



Draft Fieldwork Plan

Lower Olifants Community Health: Risks and Opportunities Project

CSIR

6/29/2012

Report delivered as part of Deliverable 1 to the Department of Science and Technology on the 29 June 2012

Additional components of Deliverable 1 include:

- The Project Implementation Plan (PIP) – attached as separate file
- Project website development and activation – www.ehrn.co.za/lowerolifants/
- Project planning and stakeholder meetings – attached in appendix

Communities living near the Olifants River face environmental pollution risks and their health may be threatened. Sound evidence is needed to determine these health risks and identify coping strategies to best protect human health.

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Lower Olifants Community Health: Risks and Opportunities Project

Draft Fieldwork Plan

1 Purpose and scope of this document

The purpose of this document is to provide information on the planned execution of the sampling and fieldwork for the Lower Olifants Community Health: Risks and Opportunities project. This project is funded by USAID and the Department of Science and Technology. Project partners include the CSIR, the NOVA Institute, SANParks and Eduardo Mondlane University.

2 Introduction to the Lower Olifants Project

2.1 Background

Communities living near the Olifants River face environmental pollution risks and their health may be threatened. Sound evidence is needed to determine these health risks and identify coping strategies to best protect human health.

2.2 Short project summary

Wildlife deaths in parts of the Olifants River Catchment Management Area alerted scientists to possible serious pollution problems. It is known that communities living in close proximity to this river are exposed to pollution, but to what extent and whether health problems can be attributed to this exposure is not known.

Large-scale monitoring is underway to characterise water pollution in this intense mining and agricultural area, and a human health risk assessment project in the Upper Olifants was done in 2010. Results showed that risks from exposure to high pathogen concentrations and metal accumulation in vegetation were at higher levels than what is considered acceptable for consumption of food and water.

The Lower Olifants Project will use community surveys, focus group discussions and monitoring (of air, water, fish, fruit and vegetables) in the Lower Olifants to identify human health risks, as well as coping strategies used by communities to best protect human health.

2.3 Purpose

The overall purpose of the project is to determine the extent to which water and air pollution may have an impact on the health of two communities in the Lower Olifants River Water Catchment Area, with the purpose of identifying potential human health risks and relevant coping strategies that will inform and guide locally-appropriate, sustainable solutions.

3 Study areas

The study areas broadly include one informal/semi-formal settlement in Phalaborwa, Limpopo Province (South Africa) (Figure 1) that is located in close proximity to the Olifants River (e.g. Ga-Mashishimale settlement in the Mopani District Municipality).

Ga-Mashishimale has an approximate population of 109 468 (0.001095 persons per square meter) and an average elevation of 534 meters above the sea.

It also includes several communities around Massingir Dam (Mozambique) (e.g. Teobene, Macavene, Mavodze, Massingire) (Figure 2).

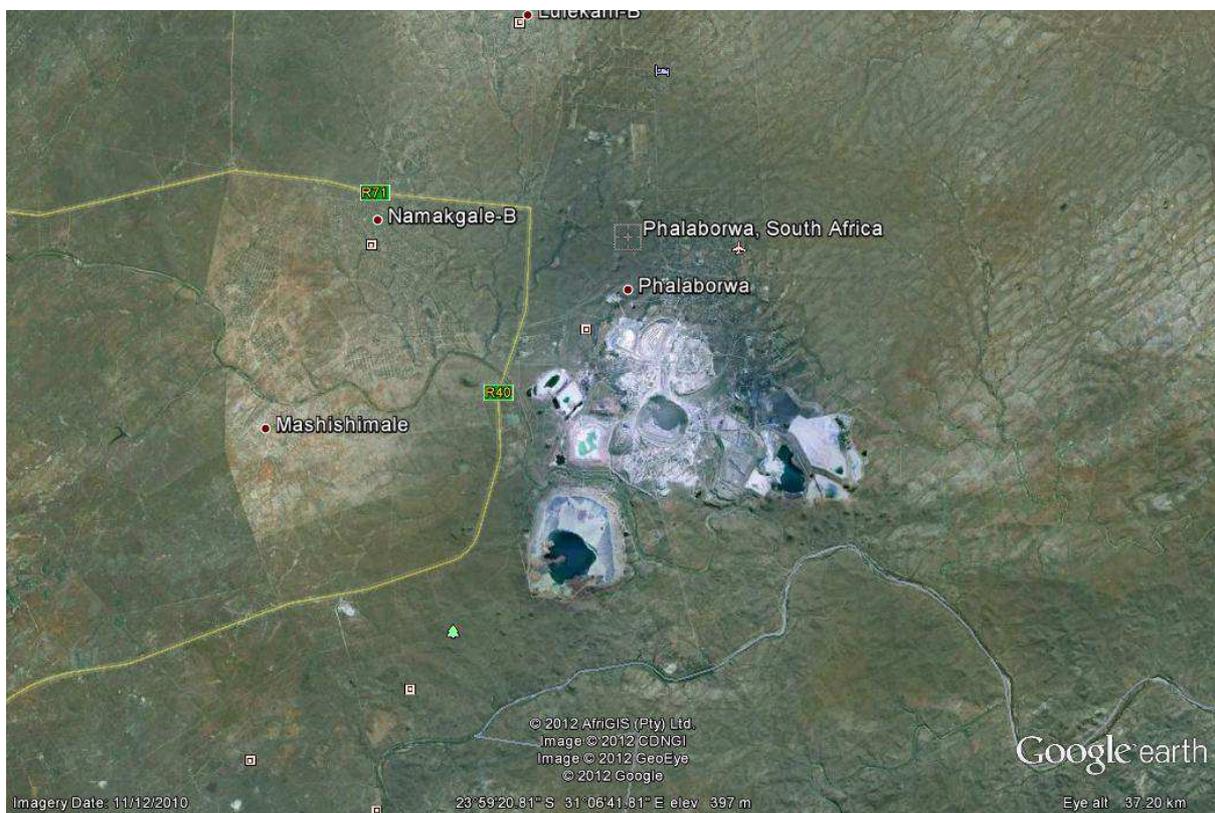


Figure 1. Phalaborwa communities

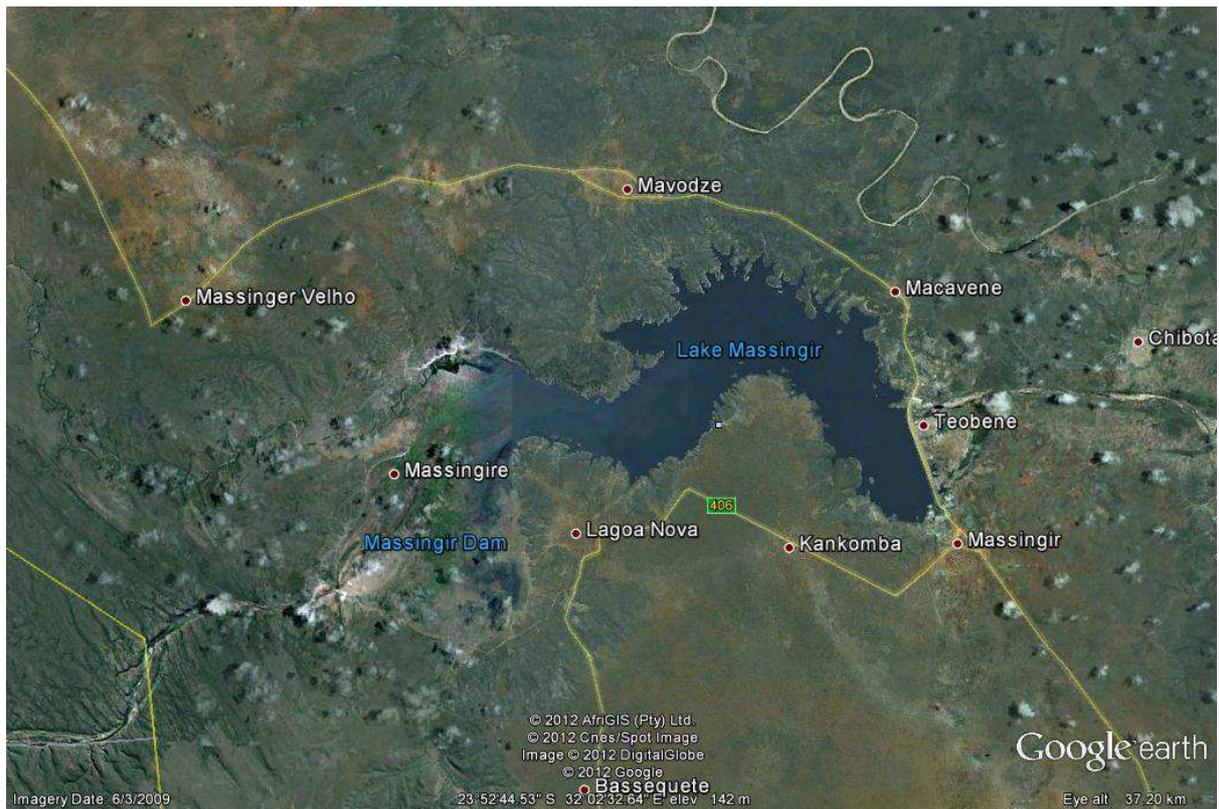


Figure 2. Communities around Massingir Dam

4 Sampling technique

Sampling in this study refers to the selection of households and groups of people living in communities for the administration of questionnaires and focussed discussions and semi-structured interviews, respectively.

Environmental sampling of water, soil, fruit, vegetables, fish and air is done in a systematic way when appropriate sites are located.

For the household survey, a multi-stage probability sample is proposed. The process is as follows:

1. Suburbs are selected. An equal number of interviews is done for each suburb.
2. A number of street blocks is randomly selected.
3. In each street block, a random starting point is selected. This random starting point is a corner (north-east, north-west, south-east, south-west).
4. A random starting house is selected choosing one of the first three houses with the help of a list of random numbers between one and three.
5. From the starting house, the fieldworker is instructed to walk around the block in a clockwise direction and interview every third household. When respondents refuse to participate or are not present, the next house in the sequence is selected.
6. The fieldworker will continue to interview respondents in houses that fall within the sequence until they reach the starting point again.

7. If more interviews are required in order to complete the quota, the process begins again.

A total of 500 (to be confirmed) household questionnaires will be administered; coded, captured, quality controlled and analysed.

Semi-structured interviews will be held with select individuals within the participating communities. A themed interview schedule will be developed for these interviews. It is envisaged that the interviews will be mainly for project introductory purposes and to collect preliminary data in order to develop a contextual background for the case study communities. Lastly, the interviews will also help assist to identify participants for the focussed discussion interactions.

For the qualitative interaction in the form of focussed discussions, small groups of people will be gathered together for a discussion around a focussed topic. The focussed discussions will be constituted in the following manner:

1. The discussion will be facilitated for maximum sharing of information between participants, through the use of a narrative approach.
2. The average size of the discussion group will be between 8-12 participants for optimum discussion.
3. The exact number of discussions that will take place will be determined by the local context of the study area.
4. The exact make-up of the discussion group is still to be decided pending the context of the local community. Suggested parameters for the group make-up could be: gender, age, occupation, social rank and livelihood strategy.
5. The topic for these discussions will be determined by the overall project nodes of concern with regards to possible health risks.
6. Sampling of participants in the focussed discussions will depend on the local context, and preliminary consultation with local community leaders and/or representatives.

5 Planned execution of fieldwork

A set number of fieldworkers will be recruited from a list of candidates solicited from each community. Fieldworkers live in the study areas and revisits are simplified in this way.

A five day training session for fieldworkers will be arranged. Fieldworkers will be trained in general interview techniques and the use of the portable, electronic questionnaire devices. The training will also provide knowledge of all aspects of the questionnaire. Fieldwork is expected to take place between September 2012 and March 2013.

6 Quality control

The quality control process will be implemented at different stages of the process. These stages are execution of the sample plan; data collection by structured interviews; and coding and data capture. On each level of implementation, certain errors may occur. The steps will be taken to ensure that an accurate and reliable result will be obtained at the end of the process.

The questionnaire responses will be captured directly by the fieldworker on the mobile device and immediately transmitted to a central database.

Qualitative work will be triangulated through the use of mixed methods namely, focussed discussions, field observation, semi-structured interviews and quantitative questionnaires.

7 **Next phase**

The next phase of the project comprises a full project team meeting (19 July 2012) and finalisation of the fieldwork implementation plan, together with required documents for the ethical clearance application. Stakeholder engagement will also begin to ensure all key role players and stakeholders are involved in the project as soon as possible.

Appendix

Project planning and stakeholder meetings

1 Internal CSIR Project Meeting held 21 June 2012

An internal CSIR project meeting was held on the 21 June 2012. The following CSIR staff attended the meeting:

Dr Caradee Wright, Principle Investigator and project manager
Dr Rebecca Garland, Researcher
Rietha Oosthuizen, Researcher
Karen Nortje, Researcher
Wouter Le Roux, Researcher
Juanette John, Researcher
Bettina Genthe, Researcher
Maronel Steyn, Researcher

During this meeting, the project plan was devised, individual responsibilities were assigned, deliverables and dates were confirmed, and scheduling of fieldwork and project meetings were defined.

2 External Project Partner Meetings held 22 June 2012 (via telecon)

Individual telephone calls were made to all external project partners on the 21 and 22 June 2012. The sub-consultant agreement with the NOVA Institute was prepared. Dates for the all project partner and key stakeholder meeting were proposed.

3 All Project Partner and Key Stakeholder Meeting planned for 19 July 2012, Pretoria

The meeting for all project partners is scheduled for the 19 July 2012 in Pretoria. This was not possible in June due to a late start (contract signed late) and several project partners committed to other projects and meetings. This will not delay the project in any way.