



# Scientific Assessment Predators and small livestock in South Africa: SA Process Document

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*This document has been modified by Dave Balfour for the Scientific Assessment of Predation on Small Livestock in South Africa. It is based on the document drafted by Bob Scholes and Paul Lochner for the Shale Gas SEA.*

*The purpose of the document is to explain to stakeholders and project governance groups the process which will be followed by the project team when undertaking the SA process.*

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# 1. Background

The Co-operative Research Programme: Stock Predation Research (CRP:SPR) housed within the Centre for African Conservation Ecology (ACE) at Nelson Mandela Metropolitan University (NMMU) was formulated with the following overall goal:

*To conduct appropriate and strategically determined research, that takes into account the problems and needs of the small-stock industry, and environmental (ecological) requirements, and also the outcomes of acceptable research conducted to date, with a view to providing sound, scientifically-based directions (guidelines) to (a) the industry, and to (b) the policymakers, with the overall aim of appropriately mitigating the problems caused by predation on stock, especially by jackal and caracal.*

Prior to embarking on a new series of research initiatives, as part of the proposed programme, a comprehensive understanding of the nature and scope of the issue at hand needed to be developed as well as a 'stock-taking' to determine what we do and do not know about it. In addition, as the issue of stock predation has strong commercial, conservation, policy and other interests, it was also vital that the process received good 'buy-in' from key stakeholders, notably the small-stock industry, government, and researchers. The most effective way of achieving these objectives is to conduct a formal Scientific Assessment, which is a process that translates existing scientific information into a form usable by policymakers. Thus a proposal was developed to fund and conduct a Scientific Assessment of the nature and extent of the problem and the existing knowledge around the issue of predation on small livestock by jackal and caracal.

NMMU, through ACE, has thus partnered with the Department of Environmental Affairs, the Department of Agriculture, Forestry and Fisheries through the Red Meat Research Development Planning Committee, the National Wool Growers Association, Cape Wools and the Mohair Trust and initiated the process of undertaking a Scientific Assessment (SA) on the issue of predation on small livestock in South Africa (hereafter *PredSA*). The SA will be formally launched in June 2016 by an announcement by either the Minister of Environmental Affairs or, if she is unavailable, the Project Leader. Approximately R2.5 Million has been committed to the Assessment and it will be 18 to 24 months in duration, starting May 2016.

The SA will be conducted as an independent, science-based assessment, along the lines of the Elephant Management Assessment<sup>1</sup>. The 'philosophy' of the SA is based on global best practice in SA theory and implementation. The 'scientific assessment process' will be grounded in transparency and participatory processes; in order to satisfy the principles of **legitimacy**, **saliency** and **credibility**.

The objective of the SA is to inform decision maker's (in this case the South African government departments, and specifically the Ministers of Environmental Affairs and of Agriculture, Forestry and Fisheries) understanding of the issues around predation of small livestock, based on the evaluation by acknowledged experts of the best available information. It will translate available scientific and "grey literature" as well as personal knowledge from South Africa into a form usable by policymakers. It will be characterized by an extensive, transparent (i.e. in the public domain once the reviews have been received and the responses made) review process by both experts and stakeholders.

The SA will consider both the commercial and environmental issues as well as ethical, social and legal considerations. The key outputs from the SA will be a scientifically reviewed document detailing the current state of our knowledge as well as guidelines for policy makers which will seek to inform in a summary format and to be policy neutral. It is key to understand that the outputs will not be policy prescriptive.

## 2. Spatial extent of the Assessment

Spatially the Assessment will extend across the whole of South Africa. It will consider commercial and non-commercial land-use as well as private, communal and state land tenure systems.

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<sup>1</sup> Scholes, R.J. & Mennell, K.G. 2008. Elephant Management: a scientific assessment for South Africa. WITS University Press, Johannesburg.

### 3. Phases of the SA

The SA has been designed in three overlapping phases (Figure 1).

**Phase 1** beginning April 2016 and extending to about July 2016, includes the necessary preparatory arrangements: completing contracts and procurement arrangements, recruitment, convening the governance structures, collating literature and data, formulating the first draft of the societal problem statement, identifying the proposed author teams, arranging logistics etc.

**Phase 2** is the finalising of the societal problem statement, conducting the assessment of the information by the multi-author expert teams, including two reviews of drafts of their assessment, initially by independent experts, then by both experts and stakeholders. Phase 2 commences with the first author meeting in July 2016, and ends with the completed final assessment report approximately one year later.

**Phase 3** distils a set of guidelines for policy makers from the assessment. This process is undertaken by the Project Team in consultation with the affected Departments. It commences with initial drafts after the delivery of the first draft of the Assessment report, and with final drafts after the delivery of the final Assessment report. The separation of the teams between phase 2 and 3 is to honour the assessment 'mantra' of being 'policy relevant, but not policy prescriptive'. The experts in Phase 2 are not being asked to make decisions about the development of policy. They are being asked to give an informed opinion on the consequences of different options. The decisions must be made by mandated authorities (i.e. government) but they can be assisted by the Project Team in this endeavour. The detailed schedule of activities is shown in Figure 2.

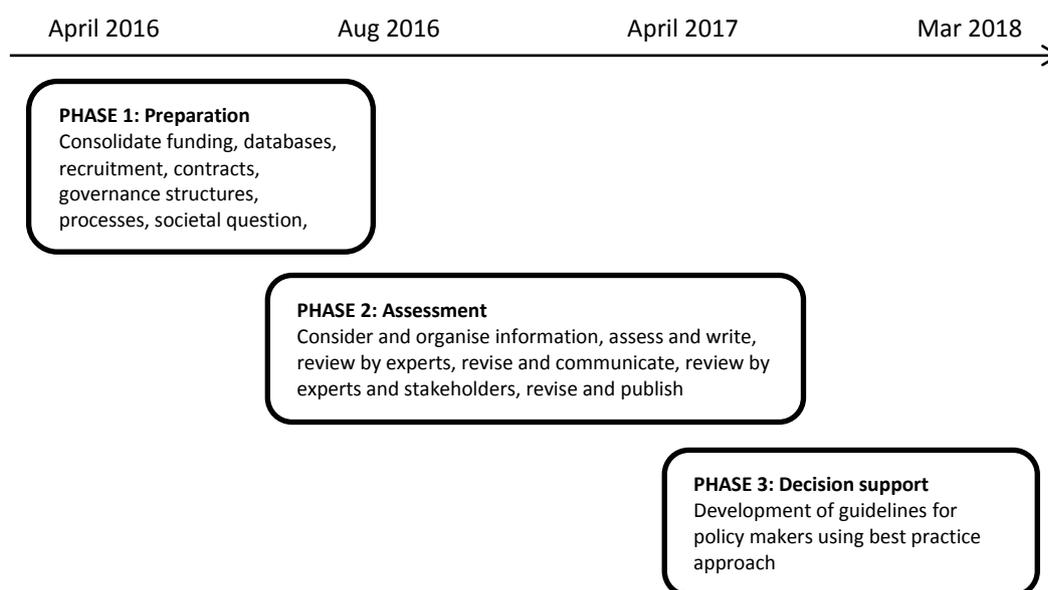


Figure 1: Phases of the Scientific Assessment

PredSA - process flow	2016												2017												2018			
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr		
Literature collation	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■												
Contracting, recruitment & prep	■	■																										
Bioblitz for authors					■	■	■	■	■	■	■	■	■	■	■	■	■											
Media events				■								■									■					■		
PCG meetings				■																	■					■		
Author meetings					■																							
Writing blocks						■	■	■	■	■	■	■	■	■	■	■												
Expert reviews											■	■																
Public engagement																■												
Stakeholder reviews																■	■											
Publication processes																					■	■	■	■	■	■		
Decision support outputs																		■	■	■	■	■	■	■	■	■		

**Figure 2 Detailed schedule (draft) of activities and timelines**

## 4. Governance of the SA

The governance structure for the SA is illustrated in Figure 3:

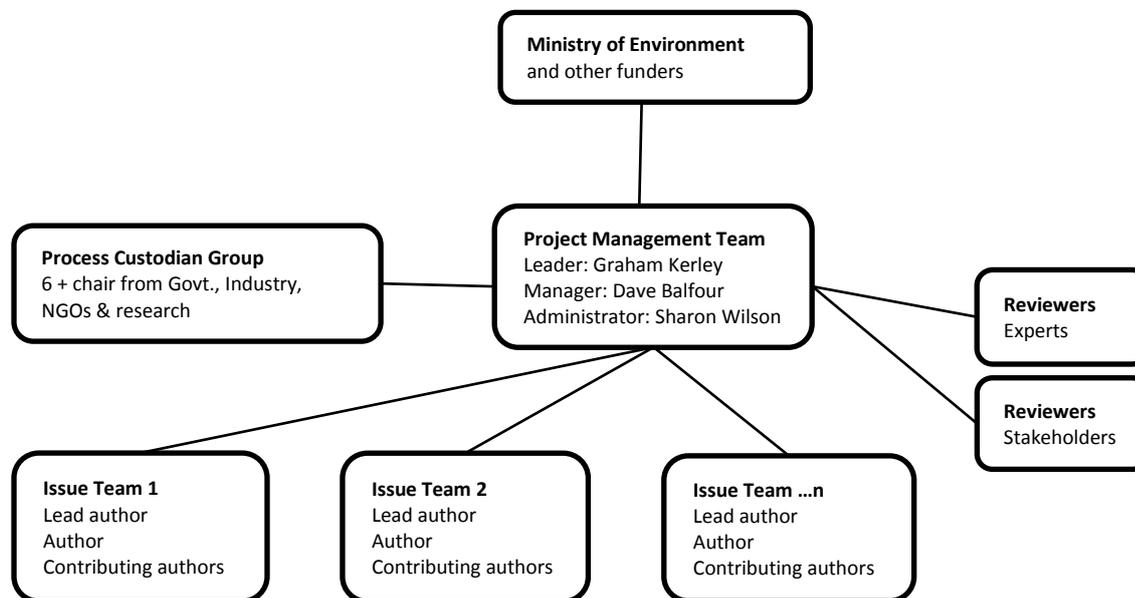


Figure 3 Governance structure for PredSA

### 4.1. Process Custodians Group (PCG)

A key element of the project governance for this assessment, designed to ensure that an appropriate process is followed, is a PCG of six individuals, drawn from government, NGOs, industry and the research community. The PCG will meet at key junctures during the assessment to ensure that the *process* has been fair and rigorous. They have no say on the content. Their specific responsibilities are to evaluate and provide feed back to the Project Leader on the following topics:

- Has the assessment process followed, within reason, the guidelines set out in this document;
- Do the author teams have the necessary expertise and show balance between well-founded ranges of opinion;
- Does the assessment (as indicated by the Zero Order Draft i.e. the expanded outline and then by the first and second draft contents) cover the material issues;
- Are the identified expert reviewers independent, qualified and balanced;
- Have the review comments received from expert and stakeholder reviewers been adequately addressed and have the responses been adequately documented (especially in the case where a review comment is partially or fully rejected).

The PCG meets at predefined strategic opportunities to exercise their oversight role. The PCG operates as far as possible on a consensus basis. Where agreement cannot be reached, a majority and one or more minority reports can be submitted. The reports of the PCG will be in the public domain. The composition of the PCG is shown in Table 1:

**Table 1: Process Custodians Group members**

<b>Sector</b>	<b>Organisation</b>	<b>Representative</b>
Chair	To be determined	
Government	Department of Environmental Affairs (DEA)	Magdel Boshoff
Government	Department of Agriculture, Forestry and Fisheries (DAFF)	Victor Musetha
Industry	National Woolgrowers Association (NWGA)	Leon de Beer
	SA Mohair Growers Association (SAMGA)	Coligny Stegmann
Research	Council for Scientific and Industrial Research (CSIR)	Luthando Dziba
NGO	Wilderness Foundation	Andrew Muir

The organisations from which the members were sourced were selected as having credibility in their 'sectors' through having a mandate or a large following, and a demonstrated interest in the topic. Members of the PCG are not appointed as 'representatives' of their organisation in a narrow sense; but are expected to reflect the breadth of opinion in their sectors. PCG members are encouraged to nominate an alternate if they are unavoidably unable to attend a meeting, but not to send different people at every meeting. Membership of the PCG disqualifies the members themselves from being SA authors or expert reviewers, but does not disqualify their organisations from providing authors, expert reviewers or stakeholder review comments. Nor does it in any way preclude those organisations from other avenues of expressing their opinions on the Assessment through, for example, advocacy, media engagement or legal action.

The PCG meeting dates, subject to confirmation, are:

July 2016, October 2016, May 2017 and September 2017 (to be agreed).

The PCG can, if needed, have discussions and reach conclusions based on email or teleconference modes in-between these physical meetings and the chair can convene further meetings if s/he deems it necessary to meet their PCG mandate.

## **4.2. Multi-Author Teams**

In order to advance the principles of balance and comprehensiveness, the main topics in the assessment will be addressed by multi-author teams rather than a single author. Some of the strategic issues can have up to five authors (including the Lead Author, but excluding Corresponding Authors), selected on the basis of their acknowledged expertise.

Expertise will usually be evidenced by appropriate formal qualifications and experience, but may also be evidenced by widespread peer-group agreement that the candidate has expertise on the topic and by a track record of outputs on the topic, widely acknowledged to be of value. Authors can be drawn from a broad range of sectors, including research institutions, government, NGOs, universities, the industry, etc. and across different regions of South Africa and if appropriate further afield, to ensure a balance of interests, disciplinary background, experience and perspective is represented in the team.

Each team includes one (in some cases two, where the topic has clear subtopics) Lead Author, several Authors and potentially many Contributing Authors. The latter do not attend writing meetings, but provide small amounts of text on defined, relatively narrow topics, via email.

Thus it is anticipated that the assessment will include approximately 30-50 authors, not including Contributing Authors. The Lead Authors and Authors will be listed on the topic head, in alphabetical order within each category. Contributing authors are acknowledged, rather than listed as authors for citation purposes. The various types of authors and reviewers, their roles and the PCG role with respect to their selection are summarised in Table 2:

**Table 2: Roles and responsibilities of authors, reviewers and PCG members**

<b>Role</b>	<b>Responsibility</b>	<b>PCG role</b>
<p><b>Lead Author</b> (1 or 2 as appropriate). Costs of attending meetings covered</p>	<p>Chairs the team meeting discussions, allocates writing tasks, ensures they are done on time and to specification, allocates reviewer response tasks, ensures they are done. Experienced expert in own right, part of overall chapter drafting team. Responds to reviewer comments.</p>	<p>Approves Lead Author selection based on expertise, experience, credibility, availability.</p>
<p><b>Authors</b> (1-4 per Chapter). Costs of attending meetings covered</p>	<p>Collate, evaluate and summarise available information. Co-writer of a chapter, participates in team discussions on entire topic and takes collective responsibility for it. Contributes to responses to reviewer comments and revises drafts accordingly.</p>	<p>Approves Author Team based on expertise and balance, can suggest authors.</p>
<p><b>Contributing Author</b> (No limit: as needed). No costs covered</p>	<p>Provides short input text on area of narrow or special expertise. May be asked to respond to reviewer comments on the material provided.</p>	<p>Notified of contributing authors.</p>
<p><b>Expert reviewer</b> 1 or 2 per chapter) No costs covered, may be international experts</p>	<p>Reads first and second draft and provides written, specific and evidence-based, referenced comments.</p>	<p>Approves list of expert reviewers, can suggest names, checks that their comments have been taken into account appropriately.</p>
<p><b>Stakeholder reviewer</b> (no limit) No costs covered. Barriers to access should be as low as possible</p>	<p>Reads second draft and provides written, specific comments. The degree to which they will be taken into account in the final draft depends on the evidence supplied and its credibility.</p>	<p>Checks that stakeholder comments have been taken into account appropriately.</p>

An overview of the writing and review process is illustrated below in Figure 4:



**Figure 4: Writing and review process**

Remuneration of authors is limited to covering expenses and kept to a level that could not be reasonably construed to constitute an inducement to provide a biased assessment. This is standard practice for an Assessment of this nature, such as the Scientific Assessment of Elephant Management.

Each chapter will be a published, citeable, peer-reviewed output for those authors who need to demonstrate publication outputs for subsidy-earning or career progression reasons.

Authors do not represent their home organisations or any particular constituency. They are selected on a personal basis, reflecting their individual capacity to contribute to the assessment. Their mode of interaction is expected to be collegial, collaborative and inclusive, and the team should base its collective text and judgements on the best available evidence.

Three multi-author team workshops of about three days each will be scheduled during the assessment. The workshops will provide the opportunity to discuss the approach to the assessment, inter-topic issues, intra-topic issues and the delivery of key assessment outputs.

#### 4.2.1. Lead Authors

The Lead Authors will be responsible for ensuring that all the components written by Authors and Contributing Authors are delivered on time, and are incorporated in a logical fashion into the chapter; and that the scope of the strategic issues, as decided at the first workshop, is fully covered.

Lead Authors need to ensure that the responses to comments from stakeholders and reviewers have been adequately addressed and / or incorporated and documented. The Project Team will be responsible for collecting and managing the comments in an electronic database and distributing these to the Multi-Author Teams via the Lead Authors.

### 4.2.2. Authors

Authors are expected to attend all three writing workshops and actively participate in the discussions and decisions there. They must deliver text, references, tables and graphics (in rough form) to their Lead Author by the agreed date, and according to agreed formats and templates. They must assist in addressing reviewer comments (especially those relating to text they have contributed) and writing the second draft. They must assist in addressing the stakeholder and expert comments on the second draft and final draft, especially on their sections. The time requirement is probably about 15 days over the course of 18 months.

### 4.2.3. Contributing Authors

Contributing Authors typically write less than one published page (often a box, a table, illustration or a few paragraphs). They must deliver text, references, tables and graphics (in rough form) to their Lead Author by the agreed date, and according to agreed formats. They may be requested to assist in addressing reviewer comments relating to text they have contributed. Contributing Authors do not attend the writing meetings. The time requirements are likely to be a few hours to a few days. They are acknowledged on the title page of the issue chapter.

## 4.3. The Project Management Team

The Project Management Team, is managed by Dave Balfour ([environ1@mwb.co.za](mailto:environ1@mwb.co.za)) and Sharon Wilson ([PredSA@nmmu.ac.za](mailto:PredSA@nmmu.ac.za)) and supported by interns from NMMU. The Project Management Team will handle:

1. All logistics associated with the meetings, including those of the PCG;
2. Management and style editing of documents leading to the first, second, and final drafts;
3. Preparation of graphics in a publication-ready form;
4. Appointment of Expert Reviewers and communications with them;
5. Maintenance of databases relating to the SA, including a large library of relevant literature and the review process; and
6. All financial and contractual issues.

The Project Leader of the Assessment, Prof Graham Kerley ([Graham.Kerley@nmmu.ac.za](mailto:Graham.Kerley@nmmu.ac.za)) is available to all assessment participants for advice or problem-solving.

The Project Management Team will create, and maintain, an on-line library of relevant baseline information and research material that can be accessed by the multi-author team. Access is password protected because some of the material is protected by copyright and therefore cannot be put on an open site. Authors are encouraged to submit material to the site if it is of interest beyond their sole use. 'Grey literature' which is cited in the assessment but is not easily publically available must be submitted for the record.

## 5. Content of the Assessment

Based on existing literature and public concerns, the Key Issues listed below have been preliminarily identified and are likely to form the chapter headings. The exact articulation of the issues may change under the guidance of the PCG.

The expanded table of contents for each chapter will emerge from the first writing meeting at the end of September 2016 as the 'Zero Order Draft'. Each issue will generally have the following sections:

- Summary of key points, including degree-of-certainty terms.
- Scope of chapter, definitions and key terms.

## **The preliminary chapter list includes the following:**

- 1.) Introduction and context
- 2.) History of predator-stock conflict in South Africa
- 3.) Impacts of predators on the stock industry in South Africa
- 4.) Review of past and current predator management practices
- 5.) Jackal and caracal ecology and biology and their interactions with livestock
- 6.) Biology/ecology of other predators and their interactions with livestock
- 7) Ethical considerations in the management of livestock predator impacts
- 8.) Legal considerations in the management of livestock predator impacts
- 9.) Review of international management practices of livestock predation: Lessons for South Africa
- 10.) Role of meso-predators in functioning ecosystems and potential impacts of their management
- 11.) Review of management options and research needs
- 12.) Summary for policy makers

The Zero Order Draft will be considered by the PCG (in relation to materiality and balance) and the Project Leader (in relation to addressing the contractual needs); and revised if necessary by the Lead Authors in an iterative process until 'sufficient consensus' is reached, leaving sufficient time to write the 'First Order Draft' before its due date.

Each Chapter will be written to a given length target, nominally between 20 and 30 printed pages including figures but excluding references (which translates to around 12,000 to 18,000 words). The issues may not all be of equal length; guidelines will emerge from the first writing meeting. Where required, detailed supplementary material can be appended to the report but not counted towards the word-length.

## **6. Review Process**

The First Order Draft of each of the chapters will contain full (but not final) text, tables, and references and draft figures. It will be sent out for review by the Project Management Team as a page-and-line numbered PDF file. Review will be by two or more expert reviewers per chapter, nominated by the Project Management Team, with the approval of the Process Custodians Group. Expert reviewers may not be authors. Expert Reviewers will come from National Departments, Provincial Environmental Authorities, independent experts, and academic and research institutions. They can be from South Africa and abroad.

The expert reviewers will provide comments on the First Order Draft. The comments will be submitted to the SA management by a given deadline, and will take the format of a structured spreadsheet with each comment as a separate row, and with the following columns: issue, page begin, line begin, page end, line end, comment. The Expert Review submissions are collated and sorted by issue, page and line number by the SA management office and sent to the author teams prior to the second author meeting. The authors discuss their responses there, agree on changes to be made to the text and allocate responsibilities for doing so and documenting the response in the comments database.

Responses need to be sufficiently descriptive for the PCG to be able to trace them in the text or understand the basis on which they have been rejected. Thus, simply saying 'accepted' or 'rejected' is not enough. 'Text based on the comment has been included in section 2.3.2' would be sufficient, as would be 'The comment has been considered but has not resulted in text change because after review of the evidence provided, it was found to not be applicable to the South African situation'. The criterion

applied by the PCG in deciding adequacy of the response is that the authors applied their mind to the comment in an unbiased way. Responses which fail this criterion, by majority agreement in the PCG, go back to the authors (via the SA management and the Lead Authors) for revision until a satisfactory solution is found.

The revised draft (Second Order Draft) goes back to the same experts. At the same time it goes out for broad stakeholder review. The comment provision and response mechanism is the same as for the First Order Draft.

The completed comment and response database will be placed in the public domain.

## **6.1. Reviewers**

Reviewers must make comments within a stipulated timeframe on the First Order Draft of a particular issue. They are free to look at (and comment on) other Chapters, but this is not an expectation. They must comment in a constructive way using the stipulated format (page and line range, a specific and actionable comment, backed up where appropriate with references or evidence). Reviewers will not be allocated a 'time stipend', or travel costs. The reviewing is likely to take one to two days. Designated expert reviewers will be acknowledged on the title page of each chapter.

The broad stakeholder community, which is anticipated to include many individuals in civil society, business and government and does not exclude organisations outside of the focus region or South Africa, will comment on the Second Order Draft of the assessment via the same structured web-based process described above. Their comments will be individually addressed by the authors in a documented, public domain database, and incorporated where appropriate in the final draft. The weight which will be attached to their comments will depend on the evidence which they supply and the degree to which they represent a significant community of stakeholders rather than an individual view. The full list of people and organisations providing comment will form an addendum to the assessment report.

## **7. Briefings and outreach**

The SA is an evidence-based scientific assessment process, using expert knowledge within rigorous and transparent peer-reviewed processes. It is undertaken to inform decisions at a national scale, based on an understanding of the broad issues and sensitivities in the country. The SA is not a research project or public relations exercise – it operates to strict timelines and deliverables.

Thus the purpose of the public briefings is not to capture concerns, objections and support in a 'town-hall' fashion (e.g. through a scoping exercise), but to inform people of the SA process, its interim findings and explain the mechanisms available to them for engaging in the process. These include:

- Following outputs and progress on the website, and using its open commenting facility to make suggestions, provide evidence or references, raise issues of concern or provide names and contacts of persons who might be suitable as expert or stakeholder reviewers.
- Commenting on the Second Order Draft Assessment. All formally submitted comments will be responded to in an appropriate manner. Formal comments must be specific, clear, supported by evidence and attributable (i.e. not anonymous or confidential).
- Engaging with representatives of their interests who have been selected to be on the PCG if they have process-related issues.

Since the primary mechanism of substantive engagement is internet based, special provision will be made to facilitate access by individuals and communities with poor or no internet access or skills. This will take the form of individuals appointed to act as internet facilitators, able to gather the concerns of the stakeholders and convert them into an electronic record for submission to the website, and provide feedback through an appropriate mechanism such as a written letter, phone call or SMS.

There will be two rounds of open public briefings in the study area. One round will be undertaken after the

first Multi-Author Team Workshop. The second round of briefings will be undertaken following the Second Order Draft. Authors, PCG and PEC members are not expected to attend the briefings, but may do so if they wish. The briefings will be delivered by the SA Project Leader and the Project Management Team.

There is no onus on the Project Team to respond to *ad hoc* meeting requests or other communication or participation events which have not been planned as part of the SA process. The Project Team will use their own discretion when deciding which meetings, conferences, workshops *etc.* will be attended. Requests of this nature will be evaluated on a case-by-case basis.

## **8. Public Statements and Document Confidentiality**

The participants in the assessment, including authors, reviewers, PEC and PCG members, are not required to be silent or secretive on any issue related to the SA of predation on small livestock, either during or after the assessment. Most of the material will be in the 'public domain' (typically via an open website) as soon as it is finalised (minor exceptions relate to copyrighted information, ethically-protected information, or sensitive information such as the location of rare species). However, the contents of the assessment are not valid and official until the final draft has been approved by the Project Leader. Thus any material 'leaked' prior to this has no legitimised meaning, and SA participants are discouraged from doing so beyond the necessity of consultation with colleagues.

Material supplied via the SA document repository (which is password protected) may be used by SA authors and PCG, but may not be passed on to third parties since it is subject to copyright restrictions.

Participants in all capacities may reveal that they are part of the assessment and may make comments of a general nature about what it covers and how the process is unfolding, but must make it clear that they speak in their personal capacity and not on behalf of the assessment. The spokesperson role for the SA is restricted to the Project Leader and the Project Co-ordinator. Media issues are handled by the Project Management Team.

Assessment participants are reminded to treat any communication, including email and social media, as potentially in the public domain. It is strongly recommended that participants make their comments on the SA thoughtfully, since if they can be construed as prejudicial, one way or another, that could undermine their credibility as independent experts. In the extreme case, this could lead to their disqualification as ongoing participants following an evaluation by the PCG.