

*Report prepared for Lesotho Highlands Development Authority*



# **Lesotho Highlands Water Project**

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LHWP1 IFR2 – proximal reach downstream of Katse Reservoir

## ***Report 69***

**Report prepared by Environmental Panel of Experts**

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Revision 2

## Executive summary

1. The Panel of Environmental Experts (PoE) for the Lesotho Highlands Water Project (LHWP) undertook a mission from 2-12 November 2014.
2. The purpose of the mission was to help develop and implement projects being undertaken by the Lesotho Highlands Development Authority (LHDA), and to focus on critical issues.
3. The critical issues addressed during the mission, and the way forward on each, are summarized below. Though a summary of recommendations is provided in Appendix 1, readers should consult the matrix in the body of this report for explanations and recommendations.

### Critical issues

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#### **LHDA compensation**

2014/15 compensation distribution process Panel reviewed the 2014/5 Annual Cash and Grain and Pulses Distribution Report for Arable Land presented to the LHDA Board. Although distribution of the 2014/15 annual cash, grain and pulses compensation for arable land was completed three weeks behind schedule, around 95% of eligible households received ACP cheques (the same as in 2013/14). This is a commendable achievement for a project of this size and complexity. Issues to do with recently deceased beneficiaries, beneficiaries who are absent during distribution, failure of beneficiaries to produce identity documents and family disputes over asset ownership continue to account for a proportion of planned compensation that is not distributed. The percentage of eligible households receiving maize and/or beans in 2014/15 was around 88%. Data to allow comparison of this indicator with that for 2013/14 are not available in the reports reviewed but the percentages of purchased maize and beans that were distributed to households appear to have declined from around 97% (for both) to around 90% (for both) in 2014/15.

Panel draws the attention of LHDA to two issues concerning the results presented in annual compensation reports. Firstly, different output indicators are used for different years (eg percent of eligible households receiving compensation versus percent of planned compensation (eg cheques, maize or beans) actually distributed to households). Consistency should be employed in the future to allow for the comparison of results between years. Secondly, the method used to calculate aggregated distribution percentages for Phase I (the whole project) from data presented for each of Katse, Lejone, 'Muela and Mohale is incorrect and gives false results. Panel has indicated the correct method that should be used in the future.

Panel is again concerned that the flaws in Flow-centric (eg unexplained reversion of changed beneficiary names back to the original names at the approval stages of the process) have not been resolved. This is a serious IT issue that must be rectified urgently so that it will no longer further impact negatively on the efficiency and integrity of the compensation process and the LHDA.

Community consultation strategy Panel reviewed the adopted paper: Communal Compensation Community Consultation Strategy. This outlines the key messages to be delivered to affected communities and other stakeholders, a schedule for the consultation process and measurable objectives or targets. The strategy is clear and concise and implementation should commence as soon as possible. A more detailed and up-to-date implementation schedule needs to be prepared.

Four key targets or objectives are mentioned in the Strategy. These are also the key risks. Progress towards achieving these targets needs to be continuously and diligently monitored so that corrective action can be instituted if significant deviations begin to occur. To promote transparency and to serve as an agreed reference in the case of possible future disputes and accusations Panel believes that the Strategy should also include mandatory provision for recording the proceedings of the consultation

process. Because the Strategy is really only a 'model', Panel believes that provision should also be included to amend or refine the Strategy where, through operational experience, changes or improvements are identified.

### **Complaints management**

The adopted Strategy for Compensation Related Complaints Management appears to address a number of concerns. Transferring the initial responsibility for dealing with complaints from Compensation Officers, who may have handled the initial payments which gave rise to a complaint, to Community Participation Officers working in a Customer Service Unit, should help enhance LHDA's image. The strategy appears sound but still faces some obstacles. There is a massive backlog of cases and several bottlenecks in the system, including Flow-centric and the authorisation procedures. LHDA has set ambitious targets for complaint resolution (60% of old complaints by year end) and from the progress reported to date it is unlikely that this target will be met. Innovative ways of streamlining the claims procedure, especially for small claims, must be considered because 'business as usual' is unlikely to work. The costs of escalating a dispute over a few hundred Maloti are probably not justified; we cannot condone fraudulent claims but those that are plausible and small should be quickly resolved, preferably at Customer Service Unit level. A cut-off date for lodging new complaints should be set and the onus of proof should rest with the Complainant and not LHDA. One proposal to expedite the process is to appoint independent local Arbitrators, acceptable to both LHDA and communities, to adjudicate individual complaints. If the Arbitrators are agreed to in writing their decisions can be binding and final.

### **Environmental and conservation issues**

Wetland rehabilitation The Panel reviewed the wetlands section of the Contract 1273 report as well as the draft national Wetlands Strategy paper. GoL is in the process of completing the wetlands strategy to manage and protect the wetlands resource. LHWP has many sensitive wetlands, in a variety of conditions, within both project Phases. Contract 1273 has monitored wetlands first sampled in the mid-1990's (approx. 50) and has recommended which of the wetlands should be protected/rehabilitated. Sampled wetlands (under Contract 1273) are not necessarily representative of key wetlands impacting the LHWP. However wetlands impact heavily on the delivery of water (quality and quantity) mandated under the Treaty. Impacts on the wetlands include many factors, but the overriding impact is grazing/trampling.

LHDA should protect those wetlands that most impact the Treaty obligations regarding the delivery of water. To do so the Project should engage a consultant to: develop criteria for selecting wetlands of greatest impact on the LHWP; make a preliminary assessment of those wetlands in Phases 1 and 2; prioritize selected wetlands and rank; make a detailed assessment of those wetlands of primary importance; recommend rehabilitation where needed; recommend a preservation strategy and outline a future monitoring plan. Given that the National Wetlands Strategy may not be finalized for quite some time, LHDA should be proactive in intervening with its own wetlands strategy. Beginning as soon as possible LHDA should identify communities (through Principal Chiefs and Councillors) that are innovative, interested in rangelands/wetlands improvements and likely to be effective partners in an LHDA wetlands strategy. These will be the key villages with which LHDA would work on both preventative and remediation activities. LHDA should develop and carry out: a community education and awareness plan; rangeland/cropland interventions; ice rat (see MCA Wetlands Evaluation for a control plan) and alien species controls with communities in the catchment areas, prioritizing those communities identified above. Rehabilitation actions may include demarcation of reserves. A future monitoring plan should be developed for the selected priority wetlands (directly by LHDA or through a consultant). In addition, wetlands prioritized under Contract 1273 should continue to be monitored.

Environmental policy PoE reviewed Draft 2 of the Policy. LHDA is complimented on the improvements. The Policy is becoming concise and actionable. Page 2 of the Policy (LHDA's commitments) requires refinement. The commitments can be condensed to avoid overlap (repetition), and must link related issues (eg monitoring, auditing, reporting, conformance, continuous improvement). The commitments must be concise, simple and in perfect English (and later Sesotho). Main criticisms concern the scope of Policy, commitment to being not just reactive but proactive, and the ideal of making Policy distinctive and specific to LHWP. Consideration should be given to identifying three different zones. Zone 1: In the dam basins some resources will be entirely lost,

though new opportunities created (water delivery, hydropower, trout production, etc). The commitment is to compensate losses and seize the opportunities to create benefits that should exceed the losses, and then to distribute benefits equitably – this goes to the heart of livelihood restoration and social development. Zone 2: Downstream rivers. The commitment is to at least maintain targeted river condition, and to compensate socio-economic losses. Zone 3: Elsewhere. This is difficult. What is the geographic scope? Commitment to manage only ‘significant’ impacts helps but ‘significant’ needs clarification. Issues such as boundaries to ICM and biodiversity management need to be defined in the Policy, though PoE suggests that readying Policy for imminent implementation should not await resolution of these thorny issues. One environmental policy should apply throughout LHWP, and the focus of the document on natural environment must be clarified because the stated definition of environment includes ‘social’, policy for which is elsewhere provided. The Policy comes across too reactive (eg mitigate could mean remedy after the damage) whereas avoidance and prevention (where possible) are intended, and readiness for the unavoidable. Not only must the environment be protected from the project, but the project must be protected from the environment. Upon revising the Policy in terms of the above and the detail in the matrix below, the Policy must be implemented across LHWP. Ideally, Policy is the reference and inspiration for all project activities. It will never be perfect, but the commitment is to use it to improve project performance, and, using the experience of implementation, to improve the high principles that it espouses.

*Katse Botanical Garden* PoE was asked to critically review the Katse Botanical Garden (KBG) on-going operations/activities and advise on the key strategies to meet its core objective(s). KBG was set up in 1996 under the Environmental Action Plan, and it helps meet a Treaty requirement to protect endangered flora. Currently KBG engages in species preservation, education, community outreach, hosting tourists, and research. Most of the activities are not revenue earning, so KBG is a net financial cost. The proposed way forward is to regard KBG as an opportunity for corporate social responsibility (CSR). For KBG to be effective at this, it must use resources effectively to deliver perceived social benefits. To achieve this it is not necessary to do more, or necessarily have a bigger budget, but to focus. Of the things it now does, what can KBG trim or cut out to enable it to expend resources on aspects where it is, or potentially can be, effective in delivering perceived social benefits? For example, on species preservation, a possible activity shortlist is (a) rescue at-risk red data plants on LHWP2, (b) propagate and sell spiral aloe. KBG cannot rescue all species. So where must it stop? The answer is ‘do only what can be done brilliantly’, and ‘do what no one else can do’, or ‘do it better’. The emphasis is not quantity, but quality of delivery of social benefit. KBG staff are the ones at the ‘coal face’ and most in the know about which of their activities (or portions of them) deliver, and which do not. KBG staff should therefore initiate Strategic Plan development, coordinated by the Environmental Manager. Review each activity, identify which portions of each activity deliver and which do not, drop portions of activities or whole activities that deliver poorly, and prioritize activities that deliver powerfully. The draft Plan should then be reviewed by LHDA and PoE, with KBG staff and the Environmental Manager as part of the discussions. KBG staff and the Environmental Manager must have ‘ownership’, and it is critical that these staff and LHDA Executive share a vision.

*Maloti Minnow barrier* Design for the barrier at the new location has been prepared (shorter access, modest weir 4 m high, 60 m wide, cost reduced from ~M90 million to ~M20 million). The chute design previously proposed by PoE was considered unsuited to the terrain of the new site. There is concern that at high floods, fish might still swim around the barrier in the slow-flowing water on the sides.

Panel recommends that gabion structures (which can be built with local labour), be included in the design in a step-up fashion to take the structure from 2084 m to 2090 m on both sides to prevent fish from swimming around the structure during big floods. The access road is to be built by the contractor for his access. Possible future use of the access by communities, by odd tourist, and for barrier maintenance is uncertain, and consideration needs to be given to closing and rehabilitating the access, or maintaining it (obviously at a cost).

### **Governance issues**

LHDA is initiating formal corporate social investment (CSR). This was removed from the agenda of the current mission, but PoE supports the CSR initiative. There is already much incidental CSR in LHWP. There are benefits to being deliberate about CSR. PoE recommends that LHDA develops a draft policy for discussion during the next PoE mission.

## LHWP2 issues

Household survey A review, focusing on fundamental issues, of the draft Baseline Socio-economic Report and the Baseline Income and Expenditure Report for Phase 2 was undertaken. Over 11,000 households were interviewed during the studies.

Overall, the reports are comprehensive but some improvements are required. In terms of presentation there are some grammatical errors and evidence that some sections have been erroneously copied and pasted from earlier study reports. Captions for tables and figures are inconsistent and muddled. The few maps included are sketchy and do not provide useful information.

Much of the narrative in the reports veers from the purpose of the studies – it is sometimes too academic, emotional and inclined towards advocacy rather than being more factual and neutral.

One of the objectives of the studies was to serve as a template for possible future socio-economic studies that may be required for Phase 2. The methods followed are described but no attempt has been made to examine these to see if improvements could be made.

In most cases the Consultant has presented aggregated findings for the full study area and in only a few cases have disaggregated findings for the separate components been presented. The inclusion of the Mokhotlong urban area may well skew the aggregated figures. Impacts on households in the downstream area will be different from those on households in the Polihali catchment (upstream). It is essential to test whether or not the control sites have similar socio-economic characteristics to the principal survey areas and are thus valid controls.

A considerable amount of data was acquired (perhaps too much!) but not all the findings from analysis have been presented in the reports, particularly the comprehensive baseline study. For example, in the comprehensive survey report statistics on the reasons why households belong to associations and groups is included but statistics on which of these they belong to is excluded (possibly more relevant). In the income and expenditure report there is insufficient analysis of income variables. Having a list of key questions beforehand (*ie* what do we need to know?) might help guide the analysis and reporting more effectively. The Consultant has not, as required, included sufficient comparisons with findings from other relevant studies and sources in order to identify anomalies and differences occurring in the project area.

The purpose of Chapter 4 in the comprehensive survey report is to present the findings of the survey. However, the narrative includes many statements related to the implications of the results on compensation, resettlement and livelihoods. These would be more appropriately included in Chapter 6 (Implications). Some discussion on the implications has been provided in Chapter 6 but it is neither clear and concise, nor always neutral. A table summarising relevant findings and the implications may prove to be more effective.

The sub-section discussing monitoring indicators and procedures in Chapter 6 (Implications) is misplaced and should constitute a separate chapter. Panel believes that there are too many monitoring indicators in the table presented. Monitoring surveys are time consuming and costly. If they are too long and complicated the chances are that no one will undertake them. It is better to have use a set of a few key (or proxy) indicators that tell us what we need must to know about rather than a wide-ranging set of indicators that tells us things that it would merely be nice to know about but are not essential.

RFP for cultural/heritage action plan PoE was only able to discuss the RFP in general terms because the final draft had not yet been reviewed internally within PMU. The Baseline Study, which is of high quality, should be made available to tenderers on request. The Inception Report for the subsequent phases should include a fully developed work plan which will need to be approved by LHDA and the Department of Culture. It will be important to have safeguards in place to ensure that material taken away from Lesotho for analysis is returned timeously. Several alternatives for storing and displaying material were discussed. These include: visitors' centres, although there are concerns about sustainability; combined displays with other tourism initiatives; or the proposed museum in Maseru. The work plan should include recommendations for storage and display of artefacts and a costing.

Draft community consultation/participation strategy Panel reviewed the draft Phase II Community Participation Strategy (September 2014) as well as a paper entitled Phase II Community Liaison Structures. The Strategy focuses on the establishment of Area Liaison Committees (ALCs) and a Combined Liaison Committee (CLC) within the project area and on developing and implementing community participation initiatives. Implementation of the Strategy has commenced and the establishment of ALCs is almost complete. Panel believes that the Strategy is simple and practical (an important consideration) and is a transparent process for consultation and participation that optimizes the involvement of impacted and other communities and stakeholders. Panel recommends that the Strategy be implemented although a few improvements are suggested.

The Strategy partially follows a logical framework approach. Objectives are sometimes repeated and a bit 'fuzzy', indicators (eg 'meaningfully') are ambiguous and will be difficult to measure – and it is important that they are measured in order to assess progress and attainment of objectives. In some cases outputs are not clearly linked to specific objectives. Panel recommends that a simple logical framework matrix be included in the Strategy to provide a summary of objectives, inputs, activities and outputs, activities and inputs which will aid planning, managing and monitoring.

Panel endorses the need to develop a Phase II Stakeholder Engagement Strategy but questions the inclusion of this as an activity in the Community Participation Strategy as it has a much wider reach than just the communities in and around the project area. The Community Participation Strategy may be considered to be a component of a much wider Stakeholder Engagement Strategy. The same applies to the development of a Labour Recruitment Strategy. Panel recommends that these be prepared separately to the Community Participation Strategy.

Panel also emphasises the need to include the requirement that all consultation events be recorded (eg minutes of meetings), to provide agreed references and to promote transparency, and to include provision for possible future updating of the Strategy to account for unforeseen issues and challenges.

Livelihood restoration framework Panel reviewed the draft Phase II Livelihood Restoration and Social Development Strategy (November 2014). The draft Strategy is concise and well presented. It is a high level statement of intent by LHDA describing the principles, objectives and approach to addressing livelihood restoration and social development issues. Details are to be provided in a Framework for Livelihood Restoration and Social Development that is still to be prepared. The Strategy provides a plan of action for implementation of the Strategy.

Although the Strategy correctly distinguishes between livelihood restoration (for directly impacted households and communities) and social development (aimed at the wider community), Panel cautions that this distinction needs to be clearly communicated to communities and other stakeholders during forthcoming consultations to avoid misunderstanding.

The Sustainable Livelihoods Approach (SLA) is proposed as the broad framework within which Livelihood Restoration will be undertaken by RAP consultants. Panel cautions that it is not without criticism and LHDA should consult widely to ensure that best practice is followed.

It is proposed in the table of activities that site visits to successful southern African success stories be arranged. Success stories do exist but are quite hard to find and are expensive to visit. But there are probably some good examples in Brazil, India and Asia which might be presented via professional videos or even by inviting speakers to come to Lesotho.

Panel recommends that the draft version be revised to include the section on Outcomes which is missing in the draft.

IFR scenarios and model PoE reviewed a draft final report for LHWP2 IFR. PoE cannot recommend the proposed IFR model, called PROBFLO. The model has unknown predictive capability, and prediction is likely to be poor. This is based partly on the precedent of previous IFR experience, which is the most reliable forecast of future performance, and partly based on PoE's understanding that PROBFLO is a probabilistic model whereas the river system is event-driven and thereby inherently poorly predictable. The so-called scenario analysis is in fact a 'what-if' analysis and it is too tame for

present evaluative requirements. Among the needs are to arrive at a bulk IFR allocation, and to assure on the appropriateness of an IFR management system. Given that PROBFLO, and IFR science generally, do not have high predictive capability, decision on the bulk IFR allocation is a matter of intelligent guesswork and pragmatism. One percent of mean annual runoff (MAR) for IFR is not environmentally acceptable, and 30% of MAR is possibly financially and politically unacceptable. The compromise is possibly around 15% of MAR. Given a weak predictive capability, IFR management must operate without prediction – it must release according to an IFR regime, monitor relevant downstream socio-economic resources, and then pay any compensation due. PoE recommends, yet again, that the simplest IFR system that will work be considered. In this report the nature of such a simple IFR system is suggested. The marginal benefit of adding complexity to the simplest system is questioned, and substantial gain would need to be shown to legitimize any such additional sophistication. This can and should be examined by a proper scenario analysis, to be conducted by LHDA and the Consultant, in which qualitatively different futures are explored and compared. Consider a complex IFR (eg PROBFLO) versus a simple IFR (the simplest management system that will work) under circumstances of business-as-usual (BAU) and everything-goes-according-to-plan (EGAP) versus Black Swans (poorly predictable events of big consequence, such as climatic extremes, financial collapses and political crises) with minimum regret as the decision criterion. The need for PROBFLO, or any other predictive tool, is questioned, partly because IFR can be managed with no more than crude prediction, and partly because refined prediction for an event-driven system is unattainable. LHDA has not wasted money to arrive at the present situation. We have had to do it to find this out. What we must not do is to adopt PROBFLO *because so much has been spent on it*. The ills of the ‘sunk cost’ decision are legendary – it compounds rather than solves problems. The way forward is to devise and adopt the IFR system that best suits LHWP needs. While the IFR commentary in this report addresses LHWP2 specifically, it pretty well applies to LHWP1.

Public health baseline The Public Health Baseline Round One Survey (PHBS) report (2014-10-29) is unsatisfactory. The overall quality is poor and the Consultants have not focused sufficiently on issues of relevance to LHWP. A major failing is the poor analysis and interpretation. There are many places where ludicrous results are presented without comment, and it is clear that the senior members of the consultant’s team cannot have reviewed the report or they would have picked up some glaring errors.

The PHBS included extensive anthropometry (height, weight, *etc*) to assess malnutrition but this seems to have been measured so badly that results are of dubious value. The confidence intervals for several variables are so wide that one must suspect measurement errors. A Mini Nutritional Assessment was used to assess malnutrition in the elderly and the consultants concluded that 100% of the sample was either at risk of malnutrition or actually malnourished. This seems highly improbable when only 5% of the women of child bearing age were underweight according to an alternative measure of nutrition, namely Body Mass Index and 34% were overweight or obese. No data on BMI for the elderly are shown, even though this could have corroborated or denied the MNA result. Several of the results are very different from national or regional statistics.

The report needs extensive revision to correct errors, where possible, and spurious results should be removed with some explanation of questions/measurements that failed to work. It appears that repeating a substantial part of the nutrition survey will be necessary with greater attention to accurate measurement.

Some important variables were omitted or used in a very limited context. For example, mental health was only interpreted as a risk factor for malnutrition in the elderly, whereas mental health warrants a far broader approach since it affects men and women, young and old, and is an important variable when assessing displaced or disrupted populations. This must be rectified in future survey rounds.

The consultants have not fully complied with the Scope of Services. They do not cover several key variables in sufficient depth and numerous errors in the tables and inconsistencies with other surveys give little confidence in the analysis. There is no systematic comparison of the PHBS with the Socio-economic Baseline Survey’s health data and there is no statistical comparison of the control sites with project-affected sites to show whether they are sufficiently similar to use for long term monitoring of LHWP health impacts. There appears to be no attempt to begin the process of identifying variables likely to be affected by LHWP for subsequent follow up.

### Next steps

4. Issues warranting LHDA attention and PoE review running up to, and including, the next PoE mission are listed below, in approximate descending order of urgency.
  - Any new RFPs, inception reports and other reviewable documents (see later for explanation)
  - LHWP2 Public Health baseline – remedy of present shortcomings
  - LHWP2 natural environment baseline – how shortfalls are going to be remedied
  - LHWP2 IFR – results of scenario analysis, bulk IFR allocation, adequacy of baseline data for monitoring socio-economically important resources, monitoring protocols, proposed way forward for both LHWP2 and LHWP1
  - Environmental Policy – review Draft 3
  - Katse Botanical Garden – workshop draft strategy
  - Corporate Social Responsibility – workshop draft policy
  - Wetland/ICM strategy – review progress
  - Field visit to Mohale, Katse (including Matsoku and upper end of dam) and 'Muela to review conservation works and activities on the ground
  - Maloti minnow barrier – workshop progress, community engagement and future of access road
5. PoE proposes the next mission in April 2015.

### Appreciation

6. LHWP presents many severe problems. PoE compliments LHDA on its diligence in addressing the challenges.
7. PoE thanks LHDA, LHWC and PMU for the constructive and good-natured hosting of discussions and meetings.

## Contents

Executive summary.....	2
Introduction.....	10
Critical issues.....	13
1. LHDA compensation .....	13
a) 2014-15 compensation distribution .....	13
b) Community consultation strategy.....	14
2. Complaints management.....	15
c) Strategy and progress.....	15
3. Environmental and conservation issues .....	16
d) Wetland rehabilitation .....	16
e) Environmental policy.....	17
f) Katse Botanical Garden.....	22
g) Maloti minnow barrier.....	24
3. Governance issues.....	24
h) Corporate social responsibility policy .....	24
4. LHWP2 issues.....	25
i) Household survey .....	25
j) RFP for cultural/heritage action plan .....	28
k) Draft community consultation/participation strategy .....	29
l) Livelihoods restoration framework .....	32
m) IFR scenarios and model .....	33
n) First quarterly PH baseline survey report.....	39
Appendix 1 Summary recommendations.....	42

## Introduction

The Panel of Environmental Experts (PoE) for the Lesotho Highlands Water Project (LHWP) undertook a mission from 2-12 November 2014. The mission was attended by David Hayward, John Hennessy, Mike Mentis and John Seager.

The overall objective of the Mission was to provide the Lesotho Highlands Development Authority (LHDA) with an independent evaluation of its operations, identifying where things might be going wrong, how LHDA might improve its performance, and providing guidance on best practice. The specific terms of reference (ToRs) for the Mission were as follows.

TASK NO	ISSUE/TITLE	Action Required
<b>LHWP1 Issues</b>		
1.	LHDA compensation	a) Review and provide comments on progress attained during the 2014/15 compensation distribution process. b) Critically review and comment on the LHDA Community Consultation strategy and the adopted consultation brief to implement the Five-year Compensation Disbursement Strategy – and note progress attained thereof.
2.	Complaints Management	c) Review and provide expert comment on the adopted strategy for resolution of community complaints – and note progress attained thereof.
3.	Environmental and Conservation issues	d) Based on the Wetlands Specialist Reports under the Contract LHDA C1273, review the proposed mitigation strategies and advise LHDA on which key wetlands to prioritise for rehabilitation and conservation. e) Critically review and comment on the draft Environment Policy and how it can be easily incorporated into the operations of the LHWP. f) Critically review the Katse Botanical Garden (KBG) on-going operations/activities and advise on the key strategies that can be employed to optimise its output in order to meet its core objective(s). g) Review and comment on progress made with regard to the on-going design and construction of the Maloti Minnow barrier at Mohale.
4.	Governance Issues	h) Review and critically comment on the Draft Corporate Social Responsibility Policy with the aim towards enhancement of the Policy for approval.
<b>LHWP2 ISSUES</b>		
5.	Phase II Baseline Studies and RFPs for EIAs.	i) Based on the scope of services for Contract 6000, review and provide comments on the Comprehensive Households' Survey and the Monthly Households' Expenditure reports as submitted by the Consultant. j) Critically review and provide comments and inputs on the Request for Proposals (RFPs) for the Cultural/Heritage Action Plan. k) Review and provide comments to enhance the Draft Phase II Community Consultation/Participation Strategy and assess progress towards formulation of the LHDA community structures around the Polihali catchment.

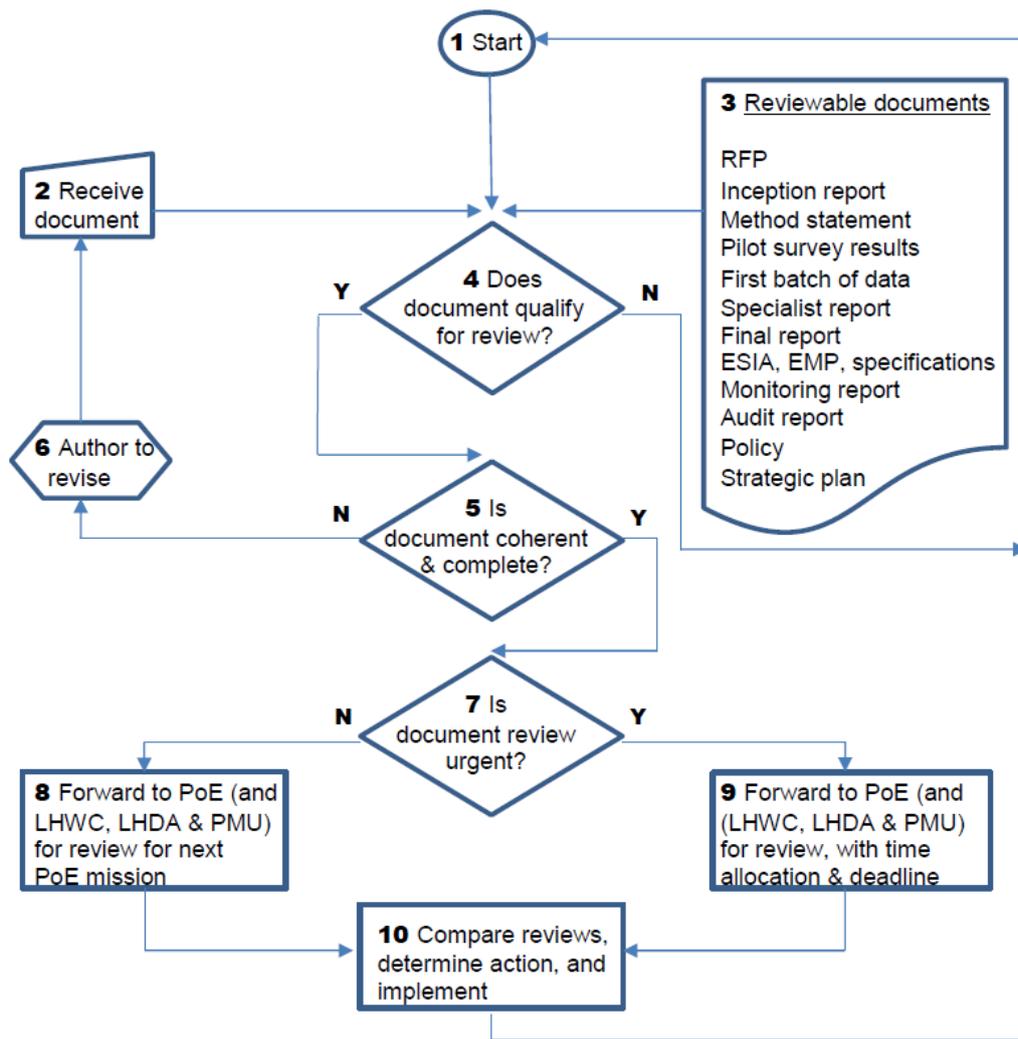
TASK NO	ISSUE/TITLE	Action Required
		l) Review and comment on the LHDA Livelihood Restoration Framework with the aim to enhancing the document for adoption and ultimate approval.
		m) Based on the Scope of Services for Contract 6001, review and comment on the Main IFR Report on the basis of the preferred selected IFR scenarios and preferred IFR model for Phase II.
		n) Based on the scope of services (SOS) for the LHDA Contract 6008, review and provide expert opinion on the 1 <sup>st</sup> quarterly PH Baseline Survey Report.

During the present mission no field trips were undertaken and there was opportunity unprecedented in recent years for discussion among LHWC, LHDA, PMU and PoE. Most of the issues in the matrix that follows were debated, seemingly to the benefit of all, but it certainly provided PoE with depth of insight that it usually struggles to achieve. One issue that was not on the mission ToR but was discussed at a joint LHWC-LHDA-PMU-PoE meeting was the matter of limiting consultant project risks. PoE was concerned that in some projects the 'fit-for-purpose' of deliverables was at risk of not being met. Project review at the early stages (inception report, pilot survey, first set of data) are the opportunities for checking project deliverables against the scope of services and what the client needs. The purpose of the meeting was to firm-up procedure for limiting the risk. The agreed approach is summarized below and captured in the flow chart on the next page.

- When a document is submitted (step 2 in flow chart) it must be determined whether the document requires review. Examples of documents warranting review are shown in step 3 in the flow chart.
- If the document qualifies for review then a quick check is warranted. Is the document complete and coherent – in a fit state for review (step 4)? 'Unfit' documents waste reviewers' time and should be returned to author for remedy (step 5).
- The next issue is urgency of review (step 7). If review is need urgently then, in addition to circulation to LHWC, LHDA and PMU, the document must be sent to PoE, for home office review (step 9). As is current practice, PoE requires instruction from LHDA, qualified with time to be allocated to review, and the deadline for review report submission.
- If review is not urgent, then LHWC, LHDA and PMU are nevertheless copied the document, as well as PoE with instruction to review in anticipation of the next PoE mission (step 8).
- To benefit from independent review it is best that reviewers compare notes only once reviews are complete whereupon meetings, discussions and determination of actions are warranted (step 10).

If not already done, the Steering Committee for each project might track document reviews (date of document submission, date of dispatch to reviewers, date of receipt of review reports, data of review report assessment and decision on action, date of sign off/acceptance *etc*).

**Flow chart Document review procedure**



### Critical issues

Issue	Present situation	Recommendations	Finish date																										
<b>1. LHDA compensation</b>																													
a) 2014-15 compensation distribution	<ul style="list-style-type: none"> <li>Panel reviewed the 2014/15 Annual Cash and Grain and Pulses Distribution Report for Arable Land (Board Information Paper) to assess progress. Panel recognises that this is not the final 2014/15 Annual Compensation Management Report. Panel also referred to the 2013/14 Annual Compensation Management Report to assess progress between years.</li> <li>The table below summarises the achievements (percent distributed) presented in the two reports for various output indicators. Calculations made by Panel using the same data are also shown (in brackets)</li> </ul> <table border="1" data-bbox="432 679 1167 1011"> <thead> <tr> <th rowspan="2">OUTPUT INDICATOR</th> <th colspan="2">% DISTRIBUTED IN ALL PHASE I</th> <th rowspan="2">COMMENT</th> </tr> <tr> <th>2013/14</th> <th>2014/15</th> </tr> </thead> <tbody> <tr> <td>HHs served ACP cheques</td> <td>- (94.8)</td> <td>94.7 (94.4)</td> <td>Similar</td> </tr> <tr> <td>Cheques issued to FOBs distributed to HHs</td> <td>93.6 (93.7)</td> <td>- (95.8)</td> <td>Increased</td> </tr> <tr> <td>HHs given grain (and beans?)</td> <td>- (-)</td> <td>91.3 (87.6)</td> <td></td> </tr> <tr> <td>Purchased maize distributed to HHs</td> <td>98.0 (96.8)</td> <td>- (89.5)</td> <td>Decreased</td> </tr> <tr> <td>Purchased beans distributed to HHs</td> <td>98.0 (96.9)</td> <td>- (89.4)</td> <td>Decreased</td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>In 2014/15 compensation distribution was completed three weeks later than scheduled but does not appear to have had a major negative impact.</li> </ul>	OUTPUT INDICATOR	% DISTRIBUTED IN ALL PHASE I		COMMENT	2013/14	2014/15	HHs served ACP cheques	- (94.8)	94.7 (94.4)	Similar	Cheques issued to FOBs distributed to HHs	93.6 (93.7)	- (95.8)	Increased	HHs given grain (and beans?)	- (-)	91.3 (87.6)		Purchased maize distributed to HHs	98.0 (96.8)	- (89.5)	Decreased	Purchased beans distributed to HHs	98.0 (96.9)	- (89.4)	Decreased	<ul style="list-style-type: none"> <li>Continue.</li> </ul>	On-going
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	<ul style="list-style-type: none"> <li>In 2014/15 the main reasons for non-distribution of benefits include: beneficiaries deceased or absent during distribution; lack of identity documents; and family disputes over asset ownership. These issues are likely to be a permanent feature of the process until implementation of the Five-year Compensation Strategy has been completed.</li> <li>In light of the above, performance in 2014/15 may be considered to be satisfactory and would not be very different</li> </ul>																												

	in similar projects.		
	<ul style="list-style-type: none"> <li>Panel notes that the output indicators used in the 2014/15 Board report (eg percent of <u>households</u> actually served ACP cheques) are different from those used in the 2013/14 and previous Annual Compensation Management Reports (eg percent of <u>cheques</u> issued to FOBs actually delivered to households). The indicators are not comparable (apples and pears!).</li> </ul>	<ul style="list-style-type: none"> <li>Be consistent in the use of output indicators in future compensation distribution reports</li> </ul>	On-going
	<ul style="list-style-type: none"> <li>Incorrect calculation methods have been used to determine the aggregated distribution percentages for Phase I that are presented in the tables in the two reports and the percentages shown are almost always higher than they really are. Instead of dividing total actual total Phase I outputs into total planned Phase I outputs (and multiplying by 100) the average of the distribution percentages for each area (<i>ie</i> Katse, Lejone, 'Muela and Mohale) has been incorrectly used.</li> </ul>	<ul style="list-style-type: none"> <li>Use correct calculation methods in future reports.</li> </ul>	On-going
	<ul style="list-style-type: none"> <li>Panel learned that problems with Flow-centric that were reported during the previous PoE mission in July 2014 remain unresolved (eg when the name of a beneficiary is changed for a valid reason in Flow-centric, the name suddenly reverts back to the original name at the approval stages of the process)). This is an IT issue that must be taken seriously by those responsible as it impacts negatively on the efficiency and integrity of the compensation process, and on LHDA.</li> </ul>	<ul style="list-style-type: none"> <li>Fix the Flow-centric problems urgently.</li> </ul>	2015-03-31
b) Community consultation strategy	<ul style="list-style-type: none"> <li>Panel reviewed the adopted paper: Communal Compensation Community Consultation Strategy (also titled The Strategy for Consultation with Communities Upstream of the Dams About Communal Compensation) to be implemented in line with the Five-year Compensation Strategy (reviewed by Panel in September 2013 – PoE Report 64). Panel learned that the Strategy was adopted by LHDA in the second half of October 2014.</li> <li>The Strategy is well-presented and concise.</li> <li>Panel believes that the key messages to be delivered to the communities and other stakeholders (as outlined in the paper) are comprehensive.</li> </ul>	<ul style="list-style-type: none"> <li>Conduct the community consultations in accordance with the Strategy.</li> </ul>	2015-04-30
	<ul style="list-style-type: none"> <li>The paper provides an outline schedule of activities (with resource requirements and responsibilities) to be undertaken</li> </ul>	<ul style="list-style-type: none"> <li>Prepare a detailed schedule for</li> </ul>	2014-12-31

	that includes consultations with LLE committees, local government structures and 80 communities (LLEs) to explain the strategy and identify projects. The schedule is out of date but Panel understands that a more detailed schedule for meetings is currently being developed.	consultations.	
	<ul style="list-style-type: none"> <li>Panel believes that there are a few areas where the Strategy can be improved. Firstly, the paper lists four targets which may also be considered to be the major risks related to the consultation process itself. Progress towards achieving these targets needs to be carefully monitored so that appropriate corrective action can be taken timeously if deviations occur. One way to do this is to develop a format for frequent (weekly?) progress reports that monitor not only the schedule itself but progress towards achieving the targets.</li> </ul>	<ul style="list-style-type: none"> <li>Develop a simple system for monitoring the schedule and progress towards achieving targets.</li> </ul>	2014-11-30
	<ul style="list-style-type: none"> <li>Secondly, it is extremely important that the proceedings of the consultation process are accurately recorded in sufficient detail (and made available in the public domain if necessary) to promote transparency and to serve as an agreed reference for possible future disputes and accusations. Minutes of meetings must be certified by authorised representatives at community and other stakeholder meetings.</li> </ul>	<ul style="list-style-type: none"> <li>Amend the Strategy to include the requirement for certified minutes of consultation meetings.</li> </ul>	2014-11-30
<b>2. Complaints management</b>			
c) Strategy and progress	<ul style="list-style-type: none"> <li>The adopted Strategy for Compensation Related Complaints Management appears to address a number of concerns. Among these is that complaints management was in the hands of Compensation Officers who may have handled the initial payments which gave rise to a complaint. Transferring this responsibility to Community Participation Officers working in a Customer Service Unit has the potential to enhance LHDA's image.</li> <li>The proposed strategy appears sound but still faces some obstacles. One is the massive backlog of cases – 4085 and increasing all the time – and bottlenecks in the system, not least of which is Flow-centric. The latter will have to be amended to accommodate the new structure.</li> <li>LHDA has set ambitious targets for complaint resolution (60% of old complaints by year end). Given the large number of complaints it would be advisable to streamline claims by</li> </ul>	<ul style="list-style-type: none"> <li>The Strategy for Compensation Related Complaints Management is supported but innovative solutions must be sought to streamline the process – business as usual is unlikely to work.</li> </ul>	2015-01-31

	<p>allowing disputes over small amounts to be dealt with at Customer Service Unit (CSU) or other intermediate management level. The costs of escalating a dispute over a few hundred Maloti are probably not justified; we cannot condone fraudulent claims but those that are plausible and small should be quickly resolved.</p> <ul style="list-style-type: none"> <li>• While the Strategy offers a suitable systems approach it may be over-simplified. Some complaints are quite complex and will take time to resolve and it is unclear what is meant by the statement 'residual complaints that cannot be resolved ... will be dispensed with' (p5).</li> <li>• A cut-off date for lodging new complaints must be set, otherwise the task has the potential to be never ending.</li> <li>• The onus of proof for complaints should reside with the Complainant and not LHDA. This should help to eliminate trivial and unsubstantiated complaints which use up an inordinate amount of CSU time and potentially clog up the system.</li> </ul>		
	<ul style="list-style-type: none"> <li>• One potential solution is to appoint arbitrators who must be acceptable to both LHDA and communities. These local arbitrators will be able to adjudicate individual complaints, unlike the Ombudsman whose mandate is at macro level. Once agreed to (in writing) by both parties their decisions can be binding.</li> </ul>	<ul style="list-style-type: none"> <li>• Investigate appointing a small number of independent Complaints Arbitrators.</li> </ul>	2015-01-31
<b>3. Environmental and conservation issues</b>			
d) Wetland rehabilitation	<ul style="list-style-type: none"> <li>• GoL is in the process of completing a national wetlands strategy to manage and protect the wetlands resource. LHWP has many sensitive wetlands, in a variety of conditions, within both project Phases. LHDA should protect those wetlands that most impact the Treaty obligations regarding the delivery of water. For those wetlands analysed by Contract 1273, this has already been done.</li> <li>• Sampled wetlands (under Contract 1273) are not necessarily representative of key wetlands impacting the LHWP. However wetlands, more than most other factors, impact on the delivery of water (quality and quantity) mandated under the Treaty.</li> <li>• Contract 1273 very adequately discusses which wetlands should be rehabilitated.</li> </ul>	<ul style="list-style-type: none"> <li>• Develop and start to implement a twofold strategy along the lines described opposite.</li> </ul>	2015-03-31

	<ul style="list-style-type: none"> <li>• Impacts on the wetlands include many factors, but the overriding impact is grazing/trampling.</li> <li>• Given that the National Wetlands Strategy may not be finalized for quite some time, LHDA should be proactive in intervening with its own wetlands strategy. What LHDA needs is a twofold strategy on how to deal with the wetlands. The strategy would include a community involvement and a wetlands preservation/remediation component.</li> <li>• Community involvement component: Beginning as soon as possible LHDA should identify communities (through Principal Chiefs and Councillors) that are innovative, interested in rangelands/wetlands improvements and likely to be effective partners in an LHDA wetlands strategy. These will be the key villages with which LHDA would work on both preventative and remediation activities. LHDA should develop and carry out: a community education and awareness plan including; rangeland/cropland interventions; ice rat (see MCA Wetlands Evaluation for a control plan) and alien species controls with communities in the catchment areas, prioritizing those communities identified above.</li> <li>• The wetlands preservation/remediation component (to be developed by a consultant working closely with LHDA)             <ul style="list-style-type: none"> <li>➤ Criteria to rate importance of a wetland to LHWP.</li> <li>➤ Rank the wetlands in the catchments of LHWP, using the importance criteria.</li> <li>➤ Starting with the top ranked wetlands, devise specific control/protection/rehabilitation methods.</li> <li>➤ Cost the interventions.</li> <li>➤ Engage stakeholders.</li> <li>➤ Develop a program to implement the interventions.</li> <li>➤ Implement.</li> <li>➤ Monitor.</li> </ul> </li> </ul>		
<p>e) Environmental policy</p>	<ul style="list-style-type: none"> <li>• PoE was provided with Draft 2 of LHDA's Environmental Policy and asked to review and comment on the Policy and how the policy provisions might be incorporated into LHDA operations.</li> <li>• LHDA is commended on the improvements rendered to the Policy document. It is becoming concise, direct, actionable</li> </ul>	<ul style="list-style-type: none"> <li>• Produce Draft 3 Environmental Policy and implement.</li> </ul>	<p>2015-01-31</p>

	<p>and usable. Indeed, the stage has been reached where Draft 3 might be put to use.</p> <ul style="list-style-type: none"> <li>• There are parts of the Policy that warrant reconsideration/review and revision in the light of the comments that follow.</li> </ul>		
	<ul style="list-style-type: none"> <li>• The scope is insufficiently defined.</li> <li>• LHDA commits to manage 'significant' impacts. The intent of this is good – LHDA commits to managing serious impacts, and does not propose to manage trivial impacts or every impact. The trouble is that 'significant' is undefined in the Policy, and 'significant' is unfortunate because of various meanings and different good and bad methods used to determine it. Substituting with another word, like 'material', might ease but does not resolve the problem. LHDA might have to continue to use 'significant' in stating its commitments, but then explain briefly (under Section 5.2.2) that guidance for determining 'significance' is given in an appendix to the Policy. The relevant appendix might refer to appropriate texts and give a generally applicable method. In the ideal, all risks/impacts across LHWP should be assessed similarly so they are comparable. Impacts or risks are not absolute but take on materiality depending on context. Appendices to the Policy can be added on an 'as needed' basis.</li> </ul>	<ul style="list-style-type: none"> <li>• Explain 'significance' in the body of the Policy (Section 5.2.2), and guide the determination of 'significance' in an appendix to the Policy.</li> </ul>	2015-01-31
	<ul style="list-style-type: none"> <li>• One of the implications of impact 'significance' is that within LHWP there are different zones that warrant different treatment.</li> <li>• One zone is the dam basins that are/will be inundated and some resources completely lost, though some new opportunities will be created (water delivery, hydropower, caged trout production, etc). The appropriate commitment here might be to compensate for the unavoidable losses, to use the new opportunities to generate benefits, the value of which should exceed the losses, and to distribute the benefits equitably. This is very challenging, but goes to the heart of LHWP's initiatives on livelihood restoration and social development.</li> <li>• A second zone is the downstream river that is liable to be modified by reduced river flows. The commitment here might</li> </ul>	<ul style="list-style-type: none"> <li>• Consider recognizing the three different zones, even in the Policy commitments, and treating each one with appropriate objectives/commitments and risk control.</li> </ul>	2015-01-31

	<p>be to at least maintain or exceed targeted river conditions and compensate for losses – this is the subject matter of the IFR.</p> <ul style="list-style-type: none"> <li>• A third zone is outside the dam basins and outside downstream rivers, where the commitment might be no 'significant' pollution or degradation caused by LHWP, and compensation for any losses.</li> </ul>		
	<ul style="list-style-type: none"> <li>• A further difficulty with the geographic scope of Environmental Policy concerns the third zone, outside dam basins and downstream rivers. LHDA's commitment to manage its 'significant' impacts helps here (provided the intended meaning of 'significant' is clarified). But if LHDA is committing to be not just reactive to its direct negative effects, but to be proactive (see below) then what are the limits to LHDA's involvement, for example, in ICM and biodiversity management (Maloti minnow, bearded vulture, spiral aloe)? These issues extend onto land which is not under LHDA control and possibly where LHWP has no direct or even remote detrimental effect. (Plainly LHDA cannot do 'everything' and it must avoid overcommitting itself and then be found guilty of not being able to deliver on its 'promises'.) It is the purpose of Policy to guide on these matters, and it is challenging to do this. There is a Maloti Minnow Policy that might/might not help here. Possibly for the immediate Policy application, LHDA might commit in the body of the Policy to clarify in due course the spatial extent of its commitment regarding ICM and biodiversity management, and for the moment focus on the commitment to controlling 'significant' effects. This will cater for the big impacts of LHPW2 construction, and give LHDA time to think out ICM and biodiversity management – not all problems can be solved at one stroke but that must not stop LHDA doing what it can and must.</li> </ul>	<ul style="list-style-type: none"> <li>• Postpone exact commitment on the geographic scope of ICM and biodiversity management, and use the criterion of 'significant' in the third zone (outside dam basins and downstream rivers) to guide action.</li> </ul>	<p>2015-01-31</p>
	<ul style="list-style-type: none"> <li>• Continuing on the scope of Policy, the document is really about natural environment, yet the definition of environment provided in the Policy includes social aspects. This is an inconsistency in the text (not in LHDA's intentions). Consider, also, calling it LHDA's 'Natural Environment Policy', or some such name.</li> </ul>	<ul style="list-style-type: none"> <li>• Clarify that the Environmental Policy commits on the Natural Environment in parallel to policy</li> </ul>	<p>2015-01-31</p>

		commitments elsewhere on the Social Environment.	
	<ul style="list-style-type: none"> <li>A still further fuzziness in scope regards LHWP1 and LHWP2. The ideal is one Natural Environmental Policy that covers all LHWP.</li> </ul>	<ul style="list-style-type: none"> <li>Write the Policy to apply to all LHWP, not just LHWP1 or LHWP2.</li> </ul>	2015-01-31
	<ul style="list-style-type: none"> <li>Policy comes across strongly reactive – LHDA will mitigate its significant impacts. Policy might project a more proactive approach – avoidance and prevention, risk control. Further, proper project risk control requires not only control of risks to people and the environment because of the project, but also risks to the project because of people and the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Refine Policy wording to project a commitment to being proactive, not just reactive.</li> </ul>	2015-01-31
	<ul style="list-style-type: none"> <li>Draft 2 makes no explicit provision for review and revision. This is an oversight since LHDA is now attuned to iterating ‘plan-do-review-revise’, and to the practice of ‘simultaneously managing to learn and learning to manage’. This can be provided for in the Policy explanation (pages 3-11).</li> </ul>	<ul style="list-style-type: none"> <li>Provide explicitly for Policy review and revision.</li> </ul>	2015-01-31
	<ul style="list-style-type: none"> <li>Policy does not distinguish between the different kinds of stakeholders. There are project participants (employees, consultants and contractors) who WILL conform to Environmental Policy (and all other corporate policies), as a condition of contract. There are other stakeholders not contracted to LHWP but who LHDA will make aware of the Policy to the extent that they are positioned and even persuaded to respect, support and adopt it.</li> </ul>	<ul style="list-style-type: none"> <li>Distinguish between stakeholders (project participants and others) and commit to how each group will be addressed.</li> </ul>	2015-01-31
	<ul style="list-style-type: none"> <li>Wording, especially on page 2 of the Policy, warrants revision. LHDA is singular, so ‘it’ is correct and ‘our’ incorrect. ‘Mitigate’ is used. It has two meanings. The one is as a synonym to ‘manage’ (viz, avoid, prevent, remediate, offset, ...). The other is to remediate. The latter projects a purely reactive approach. Page 2 is also wordy. For example, ‘through development and implementation of’ can be shortened to ‘by developing and implementing’. There is also overlap, even repetition. The first and last sentences of the opening paragraph overlap about care for environment and protecting it. The opening paragraph and fourth commitment are both about stakeholders and</li> </ul>	<ul style="list-style-type: none"> <li>Rewrite page 2 – condense it so there is not repetition, link related issues in single commitments, reduce the opening paragraph, write in good English (translate into good</li> </ul>	2015-01-31

	<p>policy, and if they are to be made aware of, and conform to or collaborate with, policy it is surely sufficiently implicit, for purpose of the commitments, that the Policy must be communicated to them without having to say so in the commitments.</p> <ul style="list-style-type: none"> <li>• Further, the continuous improvement mentioned in the opening paragraph relates to compliance in the first commitment, and to monitoring and reporting in the fifth commitment.</li> <li>• There is need to condense page 2, and write it in simple and perfect English. As things are the problem is not complexity, but rather poor usage, wordiness and repetition. As an example, consider reworking the fifth commitment, incorporating bits from the opening paragraph, along the following lines: 'Monitor, audit and report environmental performance to show continuous improvement and legal compliance.'</li> <li>• PoE has made detailed comments on Draft 2 that have been copied to LHDA, and these comments might be used to help produce Draft 3.</li> </ul>	Sesotho).	
	<ul style="list-style-type: none"> <li>• Policy is short on 'wow'. The commitments as presently stated could apply to a zillion other organizations. How can LHDA make its Policy specific to itself, to differentiate LHDA from all else, to stand out? Potential for differentiation includes: (a) Protect environment and people from the project, and protect the project from the environment (and people – be careful with 'the people bit' since it must not be projected that people are bad and might harm LHWP). (b) Proactive (see above). (c) Identification of 'significant' risks (see above about explaining how 'significance' is determined). (d) Distinguishing the different zones (dam basins, downstream rivers, elsewhere) and recognizing the different objectives.</li> </ul>	<ul style="list-style-type: none"> <li>• Work up the Environmental Policy to differentiate LHDA, making its Policy distinctive and focused on the special features of LHWP.</li> </ul>	2015-01-31
	<ul style="list-style-type: none"> <li>• Turning to implementation, the Environmental Policy is the key reference document regarding all things environmental in LHWP. It must guide what is done, what is to be avoided or not to be done, what the standards are, and what is unacceptable.</li> <li>• Once Draft 3 is produced, LHDA should apply the Policy. It</li> </ul>	<ul style="list-style-type: none"> <li>• Use the Environmental Policy (Draft 3) as a cornerstone to all LHWP activities, and use the</li> </ul>	2015-01-31

	<p>won't be perfect. It never will be perfect. But in implementation, conflicts between Policy and what LHDA is doing, or thinks it should be doing, should be identified. Preference must always be to make activity conform to Policy, but in the early life of the Policy it will be appropriate to refine the Policy.</p> <ul style="list-style-type: none"> <li>• Equally, look out for areas where the Policy should be providing guidance but it does not. For example, at the moment the Policy does not guide the geographic scope of ICM and biodiversity management. These types of deficiencies must be identified and remedied over time.</li> <li>• The Environmental Policy must be used as a cornerstone in the preparation and execution/ implementation/performance of the following (list is not exhaustive).             <ul style="list-style-type: none"> <li>➢ Employee, consultant and contractor contracts</li> <li>➢ Feasibility, cost-benefit, planning, and construction, operations and maintenance activities/analyses</li> <li>➢ ESIA's, EMP's, engineering specifications, monitoring, reporting, audits</li> <li>➢ Stakeholder engagement, corporate social responsibility and public relations</li> </ul> </li> <li>• LHDA, LHDA Board and LHWC must understand that no policy is a definitive blueprint for all-time. Perfection is an ideal but an unattainable goal, and the world also keeps changing. Yet just because policy is acknowledged to possibly be imperfect, standards are necessary, and the guide must be to operate using the best set of standards that current knowledge and capacity can provide. Among the current best standards is commitment to improve not just performance and conformance but the standards (policies) themselves.</li> </ul>	<p>implementation to improve both project performance and the Policy itself.</p>	
<p>f) Katse Botanical Garden</p>	<ul style="list-style-type: none"> <li>• PoE was asked to critically review the Katse Botanical Garden (KBG) on-going operations/activities and advise on the key strategies to meet its core objective(s).</li> <li>• KBG was set up in 1996 under the Environmental Action Plan, and it helps meet a Treaty requirement to protect endangered flora.</li> <li>• Currently KBG engages in species preservation, education, community outreach, hosting tourists, and research. Most of</li> </ul>	<ul style="list-style-type: none"> <li>• Develop a KBG strategic plan using the guide opposite, for review by LHDA and PoE at the next mission.</li> </ul>	<p>2015-03-31</p>

	<p>the activities are not revenue earning, so KBG is a net financial cost. The proposed way forward is to regard KBG as an opportunity for corporate social responsibility (CSR). See notes and articles on CSR copied by PoE to LHDA.</p> <ul style="list-style-type: none"> <li>• For KBG to be effective at this, it must use resources effectively to deliver perceived social benefits. To achieve this it is not necessary to do more, or necessarily have a bigger budget, but to focus. Of the things it now does, what can KBG trim or cut out to enable it to expend resources on aspects where it is, or potentially can be, effective in delivering perceived social benefits? A few examples follow             <ul style="list-style-type: none"> <li>➤ On species preservation, a possible activity shortlist is (a) rescue at-risk red data plants on LHWP2, (b) propagate and sell spiral aloe. KBG cannot rescue all species, let alone all plants. So where must it stop? The answer is ‘do only what can be done brilliantly’, and ‘do what no one else can do’, or ‘do it better’.</li> <li>➤ Education. KBG hosts primary and secondary schools, universities, the public, tourists, etc. On which groups does KBG have biggest effect? What part of education has effect? Prioritize. Spend where efforts deliver benefits, limit effort where delivering has low cost-benefit. This can mean downscaling attention to certain group types. Or it can mean cutting out some ‘education’ exercises, or tailoring exercises for specific groups.</li> <li>➤ Community gardens. Previously a consultant was contracted to do this. It failed. Is KBG making good progress by itself on this? If not consider toning down or dropping. Maybe help individual households, even communities, procuring plants they want, maybe advising them on plant care. Are we effective if we do more than this?</li> <li>➤ Science and technology. Pick one or two focus areas. Spiral aloe? Alpine plants? Collaborate with institutions that want to help, and can and do help, not everyone.</li> </ul> </li> <li>• The emphasis is not quantity, but quality of delivery of social benefit. KBG staff are the ones at the ‘coal face’ and most in the know about which of their activities (or portions of them) deliver, and which do not. KBG staff should therefore initiate</li> </ul>		
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	<p>Strategic Plan development, coordinated by the Environmental Manager. Review each activity, identify which portions of each activity deliver and which do not, drop portions of activities or whole activities that deliver poorly, and prioritize just a handful of activities that deliver powerfully.</p> <ul style="list-style-type: none"> <li>The draft Plan should then be reviewed by LHDA and PoE, with KBG staff and the Environmental Manager as part of the discussions. KBG staff and the Environmental Manager must have 'ownership', and it is critical that these staff and LHDA Executive share a vision.</li> </ul>		
g) Maloti minnow barrier	<ul style="list-style-type: none"> <li>The design for the barrier at the new location has been prepared (shorter access, weir 4 m high, 60 m wide, cost reduced from ~M90 million to ~M20 million). The chute design previously proposed by PoE was considered unsuited to the terrain of the new site. The shorter access has the merit of not only lower direct cost, but reduced environmental impact and less loss of community cultivated and grazing land. There is concern that at high floods, fish might still swim around the barrier in the slow-flowing water on the sides.</li> <li>The concern can be addressed by gabions (built by local labour) with a step-design to take the structure from 2084 m to 2090 m on both sides, so as to prevent fish swimming around the structure.</li> </ul>	<ul style="list-style-type: none"> <li>Design in the gabions as described opposite.</li> </ul>	2014-12-31
	<ul style="list-style-type: none"> <li>The local community is now being engaged. The future of the access road is unclear. The road will be built by the contractor for access for construction. To what extent might the road be used in future by the communities, by tourists, and by barrier maintenance crews? If the road is going to fall into disuse after construction, then it must be closed and rehabilitated. If the road has a future, then there will arise a maintenance cost.</li> </ul>	<ul style="list-style-type: none"> <li>Plans for future road maintenance should be determined.</li> </ul>	2015-02-28
<b>3. Governance issues</b>			
h) Corporate social responsibility policy	<ul style="list-style-type: none"> <li>PoE was asked to review and comment on an initiative to development corporate social responsibility (CSR). During the mission CSR was taken off the agenda. PoE is supportive of the CSR initiative. There already is CSR within LHWP (eg Katse Botanical Garden). As far as could be established in the run-up to the present mission, no other government</li> </ul>	<ul style="list-style-type: none"> <li>Proceed with LHDA CSR, and incorporate the insights of Porter <i>et al.</i> into the developing policy.</li> </ul>	2015-03-31

	<p>department or statutory body in southern Africa explicitly commits to CSR and ISO26000. Some claim corporate social investments (CSI) but a little research shows these 'players' do not meet even the modest standards of ISO26000 (eg historically disadvantaged are helped to develop businesses, but project-displaced land dwellers are pushed into temporary accommodation for years; livelihoods are destroyed with no attempt to restore).</p> <ul style="list-style-type: none"> <li>The primary focus of CSR is not public relations (PR), though the PR department might run CSR. Good CSR is good business. If it is good CSR there will be PR spinoffs. The trouble with CSR as primarily PR is that it is too easily portrayed as a 'cover-up' and attempted distraction from the detrimental externalities of the business. Also, an overly PR focus might miss opportunities for social investment. These points are made trenchantly in a series of Harvard Business Review articles by Michael Porter and colleagues. The articles have won worldwide acclaim. The insights are useful. Their ideas deserve attention. But, for purposes of non-profits (LHDA), substitute 'competitiveness' in the articles with 'cost-effectiveness'. Copies of the articles were left with LHDA.</li> </ul>		
	<ul style="list-style-type: none"> <li>Many of the initiatives in LHWP, not least environmental and social ones, fall within CSR. There is benefit to be obtained by elevating CSR from incidental to deliberate. Prepare a draft CSR Policy for discussion at the next PoE Mission.</li> </ul>	<ul style="list-style-type: none"> <li>Prepare a draft LHDA CSR Policy for discussion at the next PoE mission.</li> </ul>	2015-03-31
<b>4. LHWP2 issues</b>			
i) Household survey	<ul style="list-style-type: none"> <li>Panel reviewed, to the extent possible given the time made available, two draft deliverables of the Phase 2 Baseline Socio-economic Study: the Baseline Socio-economic Report and the Baseline Income and Expenditure Report. Panel is cognizant of the fact that a more comprehensive and critical review of the reports is being undertaken by specialists within the PMU.</li> <li>This was an extremely large study, covering a very large area and over 11,000 households, not without considerable logistical challenges. Overall, the reports are comprehensive and generally well presented, although there are areas to</li> </ul>	<ul style="list-style-type: none"> <li>Revise the report to effectively address PoE's criticisms.</li> </ul>	2014-12-15

	<p>which Panel believes that more attention needs to be paid.</p> <ul style="list-style-type: none"> <li>• There are a few (not excessive) grammatical errors and incomplete sentences in the reports. The future tense is incorrectly used, particularly in the section on the Methods, indicating that some sections have been copied and pasted from earlier reports. Capital letters have variably been used for certain words and phrases (eg Comprehensive Survey or comprehensive survey). The captions for tables and figures are often not an accurate description and not standardized.</li> <li>• The reports would benefit from the inclusion of more informative maps (at least a better location map at the beginning of the document). The few maps included are difficult to interpret, particularly as there are no legends or annotations.</li> <li>• The language in the Executive Summary and Chapters 5 and 6 (On-going Processes of Change and Implications of Findings) is tending towards emotion and advocacy. Chapter 6, particularly, would be better presented as a list of implications that LHDA should consider.</li> <li>• Does the Consultant not believe that there are any lessons to be learned from the assignment – particularly as the study was supposed to be a model or template for other possible baseline studies and even future monitoring surveys? In particular, Panel is mindful of the survey instruments, the field method and the analytical and reporting approaches. Socio-economic studies are expensive and time consuming. Can the Consultant not suggest improvements?</li> <li>• The Consultant was required to make comparative references to the findings of other studies in his reporting on the Baseline Socio-economic Report. This would have been very useful for comparing the situation in the study area with that in other areas of Lesotho and nationally, particularly regarding health, education and agricultural production. Limited comparisons are provided.</li> <li>• The comprehensive baseline study appears to have been, to a large extent, well undertaken. A lot of data were acquired but not all the findings of the analysis have been reported on (eg which associations or groups households belong to). Of</li> </ul>		
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	<p>course, care must be taken not to ‘overload’ a report of this nature but a good idea would have been to list the key socio-economic questions to be asked (by LHDA, for example) and then to respond to these questions appropriately.</p> <ul style="list-style-type: none"> <li>• There is little evidence of spurious results (Chapter 4). When presenting results (Chapter 4) it is acceptable (and good practice) to explain anomalies, as the Consultant has done in most cases. However, the readability of the Chapter is compromised by the inclusion, in many places, of statements related to the implications of the results on compensation, resettlement and livelihoods. This Chapter should be restricted to presenting the results, and comments on implications, <i>etc.</i> would be better placed in Chapter 6 (Implications).</li> <li>• The Consultant was required to establish a baseline statement and understanding of <u>aggregate</u> socio-economic conditions and trends, including defined key indicators, in the principal areas to be affected by Phase 2. Throughout most of the reports aggregate results for the full study have been presented. In only a few cases has the information been presented for each of the principal areas – <i>ie</i> the Polihali catchment, the downstream area, Mokhotlong and the control sites. Since the principal area of concern is the Polihali catchment, the results presented are not truly representative of this area. It is possible that the results may be distorted by the inclusion of Mokhotlong data (an urban area). It is also necessary to report on the results of the control sites separately to determine whether these sites have similar characteristics and are, therefore, valid as controls.</li> <li>• It would be an improvement to give the source of information, <i>eg</i> household questionnaires, KIIs, FGDs, PRA, Incomes and Expenditure Survey, <i>etc.</i></li> <li>• The Consultant was required to present clear and neutral analysis of the livelihood, compensation and resettlement implications of LHWP2 for the individuals, households and communities affected. To some extent this has been done but there are no clear statements indicating exactly what the implications are. Statements such as ‘if a new pumping</li> </ul>		
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	<p>system brings clean water to people’s houses, that is wonderful – but such technology miracles require maintenance..... – otherwise people may end up worse than before’. While this may be true one questions its place in such a report. Also, statements, such as one referring to the fact that some households will need to move: ‘ This will cause significant socio-economic disruption and economic recovery problems – also in situations where only one or two households will have to move on their own, into a kind of wilderness’ is not validated. In such cases, the households may be less significantly impacted if they are relocated over short distances within exiting villages (in-filling).</p> <ul style="list-style-type: none"> <li>• There is some confusion with some of the terminology. ‘Access to land’ is not the same as ‘land ownership’. This needs to be checked in Section 4.2.12 and, similarly, elsewhere.</li> <li>• There is little information given on the PRA exercise, particularly the participatory mapping.</li> <li>• Chapter 6 (Implications) includes a sub-section on Indicators in which a list of key indicators and procedures (a few lines) for future monitoring are provided. Perhaps this should be dealt within in a separate Chapter? Consideration needs to be given in reducing the number of key monitoring indicators. Conducting surveys to collect data is expensive and time consuming. If periodic monitoring surveys are planned as long and costly exercises the chances are that they will not be undertaken (or undertaken properly). Is there not a set of key indicators (or proxy indicators) that will give us a pretty good idea of what is going on? Additional indicators might give us information that is nice to know but how much additional value will they provide – probably only marginal?</li> <li>• The Incomes and Expenditure Report is the better of the two reports with better graphical illustration of the information. Panel feels, however, that there has been insufficient analysis of the income variables. As with the Baseline Socio-economic Survey, statistical data for the control site are not provided.</li> </ul>		
j) RFP for cultural/heritage	<ul style="list-style-type: none"> <li>• PoE was only able to discuss the RFP in general terms because the final draft had not yet been reviewed internally</li> </ul>	<ul style="list-style-type: none"> <li>• Proceed with finalising RFP as</li> </ul>	2014-12-15

<p>action plan</p>	<p>within PMU.</p> <ul style="list-style-type: none"> <li>The Phase 1 Baseline Study Inventory and Assessment has been completed to a high standard and the report should be made available to tenderers on request. The Inception Report for the subsequent phases should include a fully developed work plan which will need to be approved by LHDA and the Department of Culture. Phase 2 comprises excavation of sites identified in the baseline and documenting important rock art sites. Phase 3 addresses the ‘intangible heritage’ such as baptism pools and initiation sites and Phase 4 covers the write up and analysis. It is important to have safeguards to ensure that material taken away from Lesotho for analysis is returned timeously.</li> <li>There are several options for where material will be stored and displayed. Visitors’ centres were thought to be unsustainable but combining displays with other tourism initiatives may be possible. The museum in Maseru, for which plans have been approved, is another possibility. Phase 5 of the work plan will need to include recommendations for storage and display of artefacts with a costing. Implementation of these recommendations would be for LHDA action.</li> <li>As with other RFPs, the PMU needs to be careful not to be too prescriptive so that bidders can offer innovative approaches to the scope of services. Fine tuning the project to align with LHWP requirements can take place during the inception phase as the proposed work plan is developed. Activities will have to be prioritised according to when sites will be affected by construction or inundation.</li> </ul>	<p>explained opposite.</p>	
<p>k) Draft community consultation/participation strategy</p>	<ul style="list-style-type: none"> <li>Panel reviewed the draft LHWP Phase II Community Participation Strategy (September 2014) – the draft subsequently approved by LHDA Board. Panel also reviewed a document entitled Phase II Community Liaison Structures which explains the establishment and roles and responsibilities of the proposed structures and the frequency of meetings.</li> <li>The main thrust of the Strategy is (i) to establish, train and support Community Liaison Structures (CLSs), comprising</li> </ul>	<ul style="list-style-type: none"> <li>Continue implementing the Strategy throughout the planning, construction and operational of the LHWP2.</li> </ul>	<p>On-going</p>

	<p>Area Liaison Committees (ALCs) for each Electoral Division impacted by the project (upstream and downstream) and a Combined Liaison Committee (CLC) with representatives from each of the individual ALCs and (ii) to develop and implement community participation initiatives. ALCs will comprise the relevant Community Councillors and Chiefs, elected community representatives and representatives from local NGOs and CBO. The Strategy is aligned with the provisions of the Local Government Act (1997). It will be extended to host areas and other project intervention areas when this becomes necessary.</p> <ul style="list-style-type: none"> <li>Panel learned that implementation of the Strategy has already commenced (only slightly behind the intended schedule). The process of establishing ALCs is almost complete and a training workshop for committee members will take place before the end of November. This will be preceded by a 'roadshow' in Mokhotlong.</li> <li>Panel believes that the intent of the strategy is sound. It is simple, transparent, grass-roots level oriented and appropriate.</li> </ul>		
	<ul style="list-style-type: none"> <li>The Strategy partially follows a logical framework approach (which Panel endorses) but with a few shortcomings: <ul style="list-style-type: none"> <li>➤ The objectives are usually too long. They should be brief and to the point.</li> <li>➤ Objectives should be measurable in order to assess the level of achievement of the objective.</li> <li>➤ Some objectives contain more than one objective ('to do something... <u>through</u> doing something else' or contain an objective and an output. This makes measurement difficult.</li> <li>➤ In some instances elements of one objective are repeated in another objective or even another output.</li> <li>➤ Some objectives include qualifiers (indicators) such as 'meaningfully' that are difficult to measure.</li> <li>➤ In some cases outputs are not clearly linked to specific objectives.</li> </ul> </li> <li>These shortcomings are not critical but a small amount of time spent on attending to the above will make implementation of</li> </ul>	<ul style="list-style-type: none"> <li>Adjust the wording of objectives and outputs as suggested to make them actionable and measurable.</li> </ul>	<p>2014-12-15</p>

	the Strategy easier to manage and monitor. Further, though the draft is approved by LHDA Board, the document and its implementation should still be improved as PoE recommends.		
	<ul style="list-style-type: none"> <li>The logical framework approach is a well-tested and applied approach to project planning and management. The inclusion of a simple logical framework matrix in the Strategy would provide a good summary of the objectives, outputs, activities inputs (resources), indicators to track performance and achievements, the means of verification of the indicators and outside risks and assumptions over which LHDA has no control (eg inputs from third parties). Good examples of logframes are available on the internet.</li> </ul>	<ul style="list-style-type: none"> <li>Include a simple logical framework matrix in the Strategy.</li> </ul>	2014-12-15
	<ul style="list-style-type: none"> <li>The draft Strategy includes the development of a stakeholder engagement plan (SEP) whereas the focus of the draft Strategy is community consultation. There are many more categories of stakeholders other than just communities, each of which probably requires a consultation strategy (although probably much simpler and shorter). A community consultation strategy is, in fact, only one component of a broader SEP. The SEP should be developed as a separate exercise.</li> </ul>	<ul style="list-style-type: none"> <li>Remove the preparation of a stakeholder engagement plan from the draft Strategy and do as a separate exercise.</li> </ul>	2014-12-15
	<ul style="list-style-type: none"> <li>The draft Strategy also includes the development of a labour recruitment strategy. Although community members may be recruited during construction work, a labour recruitment strategy covers a much wider reach than the just the local communities and should be developed as a separate exercise.</li> </ul>	<ul style="list-style-type: none"> <li>Remove the preparation of a labour relations strategy from the draft Strategy and do as a separate exercise.</li> </ul>	2014-12-15
	<ul style="list-style-type: none"> <li>It is extremely important that the proceedings of the consultation process are accurately recorded in sufficient detail (and made available in the public domain if necessary) to promote transparency and to serve as an agreed reference for possible future disputes and accusations. Minutes of meetings must be certified by ALC and CLC members.</li> </ul>	<ul style="list-style-type: none"> <li>Amend the Strategy to include the requirement for minutes of consultation meetings.</li> </ul>	2014-12-15
	<ul style="list-style-type: none"> <li>It is likely that unforeseen issues and challenges will occur during implementation. The Strategy should include provision for necessary modifications and refinement based on actual experience.</li> </ul>	<ul style="list-style-type: none"> <li>Amend the Strategy to include provision for future modifications.</li> </ul>	2014-12-15

<p>l) Livelihoods restoration framework</p>	<ul style="list-style-type: none"> <li>Panel reviewed the draft Phase II Livelihood Restoration and Social Development Strategy (November 2014). Panel also reviewed a presentation on the Framework for Livelihood Restoration and Social Development.</li> <li>The draft Strategy is a concise and well-presented high level statement of intent by the LHDA describing the objectives and principles of the Strategy to address issues of livelihood restoration and social development. It contains an action plan for implementing the Strategy. As a high level strategy it does not provide details – these are to be presented in a Framework for Livelihood Restoration and Social Development (that will include responsibilities, <i>etc.</i></li> <li>The draft Strategy is not yet complete – the section on Outcomes has still to be completed.</li> <li>The draft Strategy correctly and clearly distinguishes between livelihood restoration (measures directly related to mitigation for loss of assets and livelihoods incurred by individual households and communities) and social development (measures to ensure that communities in the project areas become beneficiaries of the Phase II development). Although these two are interrelated there is a danger that people will confuse them – they can become blurred. It may be beneficial to add that Livelihood Restoration will focus on planning and implementing livelihood strategies with individual households.</li> <li>Under Definitions there is a statement to the effect that ‘Livelihood restoration measures .... should enable affected persons to move beyond dependence on cash compensation to the ownership of sustainable development initiatives that ultimately improve their livelihoods and quality of life’. Many of the households in LHWP 2 were/are partially dependent on aid in one form or another. A large proportion of poor households depend on social grants <i>eg</i> pensions, and farmers depend on subsidised grain <i>etc.</i> Thus, in many cases, this target is in itself an <i>improvement</i> in livelihood status.</li> <li>The Sustainable Livelihoods Approach (SLA) is proposed as the broad framework within which Livelihood Restoration will be undertaken by RAP consultants. Briefly, it is multi-disciplinary, multi-level, and people-centred approach based</li> </ul>	<ul style="list-style-type: none"> <li>Finalize the Livelihood Restoration and Social Development Strategy (<i>eg</i> include the section on Outcomes).</li> </ul>	<p>2014-12-15</p>
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	<p>on the specific needs and resource (capital) availability of individuals. SLA is an excellent overall framework, especially for the reasons highlighted in Appendix 1. However, it has come in for a lot of criticism over the years and it will be important to make use of its best features and avoid the pitfalls. A lot has been written on the topic and LHDA should consult widely to ensure that best practice is followed.</p> <ul style="list-style-type: none"> <li>• One of the activities is to arrange site visits to southern African success stories. Success stories are quite hard to find but they do exist. Visiting projects could be very expensive and might limit LHDA to relatively local initiatives. But there are probably some good examples in Brazil, India and Asia which might be presented via professional videos or even by inviting speakers to come to Lesotho.</li> <li>• In Appendix 1 (under definitions) there is a statement to the effect that 'In the developing world people are engaged in a <u>number of activities</u> (sequential and simultaneous) that contribute to their wellbeing or constitute their livelihoods. This is a vital piece of information and the nature of livelihoods in the developing world. One cannot create a sustainable livelihood from an intervention that promotes a <u>single</u> activity. The LR and SD strategy must be careful not to fall into the trap of facilitating single economic activities to fix a household's economic woes. To some extent this may be one of the problems with some of the failed LLEs in LHWP 1.</li> <li>• The social development component should be considered as an important part of the LHDA's Social Corporate Responsibility initiatives.</li> </ul>		
m) IFR scenarios and model	<ul style="list-style-type: none"> <li>• PoE was asked to review the draft final LHWC2 IFR final report and, on the basis of the scope of services, advise on the proposed IFR model and proposed scenario PD4.</li> <li>• Unlike previous recent missions there was adequate time given in this mission to discuss issues, IFR no less. PoE did not have sight of the IFR specialist reports, so PoE had many questions which might or might not be answerable by scrutiny of all the reports. These questions were raised in discussion with LHDA and PMU, and record of them has been provided to LHDA.</li> </ul>	<ul style="list-style-type: none"> <li>• Do not place high confidence in PROBFLO, especially its predictive capacity, <i>ie</i> treat predictions from PROBLO with scepticism.</li> </ul>	2015-12-31

	<ul style="list-style-type: none"> <li>• Though PoE was perhaps not ideally positioned to address LHDA's ToRs, it is nevertheless appropriate to address the ToRs. This is done below, without repeating all the questions, just focusing on key concerns, and proposing a way forward.</li> <li>• The draft final IFR report delivers a message. The report self-proclaims confidence (in the model, PROBFLO) on such grounds as international recognition of PROBFLO components, and unprecedented documentation of flow-ecology relations. The report does not give the reliability of the message. As Kahneman (Kahneman D (2012) <i>Thinking, Fast and Slow</i>. Penguin, London, p 499) reminds us, without reliability a message might be misleading. Reliability is a cornerstone of science and technology. If the specialist reports provide the reliability then that should be presented as substantiation, not international recognition because once upon a time it was internationally recognized that the earth was flat and that the earth was at the universe centre. The confidence and reliability expressed in IFR report is also contradicted by the report itself – there are 7 pages of cautionary clauses.</li> <li>• Kahneman is also informative on predicting performance on a new project. Use the base information to predict. How previous similar projects performed is the best guide to what will happen in the new project. Rarely does the new project perform substantially better than its predecessors. The Flyvbjerg school at Oxford recently studied hydro projects around the world and corroborated Kahneman. On LHWP1 IFR the predictions were more wrong than right. Flip-of-the-coin would have been more accurate and cheaper. Can we expect LHWP2 IFR to perform much better? PoE suggests that it would be imprudent to expect materially better performance.</li> </ul>		
	<ul style="list-style-type: none"> <li>• There now emerges a serious doubt about the modelling approach of PROBFLO, specifically in its resort to probabilistic modelling. The risk gurus have pointed out that there exist non-random variables which affect living in this world. The most famous of these is daily fluctuations in share prices on the market. They have been modelled using normal statistics,</li> </ul>	<ul style="list-style-type: none"> <li>• Accept that rivers are event-driven systems and probabilistic modelling inappropriate, <i>ie</i></li> </ul>	2014-12-31

	<p>but on that basis events such as the 2007-2008 global financial crisis are so rare that (on the predictions of normal statistics) would not have occurred once since the Big Bang 15 billion years ago. Weather and one of its consequences, streamflow, are also non-random variables. Recognition of non-randomness has led to the perception of some systems – markets, savannas and rivers – as event-driven. By this is meant that it is not the ordinary or average conditions which structure the system, but events or Black Swans. In the context of rivers, events are floods, droughts, cold extremes, water quality abnormalities. In the context of regulated rivers one must add to the natural environmental variables the political and financial ones. Asked what he feared most, former British premier Harold Wilson said ‘events’ – their timing, nature and consequence are unpredictable. Lone Black Swans might be manageable, but driving events often are a coincidence of several factors – drought, financial crisis, politics, <i>etc.</i> PoE, having not seen the specialist IFR documents, does not know how, or even whether, Black Swans are handled in PROBFLO. The impression from the final report is that business-as-usual (BAU) and everything-goes-according-to-plan (EGAP) are (implicitly) assumed. There is therefore doubt that PROBFLO is appropriate.</p>	discard PROBFLO.	
	<ul style="list-style-type: none"> <li>The reliability of PROBFLO is uncertain. Its predictive capability is unlikely to be much better than LHWC1 IFR achieved. The model is probabilistic whereas (Lesotho) rivers are event-driven. It is unrealistic to believe that river conditions can be predicted, and certainly we have no proven means of doing this. Questions arise then. Do we need to predict? Can we manage without prediction? PoE suggests that we do not need to predict and we can manage without predicting. Given an IFR release regime (considered below), socio-economic resources can be monitored, and any compensation due paid retrospectively.</li> </ul>	<ul style="list-style-type: none"> <li>Dispense with the unattainable ideal of predicting river conditions, and adopt the approach of monitoring socio-economically important river resources and paying any compensation retrospectively.</li> </ul>	2014-12-31
	<ul style="list-style-type: none"> <li>The scenario analysis in the report is too tame. It varies the hydrology and calculates the consequences. Conventionally this is ‘what if’ analysis. The analyses done also apparently</li> </ul>	<ul style="list-style-type: none"> <li>Do not accept scenario PD4, have the IFR Consultant</li> </ul>	2015-01-31

	<p>have ‘maximax’ as the decision criterion. This is gambling. It does not conform to the precautionary principle in Lesotho environmental policy. Minimum regret (minimax) is a more appropriate decision criterion. Conventionally scenario analysis considers qualitatively different futures. It compares BAU or EGAP with business not as usual and things not according to plan. In view of the foregoing criticisms and the doubtful predictive capacity of any IFR model, the reliability of the tame ‘what if’ analysis is in question. PoE understands that PMU has asked the IFR Consultant to undertake further ‘what if’ analyses with the IFR in the region of 10%-20% of mean annual runoff (MAR). PoE supports this, provided the results are treated cautiously. PoE understands that the purpose of the further analyses is to help identify the bulk IFR release. Possibly around 15% of MAR might be politically acceptable. PoE is doubtful that a slightly bigger or smaller bulk IFR will make any difference – in fact IFR knowledge does not permit a small difference to be predicted or detected reliably anyway. PoE believes that a bulk release of around 15% of MAR can be made to work. The river will adapt to a smaller than original flow, provided the release mimics the natural flow variations.</p>	<p>undertake further ‘what if’ analyses using 10%-20% MAR, but accept that the decision on bulk IFR allocation is at best intelligent guesswork and is likely to be in the region of 15% MAR.</p>	
	<ul style="list-style-type: none"> <li>PoE considers that PROBFLO is inappropriate partly because it is probabilistic for an event-driven system, and partly because it is too complicated to be practicable in its context. PoE’s concern that PROBFLO is too complicated is testable, and should be tested (see below). It looks like that after all this work, PROBFLO might not be feasible/suitable for LHWP IFR operations. Have time and money been wasted? PoE has repeatedly recommended adoption of the simplest IFR that will work. But in order to learn you have to do things, and the true merit or demerit is often evident only afterwards. So it might be said that we had to get this far in the IFR program for the potential to be evaluated. Evaluation is still incomplete. It might ultimately be concluded that PROBFLO is indeed not appropriate. This would not mean that resources have been wasted. Whatever the outcome, we have learnt a lot. One comment PoE heard was to effect that we have gone so far with PROBFLO now that we will have to continue with it. What</li> </ul>	<ul style="list-style-type: none"> <li>Accept that PROBFLO might not be suitable for LHWP, decide on IFR management on the basis of the most appropriate approach, and not on the basis of cost already sunk in PROBFLO.</li> </ul>	<p>2014-12-31</p>

	<p>this sentiment says is that ‘sunk cost’ overrides ‘choice of the most suitable IFR model irrespective of foregoing costs’. The ills of ‘sunk cost’ decisions are legendary – troubles are not resolved but compounded.</p>		
	<ul style="list-style-type: none"> <li>• What is the simplest IFR approach that will work? What is proposed here could apply to LHWC1 and LHWC2 equally, and has the following elements. <ul style="list-style-type: none"> <li>➤ Assume weak predictive capability, and the need to manage without it.</li> <li>➤ Instantaneous rate of IFR release is a ‘constant percentage’ of the instantaneous rate of inflow into the dam, possibly subject to provisos (eg release valves cannot be reset continuously, so adjustment will be by time sets; there might have to be some minimum release).</li> <li>➤ Make an intelligent guess about the bulk IFR release. This will determine the ‘constant percentage’ above. One percent is environmentally unacceptable. 30% is possibly financially and politically unacceptable. An intermediate figure, maybe around 15%, must be decided upon. PoE was advised that once decided upon, the bulk IFR allocation will not be easily adjustable, for techno-political reasons. The bulk allocation decision is intelligent guesswork, and, in the light of the foregoing, IFR science does not have the predictive capability to yield a refined answer – therefore do not waste resources on divining mystical answers.</li> <li>➤ Measure water inflows, transfers and releases.</li> <li>➤ Monitor. The primary needs are simplicity, between consultant repeatability, statistically valid sampling designs and data from which strong inference can be drawn (with known confidence), and transparency. The importance of transparency, or stakeholder engagement, has recently come to the fore. LHDA has been too slow to address simplicity, repeatability and validity, but the whole bundle (including transparency) require urgent attention.</li> <li>➤ Monitor relevant (socio-economically important) resources. The purpose here is to track resources sufficiently to inform whether, and how much, compensation is due. Have the IFR consultant help in</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Work up ‘the simplest approach that will work’ (explained opposite) for review at the next PoE mission.</li> </ul>	<p>2015-02-28</p>

	<p>identifying the relevant resources. Consider having to resort to an independent outside consultant to do the future monitoring, working under direction of an Environmental Monitoring Committee (EMC) that represents the stakeholders. There will have to be capacity building for this, but it is social development and it overlaps with or is CSR.</p> <ul style="list-style-type: none"> <li>➤ Another form of needed monitoring is to measure river condition. Some of the data collected for resource assessment might be usable. Otherwise this can possibly be done by either LHDA personnel or outsourced expertise. PoE is critical of the river condition criteria, and that they are appropriate – trout downstream of Katse or Polihali are not necessarily bad, and could be an asset, though trout above the Maloti minnow barrier on the Senqunyane are bad. Review river condition criteria.</li> <li>➤ Report. A commitment of the Environmental Policy is to monitor, audit, report, conform, continuously improve. So data storage and reporting are necessary.</li> <li>➤ Provide for review and revision of the IFR management.</li> </ul>		
	<ul style="list-style-type: none"> <li>• PoE is not able to affirm that all the above elements of the 'minimum IFR' are adequately covered in the IFR program under way. For example, are the baseline data sufficient? PoE would need to see this to believe it.</li> </ul>	<ul style="list-style-type: none"> <li>• Provide PoE with the LHWP2 IFR baseline data for review of adequacy.</li> </ul>	2014-12-01
	<ul style="list-style-type: none"> <li>• The present IFR program must include a proper scenario analysis. The qualitatively different futures to explore and compare are a complex IFR (as in PROBFLO) versus 'the simplest model that will work' (as above), and BAU/EGAP versus Black Swans (the worst cases climatically, financially, politically, etc). The decision criterion should be 'minimum regret'. The resource requirements for operating the complex and simple IFR systems must be developed, and included as part of the analysis. Also as part of the scenario analysis, address the question 'what might be the marginal benefit of going beyond the simplest IFR model that will work'.</li> </ul>	<ul style="list-style-type: none"> <li>• Work with the IFR consultant to undertake a proper scenario analysis that informs on the overall IFR approach (complex like PROBFLO versus the simplest workable model under BAU/EGAP versus Black Swans using</li> </ul>	2015-01-31

		'minimum regret' as the decision criterion).	
n) First quarterly PH baseline survey report	<ul style="list-style-type: none"> <li>The PHBS Round One Survey Report (2014-10-29) is unsatisfactory. The Inception Report was reviewed by PoE but it was actually very limited in scope and there was no proper analysis of the pilot sample. With the benefit of hindsight, we probably should have been more forceful in response to the inception report, but key recommendations were ignored, eg 'Ensure that public health issues <u>which are likely to be influenced by the Lesotho Highlands Water Project</u> are fully addressed,' and 'Mental health needs to be included since stress and anxiety are <u>a feature in affected communities</u>.' The Consultants have not focused sufficiently on issues of relevance to LHWP but seem to have undertaken a general health survey.</li> </ul>	<ul style="list-style-type: none"> <li>In future ensure to give Inception Reports and their review high priority.</li> </ul>	On-going
	<ul style="list-style-type: none"> <li>Inception Reports are of critical importance and should contain sufficient detail of proposed methods to judge whether the product is likely to be fit-for-purpose before fieldwork is approved.</li> </ul>	<ul style="list-style-type: none"> <li>Allow sufficient time during the Inception Phase for Consultants to develop comprehensive plans and test appropriate instruments.</li> </ul>	On-going
	<ul style="list-style-type: none"> <li>A major failing of the report is the poor analysis and interpretation. There are so many places where ludicrous results are presented, without comment, that one has to doubt the capabilities of the team writing the report. Moreover, it is clear that the more senior members of the consultant's team cannot have reviewed the report or they would have picked up some glaring errors.</li> <li>The PHBS included extensive anthropometry (height, weight, etc) to assess malnutrition but this seems to have been measured so badly that results are of dubious value. Measures involving infant length have very wide confidence intervals suggesting errors. Correlation coefficients as low as 0.159 are highlighted in the analysis of MNA (Mini Nutritional</li> </ul>	<ul style="list-style-type: none"> <li>Instruct Consultant to undertake substantial correction and improvement of the PHBS Round One Survey and the Report (2014-10-29).</li> </ul>	2015-02-18

	<p>Assessment) because they are highly significant (<math>p &lt; 0.0001</math>) but significance is almost inevitable with a large sample size and is probably misleading. When MNA was used to assess malnutrition in the elderly, the consultants concluded that 100% of the sample was either at risk of malnutrition (28%) or actually malnourished (72%). This seems highly improbable when only 5% of the women of child bearing age were underweight according to BMI (Body Mass Index) and 34% were overweight or obese. The more extreme results are often very different from national or regional statistics. Another statistic which should surely have rung alarm bells is that 38.6% of the women of child bearing age were found to have <i>tertiary</i> education and the figure was 58.3% in Mokhotlong Town (Table 7).</p> <ul style="list-style-type: none"> <li>• Secondary data (from health service providers) and focus groups are used to provide general information on diarrhoea but it is not covered in any detail at household level despite being identified as a common health problem (and strongly correlated worldwide with potable water and sanitation).</li> <li>• The report recommends '<i>LHDA should make efforts to facilitate the full implementation of the DHMIS [District Health Management Information System] in Mokhotlong district so that there may be ready access to health data from the district. The next quarterly surveys will not need to collect morbidity data from the project area. However, during the project period, monitoring of disease patterns will be critical especially diarrheal diseases and malnutrition.</i>' This seems contradictory since it suggests relying on a DHMIS which is apparently not fully operational, to monitor the 'critical' diarrhoeal diseases and malnutrition. With over 40% of households other than Mokhotlong Town being more than 3 hours from the nearest health facility, underreporting of common health problems is likely to be extensive so the DHMIS may not be the answer.</li> <li>• Revising the report should include correction of errors, where possible, and spurious results should be removed with some explanation of questions/measurements that failed to work and proposed remediation.</li> </ul>		
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	<ul style="list-style-type: none"> <li>It appears that repeating a substantial part of the nutrition survey will be necessary with much greater attention to accurate measurement.</li> </ul>		
	<ul style="list-style-type: none"> <li>Mental health was included in the survey but only interpreted as a risk factor for malnutrition in the elderly using a variable described as 'dementia or depression'. Mental health warrants a far broader approach since it affects men and women, young and old, and is an important variable when assessing displaced or disrupted populations.</li> </ul>	<ul style="list-style-type: none"> <li>In subsequent survey rounds use internationally standardised questions and take a broader approach to wellbeing, including mental health, alcohol and substance abuse, and violence.</li> </ul>	2015-02-18
	<ul style="list-style-type: none"> <li><b>Have the consultants met the Scope of Services?</b></li> <li>The consultants did not cover several key variables in sufficient depth, eg child diarrhoea, mental health, alcohol and substance abuse.</li> <li>Results for simple variables such as education are clearly wrong in some tables and must be checked. The numerous errors in the tables and inconsistencies with other surveys give little confidence in the analysis.</li> <li>There is no systematic comparison of the PHBS and SEBS data.</li> <li>There is no statistical comparison of the control sites with project-affected sites to show whether they are sufficiently similar to use for long term monitoring of LHWP health impacts.</li> <li>There appears to be no attempt to identify variables likely to be affected by LHWP for subsequent follow up. While this is a deliverable for the final report it should have been discussed in this report in order to guide subsequent rounds of the survey.</li> </ul>	<ul style="list-style-type: none"> <li>Advise the Consultant that the report fails to meet Scope of Services.</li> </ul>	2014-11-18

## Appendix 1 Summary recommendations

Issue	Recommendations	Finish date
<b>1. LHDA compensation</b>		
a) 2014-15 compensation distribution	Continue with present practice.	On-going
	Be consistent in the use of output indicators in future compensation distribution reports.	On-going
	Use correct calculation methods in future reports.	On-going
	Fix the Flow-centric problems urgently.	2015-03-31
b) Community consultation strategy	Conduct the community consultations in accordance with the Strategy.	2015-04-30
	Prepare a detailed schedule for consultations.	2014-12-31
	Develop a simple system for monitoring the schedule and progress towards achieving targets.	2014-11-30
	Amend the Strategy to include the requirement for certified minutes of consultation meetings.	2014-11-30
<b>2. Complaints management</b>		
c) Strategy and progress	The Strategy for Compensation Related Complaints Management is supported but innovative solutions must be sought to streamline the process – business as usual is unlikely to work.	2015-01-31
	Investigate appointing a small number of independent Complaints Arbitrators.	2015-01-31
<b>3. Environmental and conservation issues</b>		
d) Wetland rehabilitation	Develop and start to implement a twofold strategy along the lines described opposite.	2015-03-31
e) Environmental policy	Produce Draft 3 Environmental Policy and implement.	2015-01-31
	Explain 'significance' in the body of the Policy (Section 5.2.2), and guide the determination of 'significance' in an appendix to the Policy.	2015-01-31
	Consider recognizing the three different zones, even in the Policy commitments, and treating each one with appropriate objectives/commitments and risk control.	2015-01-31
	Postpone exact commitment on the geographic scope of ICM and biodiversity management, and use the criterion of 'significant' in the third zone (outside dam basins and downstream rivers) to guide action.	2015-01-31
	Clarify that the Environmental Policy commits on the Natural Environment in parallel to policy commitments elsewhere on the Social Environment.	2015-01-31

Issue	Recommendations	Finish date
	Write the Policy to apply to all LHWP, not just LHWP1 or LHWP2.	2015-01-31
	Refine Policy wording to project a commitment to being proactive, not just reactive.	2015-01-31
	Provide explicitly for Policy review and revision.	2015-01-31
	Distinguish between stakeholders (project participants and others) and commit to how each group will be addressed.	2015-01-31
	Rewrite page 2 – condense it so there is not repetition, link related issues in single commitments, reduce the opening paragraph, write in good English (translate into good Sesotho).	2015-01-31
	Work up the Environmental Policy to differentiate LHDA, making its Policy distinctive and focused on the special features of LHWP.	2015-01-31
	Use the Environmental Policy (Draft 3) as a cornerstone to all LHWP activities, and use the implementation to improve both project performance and the Policy itself.	2015-01-31
f) Katse Botanical Garden	Develop a KBG strategic plan using the guide opposite, for review by LHDA and PoE at the next mission.	2015-03-31
g) Maloti minnow barrier	Design in the gabions as described in the report matrix.	2014-12-31
	Plans for future road maintenance should be determined.	2015-02-28
<b>3. Governance issues</b>		
h) Corporate social responsibility policy	Proceed with LHDA CSR, and incorporate the insights of Porter <i>et al.</i> into the developing policy.	2015-03-31
	Prepare a draft LHDA CSR Policy for discussion at the next PoE mission.	2015-03-31
<b>4. LHWP2 issues</b>		
i) Household survey	Revise the report to effectively address PoE's criticisms.	2014-12-15
j) RFP for cultural/heritage action plan	Proceed with finalising RFP as explained in report matrix.	2014-12-15
k) Draft community consultation/participation strategy	Continue implementing the Strategy throughout the planning, construction and operational of the LHWP2.	On-going
	Adjust the wording of objectives and outputs as suggested to make them actionable and measurable.	2014-12-15

Issue	Recommendations	Finish date
	Include a simple logical framework matrix in the Strategy.	2014-12-15
	Remove the preparation of a stakeholder engagement plan from the draft Strategy and do as a separate exercise.	2014-12-15
	Remove the preparation of a labour relations strategy from the draft Strategy and do as a separate exercise.	2014-12-15
	Amend the Strategy to include the requirement for minutes of consultation meetings.	2014-12-15
	Amend the Strategy to include provision for future modifications.	2014-12-15
l) Livelihoods restoration framework	Finalize the Livelihood Restoration and Social Development Strategy (eg include the section on Outcomes).	2014-12-15
m) IFR scenarios and model	Do not place high confidence in PROBFLO, especially its predictive capacity, ie treat predictions from PROBLO with scepticism.	2015-12-31
	Accept that rivers are event-driven systems and probabilistic modelling inappropriate, ie discard PROBFLO.	2014-12-31
	Dispense with the unattainable ideal of predicting river conditions, and adopt the approach of monitoring socio-economically important river resources and paying any compensation retrospectively.	2014-12-31
	Do not accept scenario PD4, have the IFR Consultant undertake further 'what if' analyses using 10%-20% MAR, but accept that the decision on bulk IFR allocation is at best intelligent guesswork and is likely to be in the region of 15% MAR.	2015-01-31
	Accept that PROBFLO might not be suitable for LHWP, decide on IFR management on the basis of the most appropriate approach, and not on the basis of cost already sunk in PROBFLO.	2014-12-31
	Work up 'the simplest approach that will work' (explained opposite) for review at the next PoE mission.	2015-02-28
	Provide PoE with the LHWP2 IFR baseline data for review of adequacy.	2014-12-01

Issue	Recommendations	Finish date
	Work with the IFR consultant to undertake a proper scenario analysis that informs on the overall IFR approach (complex like PROBFLO versus the simplest workable model under BAU/EGAP versus Black Swans using 'minimum regret' as the decision criterion).	2015-01-31
n) First quarterly PH baseline survey report	In future ensure to give Inception Reports and their review high priority.	On-going
	Allow sufficient time during the Inception Phase for Consultants to develop comprehensive plans and test appropriate instruments.	On-going
	Instruct Consultant to undertake substantial correction and improvement of the PHBS Round One Survey and the Report (2014-10-29).	2015-02-18
	In subsequent survey rounds use internationally standardised questions and take a broader approach to wellbeing, including mental health, alcohol and substance abuse, and violence.	2015-02-18
	Advise the Consultant that the report fails to meet Scope of Services.	2014-11-18