



Livestock Data for Decisions – LD4D Meeting
20-22 June 2017, St Leonard's Hall, Pollock Halls Campus, Edinburgh

In Attendance:

Alan Duncan - (ADU; Facilitator)	Andy Peters (AP)	Stan Wood (SW)
Karen Smyth (KS)	Ciara Vance (CV)	Louise Donnison (LD)
Colin Watt (CW)	Brendan Power (BP)	David Harvey (DH)
Lamyaa Al-Riyami (LA-R)	Tim Robinson (TR)	Neil Gammon (NG)
Appolinaire Djikeng (ADJ)	Steve Kemp (SK)	John Claxton (JC)
Musa Mulongo (MM)	Karl Rich (KR)	Dolapo Enahoro (DE)
Mario Herrero (MH)	Jeda Palmer (JP)	Roy Woolley (RW)
Isaac Olorunshola (IO)	Mizeck Chagunda (MC)	Maggie Gill (MG)
Lucy Ewing – (LE; Secretary)	Antonia Robb (AR; Secretary)	

Tuesday 20th June 2017

Welcome & Aims of the meeting:

Andy Peters welcomed everyone and outlined the following aims and objectives for the meeting:

- To update the LD4D community on progress since Rome and on the list of initial activity areas.
- To explore topics raised from the Pre-Study Meeting Survey circulated in May.
- To offer LD4D members a platform to share recent work on the use of livestock data to support decisions and discuss how this interacts with LD4D activities.
- To agree upon the LD4D Charter.
- To plan next steps and develop a programme of work for 2017/18 and identify funding needs.

Karen Smyth gave a presentation on LD4D Introduction:

<https://datasync.ed.ac.uk/index.php/s/XAdzbsdqxZ9P9Sp>

Ciara Vance gave a presentation on Pre Meeting Survey Results:

<https://datasync.ed.ac.uk/index.php/s/eMkS0MqjF3VaY6M>

Louise Donnison gave a presentation on Community of Practice (CoP) Survey on Barriers:

<https://datasync.ed.ac.uk/index.php/s/GXzC8NuLuBWIZMi>



Discussion Topic 1: Barriers to Success

The following provides a summary of the key questions addressed during this discussion topic:

1. *What are the key problems surrounding use of data for decision making in the livestock sector?*
 - There is a need for:
 - Database of results/interpretation with links to raw data
 - Meaningful meta data
 - Survey of available datasets
 - Education platform
 - Lots of data out there but poor access (both physically and in terms of knowing what the data columns mean)
 - Very labour intensive curation procedures
 - Different datasets were collected with different objectives
 - Difficult to incentivise data standardisation e.g. lack of definitions for standard livestock terms
 - Benchmarking of productivity required
 - Lots of production data, less on 'productivity', and very poor data on management, inputs or costs
 - Data of many types (disease, sequence, production) are not associated with 'contextual data'
2. *How will data be used?*
 - Simple summary data are what ministries need – e.g. simple baseline data on milk yields
 - Representativeness (e.g. LSMS) allows upscaling of results

The remaining responses related more to "best practice".

- Data should be easily accessible, well documented with meta data available and good data capture design
- Good 'contextual data' associated to target data (disease, production) provides good results
- Longitudinal data are useful but often not representative
- Good to have the minimum amount of data to describe the principles in which you are interested – e.g. for mortality = 1) mortality, 2) cause, 3) part of herd affected
- Include good cost data in order to be able to prioritise
- Re-usability – this requires good meta data in order to facilitate the use of data beyond its original intended use
- Good data provide a realistic answer to your question



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3. *Collaboration between stakeholders*

This question related to how the various LD4D stakeholders could collaborate on data issues going forward:

- Creation of database of results/interpretation with links to raw data
- Generating decent meta data
- Survey of available data sets
- Providing an education platform
- Addressing data availability issues:
 - i. Make relevant data more accessible and relevant to decision makers
- Addressing data quality issues:
 - ii. Provide visualisations that place the simple numbers into context for decision makers
 - iii. Benefit-cost analysis of yield gap interventions
 - iv. Define minimum standards for livestock data collection (but this is no simple task)

Wednesday 21st June 2017

Tim Robinson provided an introduction to livestock analytical tools and their role in LD4D. This was followed by a presentation from Mario Herrero on LiveGaps. During the LiveGaps talk, Mario presented apps that the CSIRO team are currently working on and members provided feedback on these.

FAO Presentation

Tim Robinson gave a Presentation on an Overview of Livestock Analytical Tools:

<https://datasync.ed.ac.uk/index.php/s/U5Q0ob2qJr35bAz>

CSIRO Presentation

Mario Herrero gave a presentation on LiveGaps 2:

<https://datasync.ed.ac.uk/index.php/s/YzmADVwPDCbBFqw>

CSIRO Presentation

Mario Herrero and Brendan Powers gave a presentation on Development of Tools/Apps for the Livestock Community:

<https://datasync.ed.ac.uk/index.php/s/BfqGrmage1UrxAz>



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Discussion Topic 2: Analytical Tools

The discussion following the LiveGaps presentation focused on LD4D's views on the apps and collecting their ideas for new apps.

1. *Ideas of new apps including data sources*
 - Health Data: Diseases and interventions
 - Costings / Completeness
 - Game Apps, Simulations
 - Risk Management
 - Spatial feed budgeting
 - Genetics Improvements
 - Rationale tools
 - LSMS App
 - Student research tool
 - Fit for purpose apps
2. *What features are essential for an app?*
 - User friendly, simple, succinct and accessible
 - Interface between data and outputs
 - Size management awareness
 - Consideration of deployment and platforms (mobile phones, web etc.)
3. *Collaboration Opportunities*
 - Bring in data from other BMGF Projects
 - Promote the app to make others aware of it
 - Gaming experts
 - Production health specialists

Community Sharing: Inspire Presentations

Taster presentations were given by LD4D members on their own work. This was followed by a panel question and answer session on the presentations.

Dai Harvey, PAID – Public-Private Partnership for Artificial Insemination (AI) Delivery
<https://datasync.ed.ac.uk/index.php/s/aUjLQ8fEaLXVq4h>

Karl Rich, Participatory system dynamics modelling for impact assessment of livestock diseases
<https://datasync.ed.ac.uk/index.php/s/XWrsSmtxujOurZY>

John Claxton, ZELS Work in Tanzania
<https://datasync.ed.ac.uk/index.php/s/e2C4oAZk0sVC0I3>

Delapo Enahoro, Ex-ante impact assessment of East Coast Fever disease management
<https://datasync.ed.ac.uk/index.php/s/crqSec1m7387UiR>

Alan Duncan, FEAST – Feed Assessment Tool
<https://datasync.ed.ac.uk/index.php/s/wUUJ1xlySJ2suPM>



Discussion Topic 3: Working Groups

The LD4D members voluntarily divided into one of two working groups:

1. The Demand Study
2. LD4D-Whats in it for me?

Group 1 – The Demand Study

The need for a data demand study arose during discussions at the first LD4D meeting in January where it was recognised that there is a supply of data on the research side and a demand for it on the practitioner side. It was agreed that the LD4D CoP, through a process of facilitation, could mediate the overlap between these two groups. Supporting the decision needs of the data 'users' e.g. the livestock practitioners, would require an understanding of what their needs are. It would then be possible to build around the demand side (rather than the supply side), and create a market to sell to (researchers). This would firstly involve focusing on the practitioner end to create the environment for researchers to engage effectively. As a first step towards this, the development of a demand study set around practitioners in a selected target countries Tanzania and Ethiopia was planned.

Group 1 discussed the demand study in general, reviewed the Terms of Reference that had been drafted since the Rome convening, and planned the pathway forward for this work.

The group felt that the TOR is currently too broad and there is a need for the study to be more focused. The group proposed that the pilot study should focus on Ethiopia and the dairy sector. The study also needed to consider a review of the Ethiopian Masterplan as part of its activities. A number of consultants were identified as being able to conduct the study.

NB: The following link presents the updated demand study document which is now focused on dairy and Ethiopia:

<https://datasync.ed.ac.uk/index.php/s/JhBrz1Z5E4X77wj>

Group 2 – LD4D: What's in it for me?

This group focused on what LD4D can deliver for them as individual members. There was a recognition that everyone had to benefit from their interaction or else the community would not be sustainable.

The major question addressed was 'What does the CoP do and what would I get out of it?' The members agreed on the following:

- LD4D should identify themes and clusters of common areas of interest and areas of collaboration
- The focus should be bottom up rather than top down
- The supporting platform should focus on links e.g. where to find data, data inventory
- Identify who is doing what?



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- LD4D needs to consider more than just “data” – use data as a discussion point / entry point rather than an end point
- Agree on how to communicate – web updates, opportunities for collaborations, problem solving
- Define protocols for how to integrate different types of data
- Should we have “Geeks” and “Poets” in CoP? i.e. what is the benefit of the mix of individual members?
- Identify difficult issues, methods, protocols
- Define productivity
- Health Screen – What are the effects?
- BMGF has invested in IHME – there isn't an IHME equivalent in agriculture, is this something that could be replicated for Livestock?

Thursday 22nd June 2017

Community Sharing: Inspire Presentations

A second set of Taster presentations were given by LD4D members on work they are engaged with. This was followed by a panel question and answer session on the presentations.

Mizeck Chagunda, Acquisition of Historic Data

<https://datasync.ed.ac.uk/index.php/s/al4XcMBBPZltopP>

Isaac Olorunshola, The extent and Causes of Mortality in Cattle and Small Ruminants in Nigeria – Data Collection

<https://datasync.ed.ac.uk/index.php/s/BUuTJbWK0Qntitx>

Musa Molongo, Livestock Vaccine Innovation Fund (LVIF)

<https://datasync.ed.ac.uk/index.php/s/TpwbLPHcB23rzPD>

Neil Gammon, Getting good data without breaking the bank

<https://datasync.ed.ac.uk/index.php/s/Hws6FWa3OImosd1>

Tim Robinson, Livestock and systems mapping work

<https://datasync.ed.ac.uk/index.php/s/XrJWrGwK3hpf9ry>

Discussion Topic 4: Existing Platforms and the LD4D Platform

As part of a review of existing agricultural data and knowledge exchange platforms, Steve Kemp provided an overview of the CTLGH Project 5 – Informatics and BioResources. The vision for this project is to establish data and sample sharing systems, which make information on the diversity of developing world livestock available to all stakeholders; and to become the focal-point of research on tropical adaptation.

<https://datasync.ed.ac.uk/index.php/s/x9n0OFkw4L8FbMT>



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Following this, Louise Donnison presented an overview of the opportunities for the LD4D Data Platform.

<https://datasync.ed.ac.uk/index.php/s/gByffvcsONL6eLQ>

The LD4D members then divided into two groups to discuss in more detail the scope of the LD4D data platform. The following questions were addressed: The function of the LD4D data platform namely, should SEBI develop a data platform? What would it look like? Who is it for? Roadmaps for progressing it?

The overall feedback from both groups concluded that there is more need for a data portal and knowledge exchange service than a data platform. The data portal should be a 'database of metadata' to facilitate data brokering and 'matchmaking' amongst the livestock community. The initial scope of the portal would be for the grantees but this could broaden over time. The data portal will be housed within a larger knowledge exchange platform, which could also house blogs, forums, newsletters, database of people in the network. It was recognised that the data portal could also act as a 'repository of last resorts' - e.g. historical data, PhD data that is not housed elsewhere – essentially a storage/rescue facility. Finally, steps were identified for moving the portal forward including template and interface design and tracking down BMGF grantee data as a pilot exercise.

Discussion Group 1 outcomes:

<https://datasync.ed.ac.uk/index.php/s/US02z9fKMccJIXx>

Discussion Group 2 outcomes:

<https://datasync.ed.ac.uk/index.php/s/rriCwhcEPO9DtUF>

Group 2 concluded that the LD4D platform should focus on providing a data brokering service between data users. It could provide an inventory of livestock development results, metadata, papers, people, resources. The platform could maintain, validate and organise the exchange of data and set up enquiry services. There was support within the group for forums within the platform and the need to focus these around specific questions or subject areas.

Collaboration with CGIAR Big Data Platform

Andy Jarvis from CGIAR joined via skype for a presentation on the CGIAR Platform for Big Data in Agriculture.

<https://datasync.ed.ac.uk/index.php/s/UkRzlaGOdqR83kE>

As part of the CGIAR Big Data Platform, CoPs are formed around key topics. It was proposed by Stan Wood that LD4D acted as the Livestock CoP for the Big Data in Agriculture CoP, which Andy agreed to. This potential collaboration will be followed up by SEBI on behalf of LD4D.



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Discussion Topic 5: Overview of Existing CoP's

Alan Duncan gave a presentation on existing CoP's in order to identify best practice within them. Focus was placed on domain, membership, practice, structure, communication channels, funding, strengths and weaknesses.

<https://datasync.ed.ac.uk/index.php/s/nGSH3tFtSJZHfDk>

Following this presentation a break-out group was established to update and finalise the existing draft CoP charter, based on the best practice identified in Alans talk.

Discussion Topic 6: LD4D Governance

The LD4D mission was discussed. The original mission was amended from 'Livestock practitioners are empowered to improve the quality and relevance of decision making by and through access to, and utilization of, improved livestock data and analytics' to

'Driving better livestock decision making through improved data and analysis'.

It was agreed within the break-out group that the LD4D charter would focus on individual rather than organizational membership. The LD4D group should remain static in size for 1 year. There should not be cumbersome rules and membership should be through signing up to the mailing list. Members could agree in principle to a code of conduct – be active, be respectful and be supportive.

This mission and charter updates were fed-back to the remainder of the group and approved. SEBI, as secretariat, will update and finalise the charter and mission.

<https://datasync.ed.ac.uk/index.php/s/vmYtxOe7ISBDThE>

Key Livestock Facts – Additional Working Group

Throughout the meeting it was felt that LD4D should take on the task of managing key livestock facts. These would be facts that the livestock sector could communicate with the public, media and in advocacy. In response to this a working group was established to lead this initiative.

Different sources of livestock facts were identified (see link below) as were the type and ways in which facts could be communicated. A plan of action was drawn up for this task.

<https://datasync.ed.ac.uk/index.php/s/VPgEaXIS5EkWqwx>



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Summing Up

Karen Smyth summed up the actions and future objectives from the meeting:

<https://datasync.ed.ac.uk/index.php/s/LkIMBhG4Yi8k65R>

'Car Park' Issues

Issues that were not discussed during the meeting were discussed in this session.

- R V Tableau – A number of LD4D members had a preference for R over using Tableau. SEBI will have an offline discussion over how to take this suggestion forward.
- Mapping of Grantees Work – Covered during conversations
- LD4D 4 ME – what can LD4D do for its members
- Neil Gammon, Dai Harvey, Steve Kemp and Musa Mulongo will write and submit a paragraph to SEBI detailing what they would like to get out of their involvement in LD4D.

Who Is Missing from the meeting

The group discussed who should be involved in LD4D and who is currently missing. The following names/organisations were identified:

African Academy of Science

Michael McLeod -SRUC

Philip Thornton - ILRI

Bernard Bett - ILRI

Catherine Pfeiffer - ILRI

Meeting Close

Alan Duncan summed up the LD4D meeting objectives and confirmed these had been achieved during the meeting.

1. To update the LD4D community on our progress since Rome and our list of initial activity areas.
2. To explore topics raised from the Pre-Study Meeting Survey circulated in May.
3. To offer LD4D members a platform to share recent work on the use of livestock data to support decisions and discuss how this interacts with LD4D activities.
4. To agree upon the LD4D Charter.
5. To plan next steps and develop a program of work for 2017/18 and identify funding needs.
 - Working towards this objective

Andy Peters offered his thanks to the committee for their attendance and participation. SEBI felt that the meeting was very productive and, as the LD4D secretariat, now has objectives to take forward. SEBI will look at dates and locations for the next meeting and will communicate these once a decision has been made.