respectful of one another and collaborate together for example, in the Caucuses established in international fora.

Gathuru moved on to report on key things that has already been brought up in the Guna Yala dialogue, and that



Group discussion and learning across cultures and knowledge systems. Photo: P. Malmer

we have continued to explore. The first one is about validation. In most cases, we have seen science validate other knowledge systems. How can it instead be accepted and recognised that each knowledge system validates internally, as they have always done, and continue to do? Gathuru argued that was a key point. Co-production across knowledge systems is another important aspect. Who does it belong to, your knowledge? Or, does it belong to each of us? We have to bring in respect and reciprocity in all sharing of knowledge. After Guna Yala, the dialogue continued in many meetings and events, such as at the margin of the IPBES Plenary meetings. At the IPBES Plenary meetings, the IPLCs formed “The International Indigenous Forum on Biodiversity and Ecosystem Services”, and met with the scientific community and governments engaged in IPBES. Gathuru explained that the IPLCs encouraged them in their intentions to work with ILK as an equal partner in the IPBES assessments and elsewhere. Later, the indigenous actors formed “The ILK Centres of Distinctions” that serve as focal points for promoting and supporting indigenous and local knowledge actors and those who want to collaborate with them.

In the assessments of biodiversity and ecosystems IPBES are conducting there are chapters on drivers of change – explaining the past – chapters on current conditions, and on scenarios of the future and Gathuru reflected that there are similarities with ecocultural mapping processes, carried out in Tharaka, Masinga and other communities by African

Biodiversity Network⁹ Ecocultural mapping processes are also generating understanding of the past, present and future. There is potential for western science and IPLCs to find common ground and understand one another, but how does this happen? In this project about developing a MEB, we did a few pilot processes. Together in the dialogue process across knowledge system starting from Guna Yala we came up with the MEB model, that visualises how ILK and science can contribute and bring together their different knowledge systems, based on equity. How do we mobilise ILK? How can we have a dialogue across knowledge systems? When one knowledge system feels superior, there is no equity in the dialogue, Gathuru reflected. There are strong community leaders and elders with knowledge; such as here in Tharaka in Kenya, for example. Another example of a community with many people representing strong knowledge is in Machako, Kenya.

Gathuru went on to explain more about the ecocultural mapping that was facilitated by ICE and ABN in Tharaka and Kivaa. While drawing ecocultural maps and calendars, the process of creating the calendar is very important, because the knowledge within a knowledge system is very diverse, and a lot of it is not written down. Capturing the

⁹ http://swed.bio/wp-content/uploads/2016/11/MEB-Pilot-Report-Kenya_2016.pdf

knowledge depends on how the participants can remember, what has been the impact from influences from different knowledge systems, and other changes in the history of the communities. That is why ecocultural mapping is important. Through community dialogues, they bring up knowledge that might have been almost lost, along with developing the map and the calendar, so that people can learn from each other and agree within the clan or community. One important aspect is the local language, in which knowledge is embedded, this is how the knowledge is shared and created.

Another important aspect of knowledge mobilisation is engaging and educating the youth. After a series of dialogues, we got together and started planning how to realise the vision represented in the map of the future – this required different actors, and all needed to participate. In this process, several knowledge systems – or streams, as in the MEB figure 1a – had to work together, including the local knowledge of the community and the academic and practical knowledge of government officials. The result in Tharaka was a community action plan that was agreed upon by all actors.

One identified need was to restore and rejuvenate sacred sites. This led to a collaboration with the National Museums of Kenya, to gazette the sacred sites. In March 2017 Tharaka got the notice that some of the sacred sites in Tharaka and Kivaa had finally been gazetted. It took 2 years. This story shows how knowledge systems can work together, so we can get more protection of our sacred sites, as an example of knowledge collaboration between knowledge systems, with a positive outcome.

Gathuru invited Mr. Njuguna Gichere, who is a research scientist at the National Museums of Kenya involved in the gazettement of the sacred sites of Kivaa and Kathita river, to explain what the gazettement meant. First, it is the identification of the sites, explained Njuguna. In this case, the museum was not required to come and identify, as that had already been done through the ecocultural mapping process. The next step was to collect data to produce a technical report. This involved meeting with staff from the Museum in the communities to identify the outstanding values of the site, the importance of it, the threats to it, etc. A cartographer made a map to indicate the location of the sacred sites along the river Kathita. Once the Museum had done that, the report was shared with the community, so they could go through the report and check that the information was correct. Once the community and the scientists from the Museum agreed, the report went back to the Museum. After that, it was sent to the legal officer at the Ministry of Environment and after that, to the Cabinet Secretary, who formally gazetted the site. The site is now recognised by the government and no individual or organisation can go against the wishes of the people who are the recognised custodians of the site.

For example, it's not possible to build a hotel at a sacred site if the community does not agree. Sometimes the communities think that once the site is gazetted the government owns it but in fact, the sacred sites remain the property of the community and all the community's customary use of the site can continue to be realised. That is the idea of the gazettement, explained Njuguna.

Questions and reflections:

The discussion revolved very much around the ecocultural mapping and the sacred sites. One of the first priorities in the action plan that was developed as an outcome of the ecocultural mapping process in Tharaka, was to set up community research groups that have worked on different issues, including the sacred sites. Another issue that is a long term process is the revival of the clan governance system of the river. Gathuru explained how the ecocultural mapping started a process in the community that continues – people are still referring to it and discussing the various actions that were agreed for realising the “map of the future”. Another issue is around traditional laws and customary rules and how these can continue to be practiced in interaction with the national laws. More work needs to be done to get the community action plan formally recognised by county and national government.

Several participants stressed, using examples from Ethiopia, Thailand and the Philippines, that governance of biodiversity pre-exists national laws and western science. There was agreement that a lot more work needs to be done, such as case studies that explains the links between managing biodiversity and traditional knowledge, to strengthen the understanding and recognition of the customary governance systems. Communities hold a lot of knowledge. They have to be put in a context where the knowledge can be used to assist the local people, including the local knowledge holders themselves, it was reflected from participants. An example from Tharaka where this is now happening is the revival of the traditional seeds along with the system for managing them.

One question was around the MEB piloting, in particular, the methods used to collaborate between knowledge systems. Gathuru explained how the ecocultural mapping mobilised knowledge, and how the maps in Tharaka as well as in Kivaa were used to communicate and discuss with representatives from other knowledge systems, such as the government officials. Maria commented that in the MEB piloting process, the idea was not to try out a specific approach, but that the communities had their own ideas for how to do it. One thing that was learned from the piloting of the MEB was the need for methods that mobilise knowledge in a way that works for the community – ecocultural mapping is one such example.



Multiple Evidence Base is about working together across knowledge systems with equity and usefulness for all involved. Photo: P. Malmer

Introduction of the walking workshops and the Multiple Evidence Base pilot project

Pernilla Malmer and Maria Tengö, from SwedBio at Stockholm Resilience Centre, Sweden

Pernilla and Maria presented the objectives of the meeting, and echoed Gathuru in mentioning how this meeting builds on a long standing dialogue process. They summarised that communities piloted a MEB approach that mobilised ILK and also generated new knowledge; this was followed by the shared learning across the communities, organisations and other partners involved. Part one of this report explains this process.

Maria then presented and explained the two figures illustrating MEB processes – depicted and described in Box 1. Both the figures have emerged and developed through the dialogue process. In particular, figure 1b builds on the insights from the MEB community piloting, and also the experiences from ILK holders' engagement in the IPBES pollination assessment¹⁰. The experiences of partner organisations in the CBD, where they built the evidence based on community processes, also contributed to formulate and negotiate the policy proposals for the Action Plan on Customary Sustainable Use, adopted at CBD COP12¹¹. The ecocultural mapping process in Tharaka, which Gathuru and the community had described, was used as an example

of the role of biocultural mapping and calendars as tools to mobilise and translate knowledge. An important part of the presentation was to thoroughly discuss the figure 1b and its value for the different partners at the workshop. The following summarises some of the discussions.

Sulemana from RAINS in Ghana, asked about seeds as an example – where and how can seed scientists share and contribute their knowledge in a way that is useful for communities? Pernilla talked about participatory plant breeding, where farmers who are nurturing rich agrobiodiversity share their detailed expertise on characteristics of their seeds, and also express what challenges they have in their cultivation. Scientists with expertise in plant breeding can then share techniques with the farmers on how they can breed their seeds, support them in speeding up the breeding process and also support them finding plant material with the characteristics that the farmers are interested in testing. If you applied a MEB approach to the example of the breeding process, the five steps would be mobilising, translating, negotiating and synthesising. Denis from NAPE, Uganda commented how things usually work – that communities talk about breeding in the garden, and scientists talking about breeding in labs.

Maria responded that this concerns the need for translation that goes both ways, for representatives of different knowledge systems to understand and respect each other. There is a need for key people that can help with translation across knowledge systems, and organisations that can convene such dialogue. We also need tools for this, one example are the ecocultural maps that the Tharaka community shared. It helps them to explain and share their knowledge about the landscape with others, as a base for their proposals

10 IPBES (2016): Summary for policymakers of the assessment report of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on pollinators, pollination and food production. https://www.ipbes.net/sites/default/files/downloads/pdf/spm_deliverable_3a_pollination_20170222.pdf

11 CBD COPXII/12 Article 8(j) and related provisions <https://www.cbd.int/decision/cop/default.shtml?id=13375>

and requests, including to policy and decision makers. Showing, and looking at the maps together, is helpful. Walking together in the landscape is another tool, that is used in participatory plant breeding, for example.

The need for ILK to be recognised in relation to science was a central theme for the discussion. Dennis brought up the critical questions of validation. The scientists use scientific methods, but in the traditional knowledge dreams are part of validation. Pastoralists predict a change in climate through dreams. This could be one of these streams represented in the figures of the MEB (Box 1). It can still contribute, also if some people do not believe in it, the point is still to respect different sources, and you do not need to fully understand and agree to it.

Fassil from ABN regional coordination, Ethiopia, commented that he appreciated the discussion and was thankful for the journey. Discussing the challenges for understanding, showed that we can be optimistic for improvements. He asked about examples of synthesis and application in the figure 1b, from the indigenous knowledge perspective. People have knowledge from their dreams, they are thinking and imagining – unless you are living and experiencing it, how can that kind of knowledge be documented? He said that in his understanding so far, synthesis meant that everyone was weaving together. No knowledge system could be left out of the synthesis. There could not be recognition of ILK if ILK was not included and independently contributing on its own terms from the onset. Everyone would have to agree how to go about it. He found that this was not well represented in the figure, as the synthesis braid appears to be just one. The “application” braid was better.

Maria reflected that we needed to discuss how to define synthesis and that it should be possible to include disagreement in a synthesis – as shown in figure 1b, there are some braids that are not merging. One could explain that certain things are agreed in a synthesis, whilst there might be degrees of disagreement about others. Maria concluded that it should be possible to have different opinions in a synthesis. For example, different scientific studies, and different streams of science understand things differently and that can lead to deeper understanding in the end.

Where there is disagreement, there are also opportunities for new kinds of collaboration and “co-production of new knowledge”. The most important thing to keep in mind is the respect and reciprocity.

It was pointed out that academics favour more formal methodologies and people coming from the formal education sector learn about input and output in production systems. He wondered how seeds in participatory plant breeding were selected, and how the farmer would know what seed to select? To find common ground and to have indigenous knowledge, he asserted that everyone should agree on how to go from the formal methodology taught at school to indigenous methods, or vice versa. Without a common ground, a joint

method for communication and cross-fertilization, it might be difficult to collaborate.

Maria responded that it should be possible to collaborate without a common ground from e.g. a similar educational experience or from belonging the same knowledge system, but to collaborate is easier if you have such common ground. In reality, some knowledge streams, like science, often dominate the agenda and prevail in the process. But everyone needs to make an effort to equally understand one another. This is about the “translation” task. This reasoning also applies to collaboration within science, for example between scientists in the social or natural sciences – it is not an equal relationship, and the methods for generating evidence in different scientific streams are different; likewise, they have much to gain in recognising and understanding one another.

There was a comment that to be able to move between knowledge systems, knowing how other knowledge systems work would be necessary. It would be of help if this was taught more in science education. This relates to the need also for holders of indigenous knowledges to be invited to educate scientists in their way of knowing, beyond sharing their knowledge itself.

Terer, himself a natural scientist, although working with indigenous knowledge remarked that the figures made it clear to him that indigenous and local knowledge is deep in its entirety. Most scientific discovery originally came from indigenous communities, and then the scientists picked it up. For example, at the seed festival he saw a new variety of millet and asked about it. The knowledge that was shared with him will be fully attributed to the community in the recording of the new variety. Another example he mentioned was the chapter in the report of ILK perspectives¹² that Mburu and Sabela wrote for the IPBES Regional Assessment of Africa based on the Tharaka experience in mobilising knowledge. It was written together between them, after they were selected to take part in the IPBES ILK regional dialogue for Africa, and now it is part of the evidence for the IPBES regional assessment for Africa.

Mburu made some final comments. He emphasised that no knowledge is lost when it is shared across knowledge systems; rather the discussion is about being aware that there are other knowledge systems that can contribute to an enriched picture of understanding. The knowledge systems, or knowledge threads – as in the figure – should not be consumed by one another, it should be shown how each of those knowledge systems can contribute useful information at the end of the day. It should follow principles of reciprocity. The bottom line is that there must be trust and respect and everyone needs to appreciate that each knowledge system can contribute useful information.

12 M. Roué, N. Césard, Y. C. Adou Yao and A. Oteng-Yeboah (eds.). 2017. *Knowing our Lands and Resources: Indigenous and Local Knowledge of Biodiversity and Ecosystem Services in Africa*. *Knowledges of Nature* 8. UNESCO: Paris. 156pp. <http://unesdoc.unesco.org/images/0024/002474/247461m.pdf>

Day 2:

The day started with settling an agreement for FPIC on how to use the knowledge shared and learned during the workshop, and the conditions for sharing it.

Afterwards, everyone joined a march in Tharaka for International Women's Day, celebrating women's knowledge on seeds and the environment. The march ended with a ceremony held at the Nyangumi Stadium in Tharaka city centre. In the afternoon, the group reflected on the experience from the march and the seed sharing, and learned more about Tharaka seeds and women's knowledge. Also, the piloting experiences from the Philippines and Thailand was shared.

Free Prior and Informed Consent

Pernilla explained the purpose and importance of FPIC to the participants. She explained how a report will be generated from the meeting, and that insights and learnings from the meeting may be used in presentations and publications to be shared with NGOs, community organisations, researchers

and other interested people and groups. It was agreed that representatives from ABN, ICE, and the organisations representing the visiting communities (MELCA, Tebtebba, PASD) are the guardians of the knowledge from the communities, and they need to approve any sharing or use of material from the communities in the meeting. These representatives signed a form, together with the researchers participating in the meeting, as well as SwedBio representatives, agreeing to follow these rules.

Seed Festival and Celebration of women's knowledge

In the morning, the group marched to Nyangumi Stadium in Tharaka Centre to mark International Women's day. Many community members accompanied the march and were



Celebrating womens knowledges about seeds. Photo: P. Malmer



Many voices in honour of womens knowledges. Photo: African Biodiversity Network

holding placards celebrating Women's' wisdom and multi-faceted knowledge including seeds, agriculture, climate and their significant role in society.

There was a crowd of people at the stadium and an exhibition about seed diversity as well as wild fruits and seeds displayed by women from various parts of Tharaka. The display of seed varieties and wild fruits from the desert revealed the potential of community resilience through use of indigenous seeds and associated knowledge in a situation where the climatic condition in places like Tharaka is very challenging.

All participants were invited to bring photos, and other material from their countries to exhibit in Nyangumi Stadium, at the end of the march. Workshop participants from Thailand brought seeds and plants to display and exchange at the exhibition, and became involved in discussions over their seeds with the locals, as well as other participants.

Another major activity in the Women's' day celebration was launching a book published by ABN, the Gaia Foundation and African Women Development Fund (AWDF). The book is titled: *Celebrating Rural African Women: Custodians of seed, food and traditional knowledge for Climate Change Resilience*¹³. A group of women sang traditional songs led by Sabela Kaguna, one of the local women leaders who is a farmer as well, and finally everyone was invited to dance

together. The dancing, including being invited to take part in it, was very motivating and together with the seeds display showing the rich culture in Tharaka. There were also speeches from ABN representatives, local and regional politicians and government authorities, and two successful women from the community, Prof. Colomba Kaburi and Dr. Janerose Kiraithe. Participants of the Dialogue meeting from different parts of the world were invited to contribute reflections on women's role as custodians of seeds and knowledge, and their importance in society.

Reflections on Women's Day celebration Co-chairs: Florence Daguitan, Tebtebba Foundation and Pernilla Malmer, SwedBio.

Florence initiated by reflecting on the celebration of women for seeds, not only for crops, but also for carrying and germinating the seeds for humanity. Women play a leading role in the continuation of society, and provide food, health care, but also love. They are responsible for mentoring the entire family at different levels and this helps them to be knowledgeable in various aspects of social, cultural, and ecological knowledge. Whilst it is a privilege to be a woman, the hierarchy of our society is dominated by men. Florence asserted that for these power relations to change, men have to give something up, they need to give up power to women. Others commented that the Women's Day celebration was

¹³ <http://africanbiodiversity.org/1046-2/>



Seed diversity celebrated. Photo: African Biodiversity Network

lively and not political so people shared ideas and experiences in one-to-one conversations as well as in participation with traditional dances. The international guests were impressed when they learned that the Kenyan constitution stipulates that 30% of women must be included in leadership. However, it was also observed that local women didn't talk despite the fact that they were fully present and participated in the event through bringing their artefacts, i.e. the seeds and other materials. They must have a story to tell about the process of seed production and many other livelihood practices, and it would have been a great contribution to share officially.

Stereotyping of gender roles was also picked in the speeches, for example “without women why would men bring home money” – women also play a critical role in earning money for the family.

Speeches made by the Kenyan academicians focused on putting indigenous learning and formal education in separate categories of indigenous learning and learning in formal schools (education). The tone implied discrimination between academic learning and practice based learning. One participant interpreted this as making a distinction between “those who learn and those who are taught”

A female political candidate also made a speech and participants appreciated women's participation in the speeches and in policy, because they felt that women are more practical when it comes to implementing what they promise to the public. The absence of youth and children on Women's Day

was seen as a missing link because children and youth should be included in this kind of event to get inspiration and learning about women's knowledge and role as custodians of traditional wisdom.

Focusing again on women's knowledge and seeds, participants talked about how they observed women's knowledge through the seed display. It was women who exhibited seed varieties and they were confident to talk about the use and management of seeds. The display of different wild fruits showed how Tharaka people developed resilience through their well rooted knowledge system that had transferred knowledge about the surrounding biodiversity through generations. Wild fruits are nutritious and thrive even when the weather is harsh. They are a source of food for people when their crops are failed due to lack of rains.

Community members from Ethiopia and Thailand reflected on the value of men and women praying together for sustainability and the importance of women's role in taking care of the environment. They could see similarities in the link between women and seeds in their own communities. In Thailand, women select seeds, take care of them, and plant, and men do not touch anything. They also reflected on the role of youth and how they could have learned from the foreign visitors, if they had been there. It is important to create space for transmitting knowledge to the youth, for youth participation in activities and celebrations, and to welcome young people to bring in new ideas.



Exploring Tharaka diversity of seeds. Photo: P. Malmer

Knowledge about seeds and wild plants is often seen as “informal knowledge” because there is no graduation and certification when it comes to indigenous knowledge. One participant asked the community members from Tharaka if there was a way to graduate and become an expert of traditional knowledge in the community. Elders from Tharaka community explained that there is no clear graduation and certification but there are different rites of passages throughout life. The first is at 12–13 years of age for a boy. This is the period of time when mothers teach their children household knowledge, ethics, animal husbandry, gardening and other agricultural activities in the backyard. From 14 years of age and onwards, there are different rites of passages to boys including circumcision, marriage, participation in community activities etc. Similar patterns of mentorship and relevant rites of passages also apply to girls during the course of their lives. A child’s first teacher is their mother. She shows her children the do’s and the don’ts. Children also compare and learn from brothers and sisters and others in the family. The learning is also intergenerational – elder women teach, and girls and boys also learn amongst themselves. At a young age, mothers teach their daughters how to select seeds for the shamba (the field). Girls learn all about farming from their family so that they are prepared when they start their own household and farm. It is like different stages of school. There is no graduation as such or claims to being an expert in one’s own knowledge. Knowledge is something to be shared and practiced – not to be owned individually or patented. From the indigenous perspective, acquiring knowledge requires a learner to be engaged and gain experience

through daily life. It is acquired through consistent mentorship and guidance at the household level, in the neighbourhood and community, and in society at large. Indigenous learning can also be acquired through interaction with peers and observation, as well as with the natural environment.

The women participating in Women’s Day were proud of their knowledge of seeds and empowered through the revitalisation of seeds that has been facilitated by ICE in Tharaka. All the participants were keen to hear the women talk more about their seeds and plants and the Tharaka community members present were asked to show the seeds and explain more about their seeds and seed systems.

The community members displayed seeds of two kinds: crops and wild or semi-domesticated fruits. There was a range of varieties of sorghum and millet. Differences between varieties include colour, seed size, how easily the seeds fall, and how fast the seeds mature. They are used for different purposes. For example, a specific variety is used in the sour porridge that was served at the welcome ceremony. There were also examples of how different varieties were used in stories or songs. One song is about a boy who hangs his head, just like a specific variety of sorghum. There were also different varieties of cow-peas, green peas, pigeon peas and green grams, and detailed comments about their medicinal value.

The semi-domesticated fruits included castor seeds used for medicinal purposes for humans and cattle, such as fishtail palm, baobab fruits (mixed with milk, it helps children sleep well) tamarind, winter melon and pumpkin seeds.

During the session, suggestions came up regarding further activities where a Multiple Evidence Base could strengthen

and support mobilisation of indigenous knowledge and the empowerment of indigenous communities.

Firstly, that attention should be drawn in education and in science on introducing the value of other ways of knowing that are not necessarily based on experimentation in the laboratory and/or mathematical justification. This is particularly important in scientific institutions. A suggestion was to promote community research, building on the experience of the communities that have been piloting indigenous research with the Multiple Evidence Base approach. Also, sharing ideas in the walking workshop as well as enriching insights on the principles of validation of indigenous knowledge. For example, it can strengthen the ongoing work on Community Seeds and Knowledge¹⁴, and Community Ecological Governance¹⁵, that ICE and other ABN partners are engaged in with their communities. It was suggested that ABN might think of how indigenous knowledge and practices can be included into school curricular. This is something that is already piloted in some work with the Youth, Culture and Biodiversity activities, for example in Ethiopia. Mainstreaming women's work and practice would also be valuable in influencing education policy in adding extracurricular activities

Afternoon session: Presentation from the Tinoc community piloting of a Multiple Evidence Base in the Philippines

Florence Daguitan, Tebtebba Foundation, Josephine Pelila, farmer from Tinoc, Allan Olubalang, farmer from Mindanao

Tebtebba Foundation works with the indigenous peoples' communities and organisations in the Philippines, and links these experiences to international policies, centred around indigenous self-determination. The experiences from the piloting of a Multiple Evidence Base in the Philippine Cordillera, and in Mindanao, where the Philippine Traditional Knowledge network partners are localised, was presented by the Philippine team.¹⁶

In the Province of Ifugao, Cordillera Administrative Region, a diversity of strong indigenous cultures is prevalent and maintained in their traditional territories and ancestral domains. In some areas, commercial vegetable farms have expanded across the mossy forests and traditional inum-an areas; the rotational farming areas. One of these is in the

Kalanguya territories in Tinoc, leading to degradation of soil, forest and water.

The Philippine team shared experiences that go back to 2008 where some indigenous communities in the Philippine Cordillera decided to take on the challenge of exploring the ecosystem approach, in practice. This corresponds to the CBD's implementation of sustainable use which is based on taking decisions regarding governance and management of biodiversity at the lowest possible level. In addition, the communities' plans contribute to CBD Article 8(j) on indigenous knowledge, innovations and practices, and the full and effective participation of indigenous peoples and local communities in the implementation of the convention. Indigenous knowledge is important, not least for knowing what the resources are, and how to use them in the best way.

The CBD has agreed on indicators for traditional knowledge; these are linguistic diversity, traditional occupation and land use changes in indigenous areas, along with how indigenous knowledge is recognised in society. The communities in Tinoc engaged in piloting the monitoring of these indicators, and thus started to discuss what was traditional occupation, and traditional governance. They decided to start doing research themselves as a way of demystifying the view that only the schooled or scientist can do research.

From 2009, meetings were convened by the Kalanguyas of Tinoc and leaders of local farmers' organisations. The meetings were attended by all sectors of the community; women, elders and farmers, as well as teachers and village midwives

People were reminded that in the traditional indigenous territorial management practices the community took care of the communal watershed, that was protected as a sacred site and source of water. This worked well until the mid 1990s when intensive vegetable production for external markets was promoted and adopted. Farmers took loans to buy synthetic fertilisers and chemical pesticides and fell into debt – even if they earned more, they had increased costs and a pressure to repay loans. Around 50 % of the farmers converted to intensive cash crops. The traditional agricultural land started to degrade, and pressure on the forest increased; it was logged and converted slowly into waste land. Much knowledge was being lost in this process, such as traditional medicine, and traditional agriculture and soil fertility maintenance, water management etc.

By 2010, people involved in the process concluded that they had veered away from indigenous knowledge systems and practices of managing their territories – the communal watersheds and woodlots, the farmlands, rivers and residential areas – and instead of advancing the good agricultural practices, they had adopted commercial chemical farming. This had led to forest and land degradation, health problems and farmers falling into debt. In the First Tinoc Land Summit where this analysis was presented and validated, the participants agreed to stop environmental degradation and to promote peoples' wellbeing by reviving and innovating their know-

14 Community Seed and Knowledge is a thematic area of the ABN that deals with revival of seed diversity and related knowledge systems for increased food security and sovereignty.

15 Community Ecological Governance is thematic area that deals with bio-cultural diversity and governance around critical ecosystems such as sacred natural sites and territories.

16 Mobilizing indigenous knowledge, innovations and practices of the Kalanguyas farming systems in Tinoc, Ifuago, the Philippines <http://swed.bio/reports/report/mobilizing-indigenous-knowledge-innovations-and-practices-of-the-kalanguyas-farming-systems-in-tinoc-ifuago-the-philippines/>

ledge systems. Through the collaborative efforts of civil society organisations, communities and the local government units, the Comprehensive Land Use Plan [CLUP] of Tinoc was formulated.

In a unifying process, they created the concept of upgrading the inum-an and payew cultivation. The municipal government unit engaged in the process of putting together the land use plan of Tinoc. In 2012, the local indigenous organisation, Naundep ni Napahnuhan ni Kalanguya, (NNK) was formed. The process has continued through introducing, innovating and testing new methods in farming that contribute to the revival and renewal of the Kalanguyas traditional farming system.

The initiative has helped the community to adapt and respond by organising a unifying process of awareness building and revalorisation of the Kalanguyas identity and culture. By building their self-confidence as Kalanguyas, they been able to bring back their traditional knowledge and practices, and also innovated and introduced new knowledge. Examples of this include the testing of the “System of Rice Intensification” (SRI) – a method to enhance rice cultivation that was initiated in Madagascar and spread and adapted in many countries. SRI was combined with innovations on traditional knowledge of green manuring and getting microorganisms from the forest to improve soil quality and increase yield. As part of the MEB process they analysed the change in soil quality in a laboratory.

They have been able to mobilise their collective actions in forest protection, and stop the conversion of the old mossy forest into farmland, which also helps conserve water and soil. The food security and sovereignty has been enhanced

by the revival of the inum-an system, and their resilience and basic life conditions have increased.

The initiative by Tebtebba and its network has also contributed to important progress in global policy, by volunteering for pilot testing of the indicators for traditional knowledge under the Convention on Biological Diversity (CBD) and the promotion of Community Based Monitoring as an important monitoring and reporting mechanism.

Questions and answers about Tinoc:

When you refer to the laboratories, what are you testing there?

Florence explained that they are studying the qualities of the soil both by the scientific quantitative measures of soil qualities, that are done in laboratories, and the traditional qualitative way of assessing it. It’s a means of parallel verification and illustrates the synergies of their implementation of the MEB approach. Through the insect inventory in farmers’ fields, that explained the efficiency of their natural pest control, communities also adhered to and appreciated these scientific ways of measurements.

Florence went on to explain that the research they have done together with the communities is a joint learning and educational process. They have been using modern measurements of nutrition, such as vitamins, protein and minerals, and in doing so, they have made efforts to translate to their own traditional measurements language. They have seen the correlation with having nutrition from a diversity of cultivated plants and from the wild, as have been provided by their traditional food system. However, they have still been very careful in keeping their traditional values and system. For example, they need to be aware of not bringing chemicals



Tharaka landscape. Photo: P. Malmer



Tharaka community sharing. Photo: P. Malmer

into the traditional system. What they have observed happening as a result of the introduction of commercial vegetable cultivation on the traditional lands has been a clear warning for them. But nonetheless, they still maintain their commercial vegetable gardens as this is the only seen opportunity for them to earn their cash needs.

Maria commented that it is such a good story. It's community driven, and it's clear that communities learned some terms like nutrient content which shows how research can support the community in their practice. Nevertheless, it's important to see the system as a whole, and be able to identify the gaps and challenges, and bring in new knowledge as additional information, to take better decisions – “to have an enriched picture”.

With the introduction of commercial farming, the pressure to make a profit, based on mono-cropping and chemical farming, knowledges are disappearing. Challenges have impacted indigenous practices, such as the cash economy, and the indiscriminate promotion of industrialised farming methods. This has put much pressure and the traditional methods cannot be practiced as before. On the other hand, we know that crop rotation was sustainable; feeding the soil with organic matter and keeping the balance between the different uses of land. Florence reflected that they have not given up traditional knowledge but rather, they have experimented with innovations in order to ensure to maintain it. For example, they started the experimentation with the system of rice intensification and people found out how they could make it useful. It will now be up to the people to continue and make the experimentation even more useful

to them, and combine with their own localised knowledge and their traditional biocultural landscape.

“It's a useful illustration,” Maria concluded. “We can learn a lot from IPLCs, how to test and apply science, with complementarity to your own knowledge, rather than changing the whole system.”

Evening session: Presentation from the community piloting in Hin Lad Nai, Thailand

The Hin Lad Nai community presented their experiences by showing a film from their community¹⁷, that illustrated how they practice rotational farming. The film also shows young people being invited to cook and share the rich indigenous food and culture, all harvested in the same traditional landscapes. Experienced chefs also took part to help illustrate the value of the vast diversity of foods grown in Hin Lad Nai to modern cooking and diets.

The Hin Lad Nai team explained they have two reasons for doing their research with the MEB piloting. First for themselves, but also to help others understand why rotational farming is sustainable, and how it creates a good life, with low impact on the forest, and enriches biodiversity rather than destroying it. That is why they in their MEB piloting did prioritise to show how rotational farming contributes to biodiversity conservation.

¹⁷ <http://swed.bio/news/indigenous-community-research-contrib-utes-to-policy-development-and-enhanced-ecosystem-governance/>

Summary discussion; Rotational farming in Thailand and Philippines

Both Thailand and the Philippines are examples of rice cultivation cultures and rotational farming systems drawing on localised knowledge and practices. Both have been confronted with different realities, and have responded in different ways.

For Hin Lad Nai, the priority is to fight for their rights to protect their forests and to remain there. Their struggle is to resist pressure to abandon the rotational farming culture, which is illegal in Thailand, and to be recognised and respected for their traditional culture and practices. In the case of Hin Lad Nai, innovations include diversifying and cultivating new crops and new products, such as bamboo in the forest and honey production that creates new sources of income.

Tinoc's experience has been focused on revitalising values and practices that had been abandoned due to the pressure from commercialised vegetable production that has eroded the soil and made parts of the landscape infertile. In doing so, it became apparent that to retain a productive traditional rice cultivation system, it was necessary to innovate traditional methods. New methods of rice cultivation, such as the SRI, the system for rice cultivation, have been tested on their terraces. It implies new methods for irrigation, and also new methods for producing fertiliser, compensating for earlier practices, that have been very time consuming, and thus abandoned.

What the two approaches have in common is firstly, the wish to create wellbeing for the community based on their traditional culture, values and practices, and secondly, the introduction of innovations that can help them adapt and respond to new challenges.

Day 3:

The day started with a visit to the Kibuka sacred site at the confluence of the Kathita river and Tana river where we met the custodians of that site.



Learning from Kibuka custodians. Photo: African Biodiversity Network

In the afternoon, an interactive session was held to discuss validation in different knowledge systems. After dinner, there were more community presentations, from MELCA Ethiopia and Kenya-based MPINDO and ILEP.

Walking session 1: Visiting sacred site at Kathita river

The day started with setting off (by bus) to the Kibuka sacred site, located where the Kathita River meets Tana River. It's a beautiful place with cascades that eventually flow into the huge Tana river.

Two men and two women introduced themselves as custodians of the sacred site and described a ritual that elders from Rurii clan and Mbura clan perform there. Different people are in charge of carrying out certain aspects of the

rituals. This is the story the custodians told about Kibuka sacred site:

“A couple from Nyaaga clan have no children. They went to a seer and were told that the woman will not give birth to a child, but they will have a child. One day with heavy downpours of rain, they heard crying and found a baby boy. They reared the boy as their child and his name was Kibuka. During the ritual of circumcision Kibuka disappeared. The other boys were circumcised. After some time Kibuka returned and to his parents' surprise he was now circumcised. After that, Kibuka was married and had a family. At that time, the community lost many people during a war. Kibuka said he could help them. He asked them to offer him a boy, but people refused. Then Kibuka took his own son, and operated him to put a horn inside his chest. This son fought

and won several wars. Each time he was killed he rose again. But three men were captured by the enemy and tortured. One of them revealed the secret of Kibuka's son and how he could rise again, and the enemies managed to take out the horn and kill him. When Kibuka learnt about the death of his son, he left the area with all his livestock. He travelled until reaching the river Tana. He disappeared at this place where the waterfall is. Later he appeared several times with his livestock here and people could see him closely. Then he disappeared completely."

An important ritual is carried out at the sacred sites. It concerns the selection of seeds to plant the coming season. A live goat is thrown into the waterfall. A closed basket with different kinds of seeds is tied around its neck. The goat should turn around four times in the whirls and is then taken out of the water. The seeds that fall out of the basket and are stuck on the body of the goat are the ones to be planted. A deep prayer is held and after that everything will turn out well.

There is also a ritual after harvest, before the fresh food can be eaten. Certain rituals need to be done at this site, other sacred sites have other characteristics. There are particular places for worship, which are no-go zones for other activities. Rituals are carried out when people feel there is imbalance, it is an important part of governance. The rituals make the sacred site potent. There were questions about when the site become sacred, but there is no consensus among the custodians. It is clear that in the Tharaka community a sacred site is permanent.

Sacred sites along Kathita river

An important discussion at the sacred site is the threat of a dam construction at Kibuka, where Kathita and Tana river meet. Even in the 1960's there were plans to build a dam here. Some stories say that the reason the dam did not happen was because of the power of the site.

Everyone walked through the sacred site in small groups, guided by the locals. After walking the group gathered in the shade and shared observations. What about the role of custodians? What role do the sites play in the management of the river? What is the community's relation to their sacred sites?

The custodians said that the Kibuka site is one of a series of sacred sites along Kathita river that has been re-discovered and re-instated as an outcome of the mapping processes in Tharaka.¹⁸ The Kibuka site is the most potent one along Kathita river, but it is also threatened by a planned mega dam, that would drown the sacred site and a large part of the landscape.

The Tharaka community believe that there is a strong connection between conservation of seeds and protection of sacred sites. If sacred sites are well protected, there will be rain and good crops which would eventually give them good seeds. The Kathita River, with its 14 sacred sites along its course, therefore becomes an important eco-spiritual phenomenon for the community. Protection of the sacred sites would lead to protection of the river. Destruction of the

18 <http://swed.bio/reports/report/reviving-indigenous-and-local-knowledge-for-restoration-of-degraded-ecosystems-in-kenya/>



Gather in the shadow. Photo: P. Malmer



Arriving to Tana river. Photo: P. Malmer

riparian reserve of the river leads to destruction of sacred sites and therefore a disruption of the relationship between the people and nature, which would be manifested in drought and poor crops, and hence no seeds. A lack of indigenous seeds meant that the community could not do their rituals, since seeds are an important component of ritual practice. Before the sacred sites were destroyed, they would produce a sound that would help people anticipate the amount of rain that would fall. This would help them to determine which crops to plant – those which require a lot of rain or little rain, depending on the sound from the sacred sites. Potentiating sacred sites requires revival of the ritual cycle, which then requires that indigenous seeds be available for the rituals to be conducted. Reviving the ritual cycle therefore means reviving a whole social-ecological system. It is for this reason that the community is restoring Kathita River and the sacred sites on its course, so that they can continue conducting rituals at the sacred sites. Reclaiming lost cultural traditions and indigenous knowledge is becoming critical, as it would help to address the environmental degradation and strengthen the resilience of the territory.

Day 3 afternoon: Reflections from sacred site walking session

The group came back from the walk along the sacred sites and the meeting with its custodians full of deep sentiments, enthusiasm and many thoughts. The first session of the afternoon was spent sharing these reflections.

There were so many questions, observations, and experiences – the interest and intensity of the dialogue around this topic was increased as time passed.

Not all the information about the site was shared and some of it could not be divulged. Nevertheless, by being there, observing and experiencing the place creates and nurtures a growing sense of understanding.

The interface between science and indigenous knowledge in the context of sacred sites is challenging but also awakens curiosity and is therefore worth exploring. For ecologists from outside visiting sites for example, sacred sites are often recognised as the richest places for biodiversity, and they are exciting places to explore. However, this does not align with the cultural and spiritual values people hold and represent locally.

One knowledge system perceives the site with a rational mind whilst the other trusts the process and experience – two distinct systems. These are examples of parallel characteristics and values.

Important for intergenerational learning

The team from Hin Lad Nai commented that they have sacred sites in the forest and perform the same kinds of ritual there as at Kibuka. The community Shaman seeks the spirits to ask for help in selecting a place to open a new field, which will give good produce in the next cultivation season. Sacred sites are places of deep knowledge. They all want to protect them – as no one wants to lose the knowledge bound up in



Life in biocultural landscape. Photo: P. Malmer

them. Why the site is in that particular place is by tradition, but many times it is obvious. For example, in Hin Lad Nai's case, it can be the watershed – the starting point of the rivers. The community wants to protect the place, they don't want to lose the knowledge, nor the water, which is the guardian for both.

In Benin, the group was told, there are sacred sites with different functions. The ancestors used to live in sacred sites and people go there to give seeds or food to the deities. These places are very important for intergenerational learning, and many of the rituals and passages are connected to these sites.

Tharaka is similar; the sacred sites are associated with wells, pools and streams.

The Maasai have the famous Bon elder who conserves the forest with many water sources together with other elders. Sacred sites are often where there is permanent water and permanent green space – because it is sacred. Indigenous peoples can protect the sites through elders and traditions – they are important in all the indigenous cultures.

Creation sites in South Africa are places where certain rituals were performed by certain clans. The clans hold knowledge that cannot be shared by anyone – there are

strong laws around that. The custodians can pray for rain, or peace in the land, or for good harvest. All their strength comes from their knowledge, and from the potent sacred sites.

The custodians and other clan members talked about the history of site, but not much about the site itself, except for the rituals.

Kaguna explained that the sites were sacred sites before the events that signified they were sacred even happened. People had not interacted much before with them. However, when Kibuka disappeared, things started to happen there – and it was confirmed as a sacred site.

Interconnectedness between sacred sites

There are many stories connected to this. Kibuka was a prophet and a man of god. He set out to help, but they betrayed him. Several times he was reaching out to them. People who go there, they know that he is there and that he will send the message they deserve. Another story is that Kibuka's daughter was married and they were going there with items for the family, but she did not come back.

The sacred site can predict rain – you can tell by the sound of the flow when it's going to rain. When there is

going to be enough rain – the sacred site speaks three times. If you do not hear that, you know that it will not be a very good year for sowing and harvesting. There is also an interconnectedness between the sacred sites – they are a network that sound to each other. Rain will be sufficient when the network is connected – when it is not, then it means something is wrong. There is concern now over plans to build a huge dam covering a large area where Kathita and Tana river meet. If a dam is built, it will destroy the most potent sacred site, Kibuka. It will also affect other sacred sites, as they are all talking to one another. If they remain protected, they are more potent. The sacred sites are where the law of the land comes from – they are the central point of reference from which governance emanates.

Simon from Tharaka, added that these stories are also symbolic. His opinion is that the indigenous and scientific knowledge are different and need to be validated differently – they are two parallel knowledge streams. They can be shared and together create an enriched and more comprehensive picture of the world if they are listened to and understood as complementary to one another.

Most communities want to restore their sacred sites. Any customary law revolves around reunion and relationship with sacred sites. The more rituals are performed, the more powerful they become. The custodian of the sacred sites is one example of a layer of governance in the indigenous cultures. A positive experience from ABN is that they have managed to advocate for protection of sacred sites with the African Union. There is now a resolution adopted about that, e.g., legislation passed by the African Union.

Afternoon session: What are ways of evaluating knowledge in communities?

Led by Maria Tengö, Stockholm Resilience Centre, Sweden, and Gathuru Mburu from ICE, Kenya

Maria Tengö introduced the session which built on the discussions and insights from the Guna Yala dialogue and the walking workshop in Hin Lad Nai. (see Part I of the report) She explained the background, referring back to the presentations about MEB and the need for validation of evidence with integrity maintained within each knowledge system. The starting point of the discussion came from the Guna Yala dialogue:

- Translating all knowledge into one knowledge system – like science – is problematic and often not desired or desirable
- Indigenous and local knowledge systems have their own ways of securing empirical and social legitimacy of knowledge and hence its validation.

Validation of knowledge in indigenous and local communities is about building evidence for the governance and management decisions that are taken on a daily basis within our territories for nurturing our biological and cultural diversity. It concerns

sorting out which knowledge is useful and legitimate and is specific to each knowledge system. There may be some similarities in the general way in which this is done in different knowledge systems. In collaborations between knowledge systems, it is also important to recognise that there may be certain mechanisms for learning and evaluating knowledge that is generated within a certain knowledge system, and other mechanisms for scrutinizing and testing new knowledge from another knowledge system. For example, developing new varieties through selective breeding is within a local knowledge system. Testing out a totally new crop constitutes bringing in knowledge from another knowledge system (which may be scientific or another local knowledge system). The knowledge holders are themselves experts in their system and in their experiences of interacting with other knowledge systems.

The reason for the session was to better articulate and share how validation happens within indigenous and local knowledge systems, in order to strengthen the respect for ILKS and improve collaborations and interactions with scientists and policy makers.

The participants were divided in four groups that all discussed the following questions:

1. What are the ways of evaluating knowledge in your own knowledge system?
2. From your own experience, in the interaction across knowledge systems and practices how is translation, negotiation and synthesis done, (see figure 1b)?

The community representatives from Kenya gathered in a separate group, led by Gathuru Mburu and Njuguna Gichere to enable a good discussion in their own language.

What are the ways of evaluating knowledge in your own knowledge system?

Concerning this question, one group started discussing what makes knowledge legitimate. They found that knowledge is legitimate: 1) if it has acceptance among the people who are actively practicing it (another group talked about the authority of people who are ‘living the knowledge’); 2) if it is perceived as applicable and useful in the community, or shown by experience that it works – for example that a specific medicine cures a disease. Furthermore, legitimacy comes from practice and experience over time and also alignment with certain points of reference that may come from personal experience or collective wisdom such as cultural calendars. Legitimate knowledge can also come from trusted custodians of knowledge and other mediums of expressions, such as spirits or dreams, and through culture and life style.

The groups came up with a number of concrete examples of how knowledge is validated. A central one was about practicing knowledge and continuously applying it in your everyday life: “For as long as people see the relevance of knowledge and practices in their life, they continue to



Group sharing. Photo: P. Malmer

practice and validate, innovate and promote”. Also, communities are continually and collectively feeding-back, which can take many different forms, and happens within families and at several levels in society. Different actors are in various venues sharing their observations and experiences. For example, during rituals and ceremonies, while doing work together, in social gatherings amongst people with the same occupation e.g. pastoralists, blacksmiths. The Kenya group talked about community dialogues, that should include as many people as possible, and also described how rites of passage at different stages of life, from birth to adulthood, are settings for sharing and learning across generations. Such rituals are part of a holistic approach to life. There were also examples from the Philippines and from Benin about community dialogues for discussing certain issues. There are fora for consensus-building, such as the national congress and the tribal congress in the Philippines, where cultural aspects of knowledge are discussed in particular. The ecocultural mapping was considered an example of a forum for community dialogue. Cultural centres that have been established in several of the Kenyan communities can become sites for meetings and dialogues, as well as festivals and celebrations – they can also be the place to hold material culture and specific objects. Story telling is also an important means for transmitting and simultaneously validating knowledge. There were also other examples of the role of rituals for communicating important messages about life and the future, such as at sacred sites.

Rituals can reinforce knowledge and guide actions

Rwamba is comprised of men and was the highest human-driven environmental protection institution in the community. If an issue failed to be resolved at Kiburu, it would be taken up by Rwamba. If it failed there, then it was taken to the spirit realm through a powerful ritual. These kinds of institutions are important components of validation of knowledge, along with enforcing the rules and practices for sacred sites, and for transferring knowledge over generations.

The experiences and communications from rituals can also reinforce knowledge and guide action. In Mindanao, rituals at sacred sites communicate important messages about life and the future. In Tharaka, when the sacred sites were restored the rain came. People could see that when they were following the knowledge of the elders, it transformed their life.

It was obvious in the discussions how knowledge and institutions and practices for validating knowledge are embedded in culture and identity. It is important to live the culture, this may include wearing traditional clothes, eating traditional foods – both are linked with knowledge and skills.

“The idea is that once these skills, knowledge, science and technology is revived, then Tharaka culture comes alive”.

Language is also critical “If you want to kill someone – kill their language”, and “speak in a foreign language, you speak to the mind, speak in the local language, you speak to the heart”. Language is about identity and to belong in a



Tharaka biocultural landscape. Hot, dry and resilient. Photo: P. Malmer

place “each land has its own language. To become part of a new place – put your ear to the land and listen to the language of the land”.

The role of customary law as a point of reference for evaluating knowledge was discussed in several groups. In Benin, it was explained, there are different laws for different aspects of knowledge. Some actions are taboo, and some practices need to be done at certain times, otherwise the impact will not be the same. There are also customary laws in Thailand and the Philippines that say it is not allowed to cut forest in the watershed as the trees sustain the water in the springs.

Documentation was considered very important, for example to secure Masai knowledge and knowledge systems. It was considered critical that the documentation be led by the communities themselves, or that they play a big role in the exercise. For knowledge to be accurate, one needs to identify authoritative knowledge holders that have integrity in the face of other influences such as religion. To be a knowledge holder or an expert, is about knowing the culture and the practices. It is about having a strong interest in restoring and maintaining knowledge and seeking good mentors.

In experiences of interactions between knowledge systems, what are ways to translate, negotiate, and synthesis knowledge?

One group described how a knowledge system is a multi-faceted entity; i.e. knowledge on seeds includes how to select

seeds, how to store seeds, the time of the year for planting, the kind of soil, weather that is favourable etc. And every knowledge system has its own information system. Translation is about being able to understand the different aspects of a knowledge system and complementing other knowledge systems. This includes to being able to discern and understand the different facets of information within a knowledge system and what may complement these facets in other knowledge systems. When an actor comes to a certain community addressing a certain kind of problem – that person first tries to understand how his or her own knowledge system, along with the knowledge system of the visited community, matter the problem. Translation is then about a process of understanding and how to address these problems in a deeper way – so they can jointly make a decision on how to move forward. Translation can happen through understanding the different components of, for example a farming system, such as the catchment forest, the fields and fallows, and rice paddies in Hin Lad Nai.

Negotiation occurs when there is a need to exchange and share insights from a knowledge system. The principle of equity should always be upheld. For example, if an external scientist and a community agree to develop a pesticide together, local communities may already have their knowledge of what plants can be used, plants that have toxins which they have discovered themselves. The developer for a pesticide should recognise the value of such knowledge.

If such knowledge is shared, it should be shared from a position of strength and not from vulnerability. For this to happen, awareness raising and capacity building should be provided to the community to be able to negotiate fairly with external forces. It is also critical to consider who is doing the negotiation – who is representing the knowledge and the knowledge system. It was argued that NGOs, that can represent the community but also communicate well with the outside, can be facilitators and analyse and assess. A failure to negotiate can be dangerous for the community and the NGO could lose their reputation. One needs to be honest and clear – and make sure that there is dialogue.

Synthesis is the result of a fairly negotiated interplay of different knowledge systems to come up with new, advanced or enriched knowledge.

Knowledge systems that complement one another

The Kenyan group focused in particular on how knowledge can be shared and validated between communities and shared their reflections. Exchange visits between communities allow for appreciation of differences and promote comparisons and borrowing from each other. Before engaging in exchange visits, the community needs to validate their knowledge first, through internal dialogue so that they have a thorough understanding of their own culture. It is important to build respect of other people's knowledge and opinions. This can be achieved through cultural festivals. Different communities have an opportunity to showcase their culture and their knowledge. One of the group members explained how they were attempting to revive traditional dances in their community. The reaction from other people was so discouraging with comments such as “even you learned persons can engage in such.....” These discouraging words killed the enthusiasm that the group had. Respect for different cultures is important. Lastly, networks need to grow. They provide learning and exchange as well as diversity both in thoughts and action. These networks can include other community groups, government agencies or departments, local NGOs/CSOs, traditional NGOs, and individual experts in different subject areas.

Science can be very important for validating knowledge. Some knowledge and practices are now recognised by science and are getting more attention and support, e.g. using indicators such as certain tree flowers to predict weather, that there are rain makers in an area who based on a number of indicators knows when the rain will come. Scientists have their own characteristics, and ways of presenting things. In some cases, scientists can contribute to sustaining knowledge that otherwise would be lost due to social problems in the communities.

Climate change came up as an example where different knowledge systems can complement one another. There is a global crisis and different sources of knowledge are needed to find solutions and ways forward. Translation in this case is to understand which knowledge is available and useful to

address this problem locally. The point is for the community to secure that they own this process of adaptation. Questions such as “if I engage with science will they take over my knowledge and own it afterwards?” or “Will the project be sustainable if I become dependent on knowledge from outside?” are important. When all the actors come together, it must be on a level platform – then each person can integrate the different things that he or she has learned from her culture or from university, feel trust and be respected.

There were examples from Benin and the Philippines of good collaboration between different knowledge systems when treating health problems. In Benin, traditional healers also work in hospitals. They can send people to doctors trained in traditional and western medicine if one or the other fails to solve the issue. In Mindanao, it is similar. Many people go to the hospital, but if they cannot detect what the issue is, they send people to the medicine man. But it is a challenge that formal titles are missing for the healers and there can be abuse of the role.

Some communities are really struggling and are not getting enough support to deal with their challenges.

Evening session: Presentation from MELCA Ethiopia and Kenyan organisations MELCA experience

Presentation by Bereket Weldegiorgis Degu and Ababayehu Kassaye, MELCA, and Aman Mame; farmer from the Bale community

MELCA Ethiopia is one of the ABN partners that has been piloting the MEB approach along with communities they are working with closely. MELCA is a partner organisation of the ABN, and like ICE they have a long experience of working with ecocultural mapping, 3D mapping and similar methods as tools in their collaboration with communities. MELCA has a strong commitment to connect youth and elders, culture and environment, as well as scientific knowledge and local ecological knowledge, and this made them eager to be part of piloting the MEB approach.¹⁹

The MEB piloting in Gindeberet, Ethiopia aimed at creating an “enriched picture” in real life – visualising the second phase of the Figure 1a – where different knowledge streams create synergies with one another and opportunities for deeper understanding and advancement towards co-generation of new knowledge. Specifically, a topographic map was used, generated in a formal scientific process, to be enriched by communities' experiences from the cultural and ecological changes that have taken place. The outcome of the process was geared towards contributing to the communities' opportunities for self-determination and food sovereignty.

¹⁹ <http://swed.bio/reports/report/participatory-mapping-as-a-tool-for-mobilisation-of-indigenous-and-local-knowledge-and-enhanced-ecosystem-governance-in-gindeberet-oroma-region-ethiopia/>

The mapping process initiated at the community of Ginderberet had as its objectives:

- To support the community in mobilising their knowledge towards strengthening of their organisations, and a resilient food production.
- To strengthen revitalisation, mobilisation and conservation of the communities' biocultural diversity including their seeds.
- In addition to supporting the community, MELCA piloted and added new methods that can be used to encourage and support the wellbeing of farmer communities elsewhere.

Ecocultural mapping can take different shapes, MELCA explained. All have in common that they reveal the cultural and social history related to the landscape and create a cultural vision and meaning of the territory, as understood by communities. The maps and calendars enable the wider community to develop and hold a collectively agreed understanding of the relations of elements that interact in the territory over time which help to create a common vision.

In Ginderberet, the community studied the map and had an in-depth discussion for about an hour. Then, they decided on the scale and territory of the topo map; they tried to locate themselves and relate it to their cognitive map. Consultations were held among youth, women, elders and government representatives. What did their landscape look like in the past? What has changed? Why did it change? What will happen if the trend continues like this? What should be done to arrest the negative change that is happening? All ecocultural mappings have these questions in common, whether they are drafted on paper, in 3D, or in this case on a topo map.

Map of the past, the present and the future

The map of the past revealed that the Gindeberet kebele in earlier times was covered with vegetation. In the map of the past there were trees on hills, grazing lands on either side of the rivers, and the wetlands were wide and full of grass for cattle and reeds for house construction. There was also a forest surrounding the wetland. The spiritual leaders were respected and able to manage the relationship of the people with each other and with the environment. Further, the numbers of households were limited and there was a vast amount of land, which was not covered with crops. In the

forest there was wildlife, including hyena, antelopes, baboons, monkeys and leopards. The variety of crops in earlier times included eight cereals, nine oil crops and seven varieties of pulses.

In the map of the present, almost all wild animals are gone, forests are degraded and rivers and wetlands are drying. The number of crops and vegetable varieties has decreased.

It shows forest degradation, deforestation, soil erosion, cultural erosion and the erosion of local seeds. The natural forest is now replaced by plantations, and the soil changed to stone.

Finally, they produced a map that was based on the past and the present, predicting what will happen if nothing is done. That was not good at all.

As a response, a map of the desired future was created. It built on the presumption of revival of traditional ecological knowledge, and reconnecting people with their land. The youth learnt about the landscape, through the elders. A shared understanding of the complexity of the ongoing challenges in the landscape was urgently needed among actors, and the formulation of a desired solution. The mapping process contributed this as its most substantial outcome. MELCA explained that they know from experience that it's usually necessary to make four eco-maps (past, present, future with no action, future with action). The ecocultural maps and calendars were exhibited in schools.

The Ethiopian team explained the role and desires of the different actors. Through the participatory mapping process a tremendous experience and knowledge was mobilised by the community, and about the community and their environment. The community also strengthened the conservation of all the sacred sites that previously were fenced as they were not respected any more. Another community, with which MELCA works, made an exchange visit and they were impressed with what had been achieved. The experience created a sense of regret in their minds because they realised how powerful the tool of ecocultural mapping is for sustainable and integrated conservation approaches.

Management of the territories has been progressing very well and the ecosystem has been regenerating except for the impact of grazing from the surrounding areas. This is because the protected areas have better grass cover than the surroundings and thus it's tempting to bring animals there.

Day 4:

The second walking session was to the landscape around Ntugi Hill that is an important watershed.



On the way to Ntugi Hill. Photo: P. Malmer

ICE has been partnering with the farmers in the area to introduce agroecology approaches since 2008. During the walk, participants were asked to observe various kinds of practices and techniques from local, traditional and scientific knowledge that were used or tested in the community. Back in Baobab lodge in the afternoon, there was a session reflecting on how knowledge systems can be bridged, generating new knowledge and enhanced practices. The core question was: “How can we promote indigenous and local knowledge to be recognised as valid and on an equal footing with knowledge from the academy and modern science, locally, nationally and globally?”

Walking session 2: Visiting the agroecological landscape of Ntugi Hill

The group set off right after breakfast by bus to the Ntugi Hill area for the walking session in the landscape where agroecology has been introduced and practiced. Communities in Tharaka and elsewhere have continuously picked up and evaluated knowledges and practices from other knowledge systems that are brought in from local, indigenous or scientific sources.

The Ndunduni Group is just one of eighteen community groups that are partnering with ICE and benefiting from indigenous knowledge being harnessed and shared in Tharaka. Through the collaboration, they have been engaging in agroecology for the last decade. The Ndunduni Self Help Group have continuously been testing and including agroecological methods along with their traditional and local farming methods. Mr. Gerald Gikundi and his family, together with other members of Ndunduni Self Help Group, welcomed the visitors to the farm. There was an introduction to the farm and their practice of agroecological methods, together with a description of their experiences testing different crops and methods that built on their farming knowledge. The visitors were told they had achieved important advances in their food security and wellbeing by adopting agroecological farming practices. After the introduction, the visitors were divided in small groups for a closer look at different parts of the farm and the surrounding area with local farmers as their guides. Visitors were asked to think about all examples of methods regarding agroecology farming, agroforestry and protection of Ntugi Hill, the watershed, which borders the farm the group visited. The farmers have about 50 acres per household, and farming is rotated within that area, including the area for livestock. They have both goats and cattle. Nowadays, people adjust the number they have to the availability of grazing – before they used to have too many goats and cattle; these restrictions have been important for the recovery of the vegetation. Honey is produced in beehives; in addition to the hives, the bees are also supported with wax and also a special plant that smells nice to the bees.

Recovery of traditional seed varieties

Seeds of various indigenous crop varieties have been recovered on the initiative of the community research groups formed in Tharaka. Earlier, a number of local seed varieties were lost due to replacement by new seeds that made people forget their indigenous local seeds. Emphasis on the introduction of new, modern varieties by government extension officers, and reference to indigenous crops as ‘orphaned’ crops may have contributed to their disappearance.

These seeds have been provided to the community. For instance, in the last three years, five indigenous seed varieties have been recuperated by the community research groups in Kivaa and Tharaka. These include varieties of sorghum, millet, green grams, and pigeon peas and cowpeas. The community has now managed to multiply these and is now almost seed and food secure. On-farm soil and water conservation, farm planning and management and post-harvest handling have also contributed to the resilience and enhanced wellbeing of the community members.

In 2015, the traditional seed and food storage facility was improved to enable the community to store their seeds as a group and also to bulk part of their produce to reduce post-harvest losses. They were provided with materials like silo bins and hermetic or “Purdue” improved storage bags by ICE, while the farmers themselves contributed timber and labour. Effective storage has contributed to community resilience.

The foundation for all these achievements has been knowledge-generating efforts at the local level through self-help groups, and the Community Research Groups. These are formed by community members that are identified as having good knowledge about the community’s culture and traditional agro-biodiversity such as crops and medicinal herbs, and indigenous knowledge on conservation, along with people with more formal education who are passionate about delving into indigenous and local knowledge of the local community. When a community research group is formed, they are initially inducted on basic skills of conducting research and documenting results. The members meet and brainstorm on issues in the community that would be enhanced by generating better knowledge and understanding. For example, to discover, identify and document traditional seed varieties and their characteristics and areas of use. There is a person selected in each group to record findings. The outcomes are thoroughly reported, presented and debated in a local stakeholders’ forum which brings together officers from the Ministry of Agriculture and Ministry of Environment based in the county, local NGOs, community opinion leaders and elders including the sacred natural sites custodians, along with officers from ICE. Other important methods are the ecocultural calendar and mapping processes, as presented by the Tharaka community at their introduction on Day 2. Intergenerational dialogues are also knowledge generating processes. For example, engaging the sacred sites custodians, where elders have passed on



Learning agroecology from farmers fields. Photo: P. Malmer

indigenous and local knowledge for the protection of critical ecosystems, including those regarded as sacred natural sites, to younger leaders and clan members.

Culture of sharing

The participants were very excited over the visit in the farming community.

They noted that important innovations had taken place restoring agricultural practices among the farmers, and that the community had made efforts to take into account that culture and livelihood development are inseparable. Furthermore, the innovations were in harmony with the community dynamics and the traditional knowledges practiced in the community, like seed sharing, and social structures for sowing, land management, harvesting and storing. They appreciated that people could easily talk about how there had been transformations in their lives, from food insecurity with almost no income generation from their farms, to increased food security from their own production and that they are now even producing a surplus to sell in the markets. This means they can afford some important investment for their families, such as education for their children.

The participants visiting the community were impressed by their culture of sharing; their generosity to share with other communities and to share with those who are not members of their formal organisation. It appears that this has even been strengthened by the way they store their harvest with the new silos, it was reflected.

Afternoon session: Where to go next? How to promote MEB and sharing knowledge on equal footing?

Led by Martin Muriuki, ICE and Pernilla Malmer, SwedBio at Stockholm Resilience Centre

The afternoon session started with reflections inspired by the walk and discussions with the farmers in the agroecological landscape of Ntugi Hill in the morning, and the questions we brought with us during the walk: “How can we promote indigenous and local knowledge to be recognised as valid and on an equal footing with knowledge from academia and modern science, locally, nationally and globally?” The discussions continued in small groups that later reported back to the plenary for a new discussion. All groups but one, from the local participants, were mixed.

In the introduction, Martin encouraged the groups to reflect on what they identified as scientific knowledge or modern knowledge and as part of the local knowledge in the visited community. Also, what could science bring in to add value to farmers and their knowledge systems to strengthen the existing agricultural system and community well-being. This was to check how to bridge the gap between different knowledge systems. In short, when would bridging knowledge systems make sense in this context?

Participants were also encouraged to think about how the knowledge being mobilised from local experiences and practices, could be brought up and be useful to have a



Subela Kaguna, Tharaka community leader. Photo: P. Malmer

positive impact towards sustainability at local, national and international levels.

Scientific contributions that were observed were for example the new storage of the seeds, in the huge metal silos; the use of zai pits (farm water harvesting storage). The community was aware of the phenomena of climate change and its impact on their environment and livelihoods. The changes in climate are already visible in the community eco-cultural calendars; though the scientific knowledge and information brought in tools related to agroecology to help them understand and deal with these challenges. Specifically, soil erosion measurement and terracing were observed as methods brought in from agroecology science. Another example was pest control – communities have a natural but integrated approach to manage them. Also soil enrichment was well understood by local farmers where they added organic matter to improve soil fertility.

Valuable traditional knowledges were observed, such as systematic observations of when some flowers appear, when trees become green – which is a sign of when rain is coming or ending. Also, they had some observations that could inform them of impending drought, such as wind, the appearance of certain bird species and insects. It was commented that some knowledge that was previously seen as traditional, is now perceived as scientific. How do we really understand and defined the difference? Do we need to agree on what is science and what is traditional? Will local knowledge be more respected if we argue it is science? Or should we rather insist that it is

equally valid on its own terms, without arguing that it's the same; as science is a method and a value system, and we have our own, with its own integrity.

Maria commented; all knowledge systems have one thing in common and that is they are localised. That's to say, they are based on what is observed, experienced and practised in the place where they are lived.

Strong points that had bearing on the traditional knowledge that participants brought up was that innovations on the farms were taking into account that the cultural dimension is inseparable from the development of livelihood; such as seed management and sharing, and the need for formal structures, the local conditions; all these were still there and even strengthened. For example, the culture of sharing was strengthened in the way they “store for the winter”; in their generosity to share with other communities and to share with those who are not members of their formal community group.

“People can talk about how there was a transformation in their lives, from food insecurity with no income to increased food security and that they now have surplus production to market and can now pay for some of the finance of education of their children and basic health care.”

The next question was about ways in which a MEB approach can help bridging knowledge in the farmer's realities. Making knowledge systems equally valid and contributing valid knowledge from different sources for good decisions on biodiversity governance and management is important. If ILK is being recognised and accepted, that would lead to better

solutions in many situations. In the groups, there was then a lot of inspired discussion – on what a MEB approach is and what it can lead to if taken seriously in all practices of sharing knowledge, for example with agricultural extension services.

Sharing knowledge on equal footing, what can be done?

Many suggestions came up in the group discussions about how we can strengthen the mobilisation of indigenous and local knowledge through a Multiple Evidence Base approach and in other ways:

Local level: We can promote intergenerational learning and local languages, we can arrange exchange visits and strengthen local community research and document it, through filming etc., and support/create cultural learning centres. We can also “localise the MEB approach and spread to other communities”, and ensure that we have communities that are empowered and aware that they have certain rights, and they should have pride in their knowledge. This in turn would support and strengthen local governance systems and its embedded knowledge. We can also support local products, that come from traditional knowledge, like the food and drinks we were served in the community visit this morning. Communities can support in educating scientists to understand what indigenous and local knowledge is, and how they can benefit from it, by applying a Multiple Evidence Base approach. Likewise, it’s a learning for the young, to appreciate their local knowledge as equally important as scientific knowledge, at school and elsewhere.

National level: It was expressed that there are several rich cases shared here, about how communities have brought forward their knowledge to demand their rights and put forward suggestions. From the government side, it is important to promote an inclusive approach at national level decision making.

Generally, community people need to have confidence to mobilise and get their knowledge documented, but it can very much be part of the documenting process to build that confidence. Community protocol can protect the communities’ knowledge, and their knowledge should never leave the community without Free, Prior and Informed Consent. Provided that is ensured, advocacy based on locally mobilised knowledge and evidence towards the national level can make a difference. This is the experience from several of the MEB pilot cases, and other experiences we have been sharing here. These are all examples of how locally mobilised knowledge can have impacts on scales beyond the local.

It can be critical to ensure the relevant national government department responsible for specific issues is informed about their obligations to, for example, fulfil ratified treaties, like the CBD, or UN Declaration on the Rights of Indigenous Peoples. Equally, it is important that communities know their governments have these obligations, and that they have their rights confirmed and backed up by UN decisions.

International and regional level: There are several regional and international networks that engage in support for the mobilisation and inclusion of indigenous and local knowledge where it’s generated locally for monitoring and assessment, and make it nationally and regionally relevant. For example, the Network of Indigenous and Local Knowledge Centres of Distinction, that ABN is part of. The Centres of Distinction have been evolving through the IPBES engagement by IPLCs, in developing methods for including indigenous and local knowledge in their assessments. The “Local Biodiversity Outlook”²⁰ was launched at CBD COP13 in Mexico, and put forward locally based examples on how indigenous monitoring are supporting the achievements of all the Aichi targets locally. These cases can also be aggregated globally and are made visible for their comprehensive impact. ICCAs²¹ and the ICCA Consortium is another example of networks that are strengthening local experiences of ILK, and bringing it to global policy processes, such as the CBD. Indigenous peoples and local communities can take advantage of international meetings that take place related to these bodies, and argue for their knowledge and how it can contribute, and also be protected and promoted.

Bringing evidence from the local to the global

In all groups, documentation was a key point of the deliberations. But how to document is the critical issue. That matters so much because of the experiences of biopiracy and patenting, that indigenous people’s knowledge has been used – misused – by others, sometimes they have earned money, without sharing the benefits, but it is also sometimes relating to values and the fact that the meaning of the knowledge will change when the context is moved away from the initial one. There is a need to find out how documentation can be done in each case, and to let certain levels of knowledge, also if documented, be kept secret within the family or community. That is part of a risk-assessment, that should always be done. Community protocols can be an important tool to ensure recognition and control of the community’s resources, values and rights. FPIC is always important to consider before sharing. When documentation is in place, the communities also need to be aware that their knowledge is recognised, and that it has a value – that is part of an empowerment process. Communities need to understand the rights that they have.

The community group pointed out that if outsiders are involved in documentation, it has to be done in a way that local people understand. They were very confident about the gazetting of the sacred sites along Kathita river, and the way it provides them with the assurance that they are recognised and respected.

The role of the NGOs and the academy was discussed, and the involvement in communities of practice that share

20 <http://localbiodiversityoutlooks.net>

21 Indigenous and Community Conserved Areas and Territories



Wild fruits in the biocultural landscape. Photo: P. Malmer

experiences. There are also many good advocacy groups supporting indigenous peoples. “We have many times not been successful in supporting local people to represent themselves. The more successful they are in the articulation of their arguments and their rights themselves, and in bringing this evidence from the local to the global level, the stronger and more efficient their arguments will be.”

In the Machakos county, where we are now, there are several representatives from the community level, that can put forward demands and suggestions, based on locally mobilised evidence. Masinga Farmers’ Network are based in Yacasa County. They are able to engage our county governments, that are not doing much at the moment.

Recognition of local knowledge for better ecosystem governance and policy decisions

The farmers we visited in the morning, were practicing agro-ecology on their farm. County government is not doing much to support them, it was commented. But when hearing about farmers’ seeds and ecological farming – the county government would support the ecological as much as industrial farming. Farmers should always have a choice in the extension service they are offered – make sure to also have facilitation around ecological farming. The water resource users’ association would engage in the water catchment areas, and communities need to be involved in the control of the rivers and the sharing of water in the water points. This process we see here, in the international exchange meeting, in the case of

Tharaka, started in a dialogue on the water sources and came to be the process of ecocultural mapping. The elders’ knowledge about the abundance of water that once existed, and how it was regulated, including the role of the sacred sites to keep the connection and control through the river, was important in that process. It would be important to engage the national government, and ensure they are recognising the local people’s knowledges about their resources, and their needs, and work to influence them. This is not least important in light of the planned dam building where Kathita and Tana river meet, where the second days walking workshop took place, that will also drown the most potent sacred site.

What inspired the community to come together in the ecocultural mapping process was the importance of the river and its sacred sites; they are recognised now, and that is critical for the community and its motivation to continue to struggle to save the river. The whole process was facilitated by ICE, but the process was not about ICE. It was about them, the community, and they articulate through the process what they feel should be done.

Identifying champions for ILK, at universities and governments is important. What kind of knowledge and support can the community get from science? The community group responded that there are insights about river Kathita we can share with scientists – much like the current meeting is a forum to reflect. It is important to share a discussion about values, and the diversity of values, with researchers – for helping to articulate the values of others, and for identifying

arenas and opportunities of research engagement with communities.

The community has formed a monitoring and evaluation committee, and they are contributing information and collaborating with government officials.

Weaving knowledge systems

Regarding the role of science, it was also reflected that learning and integration/cross-fertilisation with science can be part of capacity building, for both sides. New insights and thoughts, and skills in analysing, and methods for monitoring and evaluations with representation from different actors were also put forward. One scientist concurred that scientists can also be advocates for indigenous and local knowledge.

Sometimes ILK is demonized. It is important to have an interfaith dialogue, bringing people with different faiths together to discuss how diverse knowledge systems can co-exist in harmony. This is not about "taking people back to where they came from", but about weaving knowledge systems and advancing forward together, in interaction, it was reflected. Social scientists, artists, poets and other bringing in and reflecting different perspectives are very important in this process. It is a trend that we should work with those who have comprehensive understanding, and are respected and can support the recognition of other knowledge systems and practices.

The representatives of the National Museum of Kenya said that also if most of their work is based on scientific evidence, they still support indigenous knowledge systems, and recognise the importance of its role. "With a background, as an African, growing up in rural area, you can see indigenous

knowledge is key to conservation. Along River Tana the World Bank funded a project where there were endangered species of monkeys that were endemic and not found anywhere else. So, in that case scientists could explain the uniqueness of the monkey, and we could discuss how can we conserve them. Another example is aquatic resources, that scientists studied, but also did interviews with local people about water quality and the community management approaches. The river is so close to the hearth of these peoples. Every clan has a share of that river. So, scientific knowledge was used to confirm the multiple use and importance of the river for the people. Therefore, to promote visibility of local knowledge, for example in scientific papers, is important."

Evening celebrations and concluding ceremony

In the evening, the hosts from Tharaka community invited the group to a cultural evening where the best of Tharaka traditional food was served. Everyone was invited to join the traditional dancing and singing and there was much joy. All the international guests contributed some glimpse of their cultures. The evening was finalised with a grand process of awarding certificates for the participation, all in a spirit of joint learning. It was with a strong feeling of thankfulness for new friends and insights, and for the creation of a common ground across cultures and diversity that the group left the celebration this last evening. Together we had achieved a much better understanding of what sharing knowledge and creating synergies by learning across knowledge systems is all about.

Conclusion

Reflections on walking workshop process and outcomes

During the walking workshop and meeting in Tharaka, we demonstrated in practice that it is possible to meet across knowledge systems. Local communities and elders from all parts of the world, practitioners and advocacy leaders, and scientists of different disciplines met and enjoyed the same activities and shared knowledge on biodiversity governance on an equal level, where all contributed. We were also able to reflect and develop insights around good conditions for sharing knowledge and learning together.

A walking workshop provides a setting for inquiry, sharing and innovative thinking for new solutions embedded in the local biocultural system, with possible relevance for national and global levels. Discussing the joint experience of the biocultural landscapes with local knowledge holders can bring about new reflections and insights of other places and contexts, as well as understandings of a more general nature. Sharing and learning between different indigenous knowledge systems are as important and valid as sharing between science and indigenous knowledge, or between scientific disciplines.

A long process may, however, be needed to be able to reflect on your own knowledge system, build awareness of its values and uniqueness, and then meet others for sharing and enriching, with curiosity, respect and self-confidence. This insight is as valid for scientific as well as for indigenous and local knowledge systems.

Mobilisation of knowledge by the knowledge holders themselves is critical before a continued process of translation and negotiation, and further interactions with others' know-

ledge, based on equal values, reciprocity and usefulness for all involved can proceed. This is also critical for empowering communities to be spokespersons for their own knowledge and to collaborate with other knowledge systems as equal partners (when undergoing the tasks of translation, negotiation, and synthesis). It is equally valid for interactions with governments and other decision making bodies that impact their lives.

At the meeting, there was strong recognition that validation of knowledge happens within knowledge systems, with insights and examples from a range of knowledge systems, and rich discussion of what validation means in your knowledge systems and which key persons, institutions, rituals and practices are critical.

Proposals for moving forward:

It happens in the field! It is by walking through the landscape together and sharing experiences that we can deepen the learning across knowledge systems for enhanced ecosystem governance.

Suggested key activities are firstly, to further explore the potential of a MEB approach in exchange across knowledge systems, and at different scales.

There is a particular need to ensure spaces available for women and men, youth and elders in communities to meet and independently mobilise their knowledge to engage with issues at hand, and for ongoing reflections. This will support local innovations within knowledge systems, and will further

enhance the quality of multi-actor dialogues and exchanges, including interaction with governments and other decision making bodies that impact the lives of communities. Local research groups and cultural centres are examples of such spaces.

Another example is thematic walking workshops, such as for specific biocultural systems and practices, aimed at finding solutions to be applied across scales. For example, pastoralists from different cultures and ecosystems, representing different ILK experiences can meet, along with ecologists and social scientists with deep interest and knowledge of diverse social-ecological landscapes,



Acknowledging diversity of seeds. A new sorghum variety was identified at the seed celebration. Photo: P. Malmer



Wild fruits are nutritious and thrive even when the weather is harsh. Photo: African Biodiversity Network

lawyers with relevant knowledges about environment, land and human rights, and others.

In such walking workshops, while first agreeing that there are problems and common challenges to be addressed, new solutions can be found through cross-fertilisation and weaving of diverse knowledges. Practices that can be applied locally, may also be manifested in knowledge that can be transferred and aggregated across scales, for better policy and decision making and enhanced ecosystem governance. It is critical that knowledge holders are part of the translation, negotiation, and synthesis in such processes, to ensure the integrity of the knowledge systems.

Indigenous peoples and local communities are important actors in generating and mobilising knowledge for better local to global policies and decisions. Old and new methods for Community Based Monitoring and Information Systems can be explored and developed further by communities, in the first instance to the benefit of local management and resource control, but also for generation of important knowledge to feed into assessments, such as for the IPBES assessments and for monitoring of the CBD Aichi targets. Networks of indigenous peoples and local communities' organisations, such as the "Indigenous and local knowledge Centres of Distinctions", ABN and IIFB, are important

actors for bridging across scales and knowledge systems.

There is a need to educate scientists in ways of peaceful and enriching co-existence and cross-fertilisation between western scientific and other knowledge systems. Communities and holders of ILK can support in educating scientists to understand what indigenous and local knowledge is, and how they can benefit from it, by applying a Multiple Evidence Base approach. Likewise, it is an opportunity for learning for the young, to appreciate their local knowledge as equally important as scientific knowledge, at school and elsewhere. Curriculum for children's basic education should always recognise and support different knowledge systems and worldviews. Mainstreaming women's knowledges, work and practice would also be valuable in influencing education policy.

Practical insights about what needs to be done well:

Creating an environment of trust, respect, equality, reciprocity and transparency is indispensable in all sharing across knowledge systems. This has to be paid attention to through all relations and scales when a dialogue or walking walkshop is planned for.

Mobilisation of knowledge by each knowledge system has been critical in all cases both for articulating the knowledge that has been brought forward and, for the opportunity to explore further tasks in a process where knowledge systems meet.

Translation – is a critical task in dialogues, between languages, but also between knowledge systems, concerning the ways and forms in which knowledge is expressed and shared, and the words, practices, and terminology used. People with the capacity to act as bridges are critical for this to work.

Negotiation – the active discussion of what is considered valid knowledge in an actual context, and whether different sources of knowledge are converging, diverging or complementary. This needs to be done carefully with mutual appreciation and respect for the integrity of the validation process of each knowledge system.

Synthesis – this does not imply that you have to agree across knowledge systems – or across scientific disciplines – what is the truth. Rather, you conclude where you have convergence and divergence, and leave the points where you cannot agree for further careful dialogue and investigations – with potential for new insights and learning to emerge.

Spiritual values are important to ensure sustainable biodiversity conservation. Reclaiming lost and disappearing cultural traditions and indigenous knowledge is becoming critical, as it would help to address the environmental degradation and strengthen the resilience of the territory.

Activities like synthesis and applying knowledge for biodiversity governance and policy at different scales are not independent, but interdependent and need to be linked. Transformative change about how to build in indigenous and

local knowledge in collaborations, for the benefit of community well-being and sustainable governance of ecosystems, relies on strong synergies and interdependence between knowledge systems. and need to be linked.

Free, Prior and Informed Consent in all meetings across knowledge systems

For everyone to feel safe and free to share in a meeting across knowledge systems, it is important to discuss where and how the learning and information will travel. Community protocols can be an important tool to ensure recognition and control of communities' resources, values and rights. If outsiders are involved in documentation of knowledges held by community members, it has to be done in a way that local people understand. When documentation is in place, the communities also need to be aware that their knowledge is recognised, and that it has a value. That is part of an empowerment process.

Free, Prior and Informed Consent should apply in all meetings across knowledge systems. Anyone taking part in a conversation across knowledge systems can decide that they do not want particular information to be documented or shared outside of the meeting. In the case of this workshop, it was agreed by all that representatives for the bridging organisations at the workshop, who are trusted by communities and who are easier to communicate with over internet, be the "guardians" of the use of the knowledge and insights from communities they work with. That means that any use will be discussed and approved by them. They will seek approval from the local communities, as required.

The Multiple Evidence Base approach has been shown to be particularly helpful in dialogues where there are power imbalances among actors, and where bridging is urgently needed to take advantage of synergies from the richness of experiences, perspectives and worldviews across diverse knowledge systems and practices. This is also to be recognised in the relation between men and women's knowledges.

In its procedures for working with indigenous and local knowledge, IPBES calls for the development of methods and practices that facilitate mobilisation of relevant indigenous and local knowledge. IPBES also calls for ensuring validation through the indigenous and local knowledge system from which the knowledge comes, while avoiding the loss of legitimacy.

This walking workshop in Tharaka hopes to have contributed progress on this challenge. It is important to continue to explore and encourage in practice the process of validation across knowledge systems based on equity and reciprocity, and with respect for the integrity of each knowledge system, along a Multiple Evidence Base approach.

References

- African Biodiversity Network & The Gaia Foundation. 2017. **Celebrating Rural African Women: Custodians of seed, food and traditional knowledge for Climate Change Resilience.** Mobius. UK. <http://africanbiodiversity.org/1046-2/>
- Batang-ay, J. Daguitan, F. Aquino, R. Das-ilen, G. 2016. **Mobilising indigenous knowledge, innovations and practices of the Kalanguyas farming systems in Tinoc, Ifugao, the Philippines. A contribution to the Piloting of the Multiple Evidence Base Approach.** Co-produced by The Kalanguya people of Tinoc Naundep ni Napahunan ni Kalanguya, NNK, Tebtebba Foundation and SwedBio at Stockholm Resilience Centre. Report. Stockholm. http://swed.bio/wp-content/uploads/2017/03/MEB-Pilot-Report-Philippines_2016.pdf
- Belay, M. 2016. **Participatory mapping as a tool for mobilisation of indigenous and local knowledge and enhanced ecosystem governance in Ginderberet, Oroma region, Ethiopia. A contribution to the Piloting of the Multiple Evidence Base Approach.** Report. Co-produced by the Community of Haroberbabo, Ethiopia, MELCA Ethiopia, ABN and SwedBio at Stockholm Resilience Centre. Stockholm. http://swed.bio/wp-content/uploads/2016/11/MEB-Pilot-Report-Ethiopia_2016.pdf
- Díaz, S. et al., 2018. **Assessing nature's contributions to people.** *Science*, 359(6373), pp.270–272.
- Forest Peoples Programme, the International Indigenous Forum on Biodiversity and the Secretariat of the Convention on Biological Diversity. 2016. **Local Biodiversity Outlooks. Indigenous Peoples' and Local Communities' Contributions to the Implementation of the Strategic Plan for Biodiversity 2011–2020.** A complement to the fourth edition of the Global Biodiversity Outlook. Moreton-in-Marsh, England. <http://localbiodiversityoutlooks.net>
- Mburu, G. 2016. **Reviving indigenous and local knowledge for restoration of degraded ecosystems in Kenya. A contribution to the piloting of a Multiple Evidence Base Approach.** Report. Co-produced by ICE, ABN and SwedBio at Stockholm Resilience Centre. Stockholm, Sweden. http://swed.bio/wp-content/uploads/2016/11/MEB-Pilot-Report-Kenya_2016.pdf
- Malmer, P., M. Tengö, M. Belay Ali, M.J. Cadalig Batang-ay, M. Farhan Ferrari, G.G. Mburu, S. Mitambo, C. Phokha, P. Trakansuphakon. 2017. **International exchange meeting for mobilisation of indigenous and local knowledge for community and ecosystem wellbeing. Hin Lad Nai, Chiang Rai province, Thailand.** 13 – 15 February 2016. Workshop report. SwedBio at Stockholm Resilience Centre, Stockholm, Sweden. <http://swed.bio/wp-content/uploads/2017/05/Walking-Workshop-Report-Hin-Lad-Nai.pdf>
- Tengö, M., E. S. Brondizio, T. Elmqvist, P. Malmer, and M. Spierenburg. 2014. **Connecting Diverse Knowledge Systems for Enhanced Ecosystem Governance: The Multiple Evidence Base Approach.** *Ambio* 43(5): 579–591. http://swed.bio/wp-content/uploads/2015/11/Connecting-Diverse-Knowledge-Systems_MEB.pdf
- Tengö, M., R. Hill, P. Malmer, C. M. Raymond, M. Spierenburg, F. Danielsen, T. Elmqvist, and C. Folke. 2017. **Weaving knowledge systems in IPBES, CBD and beyond? Lessons learned for sustainability.** *Current Opinion in Environmental Sustainability* 26–27:17–25. <http://swed.bio/wp-content/uploads/2017/05/Weaving-knowledge-systems-in-IPBES-CBD-and-beyond.pdf>
- Tengö M. and Malmer P. (eds), Borraz P, Cariño C, Cariño J, Gonzales T, Ishizawa J, Kvarnström M, Masardule O, Morales A, Nobrega M, Schultz M, Soto Martinez R, Vizina Y. 2012. **Dialogue workshop on Knowledge for the 21st Century: Indigenous knowledge, traditional knowledge, science and connecting diverse knowledge systems.** Usdub, Guna Yala, Panama, 10 – 13 April 2012. Workshop Report. Stockholm Resilience Centre.
- Trakansuphakon, P. and Hin Lad Nai Community. 2017. **Mobilising Traditional Knowledge, Innovations and Practices in rotational farming for sustainable development. A contribution to the Piloting of the Multiple Evidence Base Approach from the community of Hin Lad Nai, Chiang Rai, Thailand.** Report. Co-produced by PASD and SwedBio at Stockholm Resilience Centre, Stockholm, Sweden. http://swed.bio/wp-content/uploads/2016/11/MEB-Pilot-Report-Thailand_2016.pdf
- Roué, M. et. al. 2017. **Knowing our Lands and Resources: Indigenous and Local Knowledge of Biodiversity and Ecosystem Services in Africa.** *Knowledges of Nature* 8. UNESCO: Paris.

List of Annexes

Annex 1: Workshop schedule

Annex 2: List of participants

Annex 3: Evaluation

ANNEX 1: Workshop schedule

Mobilisation of indigenous and local knowledge for community and ecosystem wellbeing Experiences from piloting a Multiple Evidence Base approach

Report from international exchange meeting and walking workshop Tharaka, Kenya, 6–11 March 2017

Organised by: Tharaka Community, ICE Kenya, African Biodiversity Network and SwedBio at Stockholm Resilience Centre Venues:

- SACDEP Centre, Thika, for arrival day 6 March, and final night 11 March
- Baobab Lodge in Tharaka 6 March – 10 March

Monday 6 March 2017

During the day National and international participants arrive.
6.00 pm Dinner at SACDEP Centre
7.00 pm Evening session, introduction among newly arrived participants.
Welcoming by ABN
Participants introduce themselves
Going through practical details and information.
Introduction for newcomers to the MEB project

Tuesday 7 March 2017

7.00 am Breakfast
8.00 am Setting off for Tharaka in three buses
12.00 pm Arrival to Baobab lodge, Tharaka, getting settled in rooms and lunch.
2.00 pm • Inauguration ceremony and welcome by Tharaka community.
• Presentation of the community by elders and leaders. Background and status of their ongoing process of revival of traditional knowledge, agricultural biodiversity and rehabilitation and protection of Kathita river. Eco-cultural maps and calendars.
• Presentations of participants; all introduce themselves
6.00 pm • Dinner
7.00 pm • Introduction to the dialogue process across knowledge systems, that has been ongoing since Guna Yala dialogue, Panama, 2012.
Gathuru Mburu, ICE Kenya.
• Meeting objectives and The Multiple Evidence Base approach
Pernilla Malmer SwedBio/SRC, Maria Tengö SwedBio/SRC, Simon Mitambo, ABN
• Agreement on a meeting protocol, including Free Prior and Informed Consent.
Simon Mitambo, ABN; Pernilla Malmer, Maria Tengö, SwedBio/SRC

Wednesday 8 March 2017

7.00 am Breakfast
8.00 am Gathering - catching up from yesterday and going through the day's schedule, preparation for the walk.
9.00 – 10.00 am Participants walk from Baobab lodge to Nyangumi Stadium for the Seed Festival and Celebration of women's knowledge at the Community Cultural Centre
All participants are invited to bring photos, and other material from their countries to show each other.

10.00 am	<ul style="list-style-type: none"> • Prayer by the elders / women • Introduction and welcome • Entertainment • Speeches from: <ul style="list-style-type: none"> • The board chairman • Representative from the Philippines • Representative from Thailand • Representative from Ethiopia • Representative from Kenya Government • Representative from the county government (the area chief) • The sitting MCA/Women representative <p>LAUNCH OF THE PUBLICATION: Celebrating Rural African Women: Custodians of Seed, Food and Traditional Knowledge for Climate Change Resilience Vote of thanks</p>
12.00 pm	Walk back to Baobab Lodge and lunch
1.00 pm	Reflections from the morning among participants. Group discussion, sharing of experiences. <ul style="list-style-type: none"> • What did we learn? How does it resonate to your own experiences? • What are women's roles in our different knowledge systems and practices represented in the meeting? • What are women's role in intergenerational learning, and transmission of knowledge onwards. Co-chairs: Pernilla Malmer and Florence Daguitan
6.00 pm	Dinner
7.00 pm	Presentations from community partners from other MEB pilot projects: <ul style="list-style-type: none"> • PASD, Hin Lad Nai, Thailand • Tebtebba, Tinoc, Philippines • MELCA, Ginderberet, Ethiopia Discussion and contributions from other participant's experiences. Co-chairs: Sabela Kaguna and Sulemana Abudulai

Thursday 9 March

7.00 am	Breakfast
8.00 am	Setting off (by bus) to the Sacred site Kibuka, where the Kathita River meets Tana River. This sacred site is the most potent one along Kathita river, but it is also threatened by a planned mega dam, that would drown large parts of the landscape. On the site, we walk through the site in smaller groups, and the locals guide us. After the walks, we gather in a shady place and share experiences from our observations. Roles of custodians? Roles of the sites in the management of the river? Our communities' relations to their sacred sites?
12.00 pm	Drive back to Baobab lodge and lunch.
1.00 pm	How are the ways of valuate knowledge in the communities? Maria Tengö introduces by telling the story from the validation discussion in our walking workshop in Hin Lad Nai. Discussions in breakout groups: <ul style="list-style-type: none"> • Evaluating knowledge within the community • Evaluating across knowledge systems, in collaborations and other occasions • Evaluating new knowledge, possible to use, or not use. Co-chairs: Maria Tengö, Gathuru Mburu and Simon Mitambo
6.00 pm	Dinner
7.00 pm	Continuation of discussions. What makes us believe in different knowledges that we meet?

ANNEX 2: List of participants

Mobilisation of indigenous and local knowledge for community and ecosystem wellbeing Experiences from piloting a Multiple Evidence Base approach

Report from international exchange meeting and walking workshop Tharaka, Kenya, 6–11 March 2017

Kenya

Tharaka Community Members

Sabella Kaguna
Jane Mugao
Venanzio Mukundi
Evalyn Kathambi
Benjamin Kithetu
Protasio Mwarania
Reuben Ruuji
Agostine Mwaniki
Mwere Gakindu
Gervacio Anampiu

Meru Community Members

Dinah Kubania
Geovasio Muturia

Kivaa Community Members

Judith Kaloki
Luka Kioko
Francisca Mbuli Kitheka
Samuel K. Wathome

Embu Community Members

Rosemary Mbuya

Kamburu Community Members

Magdalene Mitugo

Institute for Culture and Ecology (ICE) Staff

Martin Muriuki
Elijah Kamau
Hannah Kigamba
Gathuru Mburu

Rural Initiatives Development Programme (RIDEP)

Nicholas Kimathi

Indigenous Livelihoods Enhancement Partners (ILEPA)

Easter Kinyua

Mainyoito Pastoralists Integrated Development Organization (MPIDO)

Eunice Sinore Nkopio

Journalists from Media Houses in Kenya

George Kebaso – People Daily
Wangari Ndirangu – Kenya News Agency (KNA)

African Biodiversity Network(ABN) Regional office

Simon Mitambo
Jane Kinya
Karen Nekesa
Fassil Gebeyehu
Janet Taabu Mwikya
Anne Murimi

National Museums of Kenya

Dr. Taita Terer
Dr. Njuguna Gichere

Uganda

National Association of Professional Environmentalists (NAPE)

Denis Tabaro Natukunda

South Africa

Earthlore Foundation:

Takalani Mashudu

Ghana

Regional Advisory Information and Network Systems (RAINS)

Dr. Sulemana Abudulai

Benin

Groupe De Recherche Et D'Action Pour Le Bien-Etre AU Benin (GRABE Benin)

Appolinaire Oussou Lio

Zimbabwe

Chikwira Ecological Land Use Community Trust (CELUCT)

Chester Chenjerai Chituwu

Ethiopia

Movement for Ecological Learning and Community Action (MELCA)

Bereket Weldegiorgis Degu
Abebayehu Kassaye
Aman Mame (farmer)

Thailand

Pgakenyaw Association for Sustainable Development (PASD)

Trakansuphakon Nutdanai
Daochai Siri (farmer)
Chaiprasert Phokha (farmer)

The Philippines

Tebtebba Foundation

Florence Daguitan
Josephine Pelila (farmer)
Olubalang Allan (farmer)

Tanzania

University of Dar es Salaam

Prof. Roza Mwaipopo Ako

Sweden

SwedBio at Stockholm Resilience Centre

Pernilla Malmer
Dr. Maria Tengö

ANNEX 3: Evaluation of the Dialogue by the Participants

Summary

39 (of 47) persons completed the evaluation questionnaire.

Question 1: Two things I learned from this workshop:

Values: Participants' comments indicated that the workshop provided an opportunity for a process by which participants were able to value both the knowledge and the way they learnt during the workshop. Comments also indicated that participants valued respect, recognition and equality between knowledge holders, collaboration, identity, and the importance of diversity of knowledge. Communities and the recognition of their knowledge also received much attention and appreciation.

Strategies (concrete ways to put into practice the values that were brought up): Activities during the workshop were noted as useful for finding new ways for empowerment and to develop methods for working with communities and facilitating that their knowledge contributes to policy. Some examples mentioned were: seed conservation, walking workshops as a means to share, documenting knowledge as a way to empower communities and inform policy makers, and listening to other people's visions. The Multiple Evidence Base featured prominently in these perspectives.

Conceptual understanding: Comments indicated abstract learning, and reflections on methods and conceptualisation regarding validation of knowledge, and differences and similarities between knowledge systems.

Question 2: What can be improved?

Time management: Participants found the entire event stimulating and indicated that they wanted it to last longer. One of the reasons participants suggested this, was the desire to have a more relaxed schedule with shorter sessions and more breaks. Participants commented often on the necessity of allocating more time for discussing topics such as experiences of applying the multiple evidence base approach, ensuring locals have enough time to show and talk about their seeds, and include a full day of fieldwork, etc.

Participation: There were many suggestions for including additional relevant participants, such as local experts and custodians, additional local and foreign communities and even more people from SRC and SwedBio staff. This would still require that adequate time was allocated for everyone, and more time to participate and contribute.

Design of the event: Participants expressed the desire for even more activities at the field sites that were visited.

Content: Ideas of additional contents that could be included in the workshop were to give more attention to the need of a paradigm shift, and further explanation about: mechanisms to bring together knowledge systems, the practice of documentation of indigenous knowledge, organic farming and planting trees; and seeds.

About the report

This report is a summary of the “International exchange meeting and walking workshop: Experiences from piloting a Multiple Evidence Base approach for mobilisation of indigenous and local knowledge for community and ecosystem wellbeing”, held in Tharaka, Kenya 6–11 March 2017. The workshop dealt with how indigenous and local knowledges, values and practices are mobilised, generated and shared across knowledge systems for the benefit of biocultural diversity, nature’s contribution to people and human wellbeing. The workshop was held as a contribution to an on-going dialogue process aiming at nurturing and investigating methods for learning and exchange on an equal level across local, indigenous and scientific knowledge systems and between partner organisations making up a community of practice that is passionate about these issues, including the IIFB (International Indigenous Forum for Biodiversity) network, the African Biodiversity Network and their partner organisations.

The workshop practiced and further explored a Multiple Evidence Approach where indigenous, local and scientific knowledge systems are seen as equally valid and contributing useful knowledge for ecosystem governance. It further used an interactive “walking workshop” method, facilitating participants to interact with the farming landscape of Tharaka, articulate their experiences and talk to community representatives and others. It brought together community representatives from Kenya, Ethiopia, the Philippines, and Thailand, and researchers and representatives from organisations working with communities from Kenya, Tanzania, Benin, Ghana, South Africa, Zimbabwe, Uganda and Sweden.

African Biodiversity Network

African Biodiversity Network is a network of individuals and organisations working passionately across Africa in 12 countries at local, national, regional and international levels to avert social injustices and environmental

destruction arising from the contemporary development paradigms in order to enable local communities control their lives and livelihoods while celebrating their social, cultural, spiritual and ecological diversity. ABN envisages vibrant and resilient African communities rooted in their own biological, cultural, and spiritual diversity, governing their own lives and livelihoods, in harmony with healthy ecosystems. Institute for Culture and Ecology (ICE) is one of ABN partner organisations working to empower communities to harness indigenous knowledge for healthy people and ecosystems.

ICE

The Institute for Culture and Ecology (ICE) is a national indigenous non-governmental organisation registered with the NGO Coordination Board in Kenya. ICE mandate is to promote environmental conservation and natural resource management through buttressing traditional knowledge in community-based environmental and resource management initiatives and facilitating cultural-based learning that would lead to social and ecological wellbeing of the earth community. ICE accompanies communities as they rediscover the value of local knowledge and naturally endowed resources/potentials in the processes of livelihoods improvement and environmental conservation. ICE works with community groups and schools in Tharaka Nithi, Machakos, Meru, Murang’a, Embu and Kiambu Counties in Kenya.

SwedBio

SwedBio is a knowledge interface at Stockholm Resilience Centre contributing to poverty alleviation, equity, sustainable livelihoods and social-ecological systems rich in biodiversity that persist, adapt and transform under global change such as climate change. SwedBio enables knowledge generation, dialogue and exchange between practitioners, policy makers and scientists for development and implementation of policies and methods at multiple scales.



SwedBio at Stockholm Resilience Centre,
Stockholm University, SE – 106 91 Stockholm, Sweden
Visiting address: Kräftriket 2b
Telephone: +46 8 674 70 70
Email: swedbio@su.se
www.swed.bio, www.stockholmresilience.su.se

SwedBio is funded by the Swedish International
Development Cooperation Agency (Sida)