BOOK OF ABSTRACTS

1. SESSION DESCRIPTION

ID: T13

Title of session:
Barbets Duet: an alternative approach to restoring communities & ecosystem services

Hosts:

<table>
<thead>
<tr>
<th>Title</th>
<th>Name</th>
<th>Organisation</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Host:</td>
<td>Mr Oby Obyerodhyambo</td>
<td>Barbets Duet</td>
<td><a href="mailto:oby.obyerodhyambo@gmail.com">oby.obyerodhyambo@gmail.com</a></td>
</tr>
<tr>
<td>Host:</td>
<td>Dr Barbara Heinzen</td>
<td>Barbets Duet</td>
<td><a href="mailto:barbara@barbaraheinzen.com">barbara@barbaraheinzen.com</a></td>
</tr>
<tr>
<td>Co-host:</td>
<td>Ms Hilda Adhiambo</td>
<td>Barbets Duet</td>
<td><a href="mailto:adhiambohilda@gmail.com">adhiambohilda@gmail.com</a></td>
</tr>
<tr>
<td>Co-host:</td>
<td>Dr Peter Akong Minang</td>
<td>ICRAF</td>
<td><a href="mailto:a.minang@cqiar.org">a.minang@cqiar.org</a></td>
</tr>
<tr>
<td>Others involved: from Tanzania:</td>
<td>Mwajuma Masaiganah, Rose Lyimo, Hans Mtika</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Others involved: from Uganda:</td>
<td>James Magode Ikuya, Patrick Okware, Sharon Magode</td>
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<td></td>
</tr>
<tr>
<td>Others involved: from Kenya:</td>
<td>Sammy Muvelah, Sankara Yambo, Henricus Odhyambo</td>
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</tbody>
</table>

We expect to involve some of the founding partners of the Barbets Duet as well as members of the next generation. Chris Jones, from the UK, is unlikely to be able to attend.

See the attached Concept Note for a description of the Barbet Learning sites and the Founding Partners.

**Founding Partners (alphabetical order)**
- James Magode Ikuya: midodiidah@yahoo.com
- Mwajuma Masaiganah: masajaahmwa@yahoo.com
- Patrick Okware: patrickokware@yahoo.com
- Rose Lyimo: iseart@yahoo.com
- Sammy Muvelah: sammyzimele.net

**Next generation (alphabetical order)**
- Hans Mtika: hansmtika3@yahoo.com
- Henricus Odhyambo: henriyambo@gmail.com
- Sankara Yambo: sanky809@yahoo.com
- Sharon Magode: amasharn@yahoo.com

Abstract:

Background

The scientific and intellectual arguments on the need to restore and support the health of ecosystem services are now well established. However, the ways in which modern societies and local communities can achieve that goal – socially, scientifically and economically – are still being tested.
Since 2006, the partners of the Barbets Duet have been addressing this challenge by establishing a set of concepts and principles developed in the context of eight learning sites. Each partner’s site uses his or her own land as a demonstration site within the surrounding community. Six of the sites are in East Africa, with one each in the USA and UK. The partners emphasize experimentation and shared learning. They consciously see their efforts as a process of holistic systemic invention which tests land management techniques, institutional arrangements and any other aspect of the system that might improve rewards for people who support healthy ecosystem services. By engaging with each other across cultures, generations and types of ecosystems, partners accelerate wider learning within the Barbets Duet community. Their experience offers an alternative model for discovering how to benefit local populations and communities by putting necessary ecosystem services at the heart of their goals. The group is largely self–financed which means the work is more likely to be sustainable. The attached Concept Note provides a short description of each learning site and founding partner.

**Objectives and methods of the Barbets Duet**

The objectives of the Barbets Duet are to draw on the knowledge and experience of both Western and African cultures, techniques and institutions in order to find new ways to support people who support healthy habitats and high biodiversity.

To do that, each partner is testing ways to improve the environmental quality of his or her site, and its neighbourhood, while also improving local incomes. Although the sites are very different in size, ownership structures, ecologies, economies and cultures, they share major goals, values and approaches. By linking environmental restoration to livelihoods, the group seeks to make environmental work attractive to the next generation. Barbets Duet sites are offering job opportunities, profitable businesses and fun, meeting regularly at different sites to share experience and learn from each other. An archive of the development of the Barbets Duet is kept on the Barbets page of Barbara Heinzen’s website.

**Major lessons so far**

The lessons of the Barbets Duet so far can be grouped in five themes that represent the best practices and recurrent challenges the group is discovering. These themes will be explored in posters as well as in 3–5 presented papers. All papers will use the experience of different Barbet Sites to illustrate key points.

**Theme One – Collaborative learning:** This theme looks at how we learn from each other – in visits, conventions, exchanges between the sites and individuals – as well as from the work at each site. Collaborative learning also means learning from the past, such as the traditional systems once used at Magode Ikuya’s riparian site on clan land in eastern Uganda, or learning from elders in Seme, Kenya and Himo, Tanzania, who understand the uses of medicinal plants and trees. It also means learning from partners trained in business, like Sammy Muvelah and Rose Lyimo, as well as lessons from the MsiChoke Seaweed Growers Cooperative about working together. More broadly, we encourage ourselves to learn rapidly at our individual sites by trying out new ideas, making mistakes, expanding our knowledge and then trying again. Finally, unlike many projects in Africa, our northern sites in the UK and USA have been drawing on the knowledge and advice they receive from their African partners just as the African sites have been learning from each other and the northern partners.

**Theme Two – Community Engagement:** Every site and partner has been finding new ways to engage with their neighbours. Our experiences often debunk the over–romanticized view of community as a nice, cooperative force exploring new possibilities. Instead, our sites are ‘positive deviants’, offering promising
alternatives, but often regarded with suspicion, curiosity and envy. The partners believe that as their work succeeds, it will be imitated, creating wider success. This process has been slow, but is already at work, with neighbours imitating the example of dam building to store water at the Lukenya and Seme sites and then using the water to grow new vegetable crops. More commonly, our surrounding communities have yet to embrace and copy fully what is being done. In exploring this theme, the Barbets Duet partners will share their frustration with idealised notions of ‘community’.

Theme Three: Financing Ecosystem Restoration. Since 2006, the Barbets Duet experiment has been largely self-financed. This theme will demonstrate how the partners have done that, and how this model differs from prevailing assumptions about foreign aid and funding. Several sites will quantify what these experiments have cost them and describe how these costs were covered. By remaining self-financed, the partners have retained their intellectual and operational independence, including greater control over the timeframe for judging success. This theme will send the message that a) it can be done without donors, b) donors need to be more respectful, c) accountability is not sacrificed by letting each experimental site set its own goals and, finally, d) donor assistance can be useful when applied to very specific goals defined by Barbet partners.

Theme Four – Land and water management. The eight sites of the Barbets Duet all have very different ecologies. The arid and semi-arid sites in Kenya (Seme and Lukenya) struggle to find enough water, while the riparian site in Uganda is testing ways to use the stream to create new businesses that use less land, so that the formerly rich forest and high water table can recover. In the global north, the sites in the UK and upstate New York are both welcoming beavers. In the UK, the beavers are part of a restoration and water management project, while in the USA, both beavers and white-tailed deer are a serious management challenge as they can do serious damage to the woodland trees. Describing what different sites are testing demonstrates that a Barbet experiment can be as small as a new dam or as large as a local watershed feeding the Nile River.

Theme Five – Showcase Restoration of Livelihoods. Central to all our sites is the hypothesis that we must respond to the livelihood needs of local people while also restoring the ecosystem. Our experiments must feed people NOW, not later. Every site is looking for ways to restore livelihoods in order to restore ecosystems and vice versa. We cannot only plant trees that mature in 30 years. In Seme, Kenya, the site is testing new cash crops (paw-paw, butternut, tissue-culture bananas, onions, and sweet potatoes) to replace more damaging maize. In Molo, Uganda, fish farming provides a high value crop now, while leaving room for forest restoration. The Hudson River site in New York hopes to earn an income by enhancing biodiversity, while offering superior deer hunting. All seek new livelihoods within existing economic structures while a few are also looking for ways to secure direct ecosystem payments. In the UK, Woodland Valley Farm, has taken the lead in offering eco-tourism, but has also begun measuring net carbon sequestration at the farm.

The overall message is simple: environmental restoration and protection will only succeed if livelihoods also improve, especially when a direct link between better livelihoods and healthier landscapes can be made.

Goals and objectives of the session:

Goal:
To create a paradigm shift in ecosystem entrepreneurship that puts individuals and communities at the centre of ecosystem restoration rather than relying on governments and NGOs.
Objectives:

1) To introduce conference participants to the Barbets Duet approach to ecosystem entrepreneurship;
2) To invite others to share their experience with efforts similar to the Barbets Duet;
3) To identify a wider a network of like-minded ecosystem restoration practitioners who might choose to work together.

Planned output / Deliverables:

Outputs:
1) Conference discussions plus sharing of knowledge and experience;
2) Conference papers discussed and peer-reviewed;
3) Enhanced ability to learn from each other.

Deliverables:
1) Publishable papers incorporating the contributions from the conference;
2) Hand-outs summarising the basic principles of the Barbets Duet and describing the learning sites.

Voluntary contributions accepted: YES

2. SESSION PROGRAM

Date of session: Tuesday, November 22, 2016

Time of session: 10:00–12:30
<table>
<thead>
<tr>
<th>Time</th>
<th>First name</th>
<th>Name</th>
<th>Organization</th>
<th>Title of presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00-10:20</td>
<td>Barbara</td>
<td>Heinzen</td>
<td>Barbets Duet</td>
<td>Welcome, introduction to session and to the Barbets Duet; with Peter Minang</td>
</tr>
<tr>
<td>10:20-10:50</td>
<td>Joshua</td>
<td>Idassi</td>
<td>North Carolina, A &amp; T, State University</td>
<td>Ecosystem Services for Crop Protection in Bean Fields in rural Moshi, along the Slopes of Mt. Kilimanjaro, Northern Tanzania</td>
</tr>
<tr>
<td>11:20-11:35</td>
<td>Mampiray</td>
<td>Mbola</td>
<td>University of Toliara, Madagascar</td>
<td>Fetishes and Talismans: A Sustainable Ecosystem Services in the Tanalana society – Southwest of Madagascar</td>
</tr>
<tr>
<td>11:35-11:50</td>
<td>Hilda</td>
<td>Adhiambo</td>
<td>Barbets Duet</td>
<td>Summing up &amp; response from Barbets team</td>
</tr>
<tr>
<td>11:50-12:30</td>
<td>Barbara</td>
<td>Heinzen</td>
<td>Barbets Duet</td>
<td>An open discussion about:</td>
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<td>• Shift from industrial → ecological economies;</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>• Role of African &amp; Western models &amp; knowledge</td>
</tr>
</tbody>
</table>
**3. ABSTRACTS**

*Note: the abstracts are arranged alphabetically, in order of last name*

**Type of submission:** Abstract: voluntary contribution

T13 Thematic working group sessions

**Incentive Mechanisms For Farmer–Led Ecosystems–Based Practices In Northern Ghana**

*First author(s):* Sylvester N., Ayambila  
*Co–author(s):* Safiatu Wemah  
*Affiliation:* University for Development Studies  
*Email:* slynsor@yahoo.com

Incentive mechanisms are a way of rewarding farmers for maintaining the natural ecosystems in place as well as maintaining an efficient food production system through the use of sustainable land management (SLM) practices in their activities. From the farmers’ perspective, there are challenges linked to our current practices in environmental, cultural and socio-economic activities that hamper the maintenance of natural ecosystems and requires attention. This paper presents the findings of an assessment of five sustainable land management practices as well as the examination of farming activities in respect to the kind of SLM practices and analyses the cost/benefits of incentives to the farmer–led activities from the farmers’ perspective in northern Ghana.

The results from a household survey, indicates that from the farmers perspective, SLM benefits exceed the cost and the cost of using SLM is minimal as compared to current practices using inorganic fertilizer. The greater proportion of farmers practiced stone/soil bunds (75%) in crop production. In terms of cost of establishing the SLM practices (75%) of farmers used up to GHS 50.00 to establish SLM practices and (74%) of farmers needed up to GHS 50.00 to maintain the SLM practices. Further examination using ELMO, an evaluation management tool indicates that, stone/soil bunds, grass (vertiver)/broom cultivation are mostly used. Findings from the ELMO also suggest that cash incentives will not be used for its intended purpose. Farmers indicated that money will be used to buy inorganic fertilizer which gives quick returns and expensive as well as into fungible activities. Although Farmers indicated that they valued the SLM practices most it did not cost money. Most materials were available and needed not to be bought with money. These findings provide important baseline data for any incentive packages intended to reward farmers for ecosystems natural sustainability.

*Keywords:* Incentives, ecosystem–based, farmer–led, sustainable, practices
Native field margins and edges in and around bean fields in rural Moshi along the slopes of Mt. Kilimanjaro in Tanzania were examined to show if these natural systems offer beneficial services landscapes. This study was conducted to investigate the distribution of beneficial invertebrates and plants and their conducive environmental conditions in bean fields. Four farms with the following four factors were chosen: elevation, crop diversity (mixed crop farming), forestation level (farming in grasslands, woodlands and bush land areas), and cropping intensity (most land converted to farming with little bush land, farm-fallow mosaic, small areas of farming with mostly bush/fallow land). Beneficial insects were collected monthly using pan traps. Five traps were placed in the crop plants and the other five traps were placed in the field margin. The insects collected were identified to the functional group level. Plants found associated with beneficial insects were also collected for identification. Monitoring of the insects’ visits to plants was done and photos were taken. The results show that elevation, time of the year (month), field margin plant species, rainfall and temperature affected the type, richness and diversity of invertebrate communities. Also, indicated are great spatial-temporal differences in invertebrates’ groups associated with ecosystems services delivery, particularly pollination and pest management functions. There was significant difference (P ≤ .05) among sites in terms of the abundance and richness of invertebrates present. Rainfall and temperature had a potential influence on invertebrates’ groups. In most cases, the highest populations of insects were found in the field margins and edges (P ≤ .05). Also, these buffers, play a role in maintaining biodiversity in agro-ecosystems, and that this role extends into the crop fields. In conclusion, this natural system on farms can promote beneficial insect communities and potentially helping with biological pest control in and around bean fields.

Keywords: Ecosystems, beneficial, services, biodiversity, buffers
T. Thematic working group sessions

**Type of submission:** Abstract: voluntary contribution

T13 Thematic working group sessions

**Fetishes and talismans: a sustainable ecosystem services in the Tanalana society – southwest of Madagascar**

*First author(s):* Mbola, Mampiray Miandrito  
*Affiliation: University of Toliara*  
*Email: miandritomampiray@yahoo.fr*

Each society has special concepts and practices built around the innate link between the nature and humankind. These concepts and practices are transmitted to future generations and typically determined by local traditions and cultural norms. In Southwest Madagascar, the fetish (tone) and the talisman (vo) are the materialization of these inseparable links between humans and the environment among the Tanalana, an agro-pastoral society living around the Tsimanampetsotse national park.

Tone is made up of plants, stones or wood products; it’s planted or placed around the house, in the fields or in the cattle enclosures. Vo is a small pouch worn as necklace or bracelet by men, women, adults, teenagers, and kids in the Tanalana community.

In this article, I describe the traditional methods for transmitting this practices and concepts to future generations. Through participatory observation and interviews conducted within the Tanalana society during one year, it was found that the fetish (tone) and the talisman (vo) play an important role in shaping personal and familial well-being. The vo are manufactured tools for protection against wickedness (e.g. harm caused by spirits or other people); they also act as a type of welfare, made through the forest products called volohazo: medicine derived from the flora or fauna. They are made through the divination art message translated by the traditional healer. This practice lives on in Tanalana society today, even as Christianity and effects of modernity have taken hold in recent years.

These mature are empowered by the traditional healer by calling the supernatural being (God, ancestor, spirit, or 'the destiny') for making collective or individual well-being. As such, these magic tools are the guarantors of well-being; each family transfers these concepts and practices on to their children.

*Keywords:* Fetishc, talisman, well-being, protection
Ecosystem Services for Crop Protection in Bean Fields in rural Moshi, along the Slopes of Mt. Kilimanjaro, Northern Tanzania

First author(s): Kelvin, Mtei
Co-author(s): Joshua Idassi, Filemon Elisante
Affiliation: North Carolina A&T, State University
Email: joidassi@ncat.edu

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