THE UNIVERSITY *of* EDINBURGH
Royal (Dick) School of
Veterinary Studies

Supporting
Evidence-based
Interventions

SEBI Program 1: Modelling Intervention Impacts

Request for Consultancy Proposal

June 2019

THE UNIVERSITY of EDINBURGH
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Supporting
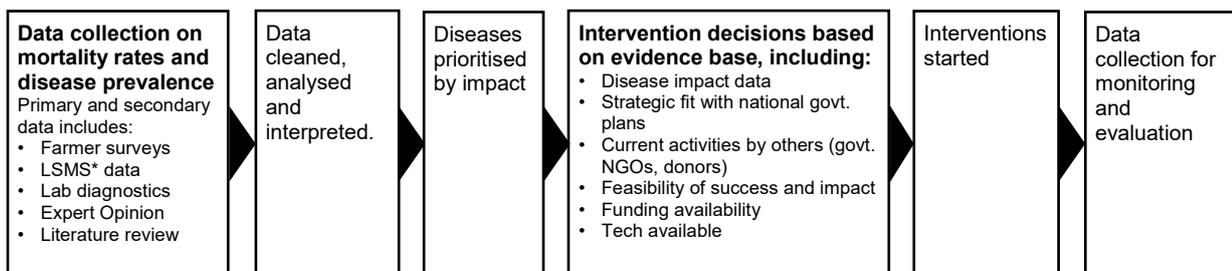Evidence-based
Interventions

1. Background

The Supporting Evidence-based Interventions (SEBI) initiative, based at the University of Edinburgh, aims to boost the livelihoods of smallholder farmers by delivering evidence-based technologies and interventions that offer sustainable solutions to the livestock production challenges they face. SEBI is funded by the Bill and Melinda Gates Foundation. SEBI has three programs of work:

Program 1. Collecting an evidence base and supporting interventions to reduce mortality, abortions and reproductive losses in dairy cattle and small ruminants in Ethiopia, Nigeria and Tanzania.

Program 2. Facilitation of a Livestock Data for Decisions (LD4D) community practice; enabling collaboration, access to varied expertise and data, tools and methods sharing.

Program 3. Enabling new/innovative livestock technologies and interventions by providing assessment/review and support.

The current proposal sits under Program 1 (P1). The figure below illustrates P1 activities and progress to date. In the original planning of the SEBI initiative, P1 was given a target, that by 2020 interventions would be on a trajectory to reduce national ruminant livestock mortality rates by 10-15% (compared to a 2010 baseline reference point), in Ethiopia, Nigeria and Tanzania. Although interventions have now started, it has become unrealistic to expect us to be on the 'trajectory' described above by the project end-date. Therefore the aim is to model what would be necessary to achieve this timeline of mortality rate reduction.

| **Data collection on mortality rates and disease prevalence** Primary and secondary data includes: • Farmer surveys • LSMS* data • Lab diagnostics • Expert Opinion • Literature review | Data cleaned, analysed and interpreted. | Diseases prioritised by impact | **Intervention decisions based on evidence base, including:** • Disease impact data • Strategic fit with national govt. plans • Current activities by others (govt. NGOs, donors) • Feasibility of success and impact • Funding availability • Tech available | Interventions started | Data collection for monitoring and evaluation |

*LSMS = Living Standards Measurement Survey

2. Objectives and research questions

The objectives of this project include:

Objectives	Proposed research questions
To understand if the proposed target (to reduce national ruminant mortality rates by 10-15%) is realistic and achievable.	• Which ruminant diseases should be targeted to realise the greatest decrease in national mortality? • Can this potential decrease be quantified? • What would be the necessary resource inputs (funding, expertise, institutional etc.) to deliver the P1 stated objectives above?
To effectively target SEBI interventions	• What potential reductions in national mortality rates could be expected from the current SEBI interventions? • Which ruminant diseases could be targeted by SEBI in the future to realise the greatest decrease in national mortality?
If proposed targets are not realistic.	• How should SEBI provide more appropriate targets?

3. Proposed methodologies

SEBI see this project as being desk based, using existing evidence and data (some already collected and curated by SEBI).

SEBI welcomes proposals with varying methodological approaches, if evidence can be provided that the methods can deliver useful results towards the above objectives.

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4. Relevant P1 details

Interventions

Current interventions for P1 are detailed below (more details can be provided on request).

Intervention target	Intervention	Ethiopia	Nigeria	Tanzania
Mastitis (Cattle)	Educating and training farmers on livestock management practices to prevent and reduce the incidence of cattle mastitis.	Yes	Yes	*
Mastitis (Small Ruminants)	Performing pilot vaccination trials for the control of mastitis in small ruminants.	No	Yes	*
Young stock mortality	Piloting health and husbandry intervention packages, including housing and hygiene, feeding management, neonatal care, vaccinations, deworming and clinical care.	Yes	No	*
Foot and Mouth Disease	Supporting the Nigerian Veterinary Research Institute (NVRI) in the design, production, registration and use of commercial FMD vaccines with strains specific to Nigeria.	No	Yes	*
CBPP and CCPP	Improving the diagnostic capabilities at the University of Ilorin through the establishment of a diagnostic testing laboratory for CCPP and CBPP.	No	Yes	*

Tanzania interventions are being managed by Glasgow University, so will not be part of this project

Data

- An evidence base, to inform the selection of interventions, was created as the first step in P1.

- The interventions will conduct before and after surveys (giving a baseline and change scenarios), where appropriate. Baseline data collection for interventions already underway is available. The post-intervention data will not be available for at least 12 months therefore they can only be used to validate work from this project.

Expert opinion

- SEBI has good links to in-country operatives and experts, who can help validate modelling results or to discuss interventions and the specific country livestock sectors.

5. Time-scales

SEBI available to discuss proposals	Friday 21st June
Deadline for proposals	Friday 12th July
Project granted	Friday 26th July
Project intermediary discussion	Week starting 1st October
Project delivery	Week starting 16th December

6. Submitting a proposal

SEBI requests that a submitted proposal includes:

- Academic CV(s)
- A short overview and plan (3 pages max.)
- A proposed budget

7. Proposal evaluation criteria

Proposals will be evaluated on the following criteria:

- Strength of the proposed plan
- CV and track record of the applicant
- Confidence in ability to deliver a quality outcome to the deadline
- Perceived value for money

8. Informal enquiry

Prospective applicants are invited to contact Professor Andy Peters for an informal discussion about the project at andy.peters@ed.ac.uk

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