



ILRI

INTERNATIONAL
LIVESTOCK RESEARCH
INSTITUTE

Workshop Outputs

ILRI Design Workshop #3 – RED MEAT

20 March 2019

Facilitated by:



Our Ambition

What if we Could Increase the Impact of Livestock Innovation
in Africa & Asia

100x

...by Transforming Small-Holder Capability?

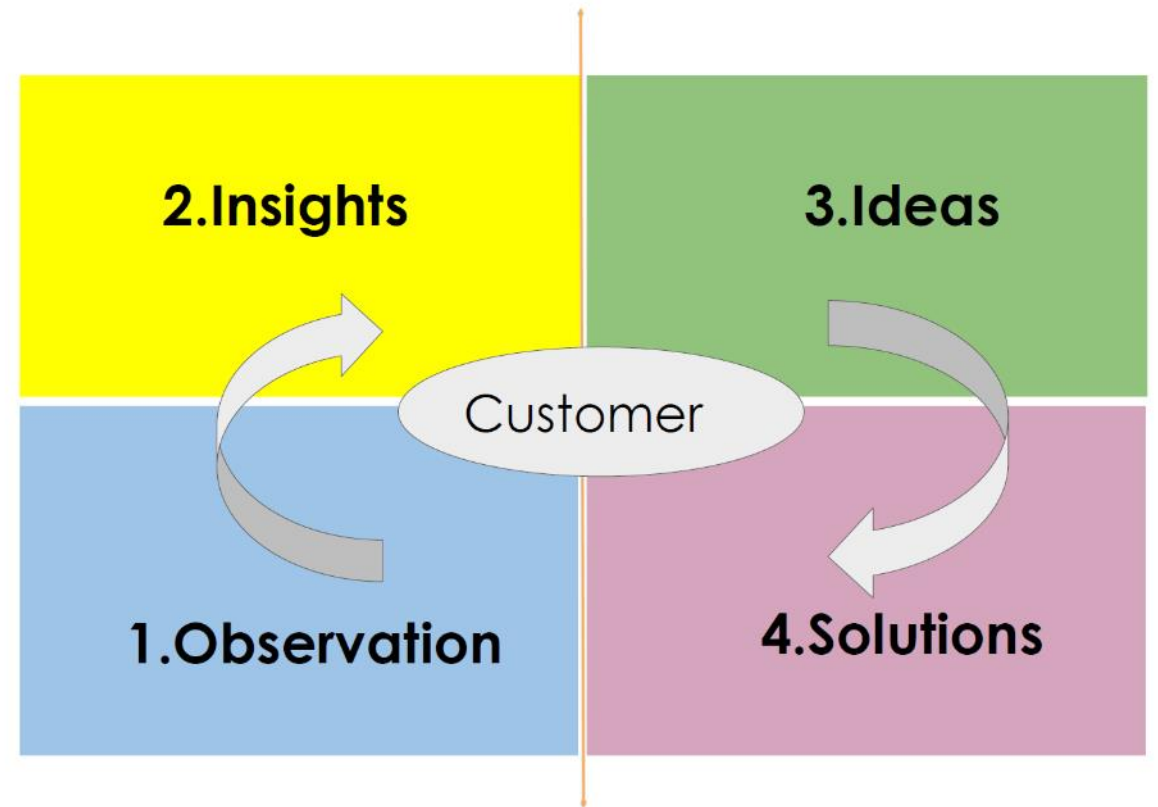
Quote – Jimmy Smith

“

Those who eat too much should not control the diets of those who eat too little. Livestock provides a tremendous opportunity for growth.

”

Design Thinking – Let's begin!



Finding the beneficiary – Smallholder interview #1

Where do you want to be in 5 years time?

She wants to change her family life, build on improved animals from which she gained support in breeding by ICARDA and breeding centres. She currently lives rurally but wants to live in town.

What are the barriers or challenges that you face in achieving that goal?

Shortage in feed and water, feed is not available or is very expensive. Also a market problem, she had 7 fattened sheep but couldn't sell because seasonal demand was low and she struggled with price negotiation. Also has health problems, this is a priority.



Marta, Southern Ethiopia, keeps 17 sheep and her livestock is her families only source of income

Finding the beneficiary – Smallholder interview #2

Where do you want to be in 5 years time?

Wants to be more productive working on selected breeds, his area is suffering from drought so wants to have better drought tolerant animals.

What are the barriers or challenges that you face in achieving that goal?

Facing ongoing shortage of feed and water. Only has one health centre – has to travel 10km to get medical attention for the animals.



Osalu, Southern Ethiopia, had 70 sheep and recently sold 30 to market, now holds 40 animals alongside poultry production.

Breakout #1 – Who are the key actors?



Breakout #1 – Who are the key actors?

INPUTS:

- Feed providers and processors
- Premix suppliers
- Veterinarians and medicine
- Equipment supplies
- Finance
- Insurance
- Information and knowledge providers
- Genetics production and breeding

PEOPLE & ENVIRONMENT:

- Fellow farmers and community
- Elders
- Educators, influencers
- Producer Associations
- Husbandry training
- Nutritionist
- Extension workers
- Governments, institutions
- Land and natural resources

ENABLERS:

- Transport and logistics
- Research
- Waste management
- Donors
- Community Animal Health Workers
- Banks / MFIs
- Community leaders
- Local government and policy
- Dealers
- Cooperatives

DEMAND:

- Feedlots
- Buyers groups
- Abattoirs
- Wet markets
- Live exports
- Middle man traders
- Butchers
- Supermarkets
- Hotels, restaurants, etc.
- Consumers (incl. subsistence)

Personas – Feed Supplier

More info:

- Fodder supplier based in Mali, West Africa
- Sells to the local market, mix of male and female buyers

Strengths:

- Access to feed (local/village)
- Connected to a network of traders
- Has supply/demand visibility

Challenges:

- Seasonal feed supply
- Storage and preservation needs

Impact of our innovation

BEFORE

What they think:

- Demand exceeds supply

What they feel:

- Capacity is constrained
- Could do more!

What they do:

- Too much time sourcing material

AFTER

What they think:

- Seasonality of supply is no longer an issue

What they feel:

- Optimistic and confident for business growth

What they do:

- Expand business
- Improved storage conservation
- Better quality
- Higher prices

Personas – Veterinarian

More info:

- Low land Ethiopia (Sahel)
- Male, young
- 40% public sector, 60% private sector

Strengths:

- Young and energetic
- Technical knowledge
- Private are trusted by community

Challenges:

- Low case load and low experience
- Lack of resources
- Limited mentorship
- Low access to credit
- Disruption for the private market

Impact of our innovation

BEFORE

What they think:

- Private business is not profitable and sustainable

What they feel:

- Not supported
- Frustrated
- Could do more!

What they do:

- Not invest on business expansion

AFTER

What they think:

- They are part of the solution

What they feel:

- Valued
- Supported
- Recognised

What they do:

- Expand business
- Invest in upgrades

Personas – Farmer (Pastoralist)

More info:

- Mixed farming
- Low land grazing
- Male/female

Strengths:

- Willing to pay for services
- Knowledge and skill
- Locally adapted breeds
- Willingness to expand

Challenges:

- Disease
- Access to market
- Possibility of inbreeding
- Unpredictable weather

Impact of our innovation

BEFORE

What they think:

- Can do better

What they feel:

- Unsupported

What they do:

- Priority to manage risk
- Diversify

AFTER

What they think:

- Profitable business

What they feel:

- Meet household needs better

What they do:

- Operate and produce efficiently

Personas – Farmer

More info:

- Semi intensive beef system
- Rural
- Male/female

Strengths:

- Demand growing – China, etc.
- Knowhow - knowledge
- Outputs potential is high
- Cultural opportunities

Challenges:

- Access to market
- Access to natural resources
- Availability of breeding stock
- Mismatch between production and demand

Impact of our innovation

BEFORE

What they think:

- There is opportunity

What they feel:

- Unsure how to do it or if to do it

What they do:

- Try (not always successfully)

AFTER

What they think:

- That this is more possible

What they feel:

- Empowered and confident

What they do:

- Run their enterprise as a business

Personas – Farmer

More info:

- Asal, agro-pastoral
- Women and men
- 80% livelihood and livestock: cattle, sheep and goats

Strengths:

- Knowledge of keeping livestock
- Resilience
- Passion and aspiration to grow and expand
- Knowledge of traditional disease control

Challenges:

- Male dominance
- Insecurity (theft of animals)
- Feed and water
- Communal grazing

Impact of our innovation

BEFORE

What they think:

- They need more support to address challenges

What they feel:

- Neglected

What they do:

- Think short term
- Use own resources

AFTER

What they think:

- Being supported

What they feel:

- Empowered

What they do:

- Act in an entrepreneurial way

Personas – Traders and wet market processor

More info:

- Goats in lowlands of Ethiopia
- Sheep more in highlands
- Contribute to informal market

Strengths:

- Dictate the price
- Carcass yield prediction
- 100% use of the total animal
- Market accepts low quality pieces

Challenges:

- Seasonal demand and supply
- High quality variability
- Food safety

Impact of our innovation

BEFORE

What they think:

- No access to capital

What they feel:

- Market uncertainty

What they do:

- Access lower prices because of risks in the food chain regulation

AFTER

What they think:

- Food safety leads to better income
- Wider new markets

What they feel:

- Responsive

What they do:

- Grading meat and price segmentation
- Cooling facility
- Improved meat processing

Personas – Consumer

More info:

- Urban / rural / home
- Institution / domestic / international
- Traditionally woman prepared meals

Strengths:

- Buying power
- Quality criteria
- Income influences demand

Challenges:

- High quality variability
- Food safety, no cold chain
- Preservation of meat
- Emerging variety of meat replacement products

Impact of our innovation

BEFORE

What they think:

- Poor food safety

What they feel:

- Unsure

What they do:

- Buy less quantity

AFTER

What they think:

- Better safety
- Better quality
- Better price

What they feel:

- Better about source and safety

What they do:

- Buy more often
- Buy better quality meat

DESIGN WORKSHOPS – DESIGN THINKING

Checking via Design at Each Stage

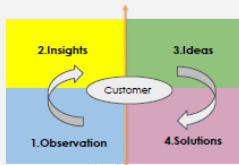
5 #MASSIVE



1

WHAT IF...

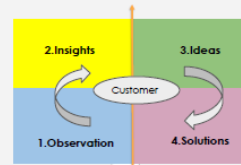
e.g. ... we could influence families in a single community group to eat a more balanced diet?



2

WHAT IF...

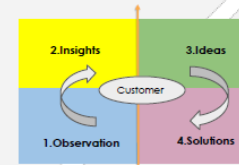
e.g. ... we could influence the families in a whole village?



3

WHAT IF...

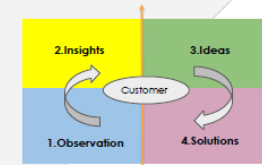
e.g. ... we could influence all families in an entire region?



4

WHAT IF...

e.g. ... we changed the food sourcing and preparation culture of a nation?



Flip Flops - the small innovations we can measure and build upon to create our proof-of-concept and -market.

“The North Star” that is never forgotten. If you can’t imagine how you will get there yet, then you are thinking big enough.

#START



Supply Chains and Markets – The #MASSIVE

By 2030 success will mean...

Well planned and executed livestock markets that are efficient and resilient, match demand with supply, and supports livestock keepers market orientation and other VC actors

Supply Chains and Markets – SANDAL

What if we...

Hire a trader in Borana who is able to find a buyer who wants 2000 animals and aggregate their required 2000 lambs (at 60kg) fat tailed sheep at \$2.25/kg.

Using...

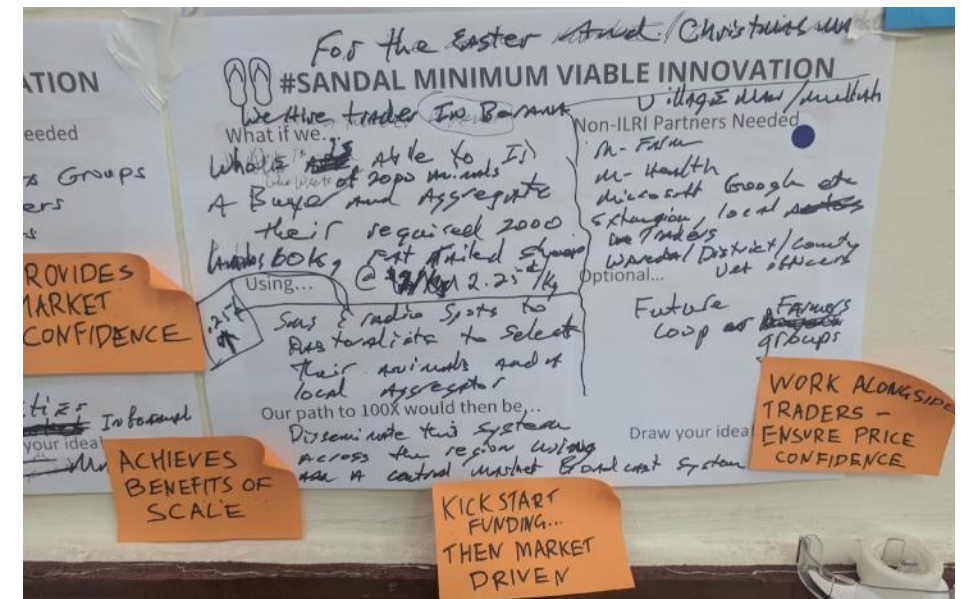
radio spots and times to pastoralists to bring their animals to sell to the aggregator.

Our path to 100X would then be...

Disseminate this system across the region using a central market broadcast system. This ability to provide market confidence and price certainty to buyers may create sustainable, self-funded outcomes. It will also be important to work alongside traders not against them.

Non ILRI Partners Needed:

- Farming co-ops, group
- Extension
- Local traders
- Local, district and country vet officers



Data and Digital – The #MASSIVE

By 2030 success will mean...

Data-driven digital ecosystem disrupts traditional market systems to deliver insights, analysis and market solutions at scale (1b+) – better lives through livestock

Data and Digital– SANDAL

What if we...

Create the seed of the digital (utopia) ecosystem through a network of youth livestock entrepreneurs

Using...

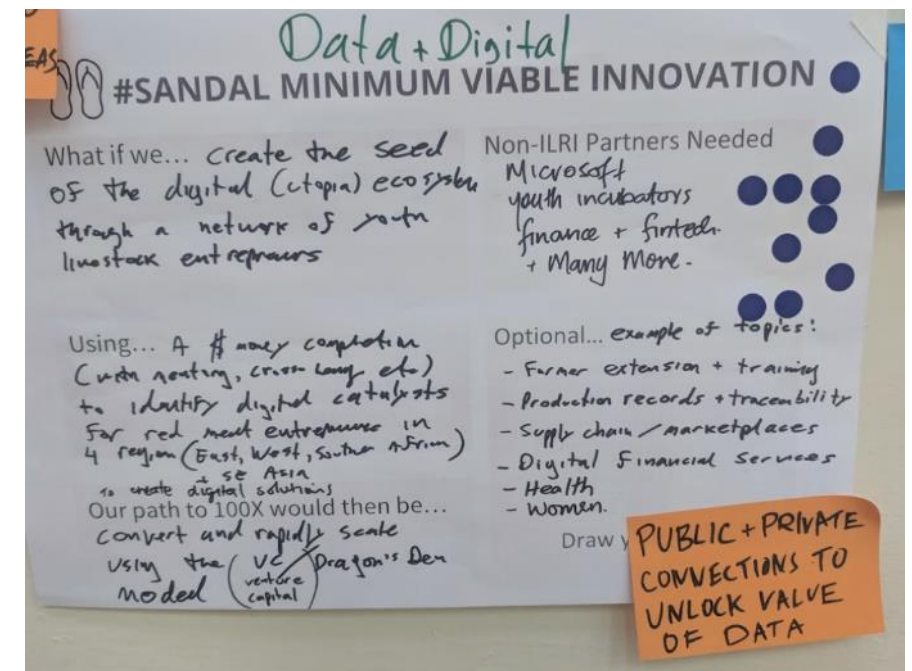
A competition with a cash prize to identify digital catalysts for red meat entrepreneurs in 4 regions (East, West, Southern Africa and SE Asia) to create digital solutions.

Our path to 100X would then be...

Convert and rapidly scale using the venture capital / Dragon's Den model.

Non ILRI Partners Needed:

- Microsoft
- Youth incubators
- Finance and fintech
- + many more



Policy – The #MASSIVE

By 2030 success will mean...

1. Continent-wide free trade zones (e.g. veterinary regulation, tax, imports, food safety)
2. 100% of countries in Africa and Asia have analysis based livestock policy and action plans ready to implement

Policy– SANDAL

#1: What if we...

Develop and action plan for the Ethiopian livestock master plan with indicators

Using...

A participatory approach with all actors in the red meat value chain, regional engagement and clearly defined M&E.

Our path to 100X would then be...

An LMP ready to implement

Non ILRI Partners Needed:

- Donors and financial institutions
- Technical partners
- Farmers organisations
- Government

#2: What if we...

Contribute to the LMP of Kenya using a collaborative, learning and adaptive approach

Using...

The CIRAD toolkit and a consortium (incl. FAO, ILRI, AU IBAR, WB)

Our path to 100X would then be...

Another country with an analysis based livestock policy

Non ILRI Partners Needed:

- CIRAD
- FAO
- World Bank
- Kenyan Government
- Etc.

Sustainability – The #MASSIVES

By 2030 success will mean...

1. Restore rangelands (soil health, biodiversity, carbon, nutritious biomass, water) supporting healthy animal production to meet market demands and livelihoods
2. Rangeland governance institutions enable sustainable management, equitable access and effective mobility through cross sector collaboration and cooperation

Sustainability – SANDAL #1

What if we...

Develop community grazing management plans (in N. Kenya, Namibia, Zimbabwe) including offtake strategy and investment strategy

Using...

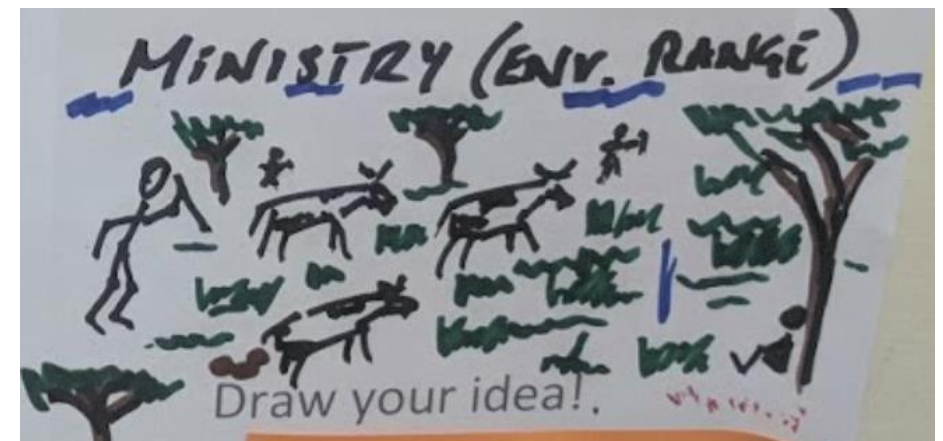
Existing knowledge and networks, existing projects in this space.

Our path to 100X would then be...

Scaling up and out of long term outcomes championing rangelands – to which the beneficial effects will increase exponentially with scale (due to countering inflows and animal movement). The M&E for this initial project would be to measure the economic benefits of animal production in improved rangelands, alongside sustainability benefits.

Non ILRI Partners Needed:

- GRSB
- Farming communities
- Long term donor
- Solidaridad
- Value chain partners
- Specialised NGOs dealing with land management



Sustainability – SANDAL #2

What if we...

Initiate a landscape scale governance roundtable across drylands areas of Northern Kenya

Using...

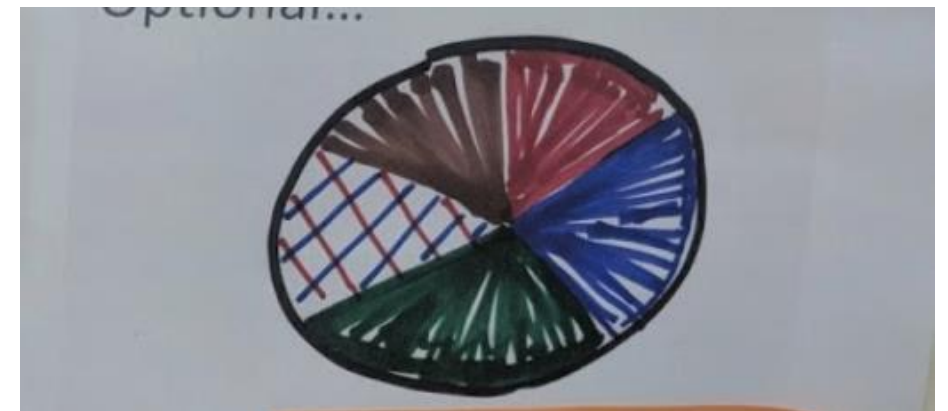
ILRI's networks and convening power

Our path to 100X would then be...

Scaling up and out, with possible links to international carbon markets. It will also be important to address whole ecosystem water management.

Non ILRI Partners Needed:

- Regional governments
- Community rangeland managers
- National ministries
- Insurance providers
- VC partners



Productivity of Sheep and Goats – The #MASSIVES

By 2030 success will mean...

1. Zero animal mortality
2. Sustainable offtake with positive environmental impact
3. Forage and water is available all year round
4. Appropriate genetics is readily available

Productivity of Sheep and Goats – SANDAL #1

What if we...

Vaccinated 70% of goats in northern Kenya / Southern Ethiopia

Using...

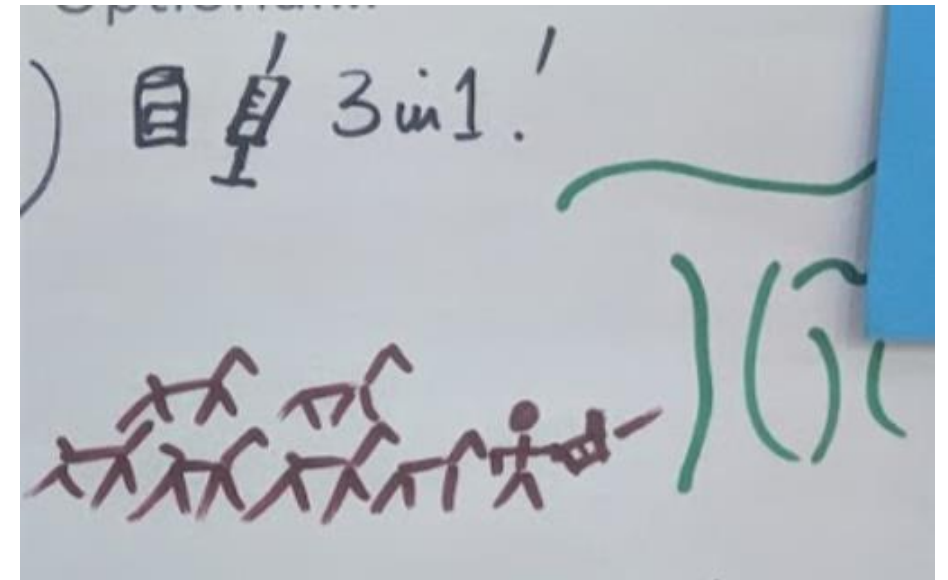
A trivalent vaccine, mass communication, solar powered cold chain transport, livestock technicians and ILRI to oversee the project and do follow up impact analysis and surveillance.

Our path to 100X would then be...

A proof of concept trial building on public and private vaccine capabilities has been established – many insights will be gained via tight M&E activities.

Non ILRI Partners Needed:

- Galvmed
- Vaccine manufacturers
- Sidai (PPP)
- Unemployed livestock technicians
- Pastoral groups



Productivity of Sheep and Goats – SANDAL #2

What if we...

Identify best breeding rams/bucks from existing CBBPs for distribution to new communities in Tanzania, Ethiopia, Malawi, Uganda and Kenya.

Using...

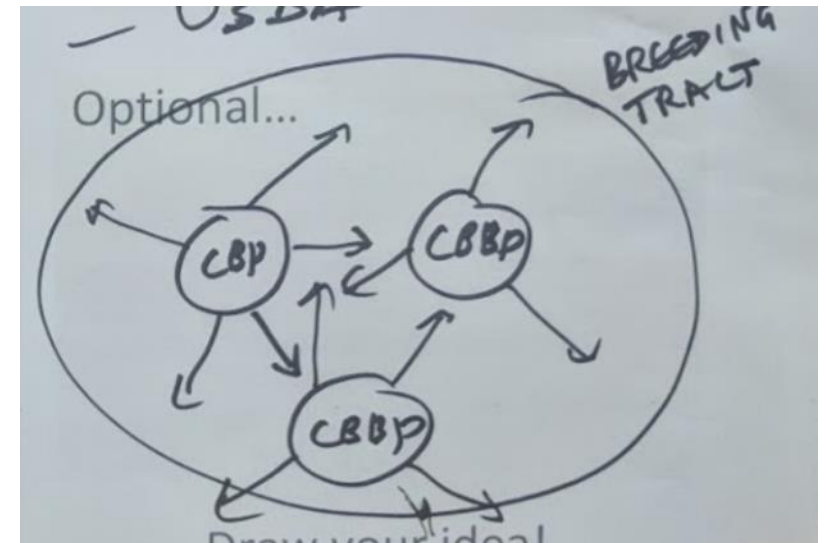
ILRI and ICARDA's skills to identify optimum animals and oversee cooperative structures and farmer groups to assist buck/ram exchange programs and record keeping.

Our path to 100X would then be...

Beginning with 1 CBBP that reaches 1000 households, we will be well placed to move from pilot to scale. It is also the objective to connect regional CBBPs to optimise resource use and share learnings.

Non ILRI Partners Needed:

- TALRI
- ICARDA
- Universities/NARS in Uganda and Malawi
- USDA



Productivity of Beef – The #MASSIVES

By 2030 success will mean...

1. Beef productivity is optimised for available resources, sustainability and profitability
2. Optimum intake of affordable animal sourced foods for nutrition security for the majority of vulnerable people

Productivity of Beef – SANDAL

What if we...

Engage in specialised commercial fodder production and marketing

Using...

Small groups of women and youth that embark on creating a viable fodder production, processing and marketing businesses in countries such as Uganda and Mali. Given the ecological states and post-war social statuses of these countries, both practical and social benefits may be achieved by this project

Our path to 100X would then be...

Viable and profitable fodder businesses for commercial beef enterprises whilst developing skills and improving access to inputs.

Non ILRI Partners Needed:

- ICRAF
- Seed companies
- IFAD/EU
- Extension officers



One health and nutrition – The #MASSIVES

By 2030 success will mean...

All children and vulnerable groups in low-medium income communities consume safe, affordable, efficient and adequate red meat from sustainable systems.

One Health and Nutrition – SANDAL

What if we...

Pilot an integrated one health intervention that uses community animal health workers and supports them with traditional and technological capacity to improve animal health, meat safety and demand for meat in the community

Using...

Existing public-private partnerships in the Engcobo district of South Africa between Eastern Cape veterinary services and Afrivet. CAHW would take commissions on animal medicines to build financial sustainability

Our path to 100X would then be...

Boosted by:

1. Demonstrated impact of intervention
2. Getting buy-in in other places
3. Scaling up/out

Non ILRI Partners Needed:

- Vet technicians and veterinarians
- PPP
- iCow
- GAIN
- DEVCOMM



Women's and Youth Empowerment – The #MASSIVES

By 2030 success will mean...

1. We have levelled the playing field for women in the red meat sector, i.e. 50% of the key actors are women, earning decent income
2. 30% of rural youth are commercially engaged in and earning decent income from the red meat value chain.

Women's economic empowerment – SANDAL

What if we...

Develop an entrepreneurship program building business capabilities for women working in red meat in Turhana, Kenya.

Using...

Identifying gaps and new opportunities (leveraging on women's groups) and analysing existing programs for women's development.

Our path to 100X would then be...

Able to unlock the potential of women in meat processing.

Non ILRI Partners Needed:

- ILO
- IFAD
- NGOs
- Harvard Business School
- BMGF



Youth's economic empowerment – SANDAL

What if we...

Create an incubator model for new business opportunities in the red meat sector for youth

Using...

A review and identification of gaps and opportunities in the meat value chain, leveraging various connectivity models and supporting resources.

Our path to 100X would then be...

Learning what works and makes them attractive to youth to scale the model. A 'graduation' set of criteria and success would provide metrics for success. Also by creating a physical space for sharing and learning would greatly accelerate the success of the model.

Non ILRI Partners Needed:

- ICT providers
- African Development Bank Entrepreneurship Program
- IFAD



Capacity Building – The #MASSIVE

By 2030 success will mean...

Efficient production and marketing informed by real time information to all value chain actors.

Capacity Building – SANDAL

What if we...

Distil red meat data from the Kenyan NLIS for sheep and goat producers

Using...

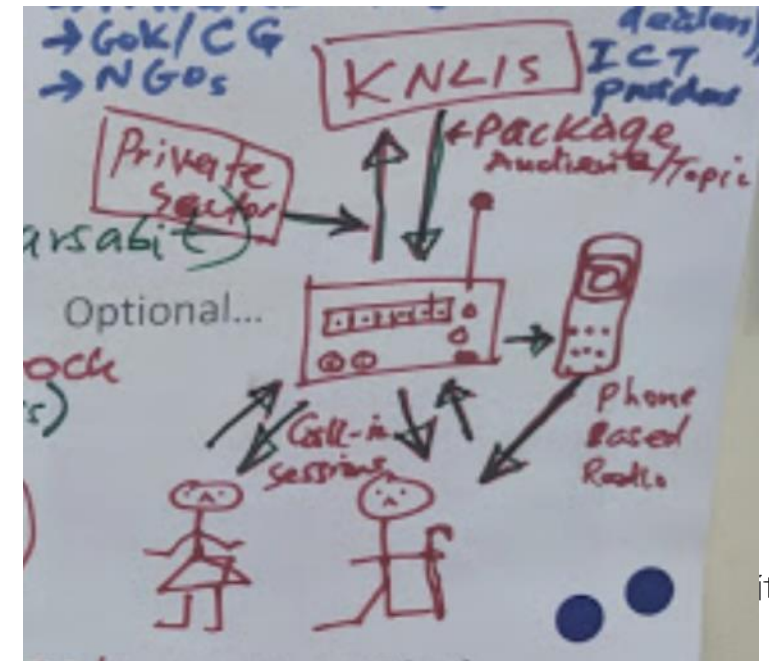
State department of livestock radio FM stations on a regular weekly 30-45 minute informative broadcast.

Our path to 100X would then be...

Identify listeners to target with mobile data technology.

Non ILRI Partners Needed:

- Private sector (LMAs, agro-dealers, ICT providers)
- Gok/CG
- NGOs
- Radio broadcasters









Thankyou for a great workshop!

We look forward to working with you further.

If you have any questions about the Food Agility process or would like to know more about us, visit www.foodagility.com or find @foodagility.