

GALVmed
Protecting Livestock – Improving Human Lives

GLOBAL ALLIANCE FOR LIVESTOCK VETERINARY MEDICINES IN AFRICA

OIE; Pubic Private Partnership Seminar: Rabat, Morocco. 16th Feb 2015.

Dr Hameed Nuru: Senior Director Policy & External Affairs.

The Situation leading to the Birth **GALVmed**

900 Million Depend on Livestock **16% Pop less than \$1/day**
As a means of Livelihood **4 billion less than \$2/day**

With Partners we can make a significant difference to the lives of these poor people.

Protecting Livestock – Improving Human Lives Side 1

GALVmed

GALVmed - GLOBAL ALLIANCE LIVESTOCK VETERINARY MEDICINES

- An **Animal health Product development & access Partnership** organisation
- A not-for-profit **Public-Private Partnership** – registered charity
- Sponsored by the UK Department for International Development (**DFID**), and with projects funded by **BMGF**, and **EC**.
- **Pro-poor focus:** working with key partners to make a **Sustainable** difference in access to animal health products for poor livestock keepers

Protecting Livestock – Improving Human Lives

GALVmed

GALVmed Purpose, Mission & Vision

Purpose of GALVmed
Protecting Livestock – Improving Human Lives

Mission of GALVmed
To make a real difference to the livelihoods of resource-poor livestock keepers by facilitating provision of animal health tools, within a sustainable economic framework

Vision of GALVmed
Better livestock health contributing to a transformational improvement in the livelihoods of poor livestock keepers

Protecting Livestock – Improving Human Lives Side 3

Catalyst/ Facilitator **GALVmed**

GALVmed is completing the picture.....

Protecting Livestock – Improving Human Lives

GALVmed

Challenges to availability of appropriate new products

Discovery Research	Development	Registration	Production	Commer- cialisation	Sustained delivery
Technical challenges.	Lack of funding for development studies - high risk, high cost.	Unclear and varied regulatory requirements.	No commercial interest	Lack of market pull-through	Inconsistent supply
Lack of appropriate product profiles	Poorly designed, poorly controlled field trials.	Lack of QA/QC.	Expensive processes	Poor estimates of need or demand	Counterfeit products.
Ill-designed proofs-of-concept		Multiple regulatory authorities.	No process development	Inappropriate pack-sizes	Lack of patent protection.
				Lack of knowledge or education on proper use	Poor quality and efficacy.

Our role is to identify challenges and provide facilitation to leadership in creating partnerships which provide poor livestock keepers with access to animal health products

Protecting Livestock – Improving Human Lives

Growing up fast

2001 – 2005 Prenatal – Born of passion!

- Conception of an idea – Millennium Goals
- Vision and a business plan
- Nurtured by DFID. Supported by Founder Members

2006 – 2008 Birth and Infancy – Painful at times but loved

- Creating a company, registering a charity, appointing a Board, recruiting key staff
- Building stakeholder partnerships
- Prioritising objectives: Developing a portfolio; Initiating projects
- Processes and governance
- Funded by DFID. Expanding funding base (BMGF). Broader Membership

2009 – 2011 Teenager – Aspirational, growing independence

- Expanding the organisation; Expanding partnerships
- Delivering initial projects; Expanding the portfolio
- Refining governance and stakeholder involvement
- Funded by BMGF & DFID. Expanding funding base – EU

2012 and beyond Growing into Maturity – Becoming a valued and respected partner; a model for others

- Focus on project delivery through partnership
- Ensuring integration and sustainability within regional structures.

Protecting Livestock – Improving Human Lives Slide 6

The GALVmed story so far:



GALVmed Programmes to date:

- 3 Programmes of work:
- \$102 million Funding
- Donors: BMGF, DFID, EC

Protecting Livestock – Improving Human Lives Slide 7

Structure:

HQ: Edinburgh U.K

Offices: Africa (Nairobi) and South Asia (India)

Departments: **Res & Development; Market Development & Access; Policy & Ext Affairs; Business Development; Corporate Services.**

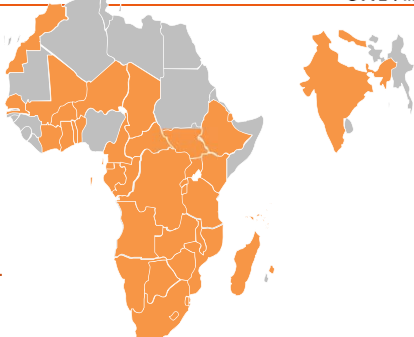
Staff: 36 (14 Nationalities)

Projects; over 40

Partners. Over 350.

Protecting Livestock – Improving Human Lives Slide 8

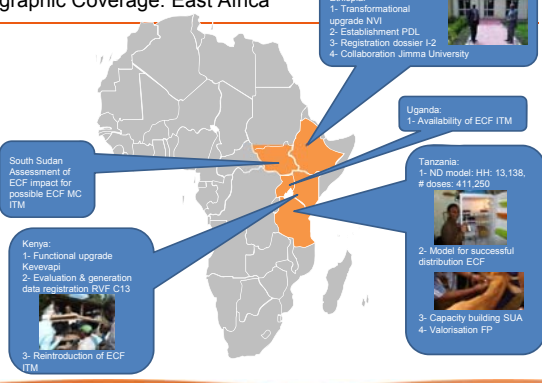
Geographic Presence



Total: 40 countries.

Protecting Livestock – Improving Human Lives Slide 9

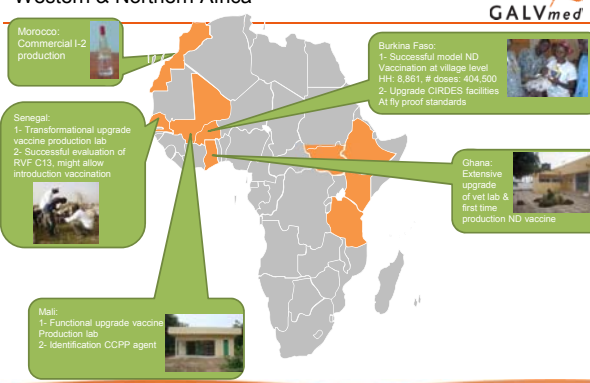
Geographic Coverage: East Africa



- Ethiopia:**
 - 1- Transformational upgrade NVI
 - 2- Establishment PDL
 - 3- Registration dossier 1-2
 - 4- Collaboration Jimma University
- Uganda:**
 - 1- Availability of ECF ITM
- Tanzania:**
 - 1- ND model: HH: 13,138, # doses: 411,250
 - 2- Model for successful distribution ECF
 - 3- Capacity building SUA
 - 4- Valorisation FP
- Kenya:**
 - 1- Functional upgrade Kisumu
 - 2- Evaluation & generation data registration RVF C13
 - 3- Reintroduction of ECF ITM
- South Sudan:**
 - Assessment of ECF impact for possible ECF MC ITM

Protecting Livestock – Improving Human Lives Slide 10

Western & Northern Africa



- Morocco:**
 - Commercial 1-2 production
- Senegal:**
 - 1- Transformational upgrade vaccine production lab
 - 2- Successful evaluation of RVF C13, might allow introduction vaccination
- Burkina Faso:**
 - 1- Successful model ND Vaccination at village level HH: 8,661, # doses: 404,500
 - 2- Upgrade CIRDES facilities At fly proof standards
- Ghana:**
 - Extensive upgrade of vet lab & first time production ND vaccine
- Mali:**
 - 1- Functional upgrade vaccine production lab
 - 2- Identification CCPP agent

Protecting Livestock – Improving Human Lives Slide 11

Southern Africa

Malawi:
1- Support to CTTSD
2- Availability of ECF ITM

Mozambique:
1- Contribution vector born research with fly proof facilities
2- Contribution registration vaccine
3- Assessment for ECF MC ITM interventions

Lesotho:
ND distribution model HH: 4,270. # doses: 47,592

Zambia:
Compliant facility for CBPP and other disease

Botswana:
1- Functional upgrade BVI
2- Assistance in production thermostable PPR vaccine

South Africa:
1- Commercial production ND thermostable vaccine
2- Combination RVF - LSD vaccine

Protecting Livestock – Improving Human Lives Slide 12

Central Africa

Cameroon:
1- Functional upgrade LANAVET
2- Development ND vaccination model: HH: 6,808, # doses: 122,327

D R Congo:
1- ND distribution model HH: 4,316 # doses: 69,242
2- Capacity building ASP vaccine trial
3- Initiated ECF control by T. parva characterisation

Lesotho:
ND distribution model HH: 4,270. # doses: 47,592

Zambia:
Compliant facility for CBPP and other disease

Botswana:
1- Functional upgrade BVI
2- Assistance in production thermostable PPR vaccine

South Africa:
1- Commercial production ND thermostable vaccine
2- Combination RVF - LSD vaccine

Protecting Livestock – Improving Human Lives Slide 13

Regional activities

Francophone West Africa:
1- Availability QC control lab
2- Recognition need to include vaccine manufacturers in registration process

East and Southern Africa:
1- Availability QC control lab
2- Work towards an harmonised vet vaccine regulatory system

Central Africa:
1- Availability QC control lab
2- Work towards an harmonised veterinary products regulatory system

Southern Africa:
1- Regional RVP Strategy
2- Availability QC control lab

Protecting Livestock – Improving Human Lives Slide 14

GALVmed matrix

Geography

- East Africa
- Southern Africa
- Central Africa
- West Africa
- South Asia
- South East Asia
- Latin America

Species

- Cattle (dairy & beef)
- Sheep & goat
- Poultry
- Pigs

Farming systems

- Pastoralist
- Agro-pastoralist
- Village free roaming
- Poultry category 3 & 4
- Peri-urban

Diseases

- Viral
- Bacterial
- Protozoal & other Parasitic

Technologies

- Vaccine
- Diagnostics
- Medication
- Delivery technology

Protecting Livestock – Improving Human Lives Slide 15

GALVmed Priority Diseases

Cattle

- East Coast Fever
- Contagious Bovine Pleuro-pneumonia
- Hemorrhagic septicaemia
- Trypanosomosis

Sheep and goats

- Peste des petits ruminants
- Contagious Caprine Pleuro-pneumonia
- Sheep & goat pox

Others: Brucellosis, Fowl pox

Pigs

- Porcine cysticercosis
- African swine fever
- Classical swine fever

Poultry

- Newcastle disease
- Highly pathogenic Avian Influenza

Multi-species

- Rift Valley fever

Protecting Livestock – Improving Human Lives Slide 16

Global Access

- Influencing change in how product dev and adoption is done by putting the beneficiaries 1st at all levels of the value chain.
- Influencing the policy/practice of product dev organisations that seek to make products for the poor

www.galvmed.org

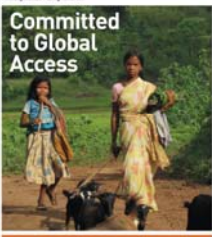
Protecting Livestock – Improving Human Lives Slide 17

GALVmed

The spirit of Global Access underpins what GALVmed is about

GALVmed
Partnering Livestock - Saving Human Lives

Committed to Global Access



Medicine and vaccines are essential to protect people through the value chain, from production to consumption. However, many people in the world have no access to medicines and vaccines. This is why we are committed to a 'Global Access' strategy to ensure that everyone has access to the medicines and vaccines they need to stay healthy.


Protecting Livestock – Improving Human Lives

GALVmed

Engagement

- We do Not know all the issues and answers
- Seek knowledge and facilitate others
- Take our cue through advisory groups
- Identify what we can do for you
- Establish priority areas – focussed
- Partnership(s) with local / regional institutions and organisations
- Pilot study or trials – Build capacity
- Delivery Emphasis
- Cascading – Scale Up
- Exit.
- Making a difference – paradigm shift.

*** Pro-Poor and Sustainable***

Protecting Livestock – Improving Human Lives

GALVmed

GALVmed's Current Engagement

Seeking partnerships in each area – our niche is in partnership creation to mitigate risks, ensure buy in and sustainability.

Technical, Regulatory, Financial, Commercialisation & Marketing risks

Global Positioning: Donors, Technical bodies (OIE, FAO, WHO) West/North

Continental Positioning:

- Specialised Technical Organs of AUC (IBAR, PANVAC, CTTBD)
- AUC
- Initiatives – NEPAD CAADP, ALive,
- REC,s
- Farmer Associations and Groups
- Ground NGO,s
- Local Institutions. Universities, OBP, OVI, BVI

-Synergies in our agendas – critical.

Protecting Livestock – Improving Human Lives

GALVmed

THREE THRUSTS

- PRODUCT DEVELOPMENT
- PRODUCT DELIVERY
- POLICY *Enabling Environment*

Protecting Livestock – Improving Human Lives

Slide 21

GALVmed

A Product Development Partnership



Protecting Livestock – Improving Human Lives

Slide 22

Products Portfolio

Type	Products	Diseases	Progress				
			Exploratory	PoC	Development	Registration	Commercialisation
Vaccines (13)	1 RVF Clone 13	RVF	=	=	=		
	2 Combination RVF-LD	RVF, LSD, SP, GP					
	3 Recombinant RVF-LSD	RVF, LSD, SP, GP					
	4 ECF ITM	ECF	=				
	5 TSOL18	PC	=				
	6 ASF virus	ASF					
	7 ND I-2	ND					
	8 ND DSS pellet	ND					
	9 ND thermostable tablets	ND					
	10 ND thermostable LaSota	ND					
	11 Fowlpox thermostable	Fowlpox					
	12 Thermostable PPR	PPR					
	13 Combination PPR - SGP	PPR, SP, GP					
	14 CBPP Ben -1	CBPP					
	15 CCPP	CCPP					
	16 Irradiated Trypanosoma	Trypanosomosis	Stopped				
	17 Tryps antidiarrhoe vaccine	Trypanosomosis					
18 Ofendazole	PC						
19 CBPP antimicrobials	CBPP						
20 Anacor pharmaceuticals	Trypanosomosis						
21 Dundee pharmaceuticals	Trypanosomosis						
22 STPHI pharmaceuticals	Trypanosomosis						
23 RVF penside	RVF						
24 Dundee Tryps penside	Trypanosomosis						
25 Bordeaux Tryps penside	Trypanosomosis						
26 KZN Univ. Tryps penside	Trypanosomosis						
27 CCPP antigen ELISA	CCPP						
	27 products (24 active)	13 diseases					

= Activities performed prior to GALVmed intervention

Completed

Ongoing

No-go

Products and technologies: Product Delivery – Bridging the gap

Under validation

Under registration

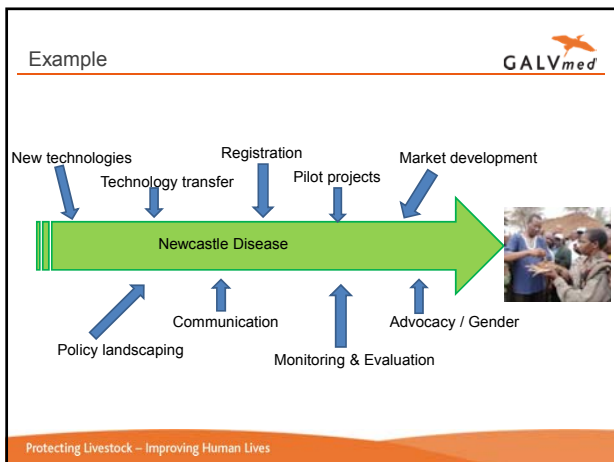
Protecting Livestock – Improving Human Lives GALVmed

Slide 24

Already registered

Protecting Livestock – Improving Human Lives GALVmed

Slide 25

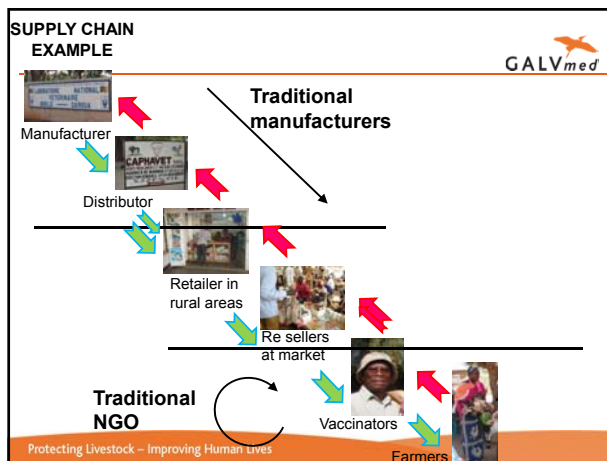
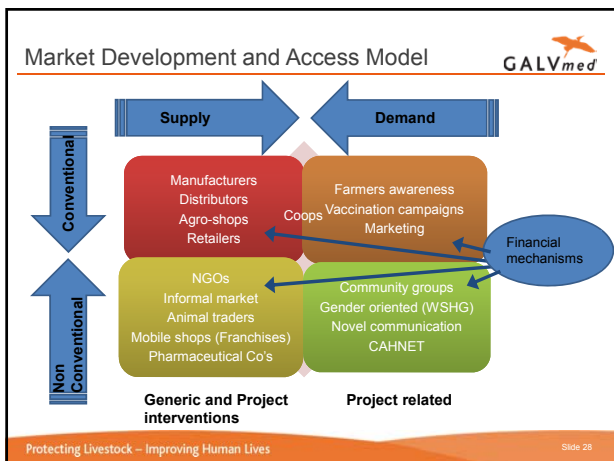


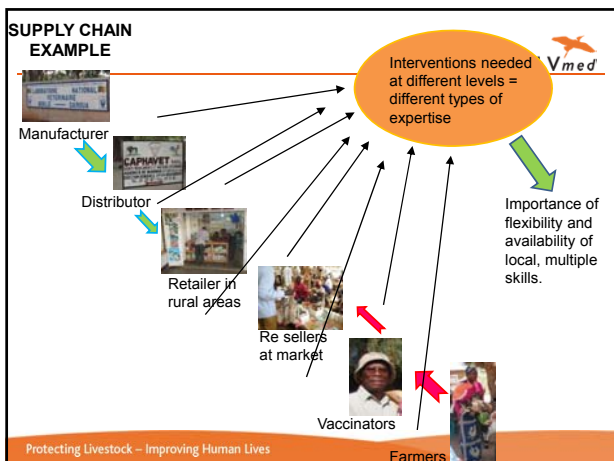
Market Development & Access

Achieving Scale 3 levels

Protecting Livestock – Improving Human Lives GALVmed

Slide 27





POLICY, PARTNERSHIP, COMMS & ADVOCACY

Protecting Livestock – Improving Human Lives

Enabling policies and building capacity.

Policy/Advocacy/Partnerships/Alliances.

Protecting Livestock – Improving Human Lives

GALVmed and Policy

- Recognition of Policy issues
- Internal and External focus
- Creating an Enabling Environment: Policy is a key driver. (Studies shown this)
- Often neglected or overlooked. Change by default.
- Now a Global Trend On the Agenda
- A relatively new area – everyone trying to put a foot forward. GALVmed as a PDAP
- We must be pro-active on Policy if we are to stimulate changes we desire.
- Need to approach is in a more systematic way.

Policy/Advocacy/Partnerships/Alliances.

Protecting Livestock – Improving Human Lives

Capacity Building

Protecting Livestock – Improving Human Lives

Harmonization of Vaccine Regulation

Simplify, improve, coordinate vaccine regulatory issues in Africa	
1	Baseline current situation
2	Proposal for a way forward with involvement of local stakeholders

Capacity building of regulatory authorities for vaccine registration

- East Africa: Mutual recognition & harmonization of registration processes,
- Francophone West Africa (UEMOA - ECOWAS)
- Central Africa (ECCAS)
- SADC

Protecting Livestock – Improving Human Lives

GALVmed

Workshop held during the OIE National Focal Points for Veterinary Products meeting in Johannesburg on November 2010, in collaboration with PANVAC and the OIE




Protecting Livestock – Improving Human Lives

GALVmed

VACNADA: vaccine manufacturing in Africa

Rationale

- Need for quality manufacturing for products against neglected diseases affecting Africa
- Capacity built in equipment & facility, operations, quality etc.



Action

- 8 state manufacturers supported

Improved outputs still on going in most of them






Protecting Livestock – Improving Human Lives

Slide 37

Process development laboratory (PDL)

- Partnership with PANVAC
- Production process improvement for existing African vaccines
- Development & introduction of new vaccine technologies
- Involvement Expert consultants from Industry & other







Protecting Livestock – Improving Human Lives




Slide 38

GALVmed

Clinical capacity

Rationale

- Need for clinical capacity for quality compliant animal studies on African diseases
- Building lasting African clinical capacity

Burkina Faso
Mozambique
Ethiopia
Zambia

Protecting Livestock – Improving Human Lives

Slide 39

East Coast Fever

The Success



- >530 000 doses vaccinated into cattle
- Vaccine is now available and registered in 4 ECF target countries

The Challenge

- 2.5 million doses to be achieved by 2017
- Registered in at least 8 (11) ECF countries

The Opportunity

- South Sudan 22 million
- Areas within existing countries that do not have access
- Around 50 million cattle at risk (with 10 million calves per annum)

Protecting Livestock – Improving Human Lives

Slide 40

CTTBD refurbishment





Official Launch 5th Dec 2014

Protecting Livestock – Improving Human Lives

Narendar from Lyogroup, India

Alex from Minitube, Germany

GALVmed

NEWCASTLE DISEASE

	Burkina Faso	Cameroon	DRC	Lesotho	Tanzania
1 # HH total	8,861	6,608	4,316	4,270	13,138
2 # ND doses used	404,500	122,327	69,242	47,592	411,250

Bottom up approach
Field projects

56,340 HH
1,631,312 doses ND vaccine

Protecting Livestock – Improving Human Lives

Side 43

ND Pilot Projects - Africa

Country	Region	Partner	HH targeted
Tanzania	Manyara	CAHNET Tanzania	44,500
Lesotho	Mafeteng, Mahale Hoek	RSDA & Dr Mokose	2,000
Cameroon	Far North	Heifer Cameroon	6,000 (?)
DRC	Bas-Congo	CAVTK (Centre Agrovét Tropical de Kinshasa)	25,000
Burkina Faso	Boulgou, Koulpelogo, and Kourfenga	VetImpact (Dr Samuel Minoungou)	12,000

- Decided to progress only 5 projects in Africa
- Phase 1 (baseline and constraints identification) completed for all the projects. Phase 2 started in TZ – details being finalised for the other projects.

Protecting Livestock – Improving Human Lives

Rift Valley Fever

- Zoonotic insect-borne viral disease; can cause abortion & mortality
- Affect ruminants, human & many other species.
- 2007 outbreak in Kenya & Tanzania: more than 300 human fatalities, thousands of mortality in livestock. Destroyed meat industry!

Vaccination:

- Very irregular occurrence of the disease; every 5-7 years: highly susceptible population
- Current vaccine: effective but unsafe; not used continuously in most countries.

Protecting Livestock – Improving Human Lives

RVF: Lab trial in Senegal

Training in Kenya

Protecting Livestock – Improving Human Lives

Peste des Petits Ruminants (PPR)

- Disease of goats and sheep, caused by a morbillivirus. It is clinically and pathologically the most economically important viral disease of small ruminants in the areas where it occurs.
- There are good reasons to believe that the eradication of PPR is an achievable goal like Rinderpest (FAO, 2009)

GALVmed Project

- Establish market for a PPR vaccine
- Improve thermo-stability of the current vaccine
- Contribute to PPR eradication

Protecting Livestock – Improving Human Lives

TRYPS

Modelled Cattle Densities in Africa

Number per square km:
 0-250 250-500 500-750 750-1000 1000-1250 1250-1500 1500-1750 1750-2000 2000-2250 2250-2500 2500-2750 2750-3000 3000-3250 3250-3500 3500-3750 3750-4000 4000-4250 4250-4500 4500-4750 4750-5000

Legend:
 International boundary
 Water
 International air corridor

(Source: FAO - Global Livestock of the World, 2007; Wint & Robinson)

GALVmed

- African Animal Trypanosomosis (AAT) is still by far the most important barrier to livestock improvement in Africa
- AAT is caused mainly by *T.congolense* and *T.vivax* and to a lesser extent by *T.brucei brucei*.

Glossina
(by P.W.Pappas and S.M. Werdrip)

Trypanocides Quality Control

GALVmed

Challenge:
 Widespread Trypanocide counterfeits & substandard

Actions:
 Development of international agreed quality standards (monographs)
 Adoption & publication of monographs by OIE
 Selection & support of 2 labs (one in East and one in West Africa)
 Capacitate the 2 labs to carry out QC
 Work with local structures to incorporate process into Trypanocides import & use requirements

Protecting Livestock – Improving Human Lives

Absorbing and Documenting the Learning

GALVmed

Market Development & Adoption:
 Lessons learned and observations during Phase 1 of Protecting Livestock, Saving Human Life (PLSHL-1) programme

Document Repository
 -Reports
 -Databases: Vetvac, Lili-Lite, PIAM
 -Policy landscaping studies/Partners
 -Communications/Publications

Protecting Livestock – Improving Human Lives

Successes

GALVmed

- Global Access Charter
- Impetus Strategy Paper – (ALice)
- Regulatory Harmonisation of Veterinary vaccines and Biologicals EAC, SADC, (MRP, Rift valley Fever control strategy)
- Intellectual Property/ Asset management
- Registration of AH Products (ECF)
- Quality Assurance (PANVAC)
- Innovative communication methods

Protecting Livestock – Improving Human Lives

GALVmed Achievements & Successes:

GALVmed

PLEASE VISIT WEBSITE
www.galvmed.org

Protecting Livestock – Improving Human Lives

GALVmed Synopsis.

GALVmed

- NON PROFIT – CHARITY
- PRO-POOR
- SUSTAINABILITY
- LIVESTOCK VACCINES, MEDICATIONS, DIAGNOSTICS
- VALUE CHAIN CONCEPT – MANUFACTURE- DIST-DELIVERY-ADOPTION
- WEAK LINKS ALONG THE CHAIN
- FACILITATION – CATALYST
- PARTNERSHIPS
- CAPACITY BUILDING
- ENABLING POLICY ENVIRONMENT
- EXIT STRATEGY
- MEDIUM TIME, HIGH IMPACT

Protecting Livestock – Improving Human Lives

It is not an easy job!




GALVmed

Putting ear tag on the left ear for identification – Ankole bulls in Chunya District (Tanzania) – Courtesy Dr Henry Mbwile

Protecting Livestock – Improving Human Lives

Slide 54



GALVmed

Protecting Livestock – Improving Human Lives

WHERE THERE IS A WILL, THERE IS A WAY!!!



GALVmed

GALVmed
Protecting livestock,
saving human life

Thank you!

