

The Ntabelanga and Laleni Ecological Infrastructure Project (NLEIP)

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Newsletter after NLEIP Science–Management Meeting

8th –10th Nov 2016 (Grahamstown)

If you want a summary of what we think really happened at this meeting, read on...

Overall thrust

This meeting had a very directed theme around which most of the first two days was centred, namely **integrating across all available themes in an adaptive and participative way**. As it turned out, because of outstanding issues relating to the acceptability of the dam by the communities, and their own internal differences, we decided not to invite them directly as we had intended. Instead, it seems that the best strategy now (depending on funding) will be to engage intensively with them on the ground in the catchment early next year, building further on the stakeholder analysis report. So without their presence at the meeting, we arranged as broad a joint exercise as we could muster.

The joint exercise took place on day two of the meeting, and consisted of a presentation with budgets and maps (the culmination of a large amount of work over a long period, consolidated on the Monday prior to the meeting), by the longest-standing subgroup (or community of practice COP, as we like to call them) of NLEIP– the Sediment and Restoration Subgroup (S&R). This exercise was preceded by a short “taster”- co-ordinator of the S&R talk COP, Bennie van der Waal, to everyone present, early the afternoon before. This gave the other two existing COPs (Livelihoods and Ecosystem Services, and Governance) a heads-up on what to expect on the Wednesday morning. Indeed, both these COPs devoted the rest of the afternoon of day one partly to preparing for the day two morning session. If you are interested, see Box 1 & 2 for a concise summary of the discussions of these two COPs on day one, in relation to this preparation and generally (as this was also served as one of their regular meetings). Then, on the Wednesday a longer introduction was given by Bennie, regarding three scenarios prepared by the S&R COP, followed by an hour-and-a-half overall discussion, meant to be as constructively critical as possible.



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Box 1: Summary highlights from the workshop for the Governance COP

The Governance COP spent time discussing their understanding of governance and agreed that there are key points that need to be considered regarding governance:

- That roles and responsibilities must be defined and clearly understood;
- That operational governance is important;
- That a vision must be co-developed with all stakeholders;
- There must be concerted effort to work towards the vision;
- That rules and practices are negotiated and agreed;
- That governance must be principled with tangible outcomes.
- Prof James Gambiza referred the group to the article in *Science* 2003 by Dietz et al. concerning the seven principles of governance, and suggested that this is shared with all the COPs and the entire NLEIP community.

The group felt strongly that the communication and feedback between the various COPs should be strengthened and more frequent (via email and/or Skype), so that each COP does not work in isolation. The linkages and iterative approach between the Livelihoods and Eco-System Services COP and the Governance COP are critical for the future of the project. It is important to define the institutions and governance structures already in place, and to share this information for all COPs and those involved with the NLEIP.

The group discussed a concept note developed by Prof Tally Palmer relating to the two elements the group felt were most urgent to pursue with regards to governance:

1. The existing governance structures at a national level between the two main departments (DWS and DEA) are to be encouraged. The departments should actively engage with one another in a move towards co-operative governance particularly relating to the NLEIP and the construction of the dams. The outcomes of these meetings should be shared with the NLEIP group, and should filter through to the various levels of government (provincial and local offices of these department).
2. The gap between the catchment management forum level of governance (which is often more representative of chief, local, and provincial government level stakeholders), and local natural resource management governance, needs to be addressed. The question of how to involve all stakeholders needs to be examined so that the idea of polycentric governance is explored and becomes more of a reality.



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In an “ideal world” it may (probably should) not necessarily have happened that S&R led the initial charge, but all parties understood this history- which is very typical of the way things have been done for decades. In a complex adaptive system, history is always influential, and all approaches have pros and cons. So we are grateful that we can move forward sensibly, and grateful to the S&R group for all their hard work and broad-minded welcoming attitude towards this critique.

Box 2: Summary highlights from the workshop for the Livelihoods and Ecosystem Services COP

- There is a need for livelihood-related research to inform the restoration but this should initially focus on a smaller area as opposed to the catchment scale. One option could be to engage with the sediment plan to identify sites earmarked for restoration as a starting point for this research.
- There is a need to develop a spatial map of livelihoods and ES –related research indicating where researchers are working and what they are doing. Dr Alta De Vos has put together a survey that has been distributed to the members of this COP to gather this information and she and Mike Powell have begun work on a conceptual map.
- In terms of restoration interventions, it will be important to match these with potential livelihood opportunities and taking those opportunities to communities, and engaging with them to identify which ones are most suitable. There will however, need to have additional budget made available.
- Creative ideas for restoration could include fruit tree nurseries and the cultivation of medicinal plants.

The group discussed and decided on seven key questions/objectives to be tackled by the COP. These are:

1. Determining baselines of ES and livelihoods;
2. Sustainability of government interventions, their impact on livelihoods, and how to improve the sustainability thereof (how can interventions be turned into livelihood opportunities and what are the feedbacks of interventions on livelihoods?);
3. Resource opportunities;
4. What are the aspirations, attitudes and practices of various communities towards land, livelihoods and farming?
5. Delineation/rejuvenation of cultural practices and sites;
6. Change in ES, people’s reliance on them, and opportunities;
7. Problem trees and community restoration issues.

The three scenarios were: ONE- an intervention-heavy scenario (engineering focus), explicitly ignoring communities other than simply engaging with them minimally about the interventions.



The next scenario (TWO) was a land-use heavy one, concentrating almost exclusively on community driven practice changes, and explicitly ignoring engineering interventions. The last scenario (THREE) was a mixed approach. Scenarios ONE and TWO both violate certain principles of the S&R group, derived with the NLEIP mission in mind.

The scenarios were therefore presented not because they might be accepted, but rather to illustrate more clearly to everyone that such avenues, often touted, had been thought through, and hence also to stimulate thinking. In fact, scenario ONE was generally considered feasible, but historically typical in the sense that it had no sustainability after intervention. Scenario TWO, apart from its “engineering shortfall”, was considered unachievable in the three-year time frame of the scenario-setting, such initiatives requiring at least ten years with building of trust and a major “local extension” force in the field.

So in reality, in the end (as anticipated) scenario THREE with its particular balance, was the one to engage with in terms of moving forward (the particular scenarios are available as appendices to the minutes of the meeting, or from Bennie at bvdwaal@gmail.com). The main findings are presented in Box 3.

Box 3: Summary highlights from the workshop for the Sediment & Restoration COP

- Restoration should combine land management with engineering interventions.
- Community buy-in and co-construction will make biological and engineering interventions more efficient and ensure their longevity.
- The Communities current and future resource use plans and visions should be incorporated into the restoration plan. These data need to be captured as soon as possible.
- Once community engagement commences in an area, restoration work should follow soon after. If expectations are created and not followed through within weeks to months, then people loose motivation and willingness to contribute.
- Wetland rehabilitation, fire management and grazing management should be planned catchment wide (T35A-E). Other soil conservation work should be focussed in the communal areas as these are the areas that produce most sediment (according to modelling by [Le Roux et al. 2008](#) and measured suspended sediment concentration data by Geography, Rhodes University), and have biggest need in terms of jobs and livelihood sustainability. As the Restoration Plan will be a phased approach, it has been proposed to focus on the area around the proposed dam in T35E for the first year, then extend to the northern parts of T35E. Once T35E is completed, new work will be focussed on the communal areas of T35D and T35A.
- Maintenance of interventions and good communication and community engagement is critical over the long term for achieving the NLEIP vision.



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The Livelihoods/ES and Governance Groups felt very strongly that although the content mix of scenario 3 was sensible, the timing of the engineering interventions was generally too early (relative to likely success if more time is put into engagement), and (as we have heard above) the land use practice changes take far longer to implement widely. But at the same time, there was a clear admission that we will have to start immediately with some interventions, for the following reasons: (a) to satisfy stakeholder expectations of action, especially in certain areas, and hence not lose momentum; (b) to learn by doing, something which takes time and which, up to a point, is assisted by having a variety of interventions; (c) it can be argued that certain issues cannot wait because of, for instance, further serious loss of healthy ecological infrastructure (the opposite obviously also applies, that certain interventions can wait). However, one of the strongest realities favouring starting as soon as possible, over a fairly wide range of actions, was simply the availability of funds, which will be spent on business-as-usual methods if we cannot make more compelling recommendations. Therefore, the meeting ended on in wide agreement that it was up to this group to find a practicable and effective mix, that could utilise the funds in the most sensible agreed-on way, and that we had indeed laid the basis for negotiating this wisely in iterative steps. The first deadline will be to have a draft SES-sensitive rehabilitation/sediment plan available by March 2017, so that decision-making can leverage future budgetary flow, to meet this deadline.

Co-ordinators of the three COPs (and any other key persons required, possibly Mike Powell, Nosi Mtati and Japie Buckle) will meet soon, possibly even before the New Year, to start a process which will lead, through a few more meetings early next year, to a revised plan with analogous levels of details from the two “more social” COPs. It is foreseen that this plan will have principles, maps, timelines and a budget, such as the one displayed by the R&S COP, but the plan resulting will now take into account all of the above factors. This plan should produce a mix that the group as a whole feels is starting a more desirable trajectory towards meeting the sediment mitigation and restoration goals sustainably, and in a way that addresses all four of the main aspects of the NLEIP mission. Very early next year, it is hoped that community engagement regarding the surfacing of ideas of the various communities about the Ntabelanga part of the initiative, no matter how different these might be from our initial plan, should be underway. If at all possible, the results of these two processes should be compared, and some principles of the joint result already be reflected in the draft plan. Certainly, the resultant community directives should be thoroughly included in the follow-up plan that we compile after the draft, with communities as far as feasible co-constructing a joint plan with us. It would obviously have been best to have started with the community ideas running parallel to (or even ahead of) ours in such a co-construction, but given the situation, we need to be genuine about trying our best to produce a good joint result.

It is foreseen that the next NLEIP Science-Management meeting to be held around May 2017, will be a pivotal time to pull all the facets together, and then leave the team writing the next version of the plan a few months to “finalise” the plan.



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In our philosophy, such plans are always improved on with successive versions, but the August 2017 version has to be robust enough to spawn clear operational plans into the near future post-plan, and flexible enough to improve on adaptively after that.

What were the other highlights and happenings at the meeting?

There was a keynote address to start off each day. The opening day's keynote address was by Brian Jackson from the Inkomati-Usutu CMA, and detailed the successes and tribulations of their adaptive management journey over the last decade. A long discussion session was held after the thorough keynote, and served the very positive purpose of allowing the participating audience to understand that adaptive planning and management are really possible in (and sometimes partly because of) a messy and difficult unpredictable situation –in some ways not all that different from our own context.



Mr Brian Jackson sharing his experience from the IUCMA.

The second day's keynote was by Matome Mahasha from DWS, who enthusiastically explained the centrality of catchment management fora (CMF's) in the playing out of water resource management, but more broadly in integrated natural resource management. NLEIP represented the first very real opportunity to join hands with DEA (and as time goes on, with several other agencies linked to natural resource management directly or indirectly), in a CMF context. After his talk, Chief Director Thoko Sigwaza, who had popped in to the morning's proceedings, re-affirmed and elaborated further on this context. She took part actively in the morning's activities and key side discussions.



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On the afternoon of day 2, a plenary discussion was held on the CMF level (Tally Palmer) as it links to the village level, regarding natural resource management activities (James Gambiza). Catchment management guidelines from the WRC Green Village Project were presented by Louise Loderkemper.



Mr Mahashe delivering the keynote address and Chief Director Thoko Sigwaza.

Day Three: student presentations

For this meeting it was decided to put aside a day a day for more conventional length and “academic style” student papers, rather than the usual 5 minute practical summary presentations. However, day 3 opened with a keynote address (Heidi-Jayne Hawkins), on experiences and research relating to grazing and stock relationships in the novel entrepreneurship context of the Upper Umzimvubu Catchment Program. Heidi’s talk was followed by a panel and audience discussion taking this further. As always, many ideas were exchanged but the overall context remained very much a complex adaptive social-ecological system, where sensible experience and adaptation worked better than ideology.



The expert panel that tackled questions about applied research relating to the grazing-fire-restoration nexus (from left to right: Dr. Tony Palmer (ARC), Dr. Heidi-Jane Hawkins (Conservation SA), Dr. Rina Grant (previously SANParks), and Professor James Gambiza (Dept. Environmental Science, Rhodes University)).



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Following the discussion panel, a talk was given by Lawrence Mulanguphuma of DWS on the Umzimvubu River Classification Project of DWS, in which we will be seriously involved. After tea till 4 pm we listened to 15 student presentations (see attached photo-panel), which were much appreciated. Charlie Shackleton's wrap up at the end was complimentary and encouraging, in that we can look forward to an excellent next generation of scientists. Most presentations (8/14) fitted squarely in the natural processes/ecosystem services (green on the NLEIP framework) block, and while this was laudable, the other blocks had catching up to do. Social dynamics were all-important as a focus area, and a systems approach needed to be honed, with adequate inclusion of scale (esp. spatial) considerations. Knowledge, attitudes, practices and beliefs were watchwords, as was gender.

For more information on any aspect of this newsletter, contact the responsible person, and if not clear who that is, start with Mike Powell at m.powell@ru.ac.za.

*Footer photograph kindly provided by Dylan Weyer: Sunrise over the Shukunxa Village, one of the villages in the NLEIP and the Green Village Project.



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Appendix 1: Student presentations photo panel.

