



Generating Benefits through Sustainable Use and Conservation of Farm-Animal Genetic Resources in the SADC region: A workshop to explore the

Legal and Regulatory Framework for Farm Animal Genetic Resources

Hosted by the Ministry of Agriculture and Rural Development,
National Directorate of Livestock, Mozambique

Held at Hotel Cardoso, Maputo, Mozambique, May 20 to 24, 2003

Workshop Documentation



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June 2003

This documentation report documents the workshop which took place in May 20 to 24, 2003. The report here is not a final synthesized report, but tries to capture the crude output of the workshop in a non-interpreted way as a base for shaping the final report.

THIS DOCUMENTATION IS MEANT TO BE A REFERENCE DOCUMENT for all participants which intends to provide the desired transparency. Almost all results of the working groups and plenary sessions are documented here. In addition, it includes the summary reports of the synthesisers.

The statements and contributions documented in this report are the sole responsibility of the whole workshop group and do not stand for the positions of any of the organisations involved. The facilitator takes the responsibility for the authentic reproduction of the workshop discussions in this report and for possible errors, which would not be intentional.

Table of Contents

Table of Contents	II
Foreword of Organisers and Facilitator	VI
Brief Summary of the Workshop Outcomes	VII
<hr/>	
1 Workshop Opening and Introduction	1
<hr/>	
1.1 WELCOME SPEECHES.....	1
1.2 PARTICIPANTS' INTRODUCTION.....	8
1.3 EXPECTATIONS AND FEARS	9
1.4 OBJECTIVES OF THE WORKSHOP.....	10
1.5 ANTICIPATED WORKSHOP PROGRAMME	12
1.6 WORKSHOP ORGANISATION.....	12
1.7 SUGGESTED FRAMEWORK FOR ANALYSIS OF POLICIES, LAWS AND REGULATIONS FOR FAnGR	13
2 State of the Art: Recap of the previous workshops in Swaziland and Zambia 2001 and Angola in 2002 and their impacts	14
<hr/>	
2.1 OVERVIEW PAPER BY JAMES MSECHU: MANAGEMENT OF FARM ANIMAL GENETIC RESOURCES IN SADC REGION – BRIEF REVIEW OF ACTIVITIES	14
2.2 A REVIEW OF THE PLANNED FOLLOW-UP ACTIVITIES AND IMPACTS OF THE PREVIOUS WORKSHOPS	16
3 Presentations and discussions on Topic 1: Sustainable use, improvement and access to FAnGR through experiences at the national level	20
<hr/>	
3.1 JOYCE NJORO AND MPOKE LEINA: PASTORALIST INDIGENOUS KNOWLEDGE AND DOMESTIC ANIMAL GENETIC CONSERVATION.....	20
3.2 JACOB WANYAMA: GENERATING BENEFITS THROUGH SUSTAINABLE USE AND CONSERVATION OF FARM ANIMAL GENETIC RESOURCES IN THE SADC REGION.	21
3.3 JOHAN CAMPHER: LIMITATIONS AND CONSTRAINTS IN INTERNATIONAL TRADE IN ANIMAL GENETIC MATERIAL: A BUSINESSMAN'S PERSPECTIVE	24
3.4 MERIDA ROETS, JUSTIN VAN FLEET, AND STEPHEN HANSEN: THE MARKETING OF THE SOUTH AFRICAN BOER GOAT AND ITS IPR IMPLICATIONS	26
3.5 SYNTHESIS OF TOPIC 1: POLICY AND LEGAL REQUIREMENTS	28
4 Presentations and discussions on Topic 2: Legal and regulatory approaches at national and regional level	31
<hr/>	
4.1 SIBONISO MOYO: LEGAL FRAMEWORKS RELEVANT TO THE MANAGEMENT OF FARM ANIMAL GENETIC RESOURCES IN THE SADC REGION.....	31
4.2 HELEN NAKIMBUGWE: THE ANIMAL BREEDING ACT OF UGANDA	33
4.3 ILSE KÖHLER-ROLLEFSON: LIVESTOCK KEEPERS' RIGHTS" AND ENDOGENOUS DEVELOPMENT: AVENUES FOR CAPITALISING ON INDIGENOUS FARM ANIMAL GENETIC RESOURCES.....	36
4.4 MORTEN WALLOW TVEDT: NORDIC APPROACH TO ACCESS AND RIGHTS TO ANIMAL GENETIC RESOURCES	38
4.5 SUMMARY OF CRITICAL ISSUES RAISED DURING THE FIRST TWO ROUNDS OF PAPER PRESENTATIONS	41
5 Field Trip: Postsu Formento Impamutu Station	43
6 Working Group Discussions on Benefit sharing, Including IPR Law Making, AnGR policy, content and process	44
<hr/>	
6.1 GROUP 1 – ACCESS, BENEFIT SHARING INCLUDING IPR.....	44
6.2 GROUP 2-LAW MAKING	47
6.3 GROUP 3: POLICY CONTENT AND PROCEDURE.....	53

7	Topic 3: Implications of the International legal and regulatory framework to support sust. use, improvement and access to FAnGR	57
7.1	ANTONELLA INGRASSIA: OVERVIEW ON THE INTERNATIONAL LEGAL AND REGULATORY FRAMEWORK FOR ANGR	57
7.2	JOHNSON EKPERE: OAU MODEL LAW AND FARMERS' RIGHTS IN ANIMAL BREEDING	63
7.3	LOTHAR GÜNDLING: MANAGEMENT OF ANIMAL GENETIC RESOURCES FOR CONSERVATION, SUSTAINABLE USE AND SHARING OF BENEFITS.....	65
7.4	ALVARO TOLEDO: WHAT CAN WE LEARN FROM THE NEGOTIATING PROCESS OF GLOBAL INSTRUMENTS AND AGREEMENTS FOR THE CONSERVATION OF PLANT GENETIC RESOURCES FOR FOOD AND AGRICULTURE,.....	67
7.5	ADAM DRUCKER, JOHN GIBSON: A LEGAL AND REGULATORY FRAMEWORK FOR ANGR? ISSUES FOR CONSIDERATION	70
8	Working groups on implications of the international, legal and regulatory framework to support sustainable use and improvement and access to FanGR	74
8.1	WORKING GROUP 1 HARMONISATION AT A REGIONAL (SADC) LEVEL	74
8.2	WORKING GROUP 2: STRATEGY AND WAYS OF AWARENESS RAISING	75
8.3	WORKING GROUP 3: WHAT ARE THE REQUIREMENTS FOR AN INTERNATIONAL TREATY?	80
8.4	SYNTHESIS OF TOPIC III DISCUSSIONS	83
9	Conclusions of the workshop, Insights and lessons, recommendations and the SADC position	87
10	Future Action at country / organisational level	90
10.1	GROUP 1: ZAMBIA, DRC, MAURITIUS	90
10.2	SWAZILAND.....	91
10.3	LESOTHO	91
10.4	ANGOLA	92
10.5	UGANDA-KENYA.....	92
10.6	MOZAMBIQUE	93
10.7	BOTSWANA	93
10.8	MALAWI.....	94
10.9	TANZANIA	94
10.10	ZIMBABWE	95
10.11	NAMIBIA AND SOUTH AFRICA	95
10.12	INTERNATIONAL GROUP: ILRI AND FAO	96
10.13	GTZ FOLLOW UP.....	96
10.14	CTA'S CONTRIBUTION TO THE PROMOTION OF FANGR:	96
11	Synthesisers' reports on the analytical framework	98
11.1	BIOTECHNOLOGY/BREEDING/ACCESS & BENEFIT-SHARING.....	98
11.2	CHARACTERIZATION OF FARM ANIMAL BREEDS	99
11.3	CONSERVATION AND SUSTAINABLE USE	100
12	Next Steps	102
13	Workshop Evaluation and Closing	103
14	Annex	105
14.1	ANNEX 1: OPEN SPACE PRESENTATION ON: INTERNATIONAL HUMAN RIGHTS INSTRUMENTS ADDRESSING INTELLECTUAL PROPERTY	105
14.2	ADDRESS LIST OF PARTICIPANTS	108

Foreword by the Organisers

Rural people use and manage biodiversity - natural biodiversity and agro biodiversity - to support their livelihoods. Through generations of innovation and experiment, they have nurtured a diversity of plants and animals - wild and domesticated - and accumulated a rich knowledge of this managed biodiversity. The process of learning, experiment and innovation is still alive in much of the world.

This workshop was jointly organised by SADC, GTZ, FAO and CTA. Its organizers share the conviction that farm animal genetic resources play a critical role in the economies and livelihoods of rural people. Farm animal genetic diversity allows them to adapt to local conditions, and it is essential for food security, sustainable increased production and income generation.

- The role of farm animals is especially important in the SADC region, where extensive livestock production is the only way of productively using the vast rangelands and semi-arid areas. Farm animals provide a variety of products for food, clothing and shelter. Farm animals will also continue to be a key element in the sustainability of mixed farming systems in areas with more resource, because they provide draught power for field work, manure for cropping, and because animals make transport possible in many rural areas. Moreover, animal food products, such as protein and fat, will be essential in improving nutrition, in particular for the young, and for people suffering from HIV/AIDS.

A group of experts (representatives from governments, regional and international organisations, NGO's, private sector representatives) gathered in Maputo during four intense days, to explore the legal and regulatory framework for the sustainable use and conservation of farm animal genetic resources in the SADC Region. They also discussed how supporting policies could be put in place at all levels, from the local to the international. This broad and open discussion has led to a wide set of proposals for building up an effective policy, legal and regulatory frameworks.

The experts were excellently backed up by the outcome of three workshops that SADC, GTZ and CTA had earlier organized together with different partners in Swaziland (on community-based management of animal genetic resources), Zambia (on incentive measures for sustainable use and conservation of agro biodiversity), and Angola (on the policy framework on management of animal genetic resources). These workshops together have helped identify a general approach to better understand how to deal with the technical, economic, legal and policy issues related to farm animal genetic resources.

- The Maputo workshop was path breaking, the first of its kind anywhere. The SADC region should in future have a pioneering role and act as a reference point in international discussions about these extremely important living resources.

We, the organizers, are extremely satisfied with the rich and soundly based proposals that came from the workshop. We hope that these will encourage effective and innovative policy-making by national governments, by our organizations, and support from donor agencies. We hope that the critical role played by animal genetic resources will be better recognized, and lead to the strengthening of national and international policies, institutions and capacities, for the sustainable management and use of Animal Genetic Resources for Food and Agriculture.

Dr. Bonaventure Mtei,	Senior Livestock Expert, FANR Directorate, SADC Secretariat
Dr. Ventura Macamo,	Deputy Director, Direcção Nacional de Pecuária (DINAP), Ministry of Agriculture and Rural Development, Mozambique
Dr. Petra Mutlu,	Director Division, OE 4500 Agriculture, Fisheries and Food, Deutsche Gesellschaft für technische Zusammenarbeit (GTZ) GmbH
Dr. Irene Hoffmann,	Chief, Animal Production Service, Animal Production and Health Division, Food and Agriculture Organisation of the United Nations (FAO)
Mrs. Isolina Boto,	Coordinator, Communication Channels and Services Department, Technical Centre for Agricultural and Rural Cooperation (CTA)

Acknowledgements by the Facilitator

I would like to thank all the participants for their active participation and dedication during the long hours. The rapporteurs and synthesizers took on an important extra work to capture all the creative ideas and the process steering group also spent a lot of extra time to design and plan the workshop process together with me. The Mozambique team of Dr Macamo, Romualdo Ualia, Sonia Maciel and the secretary Maria, did a great job in making the organisation of the workshop and the field trip smooth and pleasant. Jenny Bester deserves very special thanks for the note taking, collecting of rapporteurs reports and getting all typed and organised. Without her effort it would have been impossible to compile this documentation.

Dr. Jürgen Hagmann

Independent Facilitator / Consultant

Brief Summary of the Workshop Outcomes

(Elaborated by a synthesising group of participants)

The SADC Workshop on Legal Framework on Generation on Benefits, Sustainable Use and Conservation of FAnGR was held in Maputo, 20th -23rd May 2003. The major observations from the Workshop were as follows:

- The contribution of FAnGR sector is undervalued, and there is a need to create a better awareness of the monetary and non-monetary value of livestock among SADC countries and at international fora;
- There is a need for proactiveness and holistic approach in addressing FAnGR issues in national /regional /international level and for development of SADC common position;
- There is a lot of information on FAnGR in the region and there is a need to establish a sub-regional FAnGR database to enable analysis of all aspects of FAnGR management;
- Bearing in mind that *in-situ* conservation is the most practical approach in African region, there is a need to adopt participatory approach in conservation and use, involving all stakeholders, including livestock keepers in all stages of decision making process;
- To achieve a better management of FAnGR in the SADC region there is a need for enhanced capacity for research and development and management through improved budgetary allocation and support.

Recommendations from the Workshop

The SADC Workshop on Legal Framework on Generation on Benefits, Sustainable Use and Conservation of FAnGR was held in Maputo, 20th -23rd May 2003.

In the end of deliberations the Workshop recommends as follows:

- SADC should establish a Task Force to work on the draft guidelines on policy and legal framework on FAnGR to include the outcome of this Workshop;
- SADC countries should adapt OIA Model Law to develop a *sui generis* legislation
- SADC region should work towards development of the International Treaty on Farm Animal Genetic Resources as an instrument to enhance food security, sustainable livelihoods and rural development along the lines with ITPGR;
- Establish and strengthen FAnGR networking at national, regional and international level to increase activities, investment, policy formulation for livestock sector;
- SADC should develop a common position on FAnGR to be presented at international fora, especially the CGRFA of the FAO;
- SADC Secretariat should submit the statement of intent on implementation of these recommendations to the SADC Council of Ministers and to the Conference of African Ministers of Agriculture meeting in Maputo this July;
- SADC Secretariat should submit Workshop Report as information document to the 3rd Session of the Intergovernmental Technical Working Group on AnGR for Food and Agriculture in November this year.

1 Workshop Opening and Introduction

The opening session was chaired by Dr Ventura Macamo the following people gave opening speeches, Dr Bonaventure Mtei (SADC), Mr Peter Vandor (FAO), Mr Robert Leinius (GTZ) and Mrs Isolina Boto (CTA). The workshop was then officially opened by Dr Macamo, on behalf of the Minister of Agriculture and Rural Development, Mozambique.

For the facilitation of the workshop, a professional moderator, Dr. Jürgen Hagmann, was engaged by the organising committee. After the official opening, the organising committee handed over to the facilitator to manage the group interactions.

1.1 Welcome speeches

Ms. Margaret Nyirenda, Ag. Director Food, Agriculture And Natural Resources Directorate SADC Secretariat

Hon. Guests of honour, Invited Guests, Distinguished Participants, Ladies and Gentlemen,

I am honoured to address this Workshop on the legal and regulatory framework for the management of Farm Animal Genetic Resources (FAnGR) in the SADC Region. May I in the first place, on behalf of the SADC Secretariat and on my own behalf, express gratitude to the Government and peoples of Mozambique for agreeing to host this Workshop.

I am sure you are very much aware of the challenge we are faced with in the region to achieve food security for all, especially at household level. Our region is beset with droughts, which often lead to general crop and livestock failures. Achieving food security requires a concerted effort by everyone to increase food production while at the same time maintaining the key resources on which agriculture production is based. This can only be achieved if relevant policies and regulatory frameworks are put in place and appropriately implemented.

Today's workshop is significant in many ways. It provides SADC livestock policymakers, the national coordinators of farm animal genetic resources, International Cooperating Partners - CTA, FAO, GTZ, IPGRI and other institutions/individuals present here with an opportunity to discuss and provide their inputs. These inputs will be used by SADC Member States to develop laws and policies to guide harmonised management, use and conservation of animal genetic resources used for food and agriculture as relates in particular to issues of bio safety, ownership and benefit sharing. This workshop, gives us an opportunity to take a step further in crafting the future of a sustainable livestock industry within the region.

As key people responsible for developing and implementing supporting frameworks for livestock, you have a vast and rich experience needed to achieve the objectives of this workshop. You also have a vision of what needs to be done in individual countries and the region at large, for livestock to contribute significantly to the broader goal of food security and poverty alleviation. More importantly, you are the people aware of the constraints and impediments that have frustrated efforts in the past to use available genetic resources to increase livestock productivity. It is an opportunity to reflect on what it is we have done wrong and what lessons we have learnt that can assist us in the way forward.

Recent advances in biotechnology and genetic engineering make it likely that a diverse set of genetically modified organisms-based technologies and transgenic animals will be brought into agricultural production environments soon or later. This will require systematic consideration of the bio safety issues involved. The

use of GMOs in animal vaccines and perhaps in diagnostics appears to be covered by World Organisation for Animal Health (OIE) in its mandate as a standard-setting body agreed under the World Trade Organisation (WTO). There is however a need for harmonization of a wider range of bio safety, ownership and benefit sharing issues of animal agriculture. A starting point would be systematic consultations among governments, private sector and relevant international organizations.

It is challenging, that at the moment, none of our SADC Member States have clear supporting legal, regulatory and policy frameworks on sustainable use, conservation and management of Farm Animal Genetic Resources (FAnGR). Since 1989, the Commission on Genetic Resources for Food and Agriculture (CGRFA) has regularly considered reports on technical and policy issues regarding bio safety, within the context of biotechnology, as it relates to genetic resources for food and agriculture. In 1991, the commission requested the preparation of a draft code of conduct on biotechnology, with the aim of maximizing positive effects, and minimizing the possible negative effects of biotechnology.

Within the context of SADC, appropriate legal and regulatory frameworks and harmonised policy environment are some of the key factors required to facilitate the contribution of livestock and associated biotechnologies to regional and national objectives of economic development and elimination of hunger. There is a need also to address and focus on issues of use of economic and trade instruments to promote sustainable use and conservation of farm animal genetic resources. Individual SADC Member States will need to put in place sound and relevant policies including associated legal and regulatory frameworks to guide and direct development and use of these resources. At regional level, harmonization of such instruments will need to be coordinated.

It is encouraging to see that SADC has taken a proactive role in this issue as evidenced by the draft document on Guidelines for National and Regional Policy on management of farm animal genetic resources as reviewed during the workshop held in Luanda, Angola in March 2002. The results of that workshop will constitute an input to this one.

I am encouraged also by the fact that many eminent and knowledgeable people are here to discuss and agree on what is relevant for the region and indeed for our Member States. I am confident that your recommendations out of this workshop will contribute significantly to the formulation of Legal and Regulatory frameworks on Farm Animal genetic Resources and together with the SADC policy guidelines on management of farm animal genetic resources, these will be valuable outputs of the SADC/UNDP/FAO Project on FAnGR.

I would like to conclude by urging you to remember and hold high, the trust and confidence that has been placed on you by the peoples of SADC in giving you this responsibility. Your inputs and efforts should at the end of the day enhance food security and impact positively on sustainable livelihoods of the peoples of SADC.

Once again I thank the Government of Mozambique for hosting us and let me also sincerely thank the International Cooperating Partners, FAO, GTZ and CTA for facilitation this workshop. Thanks also to the International Organising Committee, which has worked very hard and diligently to make this Workshop a success.

Thank you all for your attention

Peter Vandor, FAO Representative for Mozambique and Swaziland

- 1997 initiation of SADC project (UNDP funded, FAO implementing Agency) on Management of farm animal genetic resources; project has been extended and is continuing
- Regional Coordinator Mr Joel Mamabolo, Pretoria, RSA
- 13 countries are participating

Activities:

- Need for better knowledge of AnGR
 - Breed surveys under guidance of ILRI (International Livestock Research Institute, CGIAR)
 - Breed characterisation
- Development of policy guidelines
- Support to develop Country Reports contributing to the State of the World's AnGR process
- Regional networking
- Setting up of regional information system on the internet
- Mainstreaming AnGR management in national institutions
- Awareness raising
- Stakeholder involvement
- SADC FAnGR project a mean to implement the Global Strategy for the Management of farm Animal Genetic Resources at regional level
- This WS is the third technical WS organized jointly with GTZ and CTA focusing on the legal/regulatory framework enabling the sustainable use + conservation of FAnGR held back to back with the 5th Meeting of the Steering Committee of the SADC FAnGR project
- Emphasise on representation of all stakeholder groups including NGOs/CSOs, research, policy development, livestock development and the private sector
- SADC first region taking up challenge to discuss legal/regulatory issues complemented by work undertaken at FAO HQ which will be provided in Nov 2003 to the 3rd session of the Governmental Technical Working Group on AnGR under the Commission on Genetic Resources for Food and Agriculture

Robert Leinius, GTZ Representative for Mozambique

There are three important programmes operating in Mozambique at present, the main focus of this workshop being concerned with the programme for the development of rural areas devastated by conflict and floods. By 1994 a third of the populations were either refugees or were dispersed from their home areas and were in search of aid and safety. After the end of the war, people returned to their villages at first slowly and later in very large numbers even though the situation was still dangerous. The people of the country take great pride in the fact that, ten years later, great strides in development are to be seen. In partnership with funding agencies they have achieved a new period of peace and prosperity. Mozambique is proud to consider itself an example for other African countries facing similar problems to their own.

Isolina Boto on behalf of CTA

Honourable representative of the Minister of Mozambique,

Dear representatives from the co-organising organisations, SADC, GTZ, FAO,

Dear colleagues from the national, regional and international organisations,

Ladies and gentlemen,

First of all on behalf of Mr Carl Greenidge, director of CTA, I want to welcome you to this workshop on animal genetic resources and to thank you for being here. I thank the authorities of Mozambique, specially the Ministry of Agriculture, for hosting this workshop and for their support in organising it and the high support of the SADC organisation.

When approached by GTZ, CTA agreed to co-sponsor this workshop it was due to the important role of animal genetic resources from the angle of a sustainable use and generating benefits for the local communities, especially in the SADC region. This is also linked to the CTA/GTZ seminar of last year in Zambia on "Incentive Measures for Sustainable Use and Conservation of Agro-biodiversity" and our work on plant genetic resources, especially with IPGRI. CTA has also been involved for many years, with SADC, in livestock development policies and livestock production systems as well as on animal health and veterinary services, critical and priority areas for the economies of the region.

What is CTA about?

Most of you are already familiar with CTA activities so I will be brief since we will have opportunities to share views during the coming days and you will have a chance to receive our publications and be more familiar with our services. The Technical Centre for Agricultural and Rural Cooperation (CTA) was established in 1983 under the Lomé Convention, which is since 2000 the Cotonou Agreement, a broad cooperation agreement between 77 ACP (African, Caribbean and Pacific) Group of States and the 15 European Union Member States. CTA is in charge of information and communication for agricultural and rural development.

CTA's tasks are to develop and provide services that improve access to information for agricultural and rural development, and to strengthen the capacity of ACP countries to produce, acquire, exchange and utilise information in this area.

- CTA's programmes are organised around three principal activities:
- providing an increasing range and quantity of information products and services and enhancing awareness of relevant information sources;
- supporting the integrated use of appropriate communication channels and intensifying contacts and information exchange (particularly intra-ACP);
- and developing ACP capacity to generate and manage agricultural information and to formulate ICM strategies, including those relevant to science and technology.

These activities take account of methodological developments in crosscutting issues and the findings from impact assessments and evaluations of ongoing programmes.

New focus for CTA

The main objective of the Cotonou agreement is poverty reduction and the integration of the ACP countries in the world economy. Therefore, CTA's mandate under the Cotonou Agreement has several new or prominent elements such as the political focus, and the support of ACP agricultural policy-making with a view to enhancing both the scope and quality of such policies. Market access to regional and international markets (role of private sector and farmers organisations) and diversification policies. The use of Biotechnology and genetic improvements to enhance productivity and therefore increase income-generating activities.

The 3 broad areas developed by CTA are:

1. *intensification and optimisation of production, market access and environment and natural resources management. The animal genetic resources touches all of them since there is a need*

to promote a sustainable use and development of locally adapted animal genetic resources, improved food security, and strengthen environmental protection

2. *To reach Optimisation of production for Food security and poverty alleviation and to achieve the sustainable intensification of livestock production systems, we need to target the poor farmers in marginal areas of ACP countries where the diversity of local breeds is essential for food security, sustainable livelihoods and agricultural productivity. An effort is also needed towards the Community-Based Management approach integrating the traditional practices used for conservation and sustainable use of local breed and allowing the involvement of rural communities and traditional livestock keepers. The indigenous and local knowledge of breed improvement, regulating access and benefit sharing needs to be recognised and used.*
3. *The issue of Trade and market access is key in the Cotonou Agreement and needs to be addressed at local, regional and international level depending on the comparative advantage of the marketed products as well as the constraints in accessing the international markets. We need to assist commercial farmers to better access international markets, which have very specific demands, by disseminating information on the various legislations and requirements.*

CTA supports ACP countries in their WTO negotiations by a series of capacity-building programmes (including on Agreement on Trade-Related Aspects of Intellectual Property Rights or TRIPS). The Prerequisites to succeed are: An improved access to genetic resources and the fair and equitable sharing of benefits will be reached provided that:

1. *Increasing cooperation and dialogue among stakeholders, regional organisations and donors takes place. To be successful all relevant stakeholders from the international down to the local level have to be involved in a participatory manner and from the beginning.*
2. *Need for regional cooperation on access to FAnGR for breed improvement is key.*

CTA's involvement and follow-up in this workshop

In reaching the objectives of this workshop, CTA can support

- *Awareness raising and capacity-building in the SADC region among the various stakeholders through information and communication strategies*
- *Contribute to the understanding of legal aspects relevant to animal genetic resources management on national, regional and global level by disseminating the relevant information (in the form of training material, briefs for policy makers, practical booklets for farmers communities, etc)*
- *Analyse the implications of the existing international legal framework on access and benefit-sharing and intellectual property rights on the conservation and sustainable use of local breeds through studies or research work*
- *To disseminate the recommendations and action plans to the international community, policy makers and other relevant players at national, regional and international level (proceedings)*

This translates on specific activities within CTA's mandate such as:

- *Workshops and training courses*
- *Publications and briefings (CTA is already committed to co-publish with GTZ a highlight on the main issues discussed this week in Maputo).*
- *Lobbying and awareness raising with our beneficiaries and partners*
- *Articles in Spore*

This workshop brings together representatives from the key bodies of the SADC region, NGO's, research and international institutions, legal experts, farmer and livestock keeper representatives, private sector representatives in view to analyse the situation, identify needs, and provide strategic guidelines to better use, develop and conserve animal genetic resources, with a clear focus on legislation and policy to improve conservation and sustainable use of animal genetic resources. Therefore I hope that these exchanges will be fruitful and that you will reach clear, specific and targeted recommendations and action plans which will allow CTA and its partners to support you in implementing them. I thank you for your attention,

Dr Ventura Macamo, Dep. Nat. Dir. of Livestock - on behalf of the Hon. Minister of Agr. & Rural Dev. of Mozambique

FAO Representative in Mozambique

Director of GTZ in Mozambique

Director of the Veterinary Faculty

Dr. Mtei, SADC Senior Livestock Expert

National Directors for Livestock

Regional Coordinator for the FAnGR Project

National Coordinators for FAnGR Project

Distinguished Guests and Participants

Ladies and Gentlemen

First of all I would like to salute every one present at this meeting and wish you a warm welcome to our country.

We are deeply privileged that this important event is taking place in our country. This will bring a huge contribution and enable us to obtain a wide vision on the role of animal genetic resources for the poverty alleviation and for livestock development in general. For your presence in Mozambique, we feel recognized as part of this vast village of countries committed to the defence of the biodiversity. We believe that all of us, technicians, institutions and participating countries to this workshop, will, at the end of this event, be revitalized and enriched as a result of technical knowledge and exchange of working experience.

About 80% of Mozambican population live in rural areas, and of this figure, more than 75% are animal breeders of livestock species. These animals play an important role in food safety, through agricultural production diversification, family income generation and other socio-economic benefits. Native breeds and species, whose genetic variability we are committed to protect, constitute the majority of these genetic resources. To improve its management, create technical conditions for its preservation, and above all guarantee its utilization in sustainable way we should consider the contribution of every one of us.

Currently, with the help of SADC countries and other partners, as a result of implementation of Restocking Livestock Program, Mozambique is recording a positive experience in the increase of the number of ruminants, which were lost during 16 years of economic instability. Nevertheless, despite these efforts towards recovery, our country still faces various constraints of technical institutional and financial nature regarding animal reproduction and improvement. Without any intention of being exhaustive, we would like to emphasize, the limited numbers of scientists working in the area of animal production in Mozambique, which has a negative impact in the research area. Other constraints are the obsolete status of support facilities for the improvement and conservation of genetic resources, as well as only a limited experience in the involvement of communities in programs of management of animal resources.

Distinguished Guests, Dear participants,

Allow me to salute and congratulate SADC countries for the success achieved in the formulation and implementation of Regional Project for Management of AnGR. We believe that if we are to obtain the comparative advantages of a common strategy for the defence of our biodiversity and of AnGR patrimony in particular, a regional approach of the common problems of our countries should continue to be privileged and encouraged. The practical results of the project implementation in Mozambique, have contributed largely to the improvement of our qualitative and quantitative knowledge of the diversity of genetic animal resources in our country. This will certainly contribute for the definition of an appropriate legal framework for the protection of animal genetic resources, as a national patrimony, which is the fundamental purpose of this workshop.

In addition, we acknowledge that there is still a long way to go, towards a more complete characterization of all our domestic animals. It is in this context that in order to prepare the world report on animal genetic resources situation, we support the appeal of the FAO to participate in the recent initiative launched by this

Organization. As subscriber country of the CBD, we also would like to reaffirm our commitment in defending the principles of bio safety, which must be observed in the field of animal production.

We are concerned to see that the potential of native breeds of domestic animals available in our countries, is still not valued, and to its detriment, the tendency of replacing them by exotic animals still exists. These breeds are less adapted to the natural ecosystems and for that reason are less sustainable for poor countries.

Actually, the indiscriminate use of exotic animals and of wrongly conceived schemes negatively affect the capacity of the communities to maintain its systems of traditional animal raising, which serve their standard of livelihood better.

On the other hand, a better approach to the question of the defence of the property rights of AnGr in favour to the local communities is still lacking.

That is why we would like to challenge all the participants of this workshop, to reflect on a strategy to be followed viewing the success of the development of animal production. That is, through a rational exploration of improved breeds, without prejudice to the genetic wealth that our gene pool offers in terms of biodiversity.

We understand that the ongoing efforts to define an efficient, effective, legal framework to a more sustainable use of AnGR should bring more benefits to the local communities and to the economy in general. Therefore, this workshop should help to draw strategies that will bring an added value to the native breeds through a bigger creativity in the promotion of livestock products and by-products processing industries as well as to identify the niches of markets for their products.

We believe that the better way to alleviate the poverty is through wealth rising. Thus we believe in a strategy of AnGR through its utilization.

Excellencies, Once again, I want to express my deep gratitude to GTZ, FAO, SADC and CTA and to all those that direct or indirectly made this workshop a reality, and I wish that the foreseen results could be satisfactorily achieved.

Feel at home. Thank you all.



1.2 Participants' Introduction

After the welcome speeches the facilitator first briefly explained his task, the core values and principles along he operates and some rules for interaction at the tables and for visualisation. After reaching an agreement with the participants on the values, he then asked the participants to introduce each other around the table groups on the basis of the following task:

Participants' Introduction

Please find out about each other around your table:

- ***Who you are and where your roots are.***
- ***What your job title is and what you are really doing.***

The small groups around the tables presented their discoveries about each other in an interactive way. After that the participants were asked to introduce themselves to the plenary saying their name and institution/organisation where they come from.

Another exercise outside the plenary room helped the group to get to know who they are. Participants were asked to group themselves according to a number of criteria: gender, country of work, institutions (govt, NGO, Universities, priv sector, etc), sectors of work: research, extension, vet services... Later they were asked to position themselves against certain provoking statements on legal and regulatory aspects to which they could agree or disagree. This revealed the basic 'positions' of the participants and created a lively debate on controversial issues right at the beginning.

The introduction of participants created an open atmosphere and revealed interesting details about the personal and professional characteristics of the participants.

1.3 Expectations and fears

The expectations and fears were identified through a brainstorming in the table groups on the following questions:

What should happen in this workshop is:

<p>Capacity development</p> <ul style="list-style-type: none"> • develop capacities to understand issues at stake • gain knowledge and experiences from other regions to share + use back home • generate knowledge + awareness among policy makers on FAnGR • exchange of experience • better understanding of the role of state on animal breeding • support review, analysis & development of FAnGR policy & legislation 	<p>Development + Implementation of legislation</p> <ul style="list-style-type: none"> • implementing existing legislation in third world - "Doing it practically" • come up with practical recommendations to be implemented • mechanisms of operationalising benefit sharing • gauge level of knowledge on CBD, Access + benefit sharing in respect to FAnGR • local/national needs for development of appropriate legal framework • regulatory framework should address the real local needs
<p>Integration "Regional approach"</p> <ul style="list-style-type: none"> • Regional approach to protection of rights on gen. res. • Familiarise with international, regional, national, legal, instruments + frameworks • Come up with a common position on FAnGR • Concrete recommendation 	<p>Sharing of experiences in Marketing</p> <ul style="list-style-type: none"> • experiences + case studies on marketing successful local breeds • Improve access to market • Correct Market information re: carcass/skin/milk/fibre specifications • practical ways how to use native breeds economically
<p>Institutional Arrangements</p> <ul style="list-style-type: none"> • Talk about institutional arrangements • create + strengthen linkages with other networks • Good time management 	

and the fears:

What should not happen in this workshop is:

<ul style="list-style-type: none"> • lack of mechanisms for continuity • lack of networking + lobbying strategies during + after the go workshop • lack of uptake of recommendations post workshop • not just another workshop • recommendations of workshops will have no impact on policy makers • Cell phones will deviate us from the real discussions 	<ul style="list-style-type: none"> • fear of a few people dominating • production of a product difficult to implement • lack of clarity on workshop outcome/output • polarised positions • no boring legal debates • wasting time on arguments on things like definitions
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Expectations and fears revealed some of the key concerns of the participants and issues to be discussed. Some of the warnings which came out of the expectations and fears served as reminders for the group.

1.4 Objectives of the Workshop

Then the facilitator presented the workshop objectives and anticipated outputs as agreed by the workshop process steering group before the workshop. These were compared to the expectations:

Before the workshop, the steering group analysed what they would like to see changing / influencing through the workshop, and from there derived the objectives:

Whom and what do we want to influence with this workshop?

1. Country-level policy makers

- to make policies that promote conservation and use of FAnGR
- to link better actors at country-level and coordinate towards promotion of FAnGR
- advocate in the countries to be adequately represented in international for a (COP, ...)

2. Regional-level policy makers

- to take a clearer/stronger role in international processes and coordination (CBD, WTO, FAO...)
- to have a vision and promote joint ideas and activities towards harmonisation exchange of GR etc...(including resource mob.)

3. International-level

- to provide a legal space and plan for FAnGR in CBD, COP, SBSTTA etc.
- donors to take stronger cognisance/give priority to FAnGR (including policies)
- the gaps in knowledge are addressed through a stronger research agenda on FAnGR

Workshop Objectives

The workshop aims at enhancing the legal and regulatory framework for FAnGR in the SADC region.

Specific objectives are:

- 1. To reach a common understanding of the current status of legal and regulatory frameworks relevant to FAnGR in SADC through:**
 - developing an "understanding map" of actors which need to be linked in each country
 - developing an "inventory" of legal, regulatory and policy options and functions in relation to different institutions/actors
- 2. To identify possible strategies for influencing and bringing together actors and to capacitate the whole system (including marketing)**
- 3. To reach a common understanding of the role of SADC and the international level of in fostering FAnGR through:**
 - clarifying roles and bottlenecks of the present situation and develop strategies to overcome them
 - to develop a SADC position and issues to be raised at ITWG3, SABSTA+COP
- 4. To identify requirements for an information system for informing legal and policy frameworks in terms of content, process (e.g. exchange) and capacities and gaps/research needs**
- 5. To identify steps towards an implementation strategy**

Comments and discussion of the objectives and participants expectations:

- Sharing of experiences and marketing should be added, as they were not really represented.
- Consensus between the expectations of the steering committee and that of the delegates seemed to be lacking. This was found to be a function of the phrasing rather than of the objectives themselves.
- It was felt that development could not take place without implementation and that strategy formulation without regard to its implementation would not yield an efficient strategy. Identification of steps towards implementation was added under step 5.

1.5 Anticipated Workshop Programme

The facilitator presented a programme based on the objectives. However, it was stressed that the workshop process might require adaptations, which will be done flexibly from day to day. It was emphasized that the goal of the workshop is not to fulfil a pre-designed agenda, but deal with real issues and this often requires major changes in the programme. Participants agreed on this broad outline and on the fact that the programme will be handled flexibly.

	Tuesday	Wednesday	Thursday	Friday
8:00 Session 10:30	Official Opening 9:00	Working Groups Report back	Reflection: Field trip Working Groups	Group Work And report back
11:00 Session 13:00	Setting Scene -Introduction into Workshop - Recap of previous Workshop	Paper Presentations Introduction into Field Trip	Report back Discussions	Synthesis Future actions Workshop evaluation
14:00 Session 15:30	Group discussions Paper Presentations	Field Trip	Paper Presentations and Discussions	Departure
16:00 Session 18:00	Paper Presentations And Discussions		Paper Presentations and Discussions	
Evening	Evening Session: Group work		Dinner Invitation	

1.6 Workshop organisation

Some issues on the workshop organisation were clarified. The workshop process steering group had a very important role to play. Together with the facilitator they elaborated the detailed agenda for every day, based on the objectives and the general group dynamics. This ensured that the process fully considered the needs and concerns of all participants.

Workshop Process Group

1 Task

- To obtain feedback from participants on the workshop process
- To plan together with the main facilitator the next day in the evenings

2 Members representing the large group

Beate Scherf, Joel Mamabolo, Andreas Drews, Adam Drucker, Elzbieta Martynink,

Workshop Documentation

All crude outputs will be documented and distributed

- Rapporteurs will summarize group work sessions
- Synthesizers will make a synthesis of major blocks/themes:

Bloc synthesisers volunteered for each topic

Topic 1: Policy + legal requirements	Jacque, Sibó, Jose
Topic 2: Approaches + options	Helen, James, Edw.
Topic 3: International frameworks	Els, Dora, Alvaro

1.7 Suggested framework for analysis of policies, laws and regulations for FAnGR

The steering group had also developed an analytical framework to process the workshop results. This was discussed, but the plenary felt that it reflects a too static perspective. It was agreed that one would follow a more process-oriented approach while later pulling things together in view to the framework in a synthesis form.

	Characterisation, conservation and utilisation of FAnGr	Biotechnology -Breeding -Access and benefit sharing	-Farm/land management -NGO + CSO Institution	-Trade and utilisation of animal products	-zoo sanitary -food safety
Policies					
Laws (legal frame)					
Regulations (regulatory frame)					
Customary laws/regulations					
Institutions (Frame and Responsibilities)					
Stakeholders involved in development					
Synthesisers					

Comments in plenary:

- Situation analysis such as this framework is not a process oriented analysis and is too static for some processes. This results in a strategy with that cannot support improvement and development because the process is not clear. The steering committee found it difficult to integrate the process of development at this level for all countries because their situations differed.
- Development should take place only after the identification of gaps. The first matrix was for analysis and inventory, strategy should follow
- We need some element of comparison from different countries at all levels.

Once the 'scene was set' and participants and organisers and facilitators had clarified their perspectives and agreed on a joint way forward in the workshop, the real content could start with a review of previous workshop to clarify the state of the art.

2 State of the Art: Recap of the previous workshops in Swaziland and Zambia 2001 and Angola in 2002 and their impacts

The recap was done in two stages: first a presentation of the main outcomes and secondly, a group reflection on the follow-up activities and the impacts of the previous workshops.

2.1 Overview paper by James Msechu: Management of Farm Animal Genetic Resources in SADC Region - Brief Review of Activities

Ministry of Agriculture, Tanzania

SADC Region - countries

- | | |
|---------------|------------------|
| 1. Angola | 8. Namibia |
| 2. Botswana | 9. Seychelles |
| 3. DRC | 10. South Africa |
| 4. Lesotho | 11. Swaziland |
| 5. Malawi | 12. Tanzania |
| 6. Mauritius | 13. Zambia |
| 7. Mozambique | 14. Zimbabwe |

Importance of Livestock - SADC

- SADC economy largely agri-based
- 4-40% GDP accounted for by agric
- 38% agric GDP is of livestock origin
- Livestock contribution under-estimate (?)
 - o Manure value (?)
 - o Cow dung for fuel (?)
 - o Cow dung other uses (?)

Livestock population of the SADC Region

- 44 million cattle
 - 46 million sheep
 - 25 million goats
 - 3.6 million pigs
 - 102 million poultry
- Proportion of indigenous AnGR varies from 50% (Botswana) to ca. 99% (Tanzania)

SADC Policy on AnGR

- **Mission:** " promote common sustainable approach to livestock production, ... create employment, improve living standards and meet food security objectives ..."
 - **Strategy:** Improve breeds & breeding methods with emphasis on indigenous livestock ..."
- a) Adaptive characteristic
b) Fertility
c) Survivability

Project formulation workshop Gaborone 1997

- Enhanced awareness of each other's situation
- Identification of priority areas requiring attention

- Formulation of a joint plan of action
- Recommendation of a project formulation mission

In-country activities

- Identification of a national focal point in the lead ministry carrying the agriculture/livestock portfolio
- Identification of a national contact person - National Coordinator (NC) and an alternate (Alt-NC)
- Identification of a national advisory committee (NAC)
- Identification of local stakeholders
- Identification of national priority activities
- Development of working documents, e.g. breed field guides
- Enhanced publicity on conservation of agro-biodiversity and of AnGR
- policy adjustments in line with growing awareness

Community-based MGT of AnGR Swaziland (Hagmann and Drews 2002):

- Breeding goals in a communal situation
- Community and breeders' rights
- Lack of legal and policy framework in SADC countries adequately addressing intellectual property rights (IPR) in relation to animal genetic resources
- Economic evaluation of animal genetic resources
- Stakeholder participation in planning animal genetic resource management
- Sustainability and conceptual framework of community-based management of animal genetic resources

Incentives for MGT of AnGR - Zambia 2001

- Review genetic resources legislation
- Harmonise genetic resources legislation
- Capacity building + adjustment of curricula to include bio-diversity
- Donor support in community-based management AnGR
- Recognise & protect rights of smallholders as custodians of agro-biodiversity through policy and legal framework
- Develop *sui generis* for protection of new plant varieties
- Need for SADC countries to work together – collaboration

Policy framework - Angola 2002

- SADC countries have inadequate policies/legislation to protect to protect indigenous AnGR from bio-piracy
- OAU model of legislation may guide African countries develop own policies and legislation
- SADC countries produce policy & legislation based on *sui generis* system
- Harmonise bio-safety regulations within SADC
- Develop legislations regarding GMOs
- Identify training needs of SADC countries

Capacity building

- Domestic Animal Diversity information system (DAD-is) – Arusha
- Breed survey methodology – Bulawayo Zimbabwe
- Breed survey data analysis methods – Pretoria
- TOT on SoW – AnGR – ILRI Addis Ababa

Concluding remarks

- Awareness enhanced – mainstreamed
- Limited Capacity – need for training
- Inadequate legal/policy framework
- Inadequate resources

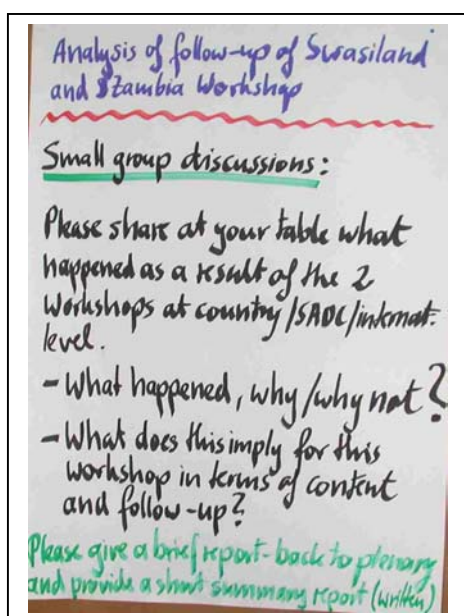
Recommendation

- Coordinated formulation of legal/policy guideline
- Common forum at adoption
- Sui generis legislation is required – to capture AnGR
- Food for thought (?)

Plenary discussion

- Seychelles was not a participant in the SADC FAnGR programme
- The amount of the 38% contribution of agriculture to the GDP was questioned because factors such as draft-power, lobola, the use of manure for fertilizer, fuel and building etc were not taken into account. Research would show it to be considerably higher.

2.2 A review of the planned follow-up activities and impacts of the previous workshops



After the overview, groups of people who have been in the previous workshops and other participants were formed to discuss what has happened since:

The results of the group discussions are shown below:

WORKING GROUP 1:

Group members: Morten Walloo Tvedt - Beate Scherf - Carter Mompisi - Siphu J. Hiemstra - Joham Campher - Noel Chintsanya - Isolina Boto - Elzbieta Martyniuk

Follow-up on MBABANE

1. Increasing profile of AnGR as agro biodiversity component (Montreal agro-bio Symposium on United Nations University presentations of AnGR case studies from Mbabane)

Recognition and support at international forum

7 th SBSTTA	Nov	2001	—————	↓
6 th COP	Ap	2002		

set of COP decision on AnGR

2. CBM of AnGR concept introduced to FAO (CGRFA - 9th)
Practical implementation of CBM of AnGR in SADC countries

- Malawi (chicken) WHO MORE?
- Botswana (chicken)
- Lesotho (horse)

guidelines developed

3. Valuation of AnGR

Simon Andersen

ILRI

WORKING GROUP 2

Group members: Lothar Gündling (rapporteur) - Baitsi Podisi - Adam Drucker - Paula Pimentel - Paul Karanja - Rainer Neidhart - Joyce Njoro - Elija Rusike

AchievementsBotswana:

- Genetic resources policy being prepared;
- Livestock legislation being received (not yet concerning AnGR);

Zimbabwe:

- Biodiversity policy under preparation (mostly plant GR oriented)
- GMO policy under preparation;
- Intellectual property rights legislation being prepared with NGO and community participation

Mozambique:

- Awareness has been raised
- Livestock development policy has a chapter on aspects such as conservation of genetic resources, including AnGR

Kenya:

- National animal health legislation being reviewed

Obstacles, difficulties:

- Awareness of stakeholders concerning AnGR still low
- Capacities need to be strengthened

WORKING GROUP 3

Group members: James Msechu (rapporteur)- Dr. Jacob Wanyama -Gil Nhantumbo Antonella Ingrassia - Jose Barroso - Ilse - Jamu B

Community level

- Support CBMAGR in this regard
- Why? - Nobody assigned this recommendation

Policy & legal framework

- Attempts to address the issue of developing legal/policy framework:
 - RSA - draft legislation - specifically addresses AnGR
 - Kenya - draft policy developed - A breeding ----- serves conservation
Community involved
 - Mozambique - is reviewing policy including to AnGR
 - Tanzania - MAFS draft on bio safety and livestock related legislation are under review. No details are clearly known in relation to AnGR.
 - International level - A breeding policy being developed - see bodilet

What does this imply?

Current workshop will provide information to offer to those working on the drafting concrete ideas for inclusion in the policy

WORKING GROUP 4

Group members: Mtei - Dorah -Sonia -Boodoo - Zulu -Ekpere -Beard

What happened

1. Networking + coordination into agro biodiversity
2. CBFAnGR guidelines / no evidence of CBFAnGR activities
3. Policy guidelines / livestock policies / breeding policy
4. Raising awareness of FAnGR at various levels

What did not happen

- No proper implementation strategies of the previous WS
- Lack of accountability and responsibility (who initiated the holding of this WS) - SADC/GTZ later
- Outcome/output incorporated should be directed to those we want to influence

WORKING GROUP 5

Group members : Moyo - Jessen -David -Yvonne Mabilile -Seipati - Baxter Zimba - Kajinga

- Build on activities such as awareness to develop policies + regulations
- Capacity developed (core group NC's) to influence process to develop
- Capacity development of technical staff + farmers through breed survey
- Awareness of animal genetic resources with p/makers + community improved
- More emphasis on livestock production practices.
- Limitations of creating awareness in some countries due lack of resources

WORKING GROUP 6

Group members: Jacque Els - Romualdo Uaila -Hellen Nakimbugwe - S. Mbagu - Ed. Nengomasha - Joel Mamabolo -Thomas Mbeyela -Boki

Swaziland Workshop:

- Guidelines developed during the workshop will assist with the development + implementation of community Based Management of farm Animal genetic Resources. Currently many activities are still based on working with individual farmers, and not groups.
- The "Networking" groups have not been achieved, mostly due to the fact that these groups did not select/appoint convenors to give direction to these activities.

Luanda Workshop:

- The Policy Guidelines and OAU Model Law will assist countries currently based drafting FAnGR Policies to strengthen their policies. In Namibia the "Access to the Natural Resources and Traditional Knowledge Act" is currently being drafted initiated by the National Biodiversity Task Force and Plant Genetic Resources people? The developed guidelines will assist in strengthening the Act.
- Policy Makers/Directors of research accepted the proposed draft Policy Guidelines

The group reports were very encouraging. The facilitator tried to distil the major impacts from the table discussions:

Major impacts and lessons

- Some policy processes enhanced
- Networking and coordination resulting in integration of FAnGRE in Agrobiodiv.
- Guidelines developed
- Raised awareness on FAnGRE at all levels
- Strategies not implemented little accountability
 - Outcomes to be directed to those to be influenced
- Swaziland " working groups" lacked conveners
- Policy guidelines took WS output into consideration
- Capacity development at different levels
- More emphasis on livestock
- Awareness raising lacks resources
- Use national coordinators to take recommendations further:
 - Workshop should provide concrete input on the on-going processes

The lessons provided a number of hints on how to design the follow-up of this workshop for making maximum use of the rich experience and commitment.

3 Presentations and discussions on Topic 1: Sustainable use, improvement and access to FAnGR through experiences at the national level

The workshop was divided into three major topic blocks in each of which several discussion papers were presented. After each presentation there was a table discussion on the paper to process and internalise the content and to distil key issues which need to be debated / or taken into consideration in the further discussions. The issues were clustered later and group work organised around these clusters.

In the first topic, four presentations were explored:

1. Joyce Nkogi Njoro & Leia Mpoke – *Community-based Livestock Initiatives Programme (CLIP): Pastoralist Indigenous knowledge and domestic animal genetic conservation*
2. Jacob Wanyama – *Intermediate Technology Development Group (ITDG) – Eastern Africa: Promotion of Livestock Genetic Resource Diversity in Kenya.*
3. Johan Campher – *DNAfrica (PTY.) Ltd.: Breed Improvement – A perspective of the business sector.*
4. Merida Roets¹, Justin Van Fleet², and Stephen Hansen² – ¹ *Scientific Roets CC*, ² *American Association for the Advancement of Science: Protecting the Intellectual property and maintaining biological diversity of traditional ecological knowledge holders: The marketing of the South African Boer Goat and its IPR implications.*

Question for analysis of presentations

Considering the case presented, what are the three main policy, legal or regulatory requirements to enhance conservation and use of AnGR?

3.1 Joyce Njoro and Mpoke Leina: Pastoralist Indigenous Knowledge and Domestic Animal Genetic Conservation

Community-Based Livestock Initiatives Programme (CLIP)

Aim: To improve livestock production in eastern Africa through empowerment of local institutions, advocacy and networking to influence adoption of favourable policies.

Introduction

- Livestock plays a major role in the economies of the Eastern African countries

Importance of Livestock

- In Kenya 80% of the total land is ASALs
- Ranching and livestock keeping activities utilize 31%
- Agro-pastoralism utilizes 19% of this land
- ASAL Environment
- Life in the ASALs

Best Practices

- Certain practices have evolved with time to cope with the conditions in the ASALs;
- Pasture and fodder management
- Breeding
- Herd management
- Drought coping mechanisms
- Ethno-veterinary practice and traditional food processing technologies
- These best practices have survived through well-built mechanisms of information flow facilitating efficient community learning processes.

Challenges

- Poor Government policy
- Civilization
- Lack of proper documentation
- Insecurity
- Hindrances to information flow

Conclusions

- IK provides building blocks for empowerment of the poor.

Comments

- Best practices included Indigenous Knowledge and included ways of controlling breeding and drought management. Disease was a major constraint in herd management. Drugs do not reach villages and traditional practices replace them. Some IK practices are being validated by scientists

Plenary discussion

- Market systems are in place but the middleman benefits - not the pastoralist. Selling is not part of the culture and speculators often cheat. Masai buy cattle from other communities, fatten them and then sell, but do not use or sell their own breeding stock.
- Environmental damage is the result of a high stocking rate caused by the belief that wealth is measured in animal numbers. Previously, a balance existed. Environmental problems are the concern of the Government.

3.2 Jacob Wanyama: Generating Benefits through Sustainable Use and Conservation of Farm Animal Genetic Resources in the SADC Region

Intermediate Technology Development Group (ITDG) – Eastern Africa

Introduction

- Kenya is located at the east coast of Africa and borders Ethiopia and Sudan to the north, Somalia to the northeast, Uganda to the west, Tanzania to the south and Indian Ocean to the east. Share Fresh water lake (L. Victoria) to the West.

- Enjoys tropical climate ranging from humid, temperate to very dry.
- Population – More than 30 million with up to 42 different tribes
- Main economic activity dependant on agriculture and livestock production
- Intermediate Technology Development Group Eastern Africa is part of international development agency helping to eradicate poverty in developing countries by developing and using technology, and demonstrating results, sharing knowledge and influencing policy.
- Presently is working in five technology areas which fall in four aims namely: Reducing Vulnerability; Making market work for the poor; Improving Access to services, systems and structures and Responding to new technologies.

Importance of Livestock genetic resources to Kenya

- 70% of Kenya is Arid and Semi-Arid supporting 20% of the population
- Livestock production is the major contributor of the economic activity and food security in this area.
- Livestock kept is predominantly indigenous breeds.
- It is estimate that livestock production contributes about 10% of GDP in the East African Region.
- Indigenous livestock breeds are valuable reservoir of genes for adaptive and economic characters.

Role of Livestock keepers

- Majority of people living in ASA areas are Pastoralists and agro-Pastoralists whose main economic activity is livestock keeping.
- Pastoralists and agro-pastoralists have bred livestock for centuries for different purposes.
- Main species kept in Kenya includes: cattle, camels, sheep, goats, rabbits, "poultry" dogs and donkeys.
- The different breeds of these species are classified according to communities, which rear them. Over the centuries, Pastoralists have accumulated a lot of knowledge on livestock breed, breeding practices and healthcare.

Policy context

- Local livestock breed in Eastern Africa and indeed all over the world is under threats of extinction as a result of inappropriate breeding programmes of cross-breeding
- As a result, the genetic diversity is slowly eroding and being replaced by more suitable breeds that require higher level of management
- The situation is worse in high potential areas were it is estimated that livestock genetic pool in Kenya for cattle in Kenya has reduced by 50%. This has been accompanied by loss of indigenous knowledge on livestock breeding.
- One can say Pastoralists and agro-pastoralists in ASAL areas have not been affected substantially by the cross-breeding programmes since the upgrading programmes are mainly focused on high potential areas.
- As a result communities in these areas still posses the widest varied of livestock breeds and vast knowledge on their management.
- However, current trend, raises concerns on how long the will continue to do so. These include:
 - The lack of clear breeding policy and programmes in these areas.
 - Improprate development programmes
 - Increasingly hostile environment occasioned by frequent drought and conflicts
 - Lock of public services and infrastructure

Approach

- ITDG recognizes that promotion of sustainable utilization and conservation of indigenous livestock genetic resources diversity is hampered by:
 - Lack of information on these breeds and indigenous breeding practices

- Inappropriate breeding policies and programmes and services
- Poor or lack of motivation weak institutional capacity for indigenous livestock breeders.
- Based on this premise, ITDG-EA is implementing a programme of work in the East African Region that aims at influencing the government in the region to develop policies and programmes that promote sustainable management of indigenous livestock genetic resource diversity through:
 - Incorporating indigenous livestock breeds and breeding programmes into national breeding programmes.
 - Motivating indigenous livestock breeders to conserve and promote valuable livestock genetic material by strengthening their institutions and improving market access
 - Approach cont.
 - To do these ITDG is working with indigenous livestock breeders using its past experience in Community-based Animal Healthcare and Agricultural Biodiversity programmes.
 - So far, the programme has started work in three districts namely, Samburu, Turkana and Makueni.
 - In Kathekani in Makueni, the programme is responding to the local livestock breeders desire to acquire improved indigenous Galla goats through officiating access and capacity building.
 - In Samburu and Turkana District, the Programme has collected indigenous knowledge on livestock breeds and breeding practices in a bit to understand the ingenuous livestock breed systems and constraints so as to validate and document this knowledge
 - Preliminary results of this study show that:
 - Pastoralists have a wealth of knowledge on livestock breeds. They unlike agro-Pastoralists of Makueni, have expressed the wish to maintain their indigenous breeds
 - Most livestock breeders acquire there breeding material through inheritance, dowry, gifts, purchasing and raiding
 - Based on the findings of the study, ITDG-EA is developing a Community-based Livestock Breeds Diversity and Management Programme which involves:
 - Promotion of indigenous breeds at breeders level through capacity building, development of community-based breeding programmes; awareness creation through exchange visits and breeds shows and improving access to market
 - Advocating for appropriate policies and programmes through strengthening informal livestock breeders
 - Promoting participatory research and breeding programmes
 - Facilitating regular policy level meetings and workshops
 - As a result of increasing recognition, the revised draft Kenya livestock Policy recognizes the need to promote indigenous livestock breeds by encouraging decentralization of breeding services and encouraging the recruitment of other animal species (both indigenous and exotic) in breeding programmes. However, this policy still has to be passed by parliament and programmes developed. ITDG-EA together with other partners is involved in this process at policy level to ensure that it reaches its logical conclusion.

Conclusion

- Kenya is largely Arid Semi-arid land in which livestock keeping is the main economic activity
- Majority of livestock breeds kept in these areas are indigenous
- Kenyan's livestock however, Kenya's livestock breeding programmes are impacting negatively to livestock genetic diversity.
- IITDG-EA is implement a community-based livestock breed diversity management programme which seeks to promote sustainable utilization of livestock genetic resources in East Africa

Plenary discussion

- Although the majority of livestock is regarded as being indigenous, there is extensive erosion of the breeds due to crossbreeding and replacement with exotics
- IK and management of purebred indigenous breeds should be incorporated into existing draft policy
- Any tool developed should not have a negative impact. IK should be seen as a building block of a legal framework.
- There are different breeding programmes in different areas to suit e.g. commercial or local markets. In Kenya's arid and semi- arid areas, indigenous livestock provide a large quantity of meat and compete with exotics on the market.
- Borans reached the international market. Indigenous breeds must be developed for future markets but must also support local populations

3.3 Johan Campher: Limitations and constraints in international trade in animal genetic material: a businessman's perspective

DNAfrica (PTY.) Ltd.

Breed Improvement – A perspective of the business sector

Introduction

Southern Africa has a vast resource of indigenous species and breeds of livestock. Indigenous livestock breeds are unique:

- Highly fertile;
- Long productive life;
- Low mortalities;
- Exceptional performance of crossbred progeny;
- Good feed conversion ratios;
- Wean heavy progeny in relation to the dam's weight indicating high milk production;
- Low maintenance requirements due to smaller body weight;
- Tick resistance;
- Tolerant to the tick borne disease;
- Can walk long distances and climb mountains; and
- Absence of parturition difficulties when used in crossbreeding.

Livestock has much to offer. Stark contrast to a period when colonial powers brought exotic genetic material to Africa. Farsighted animal scientists realised the importance of the region's indigenous breeds.

For many years livestock breeders did not consider South Africa's adapted genetic material:

- Lack of indigenous breed characterisation;
- Poor publicity/advertising by livestock owners and breeders' societies;
- Political and economical isolation of South Africa;
- Limited financial resources;
- Perceived poor animal disease status in the sub-region;
- A lack of scientific research comparing indigenous breeds to exotic breeds;
- A lack of some suitable exporting infrastructures;
- A lack of policy and a common goal;
- A lack of understanding of global markets; and
- Poor legal and intellectual property protection support

In the case of ostriches that a very lucrative smuggling market existed. Thousands of birds were smuggled into South Africa's neighbouring countries through to other regions. The smuggling of the Angora goat also took place. Smuggling only occurs in cases where the Government imposes a ban on export of genetic material.

During the years preceding the change of Government in South Africa, in the past fair amount of genetic material, from other countries in the SADC region were imported into South Africa e. g. Tuli, the Boran, the Damara. Trade commercial animals within SADC-countries still fairly common.

After the dismantling of sanctions in the early nineties in South Africa, veterinary protocols, for export of semen, embryos and live animals were established. Breeders made their own deals with buyers from abroad. Efforts to form trade organisations, such as the South Africa Australia Breeders Company (SAABCO) failed because of a lack of experience.

Another problem that hampered growth in the exporting industry was export that is before the Foot and Mouth disease (FMD) outbreak in 2000, including was the exporting of genetic material collected from animals of average to poor quality. Breeders export anything to please foreign buyers. This practice gave everybody a bad name.

It is important that something must be done about this free-for-all trade in genetic material. Some form of control, either by legislation or voluntary cooperation between exporting agents, and countries, must be in place. A sound and proven argument for trade in genetic material exist. Creating a demand to conserve the breed. The Bezuidenhout sheep breed (Kruger, 2003, personal communication), for instance, has recently disappeared because there was absolutely no demand for it, by the white farmers – black had no look in, plus the devastating drought which still exist.

Constraints and limitations

- Veterinary protocols. Lack of veterinary protocols. International organisation needs to set a standard for the sub-region. Negotiating protocols is a very lengthy process. In USA, 99% of their imported genetic material from SA came via Canada. Canadian veterinary authorities approved a protocol. Embryos were implanted into recipient animals and the pregnant recipients exported into the USA.
- Lack of staff is a serious problem in the SADC-region's veterinary offices.
- Export incentives: A bigger emphasis should be placed on incentives to export genetic material.
- Accountability: Breeders, agents and exporting companies disappeared after exporting dubious genetic materials overseas. There was no guaranty of quality, no independent third party who can look after the interests of both the client and the supplier, and no guarantee of the number of pregnancies resulting from embryo transfer. Required a body or organisation to act as an independent mediator. Unscrupulous people came into the business, smugglers on a pyramid scale.
- Pedigrees and performance data: In the SADC-region there is a lack of animal recording and performance testing facilities. No cow acceptable pedigrees and performance data available (certificate supplied to client on pedigree performance data). No formal and legally sound animal identification system.
- Cost of producing embryos: Expensive laboratory tests. Breeders reluctant to send top quality animals to AI and embryo transfer centres. Many of the tests required by foreign veterinary authorities are unnecessary.
- Participation in the market by parastatal and non-governmental organisations
- Private businessmen cannot compete against parastatal and non-governmental institutions. Scientists and visitors visit institutions and are told of the possibilities of exporting genetic material – free advertising. Businessmen rarely have the opportunity to address workshops and symposia.
- Lack of experience: Serious mistakes caused them huge losses. We must keep our promises, after sales service and guarantees.
- Risk: Credit risk

- Transfer risk
- Transactional risk
- Diverse local and overseas laws and regulations: Member states in the SADC needs a set of common standards, laws and regulations.

Conclusion

- There are many pitfalls and the risks are high.
- Southern African sub-region must work together to set a common goal and policy regarding trade in genetic material.

Plenary discussion

- Standards. IOE (Animal Health) was mandated to set international standards for genetic resource products. The standards are too high for the region but it is a situation that cannot be avoided
- Protocols differ from country to country despite the standards and countries cannot comply. This should be raised as an OIE issue.

3.4 Merida Roets, Justin Van Fleet, and Stephen Hansen: The marketing of the South African Boer Goat and its IPR implications

Merida Roets¹, Justin Van Fleet², and Stephen Hansen²

¹ Scientific Roets CC, ² American Association for the Advancement of Science

Introduction

- The South African Boer Goat is without question the most superior meat goat in the world
- Boer Goats genetics are sought after internationally

Grabbing an opportunity

- In the early 90's some farmers saw an opportunity to earn income by exporting Boer Goat genetics (semen, live animals, embryos)
 - A large infrastructure investment was made
 - Some vendors provided poor quality
 - Large amount of time and organization went into developing export protocols
- However some animals left in the country via Zimbabwe – to Australia – to New Zealand – to Canada – to USA (Boer Goat auction 1993 - \$ 80 000 for a doe
..... LED to

Creation of threat

- Development of the “Australian Boer Goat Breeders Society”
- Development of the “American Boer Goat Breeder’s Society”
- Similar to the “Rooibos” tea fiasco, the “Texas Redhead” is gaining recognition in the USA (is it registered as such?)
- These countries pay (cost until recently) SA Boer Goat Society for judging and training services

Evolution of problem

The South African goat Industry has historically been under-commercialized

- Number of goats available for consumption reduced drastically in the 1030' due to “Goats and Sheep” legislation
- S. Africa was cut-off from export opportunities

- Exploitive nature of the “speculator” industry
- Poor development of the emerging sector who own most of the goats in the country
- Poor development of goat meat market locally – goat meat was not considered a commodity of importance to the white market (Thus no marketing Board)
- Goat primarily used for traditional purposes
- Perception of “smelly”, “tough” and “eating garbage”
- The South African Goat Industry is NOW entering foreign markets due to the establishment of a Public Enterprise positioning itself as the South African Goat Marketing company – The Kalahari Kid Corporation
- Two markets are targeted
 - Local Goat meat Market
 - Foreign markets
 - The fledging South African industry is competing foreign markets against our own genetic material
 - offered by development countries that have well-developed international marketing systems

Evolution of project concept

- Discussions were held with the firm Venerable in USA
 - Michael Collin is a member of an international group of lawyers who represent Developing Country Indigenous Knowledge Owners in protecting their Indigenous Resources from exploitation (Pro-bono)
- Discussions were held with the Human Rights Division of the American Association for the advancement of Science
 - Stephen Hansen and Justin van Fleet have developed a tool that can assist Developing Country Indigenous Knowledge Owner in “un-packing” the intellectual Property Rights possibilities (Are interested in possibilities in “testing” their tool in Africa)
- Discussion were held with Geneticists of the University of Pretoria
 - The possibility exists to “patent” gene strings that show function
- Discussions were held with the Boer Goat Breeder’s Society
 - They have established a South African Boer Goat” trademark and a trademark for the South African Boer Goat Breeder’s Society
- A visit to China revealed the regression of imported Boer Goats to the “indigenous” type
 - This raises the question of “inherent knowledge” that local breeders are unable to transfer via training
- Inherent “stockman ship” of South African livestock specialists, owners, breeders
 - Through our legacy of Prof. Bonsmar and his theories regarding “functional efficiency” for adaptability in the Tropics

Purpose of the project

- To make intellectual property protection options more understandable and readily available for the owners of the Boer Goat resource
- To help the owners of the Boer Goat Resource understand and identify potential protection mechanisms already present in the current intellectual property rights (IPRs) and public domain regimes for traditional knowledge
- To identify the knowledge, types of knowledge, as well as cultural and interest-related aspects of that knowledge related to the South African Boer Goat
- To secure the Intellectual Property Rights surrounding the Boer Goat for the benefit of the Boer Goat resource owners

Possible IP protection options for the South African Boer Goat

- *Patents*
- *Petty (or utility Patents)*
- *Plant Patents*
- *Plant Variety Certificates*
- *Registries*
- *Trade Secrets*
- *Intellectual Property and Biodiversity*
 - *Access and Benefit Sharing*
 - *Different types of Benefits*
 - *Start-up/upfront benefits*
 - *Process benefits*
 - *Product benefits*
 - *Moral and relation benefits*
- *Geographical Indicators*
 - A geographical indicator identifies a good as originating in a territory of region or locally in that territory, where a given quality reputation, or other characteristic of the good is essentially attributable to its geographical origin.
- *Trademarks*

Implementing the SA Boer Goat IP project

- Document the knowledge
 - Name or description title of the resource to be protected
 - Summary of the process of discovery / development
 - Resulting Product description
 - Variations of the product (if any)
 - Description of Use
- Follow through an IP option (using model)
- Designate an IPR Committee Group that represent the stakeholders (to handle the registration processes in collaboration with a legal professional)

Conclusion

- A system exists to clarify IP issues of indigenous resources
- The time is ripe to implement a case study internationally to test legislation for the benefit of developing countries

Plenary discussion

- There are about 100 000 Boer Goats in South Africa from over 300 breeders
- There are no records of test cases of IPR legislation between a First and Third World country. A call was made to implement a case study internationally to test legislation for the benefit of developing countries.

3.5 J.F. Els: Synthesis of Topic 1: Policy and Legal Requirements

1. James Msechu: Management of Farm Animal Genetic Resources in SADC Region
 - Brief Review of Activities.

The economy of the SADC Region is largely agri-based, with agriculture contributing between 4-40% to the GDP – 38% of the GDP is of livestock origin (calculated basically on the income from the meat and not taking into account the monetary value of animal draught power, dung as fuel or

dung as fertilizer, hides and skins or cultural values). Total livestock population for the Region is; 44 million cattle, 46 million sheep, 25 million goats, 3.6 million pigs, 250 million poultry.

The Programme started with a Project Formulation Workshop in Gaborone, Botswana, during February 1997. The Programme Protocol was developed and submitted first to the SADC Council of Ministers, and then to the Donor Organizations, for funding. All SADC Member Countries, with the exception of Seyshelles form part of this programme. The DRC came on board at a later stage.

The Programme had as first activities; (a) the identification of National Focal Points, (b) the identification and appointment of a National Coordinator (NC) and an Alternate Coordinator (Alt-NC), and (c) the establishment of an operative communications network between all the NC's and the CTA in Pretoria, where the Programme is housed in the National Department of Agriculture. Country activities identified for the programme were; (a) identification of all national stakeholders, (b) identification of national priorities, (c) development of national working documents, eg. breed field guides and (d) enhanced publicity on conservation of agro-biodiversity. This was achieved in all the participating countries. All these activities were successfully completed. The countries are currently in the process of completing National Breeds Surveys, a first in the world. All member countries are participating in the Compiling of Country Reports on the State of Farm Animal Genetic Resources, for inclusion in the First State of the World Report on Farm Animal Genetic Resources.

During 2001 a Community Based Management of Farm Animal Genetic Resources Workshop was held in conjunction with GTZ, in Mbabane, Swaziland. It was identified during this workshop that there exists a need for the (1) development of breeding goals for the communal situation, (2) address the role of Community and Breeder's rights, (3) address the lack of legal and policy frameworks to adequately address IPR in relation to FanGR, (4) economic valuation of animal genetic resources, (5) the need for stakeholder participation in planning the management of FanGR, and (6) the sustainability of CBMFAnGR.

A similar workshop was held later during 2001 in Zambia where the following was identified. There is a need for; (1) reviewing of genetic resources legislation, (2) harmonization of genetic resources legislation, (3) capacity building, (4) donor support for CBM of FanGR, (5) recognition of small holders as custodians of indigenous livestock, (6) the development of a *sui generis* legislation for the protection of FAnGR and (7) collaboration between SADC Countries.

During March 2002 a Policy Guidelines Development Workshop was organized in Luanda, Angola. SADC Countries have inadequate policies/legislation to protect AnGR. The OAU Model Law was provided and studied as a guideline. Many modifications were done to this Model Law and the SADC Countries were advised to use this as a guideline to produce policies based on *sui generis* system. There was also a request for the harmonization of bio-safety regulations.

The Programme has done the following to assist with Capacity Building in the Region; (1) Training for all NC's and Alt-NC's on the use of the Domestic Animal Diversity Information System (DAD-IS) in Arusha, Tanzania, (2) Training of the NC's and Alt-NC's on Breed Survey Methodologies to be used in the National Breed Surveys, in Bulowayo, Zimbabwe, (3) Training of enumerators to execute the Breed Surveys, (4) Training on Breed Survey Data Analysis and (5) TOT on SoW Report in Addis Ababa and Pretoria.

Awareness creation, regarding FanGR, has been mainstreamed into the activities of member countries, as has the inclusion of AnGR activities into the recurrent budgets of member countries. There is need for capacity building regarding issues related to the development of policies and legal frameworks on AnGR.

Plenary Session

The approach to the workshop proceedings should be at a country level in order to integrate it into country policy but must take regional perspectives into account. However, too great an accent on country level strategy might result in other countries not identifying with the issues.

4 Presentations and discussions on Topic 2: Legal and regulatory approaches at national and regional level

The second block of presentations comprised 4 papers:

Siboniso Moyo – *Department of Livestock Production and Development, Zimbabwe*: Policy and legislation in the SADC member states: Needs and constraints

Helen N Nakimbugwe – *National Animal Genetic Resources Centre and Data Bank, Uganda*
The Animal Breeding Act of Uganda

Ilse Koehler-Rollefson – *League of Pastoral Peoples*
Protecting traditional knowledge of livestock keeping communities: An example from India

Morton Walløe Tvedt – *Fritjof Nansen Institute, Norway*
Approaches of the Nordic countries: IPR, ABS and management of AnGR

4.1 Siboniso Moyo: Legal frameworks relevant to the Management of Farm Animal Genetic Resources in the SADC region Department of Livestock Production and Development, Zimbabwe

Presentation Outline

- Introduction
- International conventions and instruments
- Regional frameworks
- Current situation in the SADC
- What are the needs
- Suggestions for way forward
- Conclusion

Introduction

- SADC places a great emphasis on food security and poverty reduction through the sustainable use of the region's natural resource base, of which farm animal genetic
- Success in the management of FAnGR resources will to a great extent depend on an enabling policy environment
- Draft guidelines for the development of regional and national policy on the management of FanGR

International conventions and instruments/regional legislation

- Convention on biological diversity (CBD)
- World Trade Organisation (WTO)
- Trade Related Intellectual Property Rights (TRIPs)
- African Model Legislation for the protection of the rights of local communities, farmers and breeders and for the regulation of access to biological resources
- Draft Model on national legislation on safety in biotechnology
- The Bio safety Protocol to the CBD
- The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS)
- OIE and Codex Alimentarius-Standard setting instruments under the SPS

Current situation in the SADC

- Very few countries have translated these international and regional measures into policies, legislation, strategies and action plans
- All countries have zoo-sanitary measures in place (imports, exports, movement, etc)
- Most animal health acts/regulations do not contain any specific provision on animal genetic resources
- A few countries have animal improvement acts that contain provision on collection, registration and use of animal genetic resources
- Some countries have the Biodiversity strategies and Action Plans in place, while others are still in the process of developing these.
- Relevant legislation is fragmented and is managed by different organisations, thus leading to an uncoordinated situation

Needs/Issues

- Finalise the development of the necessary legislation
- Adapt the OAU Model law to suit local conditions
- Consult wider in this process in order to capture the inter sectoral nature of these policies and legislation
- Need clear policies on importation of livestock breeds so as to minimise indiscriminate importations of exotic breeds
- Revisit/Explore the export regulations to ensure that they do not indirectly discourage use of certain breeds
- Develop regulations on the use of FAnGR during restocking programs
- Explore further the issues of types of benefits to be shared and how
- Establish clear institutional framework that to co ordinate this initiative and establish funding mechanisms
- Assess national capacity needs to drive this process and provide support accordingly (eg, IPR, patenting)
- Clearly define the roles of various players in this process, especially that of government.
- Lobby and advocate for harmonisation of policies and regulations at regional and international fora

Conclusion

- National governments need to provide an enabling environment for the development and implementation of appropriate regulations and laws that are necessary for sustainable management and conservation of FAnGR
- Use relevant regional and international legal frameworks as basis for developing national frameworks that cover aspects on access to genetic resources, benefit sharing, technology management and intellectual property rights
- Continue to lobby and advocate at all fora for recognition and inclusion of issues on the management of FAnGR

The plants have spoken - Animals need to speak even louder!!!

Plenary discussion

- It is evident that many African countries do not do their homework before ratifying conventions and do not realize the implications of the document that they have signed. In addition, representatives at a meeting do not necessarily reflect the countries opinions.
- There is a need for SADC countries to speak with one voice. Representatives should include well-qualified legal people, as technical representatives do not have the required expertise.
- The WTO is one of the best of the best of the fora available. SADC also has the Biotechnology Advisory Committee where all SADC countries are represented. This committee can deal with livestock issues.

- Other than South Africa, Namibia and possibly Egypt, no African country is represented in TRIPS. There is a strong group in Brussels, also in the WHO and the International Meteorology Organisation. SADC should take its initiatives from the OAU. SADC is now in the second phase of the SADC/UNDP/FAO programme.
- The SADC group should support sub-committees in the AU.
- Most issues discussed at the workshop will be discussed at FAO level. It is the responsibility of representatives to make sure that the issues are presented at this level.

4.2 Helen Nakimbugwe: The Animal Breeding Act of Uganda

National Animal Genetic Resources Centre and Data Bank, Uganda

Definitions

LAW (wide sense): Is an aggregate of rules and enforceable by judicial means in a given country

ACT: A formal decision made by a Parliament or other groups of elected law makers

UGANDA

- Tot. land area 241,548 km²
 - 75% arable land
- Agric. 49% GDP
 - Employs 80% total labour force
 - Population 24 million

Livestock population trends in Uganda 1984 - 1999

Livestock status

Important sub-sector

- 7.4 GDP
- 90% owned by Pastoralists, Small Holders
- 2/3 Marketed compared to 1/3 of Crop production

PER CAPITA AVAILABILITY

- Milk 40 LTS (FAO REC. 200 Lts)
- Meat 5.6 KGS (FAO REC 50 Kgs)

Historical development

1900 - 1930

- Branding of Stock Act, 1918
 - Cattle and Horses – economic importance
- Policies other issues e.g. breeding, health, feeding weak
 - Climate too harsh for exotic cattle to survive
 - Disease control especially tick borne diseases not envisaged
 - No change foreseeable in traditional cattle
- Later Policy concerned with removal of disease from marketed animals

1930 - 1960

- Policies addressed wider issues
 - extension, animal nutrition, research, education, diseases – more responsive communities
 - Improvement indigenous stock
 - selective breeding for resistance to tick borne diseases
 - increased milk yield for good start of calf in life

- Later use of exotic blood on locals adopted – faster
 - import of exotic cattle
 - institution of AI devices in 1960

1960 - 1972

- Continued emphasis on cattle
- 1966 ministerial policy statement on other stock
 - explored & plans made for their up-grading
- Interest in pastoral communities

1972 – 1979 no coherent procedure for implementing development policies

1980's

- Re-orientation to promote
- Productivity
 - Profitability
 - Conservation and sustainable use farm FanGR

1990s

- Dairy Master Plan
- Beef Master Plan
- Small Ruminant Development Plan

Dairy Master Plan

- Cattle breeding project
- Animal breeding policy/action plan
- Animal Breeding Act
- Other components e.g. Dairy Act
- Extensive consultation
- Farmers
- Technocrats
- Extension workers
- Universities
- Breeding companies
- Civic leaders
- External visits
- Literature
- Field observations

The Animal Breeding ACT, 2001

came into force – December 2002

An Act to Establish

- National Animal Genetic
- Resource Centre
- And Data Bank

An Act To Provide For

- Promotion
- Marketing
- Import & Export
- Quality Assurance
- The Implementation of the National Animal Breeding Policy (1997)
- repeal and replace the Branding Stock Act

Regulatory – Responsibility of Ministry

Registration & certificates

- all breeds
- animal breeders, associations
- AI technicians & inseminators
- Registration & issue

- licenses for animal breeding
- training schools & institutes
- animal brands
- import/export of animal breeds and genetic material
- establish a system of record keeping, breed registration, registration and regulation of breeders and their breeding stock
- review and approve national quality performance standards for animal genetic resources

National Animal Genetic Resources Centre and Data Bank NAGRC & DB

- Government Policies
 - Privatisation
 - Liberalization
- Body to GUARD & PROTECT national interest in animal breeding
- Body Corporate
- Operates on a commercial basis
- Under direction of Board of Directors
- Undertake activities as directed and funded by Govt. or other funding agents

Commercial Activities Of NAGRC & DB

- Production & sale of founder stock of fisheries resources
- Procurement, production & sale of ova, embryos and semen
- Sale of equipment necessary for production and distribution of genetic material

Systematic breeding

- No well organised breeding populations
- Farms too small for selection within herd
- Poor infrastructure
- Financial constraints
- = OPEN NUCLEUS BREEDING

Activities of NAGRC & DB as directed by Government

- National Animal Genetic Data Bank
- National Central Livestock Registry
- National Animal Genetic Resources Evaluation Centre and Laboratory
- Train technicians and farmers
- Promote herd recording
- Foster and encourage formation and development of Breed Societies and Breeders Associations
- Collaborate in research on genetic improvement

Conclusion

Animal breeding is the cornerstone for livestock improvement in Uganda

- Policy in place backed up by legal framework – Act enhance streamlining Breeding activities
- Contribute a lot to Poverty Alleviation

Plenary discussion

- The Government supports indigenous breeds in legislation promoting the formation of open nucleus breeding schemes using indigenous pure and crossbred breeds.
- Consultation was extensive and included traditional leaders
- Population density and structure can affect programmes of this nature e.g. AI is not effective in large countries with a widespread population. Could this model be duplicated in a country with such a structure bearing in mind that Uganda has 70% arable land?
- It is difficult to gauge the market input of the project as it is only in its early stages. The private sector is showing considerable interest and is active in the process
- There are plans to include further species in the project e.g. pigs and Boer Goats
- The project was in too early a stage to establish whether the farmers will buy the animals or return offspring? This raised the question of ownership. Issues such as this must still be addressed.

4.3 Ilse Köhler-Rollefson: Livestock Keepers' Rights" and Endogenous Development: Avenues for Capitalising on Indigenous Farm Animal Genetic Resources

League for Pastoral Peoples

LIFE: Local Livestock for Empowerment of Rural People

- Loose Network of NGOs and individuals supporting endogenous development building on
- Local knowledge and institutions
- Local animal genetic resources
- Local feed resources

GTZ Agrobiodiversity Project for Documenting Indigenous Knowledge about Animal Breeding (IK-AB)

- Participatory methods
- Community-centered
- Livelihood significance
- Social mechanisms for exchange of animals
- Not standardized

Observations

- Indigenous and official/scientific classifications do not match
- Many distinct breeds not documented scientifically
- Problems of breed identification can be solved by perceiving breeds as products of social networks

Herd book breeds versus indigenous breeds

	Herd book breed	Indigenous breeds
Founder population	yes	yes
Criteria/character traits	yes	yes
Pedigrees	yes	yes
Closed gene pools	yes	yes

Legal frameworks should consider future trends:

Advances in genetic engineering

- „Livestock Revolution“ (raised demand for animal products leading to expansion of intensive production systems)
- Globalisation

How can we create a level playing field for marginal livestock keepers ?

- Lessons from the „Seed Treaty“:
- Farmers' Rights: *acknowledge past, present and future contributions of farmers in all regions of the world.....in conserving, improving and making available these resources ...and their rights to save, use, exchange, and sell farm-saved seed...“*

„Livestock Keepers' Rights“

- Freedom of decision making with respect to breeding
- Secure access to pastures and grazing areas
- Non-material benefits (e.g. appropriate education for themselves and respect for IK)

Conclusions

- Animal breeders, esp. pastoralists, have much more of a collective identity than plant breeders
- The African Model Law is tailor-made for pastoral communities
- Need for innovative concepts of IPR protection for breeds that are the result of communal breeding

Livestock production at a crossroads:

- A more holistic concept for livestock development is needed
- Improvement by selection does not take that long
- Demand for livestock products will rise, but consumers also want meat and milk from healthy animals

The development of a few, large commercial suppliers of a livestock species in countries has resulted in some cases, to a drastic narrowing of the gene pool.

Plenary discussion

- LIFE only operates in India. The region is struggling to overcome poverty. The livestock revolution is very important to the population as it is a means of raising incomes and decreasing poverty
- The process requires regulation otherwise the profits go to the rich rather than benefiting the poor. A policy framework is needed as well as an increase of awareness.
- It was hoped that the workshop might result in some more innovative concepts of IPR.
- IK has brought out the importance of value-added traits but these have not been developed for benefit sharing. At present development of value-added traits is in the hands of speculators who gain from trading profits. E.g. the Nguni cattle of South Africa. The marketing chain must be adapted to allow poorer people to benefit by it.

4.4 Morten Wallow Tvedt: Nordic Approach to Access and Rights to Animal Genetic Resources

The Fridjot Nansen Institute

Implementation of International Environmental Agreements

Social Science:

- Political science
- Legal analysis
- Economy

My research is to look into how developing countries can take advantage of the TRIPs-agreement for development purposes. How to establish a *sui generis* intellectual property right system for the protection of plant varieties

This work is conducted by the Nordic Ministry Council on **Access and Rights to genetic resources**

- Legal regulation of exchange of genetic resources
- Property rights to genetic resources

The perspective is legal measures to contribute:

- Sustainable use of genetic resources
- Conservation of genetic diversity
- Benefit sharing arising from use

Law cannot fulfil these objectives alone, but is of aspect to take into account

The Nordic report and approach to these issues is utilitarian by emphasising these objectives as follows:

- To USE the AnGR in a sustainable manner
 - Conservation of genetic diversity (to have a viable genetic variation for future breeding)
 - Use and exchange of genetic resources is recognised as an objective *per se*
1. Property rights to farm Animal Genetic Resources (AnGR)
 2. Exchange of AnGR
 3. How to enforce the legislation of other countries

Property rights to Farm Animal Genetic Resources

Background:

The Nordic legal tradition is based on a compromise between private property rights; and a high degree of public regulation of the use of property; and public access to privately owned land

Genetic resources:

- Definition in the Convention on Biological Diversity article 2, subsection 9 and 10.
- Use of biological material for the purpose of taking advantage of their genetic material in a direct manner

Non-rivalry goods:

- a single gene that appears in a broad selection of individuals

Rivalry goods:

- the genome of each individual

Genetic resources have character of the both.

Implications for property rights:

- Rivalry goods: one person might have the factual control over the biological resource and thus its genetic material

If so it is possible for her to enforce a property right also by non-legal means, e.g. by restricting access to the individuals

Non –rivalry goods: a lesser degree of exclusive physical control of the genetic resources,
thus a larger need for enforcing a property right through legal measures (e.g. intellectual property rights)

Main observations in the Nordic countries were:

- Efficient control over the biological resources
- Animal thus have a character of being a rival goods, and rights to them can consequently be enforced by factual means not only by legal measures
- A large degree of use of private law agreements

From the perspective of efficient property rights this situation implies certain limitations:

- The right to the genetic resource end when the holder loses the control over the biological material
- The private law agreement can be enforced

Conclusion:

Physical control over the biological material gives a right to use the genetic material, unless otherwise undertaken by contractual terms

My thesis: There might be a need for creating a more general balance between users of An GR

Suggestions:

1. Establish a public right to An GR, *dominio publico* enforced by the nation
2. Establish a intellectual property right for the existing breeds that can be used as a negative right to balance other private rights

2. Exchange of farm Animal Genetic Resources**Finding:**

- that exchange of An GR is depending upon private law agreements
- non public regulations
- no standard Material Transfer Agreement (MTA)

The report concludes that this is functioning well at the present but that this might change

Limitations:

- Lack of enforcement upon third parties
- Lack of balance towards IPR (e.g. difficult to prove that a patent is void due to the lack of title to the genetic material that is included in an invention,

3. How to enforce the legislation of other countries**The Report lists alternative approaches:**

Measure A:	Regulation of Import of Genetic Resources;
Measure B:	Regulation of the Use of Genetic Resources;
Measure C:	A condition for Being Granted an Intellectual Property Rights;
Measure D:	Not as a Condition for Being Granted an Intellectual Property Rights;

Measure E:	Certification;
Measure F:	No Regulation of the Issue;
Measure G:	Record Keeping on Use of Genetic Resources;
Measure H:	Possibility of Enforcement;
Measure I:	Access to courts and administrative dispute resolution mechanisms;
Measure J:	Information.

Reasons for implementing such legislation:

- Promote the fair and equitable benefit sharing according to the CBD
- Establish a global system for fair exchange of GR (not specifically animal gr)

The focus in the Nordic countries is upon using penalty law, not imposing this as a term for granting patents

(Not legal under the European Union law)

If lack of information or wrong information about:

- The provider of genetic material
- The country of origin of the gm

Consequences: Valid patent, but punishment under domestic law

My reflection on this:

1. How shall this be effectively enforced?
2. How will this contribute to the fair and equitable benefit sharing?

The international debate is focused on imposing information as a prerequisite for granting patents

Switzerland suggested this in the Standing Committee on Patent Law under WIPO

My reflection: Is this suggestion really sufficient?

Requirement: information about origin Objective that shall be promoted: Fair and equitable benefit sharing

Thus a difference between the objective and the way to get there

Plenary discussion

- The focus of this legal approach was on the animals themselves and did not include the process of technology transfer
- The legislation was only took the Nordic perspective into account. As political considerations might affect the report. Its adaptation for individual countries should be taken into account.

4.5 Summary of critical issues raised during the first two rounds of paper presentations

The following issues emerged from the table discussions after each paper. They were clustered in plenary into the following 9 groups of issues:

1. Use of indigenous knowledge

- Recognition & integration of IK in documentation of FAnGR
- Not separate trad. knowledge from genetic resource
- Take into account indigenous knowledge

2. Breeding Policy

- Market development vs breeding
- Genetic impact assessment + plan for controlled breeding for exotic breed imports
- Recognition of role - indigenous breeds & farming systems
- Develop livestock MGT policies for different ecological zones
- Improve the genetic resources not only conserve
- Capacity building (gene mapping)
- Incentives for the export of animal products
- develop policy/legal framework to create need

3. Bio-piracy

- Mechanisms for assessing piracy
- IPR
- Identify cases + claims as basis for policy formulation
- Remove barriers to access markets for FAnGR
- Re-exports (to 3rd countries). A loss of commercial opportunity (to country of origin) or "bio-piracy"?
- What is the case for Boer goat IPR protection? What next? Holstein-Friesian??
- IPR must not lead to ruining traditional AnGR
- IPR must eventually contribute to conserv. and sust. use of local AnGR
- Use existing legal systems

4. Harmonisation of trade protocols in SADC region

- Set regional goals for reviewing intern. standards
- Strengthen the capacity of developing countries to negotiate international acts/laws
- Regional policies & leg. frame. adapted to local situations
- Establish and implement veterinary policy
- Stop stock theft through proper ID
- Harmonise animal identification system (SADC)

5. Include bio traders in the process of formulating policies and legal framework

- Involvement of private sector in policy making
- Take into account interest of all stakeholders/interest groups
- Policy be developed thru participatory approaches (key stakeholder)
- Needs of animals, people and rangeland to be integrated in policy
- Framework that recognizes the dynamics of pastoral development
- Creation or strengthening of local institutions that promote subjects of interest (institutions e.g. Farmer's Assoc)
- Define owners/community

6. **Inventory of available resources to allow appreciation of their value**
7. **Build alliances for WTO (for example)**
8. **Policy should allow for creation of trust funds into which royalties can be paid for benefit of communities**
 - Prior informed consent
 - Process: Analyse, Protect, Trade/use
9. **Quality assurance**
 - Standards for breeds & Products (Import vs export)

These issues were processed in the working group discussions following after the field trip.

5 Field Trip: Postsu Formento Impamutu Station

Report by Dr. Martins

The Station is very old and was originally established in 1925. Activity ceased in 1977 but restarted in 1992. It is a private enterprise designed by Dr Martin. He took the private tender from the Government in 1998. The farm is 1700ha in extent and is 60k from Maputo. Rainfall is low – 200mm in the previous year.

Under the contract with the Government he holds 150 cows, 100 Nguni from South Africa and 50 Landim from Mozambique. He holds five bulls to serve his herd, serving up to 65 cows per annum. He is a member of the South African Nguni Breed Society and all his cows are registered. He receives only a little assistance from the Government.

Last year he began to use his facilities to fatten the cattle of other farmers for market. At present he has about 60 head and expects to hold them for 1½ months. He also has additional farms where cattle are fattened???. Confining the animals is expensive in terms of feed and fence and he prefers to utilize the pastures. Some of his own off-take is fattened and sold. He is not a supplier of breeding stock. Twelve Bonsmaras are held for crossbreeding purposes.

He has two breeding seasons - the first a 3-month season between January and March and the second a two month period between July and August. The second period is shorter. The combined calving rate of the two seasons is 90-95%. The first season gives a calving rate in the vicinity of 79%. Animals bred in the second period are better quality as they are weaned in February and do not suffer from the stress of a dry season. January to March is the accepted breeding season of Mozambiquan farmers because it leaves the females in a better condition after calving down. If cows do not become pregnant in the first period the reason is established; if there are no apparent problems the cows are put to the bull in the second season. These are culled if they fail in the second season. The cows are also inspected by the Breed Society and inferior animals are culled.

He does not use AI. He has the tools but lacks semen from registered bulls. The only source of supply is in Pretoria some seven-hour drive away. This makes AI a costly option. Nguni bulls are bought in South Africa but the supply of the local Landim males is more difficult as their numbers are low. He has a controlled breeding programme. Inbreeding is avoided as the animals are recorded.

Mozambique has not yet set up its own registry; it has been proposed but the State is not committed to it. It can be done in association with the South African Breed Society but he is the only breeder using pure lines of local breeds at present as others tend to think that exotic breeds are a better option.

The Nguni's do well on the market. The animals are small but give higher returns because of their adaptive traits. The Brahman in particular has a lower resistance to disease and this lowers their fertility. Increasingly, NGO's are buying breeding animals as they are a competitive alternative to South African stock.

6 *Working Group Discussions on Benefit sharing, Including IPR Law Making, AnGR policy, content and process*

Guidelines for working groups

1. Based on the issues emerging from the presentations and your own experiences, what exactly needs to be achieved with a policy/legal framework in your topic?
2. What options of policies, laws + regulations are there/need to be developed? (examples)
3. What are the factors which cause positive or negative implications through these policies?/regulations
4. Which possible strategies + processes should be applied towards development of these policies/laws/regulations? (provide examples of successful practice + failures)
 - Please nominate a rapporteur who writes a 2-3 page summary of your discussions,
 - and a facilitator,
 - and a presenter to report back in less than 10 minutes! In a visualised form!

6.1 **Group 1 - Access, Benefit Sharing Including IPR**

Group members: Irene - Ilse - Paul Jessen - Nanyama - Mbeyela - Alvaro - Sipke - Merida - Mortel - Isolina Boto -Romualdo -Morupisi - Carmen - Ventura Macamo -Adam -Yvonne -Meghji

Issues to deal with:

Access

1. Access to animals
2. Access to genetic material i.e. genes
3. Access by whom
 - a) Scientists
 - b) Corporations
 - c) Local communities
4. The rights to the genetic material. Who holds the rights? (Common country region)
5. Prior informed consent
6. Access to legal institutions and information should be easy/cost effect for traditional/small holder farmers.
7. Access to indigenous knowledge.
8. Material transfer agreements should be included

Benefit sharing

- Monetary or non-monetary benefits
- Takes place from the moment of access of material and could be over an extended period of time
- Type of benefit sharing should be defined in the material transfer contract.
- Benefit sharing should be equitable and should also contribute to conservation of the genetic material.

IPR

- Disclosure of country of origin and prior informed consent (PIC)
- Breeders societies should be involved in the IPR issues such as trade marks, etc.
- Not over regulating traditional exchange of genetic material.
- Bio-technology commercialisation of genetic material (patenting) should include issue of benefit sharing
- Burden of proof of origin lies with the developer
- SADC should assist in capacity development of breeders in organising themselves to utilise and consent their genetic material.
- Information on breed characterisation such as social involvement, economic, phenotypical etc.
- Should be developed in all SADC countries as in basis.

(Prior art)

Access and Benefit Sharing

The group sorted out the original cards according to formulated main topics and discussed them extensively. The topics discussed were:

Access -

1. prior informed consent
2. use of indigenous knowledge
3. balance needs to be reached between access to AnGR and exploitation
4. in addition to contracts IPR protection may be needed
5. Prohibitive cost of enforcement of IPR may call for the development of a sui generis system for animals

Process:

- Analyse
- Protect
- Trade/use
- Use existing legal systems

IPR

1. IPR systems must include benefit-sharing mechanisms
2. what is the case for Boer goat IPR protection? What next? Holstein-Frisian??
3. penalty law is not the solution for infringement of IPR issues
4. IPR must not lead to ruining traditional AnGR
5. IPR must eventually contribute to conservation and sustainable use of local AnGR
6. not separate: traditional knowledge from genetic resource

Benefiting

1. policy should allow for creation of trust funds into which royalties can be paid for benefit of communities
2. development of legal framework to ensure benefit sharing
3. legislation at National-Regional level should include access & benefit sharing aspects.

Bio piracy trade & small holders

1. Mechanisms for assessing piracy
2. identify cases + claims as bases for policy formulation
3. remove barriers to assess to markets for FAnGR

Re-exports to third countries. At a loss of commercial opportunity (to country of origin) or " bio piracy "?

Discussions

The following were the key points that were raised in the discussions

- should we think about benefit sharing now?
- But the problem of benefit sharing is likely to become a problem as genetic engineering starts. This is likely going to happen pretty fast. Hence we need to put in place mechanisms early (genes could be moved)
Example: ILRI using genetic characterization to get vaccine against major diseases which may become commercial.
or case of red maasai
- It was felt that access should be defined

Results: of these discussions were as followed:

A) Access

1. Thus should be defined as access to what? Namely
 - a) Access to the animal
 - b) Access to genetic materials
 - c) Access to indigenous knowledge
2. Access by Whom?
 - a) Scientific
 - b) Corporate
 - c) Local
3. Should define the right to the genetic material i.e. who holds the rights
4. There is need for prior informed consent
5. Access to legal institutions should be easy cost effective for traditional and smallholder farmers
 - There is need to explore the local communities to present their issues
 - There is need for promoting the process of redress by local communities - but this may result in conflict where one community is willing to accept but not other
6. Should consider issue of material transfer agreements

Benefit Sharing

1. This can be monetary or non-monetary benefits
2. It takes place from the moment of initial access to material and could be over an extended period of time
3. Benefit sharing should be equitable and should contribute to conservation of the genetic material

IPR

1. Should emphasise disclosure of country of origin and prior informed consent (PIC)
 2. Breeders societies should be involved in the IPR protection such as trade marks
 3. Should not over-regulate traditional exchange of genetic materials
 4. Countries should endeavour to build capacity of breeders societies
- Biotechnology and commercialisation of genetic material (patents) should include the issue of benefit sharing - the burden of project lies with the developer

Plenary discussion

- On which level should IPR be used and who should benefit? Access to genetic material should be free of IPR. As soon as unique genes are removed they fall under the patent law and country of origin and proof of acceptance are required. Breeders' Societies must find measures to protect themselves from others acquiring exclusive right to their breeds.
- There are limitations in the understanding of the application of IPR. IPR legislation is complicated and must be formulated to apply to specific countries.
- It is difficult to apply plant legislation to animals. Plants are endemic to one region whereas animals are widely spread. Export animals are often upgraded to different standards and do not represent the original breed. The Dutch have an international register and inspect exported animals regularly.
- IPR is not the only way to protect IK. Other methods should be examined. Patenting is time consuming, expensive and necessary. Should an international tool be developed at regional level in order to set a precedent?
- *Sui generis* should be used for FAnGR.

6.2 Group 2-Law making

Group members: Lothar G. - Gil - Jose - Helen - Karanja - Brigitte - Rusike - Joyce - Msechu - Boki - Mbaga - Podisi - Johan Campher - Rainer - Baxter Zimba - Seipati

Based on the issues emerging from presentations and our own experiences, members of the group suggested that the following questions should adequately be answered during the law making process:

- What exactly needs to be achieved with the legal framework?
- What type of legal instrument are we talking about?
- What should be the real subject of the law? Is it a law about benefit sharing, IPR or something more technical?
- What should be addressed by the law?

FAnGR LEGISLATION**Overall objectives**

- **Sustainable management of conservation of FAnGR**
- Ensure or access whether Act is appropriate to conservation + sustainable use objectives

Specific objectives

- Livestock keepers rights or farmer rights or breeders rights need to be incorporated
- Quality assurance
- Promotion of AnGR technologies
- Implementation of International agreements
- Need for the protection of the rights of livestock keepers (crops vs. livestock)
- Import of AnGR needs control (Quality assessment, risk assessment)
- "Laws" which articulate future genetic engineering developments
- CBD should be basis of all systems of Assess + Benefit sharing
- Enact legislation to include breeders rights consumer/environment protection

Scope

- Promote technologies which facilitate conservation of FAnGR
- Awareness-raising and capacity - building for stake holders i.p. livestock keepers
- Sustainable management of livestock, including all forms of livestock keeping
- Regulate the use of bio-technologies in management of AnGR
- Export of FAnGR
- Promotion of biotechnology including risk assessment
- Import of FAnGR

Measures

- ----> In case of IPR : what should be protected?
- And what should the protection entail/give?
- Clarification of rivalry + Non-rivalry issues
- Physical ownership is not enough
- Increase awareness regarding indigenous breed characteristics (benefits)
- Recognition & integration of IK in documentation of FAnGR
- Take into account indigenous knowledge (Kenya + pastoral)
- Land use compatible with indigenous breed production systems
- Rights of access to land, pasture, water, are essential for pastoralists
- Extensive awareness creation re: the benefits of using indigenous breeds (vets, donors, policy makers)
- Regulate AI
- Promotion of livestock keepers/breeders associations
- Low required genetic impact assessment
- Create mechanisms for animal improvement registration
- Access to other resources (education, land, finance)
- Needs to be considered in FAnGR legislation
- Secure access to grazing - educate on livestock improvement and availability of resources

Institutional arrangements

- Advisory board
- Governments to bring marketers and producers together to discuss issues i.p.o. production
- Harmonization of within country activities on FAnGR (Advisory Committee)
- Fragmentation of responsibilities

Procedures (who should be involved?)

- Include bio traders in the process of formulating policies and legal framework
- take into account interests of all stakeholders / interest groups
- needs of animals, people and rangeland to be integrated in policy
- creation or strengthening of local institutions that promote subjects of interest (institutions e.g. Farmer's Assoc)
- Involvement of farmers/breeders in legislation development
- Governments to bring marketers and producers together to discuss issues i.t.o. production
- participatory consultation development of legislation (reverse "top-down" approach)
- policy formulation should be participatory
- harmonization of within country activities on FAnGR (advisory Committee)
- involvement of private sector in policy making
- policy be developed through participatory approaches (key stakeholders)
- framework that recognises the dynamics of pastoral development
- define owners/community

- get private enterprise involved to ensure sustainability
- fragmentation of responsibilities
- policies + strategies require translation into laws/regulations to become effective
- capacity of national governments needs to be strengthened
- roles of different actors need to be recognised in policy (ownership)
- Uganda have done a long way integrating genetic resources with legal consultations in local herds
- many documents + info are available to assist in drafting legislation
- extensive awareness creation re the benefits of using indigenous breeds (vets, donors, policy makers)
- increase awareness regarding indigenous bred characteristics (benefits)
- recognition & integration of IK in documentation of FAnGR
- take into account indigenous knowledge
- rights of access to land, pasture, water are essential for pastoralists!
- enforceability of contracts regarding breeding use of animals is low in developing countries
- clarification of rivalry + non-rivalry issues
- physical ownership is not enough

Additional aspects of law making

- Material is available for designing legislation and the law making process. Use as many documents as possible and involve people with FAnGR experience
- Concepts should be enforceable. It is dangerous to transfer comparable experience from other countries. Both legal and technical experts should be represented
- Ideas should come from IPR mechanisms as well as from legislation. Care should be taken that further fragmentation of laws and legislation is avoided - they need harmonization.
- Laws and legislation should comply with the CBD and other agreements such as the WTO agreement
- Trade discrimination should be avoided e.g. the GATT agreement
- There is a danger that IPR and legislation and IPR follow different principles. There should also be harmonization between rules and regulations for export and import and technology regulations
- A further workshop on documentation of IK and the support of traditional livestock keepers. It should extend to land and land access
- Countries should consider a national advisory board similar to that of South Africa

RAPPORTEUR REPORT OF THE GROUP DISCUSSIONS

Based on the issues emerging from presentations and our own experiences, members of the group suggested that the following questions should adequately be answered during the law making process:

- What exactly needs to be achieved with the legal framework?
- What type of legal instrument are we talking about?
- What should be the real subject of the law? Is it a law about benefit sharing, IPR or something more technical?
- What should be addressed by the law?

It was suggested that these questions could be addressed under an Overall Objective, Specific objectives, Scope, Measures and Institutional framework.

The following suggestions, proposals and issues are what members felt should be considered in the law making process

i) Protection of the rights of FAnGR Custodians viz. Breeders, livestock communities etc should be seriously considered.

ii) We should not rely so much on the African Model Law because it was compiled in the interest of certain groups. Although this Model had a lot of tools which could be used, the needs of our workshop are quite different and as such this model should only act a guideline in the whole process. It was pointed out that the meeting in Luanda borrowed a lot from it.

The Guidelines for the Development of a Regional and National Policy on the Management of Farm Animal Genetic Resources unfortunately lacks the technical part of which we should try to fill in. The Legal leg has already been covered in the two documents and it is now the **technical leg** which needs to be translated into law to be able to give answers to questions like - What should I do if I want to export semen to another country? Members noted that harmonization and linking the technical aspects with the guidelines in the two documents was very important.

iii) We should borrow ideas from previous workshops whose goals were to address indigenous livestock in legal frameworks. We should also try to look at livestock laws which are already in place for example South African Livestock Improvement Act, the Animal Breeding Act of Uganda and that of Namibia and borrow ideas from them.

iv) Conservation, management and benefit sharing should clearly come out in the law.

v) Quality assurance issues need to be addressed.

vi) Genetic Impact assessment should be part and parcel of the law

vii) Harmonisation with international laws e.g. CBD be seriously considered.

viii) Promote the use of technologies, which facilitate conservation of FAnGR. This should be embedded in the law in such a way that technologies that have negative environmental effects are discouraged. Any promotion should go hand in hand with risk assessment of such technologies on FAnGR. It was noted that it might not be easy deciding on which technologies to use. For example, Artificial Insemination (AI) was sometime back considered to be unnatural. Should we go ahead and promote use of AI in our local animals in the region?

ix) Make laws that can be enforceable and legal regimes, which can be followed.

x) As far as IPR is concerned what is to be protected? Is it the genetic material or the knowledge? Should this be included in FAnGR law, be part of another law or should we have a comprehensive law addressing IPR? Members finally agreed that including IPR will at one time be very helpful in clarifying issues but however might lead to duplication of work in trying to bring together IPR issues.

xi) The role of the private sector should not be neglected.

xii) Some members felt that we are not conversant with *sui generis* issues and should as such not concentrate very much on this. What is at the moment needed, is a law that is comprehensive and should cover the following

- management issues
- technical issues
- benefit sharing and access issues
- IPR issues

Basing on the discussions above and a synthesis of suggestions, comments and observations from the other workshop participants (as displayed on the cards), the group came up with an overall objective, specific objectives, scope and measures of what the law should encompass. In

order to easily identify which specific objective covers which scope, a table was made for these two aspects

OVERALL OBJECTIVE	Sustainable management and conservation of Animal Genetic Resources			
SPECIFIC OBJECTIVES	Livestock keepers / breeders rights	Quality assurance	Promotion of AnGR technology	Implementation of international Agreements
	Enact legislation to protect Rights of Breeders/ Livestock keepers and protection of their environment	Quality assurance of FAnGR material	Laws that promote use of present technology and anticipate future genetic engineering developments	CBD should be the basis of all systems of Access & Benefit sharing
SCOPE				
	Awareness raising and capacity building for stakeholders in particular livestock producers	Sustainable management of all forms of livestock	Promote technologies which facilitate conservation of FAnGR	export trade in genetic material
	Rights of access to land, pasture, water are essential for pastoralists		Regulate the use of biotechnologies in Mngt of FAnGR	import trade in genetic material
			Risk assessment of Biotechnologies	

Measures

1. Access to other resources like education, land and finance needs to be considered in FAnGR legislation
2. Secure access to grazing and water especially for pastoralists.
3. Education of the general public on livestock improvement and availability of resources.
3. Create mechanism for animal improvement and registration.
4. Promotion of livestock, breed, breeders associations.
5. Capture, utilize and make known indigenous knowledge through
 - Increasing awareness regarding indigenous breed characterization
 - Recognition & integration of Indigenous knowledge in documentation of FanGR
 - Take account of indigenous knowledge in livestock improvement
 - Recommended land use should be compatible with indigenous breed production systems
 - Extensive awareness creation of using indigenous breeds among animal scientists vets, donors, policy makers and the general public at large
6. Enact Law requiring environment and genetic Impact Assessment.
6. Communities and owners have to be clearly defined and their roles recognized.
7. Needs of animals, people and rangelands should be integrated.

Procedure

1. There is a need to have both National and a SADC committee of AnGR Advisors (legal & technical). These should be multidisciplinary in nature to include Animal breeders, lawyers, geneticist, etc.
2. Use people with experience in FAnGR law making including indigenous knowledge. This should include both technical and legal personnel.

3. Many documents and information is available to assist in the drafting legislation and this should be made use of. For example the laws from Uganda, South Africa and Namibia. However note should be taken that laws and models should not simply be transferred from one country to another. They should be adapted to the situation in different countries.
4. Extensive consultation with key stakeholders using a participatory approach in formulating the law is needed. The stakeholders should include amongst others livestock custodians, technocrats, bio-traders, the private sector, policy makers, civic leaders and researchers.

Institutional Arrangement

1. Harmonisation of within country activities needs FanGR Advisory Committee/Advisory Board
2. Fragmentation of responsibilities should be clearly spelt out.
3. It is the responsibility of Government to bring together different stakeholders e.g. marketers and producers to discuss issues. The way this is to be done should be clearly addressed

Questions Which Need Clarification

- In case of IPR what should be protected and what should the protection entail? Physical ownership is not enough.
- Enforceability of contracts regarding use of FAnGR is low in developing countries. How should this be addressed?

Issues Arising From The Plenary Session

- A provision for ploughing back some levy from trade in livestock into FanGR causes should be considered in the law. In Tanzania for example, 15% of the levy collected from livestock trade should be used in the livestock sector to address issues like maintaining dips. This is however not done. Thought should be given on how such issues can be anchored in the law.
- Caution should be given to the way promotion of use of biotechnology in the law is stated given the risks associated with some technologies.

Members of the Group

1. Dr. José Pedro de Andrade Barosso - Facilitator
2. Dr. Lothar Gündling Presenter
3. Helen Nakimbugwe Rapporteur
4. Kibari Jeremiah Boki
5. Dr. Johan Campher
6. Prof. Johnson Ekpere
- 7 Paul Kamau Karanja
8. Dr. S. H Mbagwa
9. Seipati Gladys Mofolo
10. Dr. James K. Msechu
11. Dr. Bridgitte Kajinga Mutombo
12. Dr. Rainer Neidhardt
13. Dr. Gil Nhantumbo
14. Dr. Joyce Njoki Njoro
15. Baitsi P. Podisi
16. Elijah Rusike
17. Baxte Zimba

6.3 Group 3: Policy content and procedure

Group members: Mtei - Moyo - Noel -Dora - Ela - Aboodoo - Zulu - Jacque - Edward - Ramsay - Bester - Beate - Sergio - Sonia - B. Santana - Joel - David

The terms of reference of the group on Policy Content and Process were to:

- Identify the requirements of Policy
- Develop the content of the Policy document
- Develop the process of drafting the Policy

The issues to be dealt with (emerging from the presentations and discussions) were:

- Identify the requirements of Policy
- Develop the content of the Policy document
- Develop the process of drafting the Policy
- Breeding policy
- market development vs. breeding
- recognition of - role → indigenous breeds & farming systems
- genetic impact assessment + plan for controlled breeding for exotic breed imports
- develop livestock MGT policies for different ecological zones
- improve the genetic resource not only conserve
- incentives for the export of animal products
- capacity building (gene mapping)
- develop policy/legal framework to create need
- enable the farmer to take informed decisions on breeding
- lack of intellectual memory + feed back to development of FAnGR
- freedom of decision with regard to traditional breeds
- performance tests needed at farmers' level
- relationship between centre & farmers needs clarification
- standards for breeds + products * import vs. export
- inclusion of indigenous knowledge into policies + regulations
- how to compromise traditional livestock keeping with the need to increase production for food security?
- the bred survey that is currently being done is crucial to understand the status quo
- stock - take of indigenous breeds & associated IK
- stop stock theft through proper ID
- inventory of available resources to allow appreciation of their value
- animal diseases' act should be sensitive to present population of indigenous FAnGR
- education, awareness concerning breeds, traditional and exotic and cross-breeding
- protocols need to be developed that guide donors, policy makers, NGO's re: the introduction of breeds or livestock projects

Group Work Results: Requirements Of The Policy On FAnGR

The group discussed whether countries represented in the group had Agricultural policies. All SADC countries have National Agricultural policies. from which specific FAnGR policies can be developed. These Agricultural Policies were generally components within the framework of National Economic Development Policies. There was debate on whether SADC as a region could have a common Agricultural Policy. This was considered impractical due to the differences between the countries' national aspirations in terms of economic development. There is need to conduct a stock-take of regional policies. The Livestock Policies for most of the countries were embedded as components of the Agricultural Policies. However, Tanzania and Zimbabwe are in the process of developing Livestock Policies for their respective countries.

The group agreed that policies on FAnGR or Breeding policies should be part of the Livestock Policies. The policy on FAnGR should be based on the sustainable utilisation and conservation of FAnGR. It was generally agreed that there should be clear differentiation between breeding policy issues and policy objectives. The consensus was that policies on FAnGR should be on improvement, utilisation and conservation of breeds and these issues should be clearly pronounced in the policy on FAnGR.

POLICY CONTENT

The issues to be included in the policy are:

1. Sustainable use and conservation of FAnGR

- Definitions of terms
- animal identification, traceability
- genetic resource impact assessment of exotic breeds and breeds that are not locally adapted, how and why they are imported
- production or agro-ecological zones and FAnGR to match these environments
- environmental protection from FAnGR; how do FAnGR affect the environment?
- sustainable use of rangelands as the main feed resources for FAnGR
- indigenous knowledge and its documentation
- promotion of good animal management practices (covering issues on animal welfare)
- Research and development
- FAnGR conservation strategies

2. Ownership, access and benefit-sharing of FAnGR

3. Support services

- support services such as veterinary services and extension services to recognise the role of FAnGR
- marketing of indigenous FAnGR
- biotechnology (artificial insemination, embryo transfer, transgenic) (there is need to give definitions of some of the terminology e.g. biotechnology; whose responsibility is it, state or private sector? Consensus was that government should set the regulatory framework on biotechnology)

4. Social and cultural issues

- gender-sensitive approach
HIV/AIDS

5. Stakeholder involvement

- e.g. universities, breed societies, researchers, extension workers, financial institutions, NGOs, cooperating partners

6 Curriculum development

- FAnGR to be included in university, colleges syllabi.

POSSIBLE STRATEGIES AND PROCESSES

There is need to develop a "statement of intent" on policy development on FAnGR to be submitted to policy makers and all stakeholders. It was suggested that where possible, this statement of intent could be introduced to policy makers before elections as they are more likely to adopt them and probably promote them as their own ideas! The need for extensive stakeholder consultation cannot be

overemphasized as the success of policy development hinges on adequate and comprehensive consultations.

A problem statement should be spelt out clearly and rationale for FAnGR policy well articulated.

Policy Working Group/Task Force/Think Tank comprising an all-encompassing representation of stakeholders would be established to spearhead the process of policy development. This group would need a Working Document to drive the policy making process and to provoke discussion. Terms of Reference (TORs) to be drafted for the Working Group.

The policy development strategies and processes would comprise the following:

- Develop TORs for Policy Working Group
- Set up the Policy Working Group
- Develop Working Document
- Approach policy makers with Working Document
- Conduct extensive consultations with stakeholders (including communities) using Working Document
- Produce a Draft Policy Document
- Working Group refines Draft Policy document
- Report back to stakeholders with refined version of Draft Policy Document
- Finalise Policy Document
- Policy Implementation Strategies ie work plan and budget developed
- Agenda on the next Sub-technical Committee on Veld, Animal Production and Marketing and submission to the SADC Livestock Technical Committee to support endorsement with SADC Council

It is hoped that policy makers and stakeholders are more likely to accept the Policy Document after extensive consultation.

SWOT Analysis

Strengths:

1. On-going regional project activities and networking
2. Draft guidelines for policy development
3. Sub-technical Committee in SADC
4. Willingness to go for a regional approach

Weaknesses:

1. Lack of awareness/appreciation of the role of livestock in food security and environmental protection
2. Poor attendance in regional and international foras due to financial constraints and insufficient capacities

Opportunities:

1. Willingness of international community (agreements, international and bilateral collaboration) to get involved and support
2. Forum for discussion at FAO
3.

Threats:

1. Lack of political commitment on national level
2. Institutional capacities

Benefits are not quickly seen and can not be quantified in monetary terms

Comments

- Framework must be based on information extracted from National Agricultural Policy, which indicates that the policy must be in place. The role of FAnGR is understated in most policies.
- Governments tend to have a laissez faire approach, they should be persuaded to invest in the process
- The only way to ensure benefit sharing is to put value on the product through marketing
- Socio-cultural issues are cross cutting. Technologies must be gender sensitive e.g. heavy farm implements
- Strategies are a tool used by politicians and should be designed for their use

Plenary discussion

- Traditional medicinal plants and management practices should fall under IK. Farmers often have more information than extensionists. Very little IK is documented - it is important to do so before it is lost

7 Topic 3: Implications of the International legal and regulatory framework to support sust. use, improvement and access to FAnGR

Antonella Ingrassia – *Development Law Service, FAO*

Overview on the international legal and regulatory framework for AnGR

Johnson A Ekpere – *University of Nigeria*

OAU Model Law and Farmers' Rights in animal breeding

Lothar Guendling – *Counsellor for International Environmental Law*

Management of animal genetic resources for conservation, sustainable use and sharing of benefits

Alvaro Toledo – *CGRFA, FAO*

What can we learn from the negotiating process of global instruments and agreements for the conservation of plant genetic resources for food and agriculture?

Adam Drucker and John P Gibson – *ILRI*

A legal and regulatory framework for AnGR? Issues for consideration

7.1 Antonella Ingrassia: Overview on the international legal and regulatory framework for AnGR

FAO, Development Law Service, FAO

Objective

To give an overview of the international and regional legal instruments which are, or may be in the near future. relevant to animal genetic resources management.

International framework

Legally Binding

“the consent of a state to be bound by a treaty may be expressed by signature, ratification, acceptance, approval or accession or by any other means if so agreed” (1069 Vienna Convention on the Law of Treaties (VCLT))

Soft Law

legally non-binding instruments utilized by a variety of reasons, including to strengthen member commitments to agreements, reaffirm international norms, and establish a legal foundation for subsequent treaties.

The Convention on Biological Diversity (CBD)

Art 2 defines genetic resources as ‘genetic material’ meaning any material of plant, animal, microbial or other origin containing functional units of heredity.

Objectives

Art 1

- conservation of biological diversity
- the sustainable use of components of biological diversity
- the fair and equitable sharing of the benefits arising from the utilization of genetic resources

The sovereign right over genetic resources

(Art. 3)

States have, in accordance with the Charter of the United Nations and principle of international law, the sovereign right to exploit their own resources pursuant to their own policies and to their environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national environment of other states or of areas beyond the limits of national jurisdiction.

3rd objective

“fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding”

Access & Benefit Sharing

Act 15.

- Sovereign rights of States over their natural resources
- Access to be granted on mutually agreed terms
- Access subject to prior consent of the Contracting Party providing the genetic resources
- Fair and Equitable sharing of research / development results and commercial benefits

Benefit-sharing

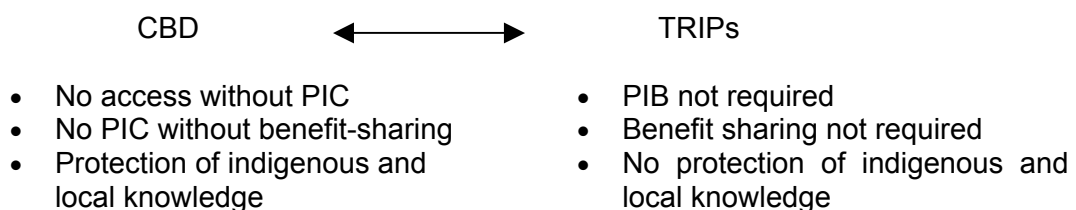
Art. 8(j)

Encourage the equitable sharing of the benefits arising from the utilization of knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for conservation and sustainable use of biological diversity.

Genetic Resources and IPRs Art. 16

- Intellectual property rights may have an influence on the implementation of the CBD
- States shall cooperate to ensure that IPRs are supportive and do not run counter to CBD objectives.

RELATIONSHIP BETWEEN THE PROVISIONS OF TRIPS AND CBD



Agricultural biodiversity within the context of the CBD

Decision 11/15

special nature of agricultural biodiversity, its distinctive features and problems needing distinctive solutions

Decision III/11

- “Conservation and sustainable use of agricultural biological diversity”, establishing a multi-year programme of activities on agricultural biological diversity
- support for the Global Strategy for the Management of Farm Animal Genetic Resources under the FAO

Decision VI/5

agricultural biodiversity – provisions on the implementation of the programme of work related to the animal genetic resources.

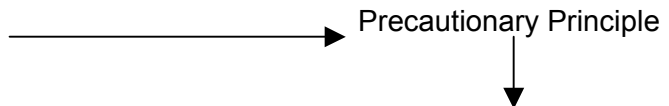
Bio safety protocol to the CBD

The Protocol seeks to protect biological diversity from the potential risks posed by living modified organisms (LMO's) resulting from modern biotechnology

It applies to the transboundary movement, transit, handling and use of all living modified organisms that may have adverse effects on the conservation and sustainable use of biological diversity, taking also into account risks to human health.

Protocol establishing an advanced informed agreement (AIA) procedure for ensuring that countries are provided with the information necessary to make informed decisions before agreeing to the import of such organisms into their territory

Decisions on imports in relation to LMOs to be introduced into the environment



Lack of scientific certainty regarding potential adverse effects on an LMO shall not prevent decision on import.

The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS)

Sanitary Measure

- Human Animal Health

Phytosanitary measures

- Plant Health

apply to domestically produced food or local animal and plant diseases, as well as to products coming from other countries

SPS

- Restrict the use of unjustified sanitary and phytosanitary Measures for the purpose of trade protection
- Maintain the sovereign right to any government to provide the level of health protection it deems appropriate
- Ensure that these sovereign rights are not misused for protectionist purpose and do not result in unnecessary barriers to international trade.

OIE and Codex Alimentarius Standard Setting Instruments under the SPS

OIE

- The standard-setting body for animal health
- Relevant for the management of AnGR in the import-export context

Objectives

- Guarantee the transparency of animal status world-wide
- collect, analyse and disseminate veterinary scientific information
- provide expertise and promote international solidarity for the control of animal diseases
- guarantee the sanitary safety of world trade by developing sanitary rules for international trade in animals and animal products.

Codex Alimentarius

Standard-setting body for food (including for animal products)

Ad Hoc Intergovernmental Task Animal Feeding Force on Animal Feeding

- Draft Code of Practice for Good
 - cases in which humans became ill after eating meat and animal products that may have been contaminated by food to the animals

- encourage adherence to Good Manufacturing Practices during the production harvesting handling, storage, processing and distribution of feed for food-producing animals.

The WTO Trade-related Intellectual Property Rights Agreement (TRIP's)

Most comprehensive multilateral agreement on intellectual property

Areas of Intellectual property

- copy right and registered right
- trademarks including service marks
- geographical indications, including appellations of origin
- industrial design
- patents including the protection of new varieties of plants
- the lay-out designs of integrated circuits
- undisclosed information, including trade secrets and test data

Art. 27.3

Patents available for any invention

Permissible exceptions → Art 27.3 (b)

Members may exclude plants and animals other than mice-organisms and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, any country excluding plant varieties from patent production must provide an effective sui generis system of production.

World Intellectual Property Organization (WIPO)

Helping to ensure that the rights of creators and owners of intellectual property are protected worldwide and that inventors and authors are, thus, recognized and rewarded for their ingenuity.

WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources Traditional Knowledge and Folklore

- Intellectual Property issues that arise in the context of:
- access to genetic resources and benefit-sharing
- protection of traditional knowledge, whether or not associated with those resources
- protection of expressions of folklore

Material Transfer Agreement (MTA)

- Contractual arrangement that sets the conditions and the agreed terms under which the genetic material is to be transferred
- Private seed sector but also by public research organizations

An example of Material Transfer Agreement related to AnGR

- Pig Biodiversity research project funded by EU
- 13 contracting parties including FAO signing an agreement
- Protection of the ownership and prosperity rights of the blood and DNA samples transferred among participants to the projects
- The original material providers own the intellectual property rights related to the genetic material

Agenda 21

Chapter 14 "Promoting Sustainable Agriculture and Rural Development (SARD)"

- Programme areas

- conservation and sustainable utilization of animal genetic resources for sustainable agriculture

World Summit on Sustainable Development Johannesburg 2002

Sustainable agriculture and rural development was one of the issues considered in the plan of implementation

FAO Global Strategy for the Management of Farm Genetic Resources

1994

Emphasis on the need to broaden the mandate of FAO's Commission on Plant Genetic Resources to cover all genetic resources relevant to food and agriculture

1995 ↔

Deliberation by FAO's government body to broaden the mandate of the Commission on PGRFA

The Global Strategy

framework for establishing national, regional and global policies, strategies and actions

- to assist countries in developing their capacity to manage their animal genetic resources for food and agriculture

Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising from their Utilization

A precise set of options for:

- developing procedures for access and benefit-sharing
- clarifying the relationship with traditional knowledge
- written agreement before collecting any genetic resources
- PIC of the national government of the country of origin
- PIC for access to genetic resources of the "traditional knowledge" of an indigenous community or communities

The Guidelines enumerate a detailed description of the type of provisions that could form part of a contractual arrangement

- The specification of uses
- The continuation of customary uses over genetic resources
- The possibility of joint ownership of intellectual property rights according to contributions
- The existence of confidentiality clauses and sharing of benefits from commercial and other utilization of genetic resources including derivatives

Regional Framework

- The OAU Law for the protection of the Rights of Local Communities Farmers and Breeders and for the Regulation of Access to Biological Resources
- Adopted in 1998 by the OAU Ministerial session
- Legal framework does the recognition and protection of rights of those involved in agrobiodiversity and for ensuring the conservation, evaluation and sustainable use of biological resource, including agriculture genetic resources, and knowledge and technologies in order to maintain their diversity
 - Rights of local communities including farmers communities over their biological resource, knowledge and technologies as well as for the rights of breeders
 - Access to biological resources, community knowledge and technologies will be subject to the prior informed consent of the State and concerned local communities
 - Benefit sharing as a "right" of local communities

Plant Breeders Rights (part iv)

- To satisfy the requirement of Article 27 3(b) of the TRIPs Agreement to the sui generis system for plant varieties

- Patents over life forms and biological processes are not recognized and are therefore, not acceptable

Council Regulation (EC) No 1467/94 on the Conservation, Characterization, Collection and Utilization of Genetic Resources in Agriculture

Objective

- coordinate and to promote at community level work on the conservation, the characterization, the collection and utilization of genetic resources in agriculture undertaken in the Member States, with a view to the achievement of the aims of the Common Agricultural Policy, and, in accordance with the principle subsidiary to support and supplement the efforts made in the Member States where current work appeared inadequate*.

Eligible organisms: Plants, animals (vertebrates and certain invertebrates) and micro-organisms

Commission Regulation (Ec) No. 1257/1999 on Support for Rural Development from the European Agricultural Guidance and Guarantee Fund (EAGGF) and amending and repeating certain Regulations

- Support for Agricultural production methods designated to protect the environment and to maintain the countryside (agro-environment)
- Support granted to farmers giving agro-environmental commitments for not less than five years

Commission Regulation (EC) No. 445/2002 laying down detailed rules for the application of Council Regulation 1257/99 on support for rural development from the European Agricultural Guidance and Guarantee Fund (EAGGF)

Provides financial support for farmers rearing farm animal of local breeds indigenous to the area and in danger and being lost to farming

Annexure 1

- Eligible farm, animal species
- Cattle, sheep, goats, equidae, pigs and avian

Conclusions

- Better management of AnGR implies, inter alia, the development of appropriate legislation at the national, regional and international level
- AnGR in the international agenda
- Reflection of the AnGR issue in the implementation of international legal instruments at the national level

Plenary discussion

- If a country cannot reach the required sanitary measures to reach international requirements it may set lower national measures. However, it must present scientific backing for the lowering of standards
- The OAU does not adequately cover FAnGR. Recommendations must come from country level
- If you are a signatory to TRIPs you are allowed to implement legislation which specifies PIC and benefit sharing (even-through these are not captured under TRIPs). However, they must not be counter-productive to the objectives of the CBD, which also requires that there be no contact with other instruments – like TRIPs
- The WHO is different from WTO and even if WHO has declared a country “free” of a potential disease, this does not mean the WTO does as well. However, if the decision not to allow an import is considered “protectionist” it can be overthrown.

7.2 Johnson Ekpere: OAU Model Law and Farmers' Rights in animal breeding

University of Nigeria

Introduction

- The Organization of African Unity (OAU)
- Is now African Union
- The OAU as an observer during GATT had always discussed GATT and WTO matters
- Model Law: initiative to assist OAU member States to deal with some general WTO issues and other International Conventions/Protocols

Rationale

Rationale derives from need to:

- Protect and support rights of local communities over their biological resources (CBD)
- Protect (ensure) rights of breeders over their varieties
- Provide mutually acceptable system of access to biological resources
- Ensure good quality seed to farmers
- Conserve genetic resources, sustainable use and food security

Objective

- Assist member States to deliberate on and implement:
 - National Policies
 - Develop legal instruments compatible with their national goal/aspirations and satisfy their international obligations
- Provide framework to craft national legislation that could give reasoned attention to:
 - Conservation of Biodiversity
 - Sustainable use of biological resources
 - Sustenance of food security
 - Protection of community rights
 - Equitable sharing of benefits
 - Provide a mechanism for the coordination of
 - An African common position on the TRIPS agreement and review of its Article 27.3 (b).

Relationship to other International Instruments

Document is eclectic in design with due cognisance to other existing international instruments:

- Predicated on the CBD and its guiding principles
- Supportive of the FAO-IU and the concept of farmers rights as a counterbalance to breeders rights
- Accepts the principle of protection as enunciated in UPOV but rejects "patent" as the basis for protection
- Advocates "no patent on life forms" contrary to Article 27.3 (b) of TRIPS agreement

Current Status of Implementation

Efforts at implementation has been slow. Efforts can be classified into:

- countries with legal instruments (*sui generis type*), South Africa, Egypt, Namibia, Zimbabwe,
- Countries with enabling legislation pending in Parliament
 - Kenya, Uganda, Nigeria
- OAPI member countries which have ratified the Bangui Accord with Accession to UPOV (1991)
- Countries with no legislation and now contemplating to adapt the OAU Model Law

Major Problem of Adaptation

- Awareness of the Model Law
- Knowledge of the issues involved
- Capacity, skill and expertise in legal draftmanship
- Funding of the implementation process
- Definitional problems
- Equivalence of terms (interpretation)

Suggested Solution

- Create awareness and better understanding
- Develop a core of competent implementation staff
- Commission studies on effect of protection or lack of it
- Increased participation
 - Advocacy

How to Promote Implementation

- Mass produce and distribute document
- Place Model Law on Websites
- Organize
 - Workshops
 - Conferences
 - Seminars
 - Mass media debates
 - Newspaper articles
 - Radio and television debates etc'

Conclusion

- Africa has difficulty with the Trips Agreement and its Article 27.3 (b). It has adopted the Model Law as an objective way of dealing with the shortcomings of the Trips. It did so believing that the:
 - Concepts of IPR as expressed in Trips is alien
 - Continent is committed to CBD. Trips contradicts CBD in many ways
 - No empirical / practical evidence to support the advantages of the "patent regime"
 - "Patent " protection system will:
 - Hurt Africa's small farmers
 - Aggravate Africa's debt burden
 - Threaten biodiversity
 - Prevent equitable sharing of benefits

Africa's response has been the development of an alternative system of protection (*sui generis*) to secure the rights of local communities, farmers and breeders and regulate access to biological resources

Plenary discussion

- A high proportion of livestock in the region is in the hands of small-scale farmers.
- Legislation to protect their rights must take precedence over legislation on biotechnology.
- Patents can stifle research by making resources inaccessible.

7.3 Lothar Gündling: Management of animal genetic resources for conservation, sustainable use and sharing of benefits

Counsellor for International Environmental Law

Facts and issues

- FAGR are under pressure, just as plant GR, requiring conservation, management and ABS mechanisms
- High performing uniformity replaces multi-purpose diversity
- Breed imports and cross-breeding may pose risks to local stocks
- Policy and law do not sufficiently support pastoralists and low-input systems

More risks to traditional FAGR

- Access to FAGR may be uncontrolled
- Farmers and local, indigenous communities may not be involved in decisions on ABS
- Conservation of FAGR may fall short of international ABS standards achieved today

FAGR- International policy responses

- Global Strategy for the Management of FAGR
- Essential elements:
- International support mechanism (Guidelines)
- In-country infrastructure
- Technical programme including preparation of national management plan
- Reporting and monitoring schemes

General regime on genetic resource conservation, sustainable use and ABS

- Developed within CBD framework
- Art 15 CBD and Bonn Guidelines 2002 including as major elements:
- National sovereignty, duty to facilitate access, MAT, PIC, fair and equitable sharing of benefits
- Art 8 (j) CBD: support to and involvement of local and indigenous communities

Bonn Guidelines on ABS 2002

- Detailed mechanisms on ABS
- Participation of all stakeholders
- Procedures to ensure and control ABS
- Other measures, such as incentives, monitoring, settlement of disputes

Regional model legislation

- OAU model legislation
- Prior informed consent
- Public register
- ABS mechanisms with national authority or communities
- Explicit recognition of Farmers' Rights

National ABS legislation - comparative aspects

- International principles of CBD adopted in some countries (Andean Pact, Costa Rica, Philippines), in some countries important legislative developments are on-going (India, Brazil, South Africa)
- PIC and permit systems are standard (with permit conditions or agreements fixing requirements)

- National governmental authorities, reluctance to give responsibility and competence to lower levels of government or local communities (exception: Philippines requiring consent of indigenous communities)

A policy and legal framework for FAGR conservation, sustainable use and ABS

- National Action Plan (see Guidelines)
- Procedure to guarantee effective participation of farmers and local, indigenous communities
- Strategies on conservation, cross-breeding, import control, ABS, and capacity-building as essential elements

The five strategies

- Strategy on conservation of traditional local FAGR developed by farmers and local and indigenous communities
- Strategy on cross-breeding with focus on information and awareness
- Strategy on import of exotic breeds with focus on information, risk assessment and notification
- Strategy on ABS
- Strategy on capacity-building of stakeholders

Strategy on conservation - basic elements

- financial incentives for breeding and raising local traditional livestock;
- promotion and support of the marketing of products from local traditional livestock production;
- provision of the necessary infrastructure supportive to local livestock production;
- provision of a better access to animal health care for local livestock production by farmers and indigenous communities;
- security of land titles and / or land use rights for farmers and indigenous communities;
- effective prohibition of and measures against encroachment on traditional pasture land;
- any other measures to make local traditional livestock production competitive, including information, training and any kind of assistance necessary to farmer and indigenous communities.

Strategy on ABS - basic elements

- the requirement of Prior Informed Consent (PIC) for any access to animal genetic resources, either through license or contractual arrangements;
- PIC should be given by the competent national authority making sure that relevant lower levels of government and local farmer and indigenous communities have the right to consent to or refuse the decision; such effective involvement of local farmer and indigenous communities may be ensured either through membership in the competent authority/institution or through procedural rules on a case-by-case approach;
- the condition that no access should be possible without arrangements for sharing of benefits from the use of animal genetic resources, including benefits for farmer and indigenous communities providing the genetic resources; benefit-sharing mechanisms should take into account the guidance provided in the Bonn Guidelines as adopted 2002;
- the condition that for the granting of intellectual property rights involving animal genetic resources provided, the origin of the genetic resources must be disclosed and that it must be certified that existing benefit-sharing arrangements are being honoured;
- the condition that farmers rights with regard to animal genetic resources, as defined e.g. in the African Model Legislation, are secured;

- a concept for a regime for the protection of local farmer and indigenous knowledge with regard to animal genetic resources so that it is ensured that the rights of traditional livestock producers are respected in all procedures and cases.

Plenary discussion

- Debate on animal resource issues are not specific or intense enough to have an impact.
- At country level most legislation is aimed at plant resources. There is a reluctance to be specific about traditional farmers and communities. Existing laws such as PIC can be applied
- Caution should be used with IPR as they can be counterproductive

7.4 Alvaro Toledo: What can we learn from the negotiating process of global instruments and agreements for the conservation of plant genetic resources for food and agriculture

CGRFA, FAO

Feeding Animals with Plants

- What can we learn about FAO's international discussions on plant genetic resources for food and agriculture??

Objectives:

- Understand common features of genetic resources for food and agriculture, and specificities of farm animals genetic resources (AnGRFA)
- Introduce FAO's instruments for PGRFA conservation and sustainable use
- Build in the experience gained by providing ideas for the instruments to be developed for the AnGRFA

Farm Animal Genetic Diversity differs from Crop Genetic Diversity:

- Different population dynamics: lower multiplication rates and longer reproduction systems
- No varieties but few races
- Breeding focused on overall fitness and not few traits
- In situ management only real possibility: ex situ requires advanced and costly technology as compared to seeds ex situ storage
- No international gene banks like the CG system collection
- New biotechnologies products are being developed, but mainly for North high input systems
- Silvopastoral / mixture systems evolve differently than agricultural systems
- Limited information on and attention to AnGR management
- Can we "learn lessons" from the PGRFA process?
- Yes because

Genetic resources for food and agriculture share some distinctive features:

- Need Human intervention: utilization guarantees conservation
- Have been spread by the diffusion of farming since ancient times
- Value lies at intra-specific level, in the portfolio of diversity built up by rural communities, not at species level, as is the case for wild resources used for pharmaceutical bio-prospecting
- Different strategies to generate value: no "goose that lays the golden egg" approach

- Rural communities are and will be the main curators and users of agricultural communities
- And also importantly,...

These are resources used by the agricultural sector

Great challenges:

- More than 600 million suffering hunger, the majority living in rural areas
- 80 % of the poorest live in rural areas
- 70% decrease of public investment in the agricultural sector in the last 10 years and the absolute value of aid to agriculture fell by 2/3 in 1987-98

Need to find distinctive solutions:

- You need active management: need to plan for this and next generations
- High interdependence and distinctive features: need to agree on international policies and create multilateral solutions
- These solutions need to find specific ways and meanings of sharing benefits within the agricultural sector to support rural communities

Situation at the beginning of the 90's:

- No systematic assessment of crop genetic diversity at the global level,
- No comprehensive and coordinated international strategy,
- Lack of an international agreement to govern the access and benefit sharing to these special resources

1. State of the World Plant Genetic Resources for Food and Agriculture

- Objectives:
- Describe the current situation
- Identify gaps and needs
- Country driven process:
- Assess country situation: diversity and erosion, national activities and programmes, legislation, international cooperation and networks
- Identify needs and opportunities
- 154 country reports: primary source of information
- Recommendations by 200 scientists
- Over 50 NGO/CSOs involved

A critical source of information, one example, Maize:

- Diversity: Central América as the centre of origin and South Africa as secondary centre of diversity
- Importance: main food staple in Central América, South Africa and South Mediterranean
- Erosion: analysis of causes; in the USA 91% of the local maize varieties totally disappear during century

Technical information:

- Where is material conserved ex situ? México (12 %); India (10%); USA (10%); Russia (7%); CIMMYT (5%); Colombia (4%)
- How is it conserved? México (50% not regenerated)
- Has it been characterized or evaluated? Colombia, less than 30% of their material
- What kind of regulation governs access?
- Are there any networks working on conservation and improvement? SACCAR & SPGRM in my region, Latin America programmes
- Are there any on farm management initiatives? Massipag, Philippines
- Ok, we have identified needs, gaps and opportunities,... But how do we move forward?

2. The Global Plan of Action

- Sets 20 priority actions identified locally, nationally and at international level:
- In situ conservation
- Ex situ conservation
- Utilization
- Capacity Building
- Both the Report and the Plan were adopted at the 4th International Technical Conference

Questions that still needed to be solved:

- Which rules will govern internationally the access and benefit sharing to these resources?
- How will Farmers' Rights will be recognized and supported?
- How will developing countries fund such activities if there is lack of financial resources?

The International Treaty on Plant Genetic Resources for Food and Agriculture

What are the Treaty's objectives?

- The conservation and sustainable use of plant genetic resources for food and agriculture.
- The fair and equitable sharing of benefits derived from their use, in harmony with the Convention on Biological Diversity, for sustainable agriculture and food security.

How does the Treaty protect Farmers' Rights?

- The Treaty recognizes the enormous contribution that farmers and their communities have made and continue to make to the conservation and development of plant genetic resources.
- This is the basis for Farmers' Rights, which include the protection of traditional knowledge and the right to participate equitably in benefit-sharing and in national decision-making about plant genetic resources.
- It gives governments the responsibility **for implementing these rights.**

How does the Treaty regulate Access and Benefit-sharing?

- By establishing a Multilateral System, a common pool of resources
- Coverage: a list of 35 crops and 32 forage genera selected according to food security and interdependence criteria
- Includes resources under management and control of Contracting parties (governments) and in the public domain. Encourage others.

Access:

- Facilitate access for research, breeding and training for food and agriculture
- Facilitate access to information about the material
- Recipients shall not claim IPRs or other rights that limit access to the resources, the genetic parts or components, in the form received.

Conditions reflected in a Material Transfer Agreement (MTA)

Benefit-sharing:

- Benefits arising from use, including commercial, will be shared in a fair and equitable way
- Benefits should flow to farmers, especially in developing countries, who conserve and sustainable utilize these resources
- Mechanisms: exchange of information, access and transfer of technology, capacity-building and sharing of benefits of commercialization

Funding Strategy:

- Strategy to mobilize funding
- Priority: plans and programmes for farmers in developed countries
- Funds from relevant international mechanisms
- Funds from contracting parties
- Benefits arising from commercial use

So, ... Will we need an Animal Treaty?

- Are AnGR a global concern?
- Do we need an international instrument to regulate access and benefit-sharing and promote conservation?
- Do we need an international recognition of Livestock keepers rights?
- Will we need an international instrument to promote compliance?
- Will we need an international funding strategy?

Keep in mind:

- The State of the World is a step in a process, should not be just a technical report
- Both FAO and CBD have stressed that it should contain information about how AnGR management is regulated, including access and benefit sharing
- Ownership and lobbying in FAO's Commission on Genetic Resources (CGRFA)
- African Region position, as strong as in plant discussions
- FAO Legal Office

7.5 Adam Drucker, John Gibson: A legal and regulatory framework for AnGR? Issues for consideration

ILRI

Issues to consider

- What have been the international flows of livestock germplasm and what are such flows likely to be in the future?
- What have been the benefits and costs of such movement of germplasm and who stands to gain most from the future movement of germplasm?
- Who undertakes research on livestock germplasm and who stands to benefit from such research?
- What can be learnt from the PGR legal framework experience and do differences between the economics of AnGR and PGR conservation and sustainable use suggest different solutions?
- What other policy factors, in addition to access and benefit sharing, need to be considered in order to support the conservation and sustainable use of AnGR?

Question 1

- *What does ILRI hope to achieve through genetic research?*
- *What are the conditions under which the use of germplasm takes place?*

Commentary 1 (Importance of livestock genetic research)

- Genetic characterisation/Use of genetic marker assisted selection in breeding programmes POTENTIALLY leading to improvements in livestock productivity and human livelihoods worth US\$ billions p.a. Identification of priority breeds for conservation
- Potential benefits from such research may increase substantially over the coming years (technology development)

Commentary 1 (Adherence to CBD provisions)

- Undertakes collection of biological material with the "prior informed consent" (PIC) of the participating livestock-keeping communities involved, "under mutually agreed terms" (MAT), applying appropriate Germplasm Acquisition Agreements (GAA), with provisions for sharing

of samples (for research) with collaborating Advanced Research Institutions under acceptable Germplasm Transfer Agreements (GTA).

Question 2

What have been the net flows of livestock germplasm so far and who has benefited?

Global flows of livestock germplasm in past 150 years

Direction and Volume of flow

- North to North
very large, rapid expansion of intensive systems
- North to South
very large but sometimes (not always) detrimental
- South to South (very?) large
- South to North
limited and benefits small?

Commentary 2

A detailed **evaluation of the net costs and benefits of global flows of livestock germplasm, and prediction of potential future benefits** would be a valuable input to international debates on how to address legal and regulatory issues

Question 3

What are the key issues applying to research on indigenous livestock germplasm?

Commentary 3

- Research organisations must be perceived as adding value in order to ensure continued supply of germplasm
- Do alternatives to publically funded research efforts exist?
 - Public research is needed
 - Impact of more limited germplasm flows
 - Alternative research institutions

Question 4:

What can we learn from the PGR experience?

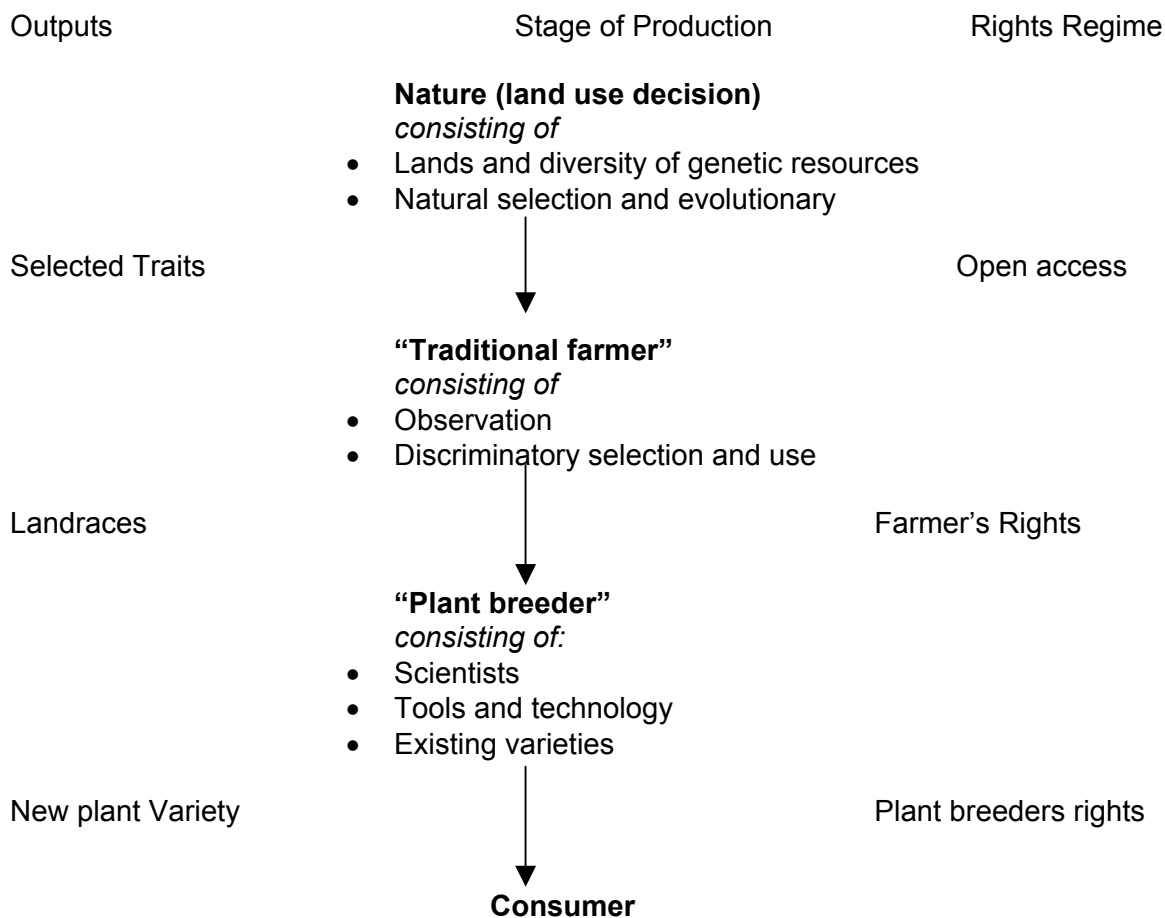
Commentary 4

(Property Rights Assignment)

- Property right assignments that affects the relationship between livestock-keeper communities, livestock breeders and biotechnology R&D must be considered carefully (efficiency and equity implications)

Vertical industry for plant breeding

Source: Swanson and Goschl (2000)



Commentary 4 (ITPGR Process)

Assignment at retail end of plant breeding industry resulted in:

- Increased number of research and development (R&D) programmes;
- Increased total number of plant breeders
- Increased aggregate amount of R&D expenditure
- Increased private R&D **No** increase in essential input activities for maintaining a flow of genetic resources into the future (e.g. habitat and biodiversity conservation). **Commentary**

4 (ITPGR Process)

Over a decade of negotiation and difficult to agree on a common approach

- Will achieving such an agreement be any easier for AnGR?
- Are there alternative legal and regulatory frameworks that would be more appropriate for AnGR and easier to establish?
- Who will benefit from the establishment of legal and regulatory frameworks?
- Will such a framework promote greater net benefits than a free market in movement and exploitation of livestock germplasm?
- PGR from developing countries were (and are) being enhanced in developed countries and then sold back to the developing world at substantial profit. Contrast to AnGR case
- With improving technologies, is this scenario likely to repeat itself for AnGR?
- Will the economics of AnGR always remain substantially different from that of PGR? Given the current gene flows (not well understood), what are the incentives for developing countries to involve themselves in the development of an international legal and regulatory framework?
- Are there also important national regulatory issues to be addressed as well?

Question 5

- Benefits – what are they and how can they be shared? **Commentary 5**

Non-monetary (as well as monetary)

- Information
- Technology transfer, hardware, software and know-how
- Training
- Joint research and collaboration
- Institutional capacity building
- Local income generation and employment
- Benefits in-kind
- Current AnGR research already involves considerable non-monetary benefit sharing
- Need to protect/enhance existing forms of benefit sharing
- Need improvement of public and community use of biodiversity, including existing benefit sharing at local level

Question 6

- What type of policy factors should be considered? **Commentary 6**
- Many policy-induced distortions
- Macroeconomic (e.g. exchange and interest rates)
- Regulatory and pricing (e.g. taxation, price controls, market and trade regulations)
- Investment policy (e.g. infrastructure development)
- Institutional policy (e.g. property rights)
- Need for improved national regulatory understanding

Concluding Remarks

- More debate and information needs to be acquired
- Areas requiring further research include:
 - Importance of continued access and trade in livestock germplasm
 - Nature of the costs and benefits arising from AnGR research
 - National level policy factors

Food for Thought

- Licensing Know-how? 'Know-how' license negotiated as a measure to prevent a private company from gaining rights over resources and/or knowledge which would infringe upon own collective property rights. 'Know-how' license tied the rights to use the plants to the need for a license to use the knowledge provided by the Aguaruna peoples.
- Annual collection fee split into two agreements - a minimum of \$10,000 a year for four years as collection fees, and \$20,000 a year for a know-how license to be paid throughout the R&D phase (10-15 years).
- In this way, an element of control maintained over the product. If agreement terminated at any point, rights to use the plant or any derivatives goes with it.

Source: Bell, J. Biopiracy's latest disguises. *Seedling*, June 1997. GRAIN

Plenary discussion

- Precipitate action is unwise in the presentation of test cases. The situation should be carefully considered. The FAO has a legal background and can advise better than a private adviser. Representation by the FAO would also be better than a single country submitting a test case.
- It is worrying to note that very few scientists, researchers or donors are not keen to invest in Farm Animal Genetic Resources. This should be reversed if the legal framework being developed is to be implemented in the region.

8 Working groups on implications of the international, legal and regulatory framework to support sustainable use and improvement and access to FanGR

The issues which emerged from the topic 3 discussions in the table groups were clustered again. There were basically 3 large clusters of issues emerging:

- The first one deals with issues of harmonisation of legal and regulatory frameworks at a regional level
- The second cluster deals with awareness raising issues
- The third cluster deals with international treaties

Group tasks for each of these specific topics were elaborated and 3 groups worked on the issues. The results are presented below.

8.1 Working group 1 Harmonisation at a regional (SADC) level

Guidelines for the group discussions

- 1. What are the issues for harmonization - what is to be achieved? - at regional/SADC level**
- 2. What should be the ways and means for harmonization - identify the steps!**
- 3. How should stakeholders/actors be involved? - and who should drive the process?**

Issues to deal with:

- Harmonization of trade protocols in SADC region
- Review & harmonize regional legislation (do a stock take)
- Regional approach for developing a ABS for resources that cut across country boundaries
- Need to have a regional approach in disease control
- Regional policies & leg. Frame. Adapted to local situations
- State regional goals for reviewing intern. Standards
- Harmonize animal identification systems (SADC)
- Use policies/acts already available, to develop own regulatory frameworks
- Streamline national legislation to fit regional recommendation
- Establish and implement veterinary policy
- Adapting supportive legislation/agreements for use at national level
- Urgent need to develop national policies on AnGR
- Clearly defined responsibilities for AnGR research/conservation between the public and the private sector
- Increase regional cooperation and coordination on negotiation, on international treaties on environment and trade
- Strengthen the capacity of developing countries to negotiate international Acts/Laws
- Work on international, regional and national legal framework at the same time!
- Overcame fragmentation of responsibility for FanGR on national and international level

- Countries should develop *sui generis* systems
- How can these *sui generis* systems be enforced ----> abroad
- Business and policy makers are miles apart
- Involvement of both legal experts and technocrats as a team

Rapporteur report on 'Harmonisation of protocols in SADC region'

Basic premise – Use AU model document as basis for policy formulation

Pre-step: SADC secretariat should look for funding for this exercise (Resource mobilization)

Step 1: Stock-taking on national policy status

- What policies are there to work on or improve?
- Which departments, organisation are tasked (or are relevant) to develop or implement these policies?

Step 2: Issues that need to be harmonized (Content)

- Veterinary standards (Disease control)
- Trade protocols (import and export)
- Access and benefit sharing (resource owner definitions could be across border)
- Identification systems
- International policies adapted to a local (regional) context
- Animal improvement
- Environmental quality assurance
- Regional capacity building in law and policy making
- Product, genetic material and feed quality standards

Step 3:

a) SADC secretariat need to be drivers at Regional level

b) Involve stakeholders

- legal experts
- technical experts
- Business
- Civic society
- Farmer's Associations
- Relevant departments, organizations identified in Step 1.

c) Identification, appointment and empowerment of National Competent Authorities

d) Implement recommendations at National level

e) Monitoring and assisting where necessary (SADC secretariat)

f) Evaluation of implementation (SADC secretariat)

Plenary session

- SADC should inform IBAR and other regional offices
- It is important that a team of legal and technical people move from country to country to assist those countries with insufficient capacities. This team should fall under the SADC Secretariat

8.2 Working group 2: Strategy and ways of awareness raising

Guidelines for group discussions

1. What strategy /ways should be taken for awareness raising and capacity development at national level?
2. What are the information requirements

Issues to deal with:

How to ensure that AnGR remain on regional, national and international agendas

- Lobby governments to support initiatives at national level
- Importance of national level policies, strategies, awareness-raising... for AnGR conservation + sust. Use
- Strategies, action plans, etc. assisting the awareness raising of importance of local breeds
- Absence of the region's voice of international fora
- Strong, qualified teams should go to international conferences
- Build alliances for WTO (for example)
- Definitive need to bring abroad legal personnel with environmental + agricultural background
- How do we raise awareness of various stakeholders
- NGOs are necessary to push the agenda
- Need to disseminate the key elements of treaties to specific stakeholders ---> packaging information
- Prior informed consent should be taken from livestock keep. Communities

Strategy/Guideline on crossbreeding

- Inventory with evaluation of potential (also non-monetary)
- Information on production systems
- Risk assessment for imported breeds + crossbreeds (loss, environment, genetic)
- Formulation of breeding policy

Strategy guideline on import-export

- Adhere to principles of transparency and mutual agreement
- Incentives for keeping local FanGR
- Support of breeders associations for registration and performance testing

Strategies on Conservation of FanGR

- Ex-situ conservation of AnGR expensive ---> in situ with community
- Legal framework should promote benefits from existing exchange of AnGR

Inventory

- The treaty would be dependent on information ---> inventory
- Cost-benefit inventory/analysis

- Need for more res. on evaluation AnGR & econs of conservation
- NARS need to address issues on AnGR
- Capacity building
- Awareness creation
 - on political level (publicity on rule of livestock CBA, inventory, etc)
 - Involve politicians in promotion transformation issue in relation to gov. development objectives
 - Traditional FanGR
 - In food security
 - In rural livelihood
 - Employment generation
 - Technical level (training the trainers, breed survey including uses, livelihood system, knowledge on breeds)
 - Livestock keepers (full cost calculation for production for different breeds, risk effects, social-cultural/values)
- How is PIC by ILRI practically implemented?
- ILRI sampling genetic material over last 8? years ↔ PIC??

Presentation of group result

1. STRATEGY TO RAISE AWARENESS AND CAPACITY DEVELOPMENT AT NATIONAL LEVEL

1.1 QUESTIONS to be asked:

- Awareness levels
- Why have past initiatives not been successful?
- What information is needed?
- At what Level is capacity development needed?

1.2 AWARENESS LEVELS - CLIENT BASES - THREE LEVELS CAN BE USED

Political/Traditional leaders	Technical (qualify)	Livestock keepers/ producers
Valuation Valuation of man-monetary values How do you put a value on manure: -Fuel -Building material -Biogas Social accounting matrix for valuation (Qualify)	Valuation	Valuation
Involve politicians and TL's in promotion/ awareness campaigns	Technical involvement in the processing of data, preparation of information etc.	Involve keepers and producers in promotion
Role of livestock at National level – food security, poverty alleviation, socio cultural uses	Production data; breed survey; production systems; training of trainers	Cost benefit data-income from production at different levels with different breeds and combinations
Political and traditional leaders with animals should	Involvement of technical sector in all relevant	Establish open nucleus breeding schemes-to create

be encouraged to farm with local breeds – patrons of beef societies clubs?	activities-convincing by way of hands on experience	awareness as well
		Incentives for producers and owners using pure indigenous breeds
	Awards for service delivery /contribution to conservation etc.	Awards for conservation initiatives
Breeding policy, strategy with clear cost activities to enable all levels to identify + buy into the process	Breeding policy	Breeding policy
		Master farmers

Capacity development is needed technical and livestock keeper/producer level

Ways to achieve this

- Combinations of information (processed data) workshops, meetings, farmers days.
- Media publications, TV, Radio,
- Challenge:
- To get the Minister/Traditional leaders to talk with enthusiasm about the value of adapted breeds and the role of local breeds in Socio-Economic and Socio-cultural life

2. INFORMATION REQUIREMENTS

What information is needed?

- Breeds inventory - Breeds, species, combinations
- Uses - All uses - manures, traction/draught power (plough, transport, water, etc), milk, etc
- Role of livestock in family life (Socio cultural)
- Traditional practices (draught, manure, hides, skins, ceremonial) (Management)
- Contribution to GDP
- Trade/markets for all possible products
- Establish a system to value the animals
- The contribution of livestock to poverty alleviation
- Production costs - at all levels -using different breeds and species
- Risk - exotic vs. indigenous
- Potential for across border trade
- Zoo-sanitary agreements in the region
- OIE information regarding movement and trade
- Concept of plants to feed animals - show that animals can always be used to buy food as well - failed crops have no value - with the exception of animal food
- Comparative production information - adapted vs. un-adapted etc.
- Agro-ecological zones-matching breeds and combinations to production systems
- BREEDING AND IMPROVEMENT POLICY - ENDORSED BY ALL AWARENESS LEVELS - TO ADDRESS ALL RELEVANT ASPECTS

Where and how to get the information?

- Breed surveys
- Review of all available data and information (Literature survey).
- Information access and sharing - electronic and other communication - ILRI, DAD-IS, ABGDG, SADC, etc

Subsidy vs. Incentive (to balance the situation)

N.B. Subsidy is for maintaining biodiversity "ways to create a level playing field"

3. ESTABLISHING A BALANCE

Have a policy - spelling out the roles of the different sectors/role players etc.

Role of Government

- Regulatory - including regulations regarding the registration and recording of breeds, production data, etc., the legal status of breeds societies
- Nucleus breeding schemes and incentives
- Finance/Subsidies
- National database
- National herd Books
- Characterization of breeds
- Trade agreements
- Bilateral agreements
- BALANCE
- Guidelines on the exchange of and trade in genetic material
- Guidelines on crossbreeding/development of composites

Breed Society

- Has a responsibility to maintain a balance between registered animals and animal used for production
- Needs of producers and owners must be taken into consideration
- Accurate promotional information
- Stewardship initiatives with emergent breeders - may be an initiative - tax deduction, subsidy - could be considered
- Avoid a situation where breeders sell to breeders at exorbitant prices that makes it impossible to use animals for anything else
- Regularly review the progress of the breed to maintain a balance between the Breeders and producers

NB ----> Campaache study - Subsidies / incentives in the family vs. commercial sector

Plenary discussion

- Comment Livestock tends to be taken for granted despite the fact that they make a valuable contribution to food security in the region.
- The accent on animals is an inherited one; animal resources have always been a subset of plant resources
- There is compartmentalisation; farm animals do not represent livestock as a whole
- Agro-ecological zones with adapted breeds are an important too as is DAD-IS. A balance must be sought between breeders, producers and government or the situation may arise where breeders can only supply breeders owing to the expense of the stock.

8.3 Working group 3: What are the requirements for an international treaty?

Guidelines for group work

1. What are the requirements for an international treaty?
2. Are there alternatives to a treaty - which ones? ++/--
3. What are then key elements of international treaty/other instruments?

Issues, which emerged from the table discussions during the presentations, which the group was tasked to deal with:

- Need an animal-specific treaty
- Learn from the process of incorporating farmers rights for livestock-keepers rights
- International level guidelines can:
 - Ensure transparency
 - Multi-lateral gene conservation
 - Give general guidelines
- International recognition for livestock keepers rights is needed
- International instruments to regulate access + benefit sharing is needed
- AnGr is a global concern
- We need an international treaty on AnGR!!
- The assumption of "democracy" within a country needs to be made to ensure that local communities benefit from government negotiations
- A.U./IBAR to initiate process to develop mol law on AnGR
- Need to develop on treaty for AnGr
- Do we need bilateral implementation of international conventions (CBD) for animals?
- An international funding strategy is needed
- Include in laws (general laws) - specific policies, strategies, time lines, outputs, etc.
- Patents are not appropriate - alternatives?
- How do you protect ownership of AnGR?
- Remove contradictions between CBD and TRIPs?
- Contradictions between TRIPs & CBD needs solution

Presentation of the group results:

Requirements for an internationally agreed legal framework

- ITPGR not sufficient justification
---> international/regional basis

Justification/rationale

- AnGR = global concern
- Gene flow (volume, importance international exchange)

N-N/N-S
S-S/S-N
+ future trends

Because of food security, erosion of livelihoods, AnGR diversity + Influence on other type BD

- In order to:
 - enhance conservation + sustainable use
 - regulate access ---> provide mechanism for BS
 - Increase awareness (donors, national policy makers...
 - Provide for future generations
 - Achieve commitments by Governments

Key elements

Preamble:

- Acknowledge to cultural diversity linked to cultural diversity
- AnGR diversity is of global concern
- AnGR essential for using marginal areas + for sustaining livelihoods of the poor
- Importance of *in situ* conservation implies critical role for communities
- Recognition of existing instruments + ongoing programmes
- Protect + respect indigenous knowledge

Elements:

- o) set of principles
 - 1) - Regime for conservation + sustainable use of FAnGr
 - 2) - Regime for exchange of germplasm
 - 3) Regime breeding/crossbreeding
 - 4) ABS
 - 5) Capacity building at all levels
 - 6) Livestock-keepers rights access to rangeland
 - 7) Regime for research + development

Potential alternatives

Bilateral Agreements

- Binding (*characteristic*)

Code of Conduct (international or voluntary industry ones/non-binding (*characteristic*))

- Biotech code being developed could be complementary to responsible fisheries AnGR conserv./sust. use

Regional Agreements

- Binding (***characteristic***)

International Treaty

- Binding (***characteristic***)
- Creates/provides higher degree of awareness, action (***Pro***)
but may take a long time to achieve this (***con***)

Guidelines (Non-binding/ Binding)

- Non-binding (***characteristic***) / May be perceived as technical + not commitment (***con***)
- Can lack full commitment by governments (***con***)
- But can provide a degree of commitment (***pro***)

Rapporteur report on Requirements for an International Agreed Legal Framework

The argument that we have an International Treaty for Plants is sufficient, we need to search for real international/regional justification as a basis for starting the discussion.

What would be the rationality/justification?

Animal genetic resources for food and agriculture are global concern, as they are essential to achieve food security, promote sustainable livelihoods, especially in marginal areas, and its influence in other types of biodiversity and environment. We are alarmed by the continued erosion of these resources.

We recognize that animal genetic resources have being spread since the rising of farming and continue to be exchanged widely through regions and continents. The current pattern of gene flow between regions shows that we all depend of resources coming from elsewhere. But we recognize the essential role that local breeds play in many farming systems, and we need to find specific solutions to promote their sustainable management.

We need an instrument in order to enhance conservation and sustainable utilization, and to provide a mechanism in order to regulate facilitated access and benefit sharing. Increase awareness is needed (donors, national policy makers,...)

Create a mechanism to provide for future generations.

Achieve commitments by governments.

What kind of instrument would we need?

Non binding instruments such as Code of Conducts, Guidelines, or voluntary industry commitments, are interesting tools which provide countries providing a degree of commitment.

May be perceived just as a Technical tool and can lack full implementation by governments.

Binding instruments, being bilateral, regional or international, provide for a higher degree of awareness and action but this may take a long time to achieve.

We need strong commitment, we recognize the global concern about this genetic resources and we need an international discussion to clarify how to move forward, achieving an international agreement will be therefore required.

What key elements of a possible international treaty will we need to take into consideration?

Preamble:

Acknowledge the linkages between animal genetic diversity and cultural diversity.

Animal genetic resources are of global concern. They are essential for using marginal areas and vital to ensure the sustainable livelihoods of the rural poor.

Recognizing the importance of *in situ* conservation as the main possibility to conserve genetic diversity worldwide implies we need to acknowledge the critical role played by local communities.

We should recognize the existing instruments and on-going programmes.

It should be a tool to protect and respect the indigenous knowledge.

Elements:

Set of principles

1. Regime for conservation and sustainable use for animal genetic resources, including breeding/crossbreeding

2. Regime for germplasm exchange, including mechanisms of access and benefit-sharing,
3. Capacity building at all levels
4. Livestock breeders rights, including access to rangeland
5. Regime for research and development

Plenary discussion

- A problem is being experienced with the International Treaty of Plant Genetic Resources. There was a provision for the inclusion of FanGR but it was not included. FAO must consider this omission.
- The FAO are merely the servants of the various governments. It is the responsibility of the governments to have strong representation from the animal sector. To date this has not occurred. At the last meeting the FAO was not given the mandate for FanGR because of insufficient country support. The FAO also assist governments with part funding to allow them to attend meetings.
- SADC must have a stronger voice. They must identify gaps and opportunities and lobby at FAO level for inclusion in international agreements.
- Representation on other organisations is also needed e.g. the Bureau of Commission Board
- A strong recommendation is needed for the next SADC meeting
- Although it is good that the SADC representatives communicate but they should also communicate with other members of the African region.
- A problem is that African representatives go to international meeting ill prepared and then are out maneuvered. Concise statements that are to the point and in context have more impact than vague statements. The lack of concise statements results in countries being marginalisation.
- Few countries have permanent representation at FAO. The whole process communication is bureaucratic in nature and breaks down. USA and Australia have a professional negotiator who has technical back up.
- Lobbying before meetings is also important and should be at country, SADC and African levels. This will allow Africa to speak with one voice.

8.4 Elzbieta Martyniuk and Alvaro Toledo: Synthesis of Topic III Discussions

Implications of the international legal and regulatory framework to support sustainable use improvement and access to FAnGR

Session III included five presentations which addressed various aspects of existing and possible to implement or foreseen international legal instruments relevant to AnGR.

The first presentation by **Ms Antonella Ingrassia** provided an overview of international legal and regulatory framework on AnGR. The paper presented relevant articles of the Convention of Biological Diversity and major decisions adopted by the Conferences of the Parties to CBD in the area of agricultural biological diversity (II/15, III/11) and specifically AnGR (VI/5) as well as implications of the Bio safety Protocol under the CBD. The relationship between CBD and TRIPs provisions was analyzed and led to a conclusion that those two instruments are contradictory as regards ABS issues.

The WTO Agreement on the Application of Sanitary and Phytosanitary Measures (SPS) was described with a special note on sovereign rights of a given government to identify the appropriate level of health protection. The role of the OIE and Codex Alimentarius as standard setting bodies for animal and human health and food standards were explained including new initiative in this area regarding guiding animal feeding practices.

In relation to IPR, the role of WIPO, then areas of intellectual property under TRIPs agreement and possible exceptions according to article 27.3(b) were presented, followed by new instruments, like Material Transfer Agreements, such as the one included in the International Treaty on PGR

Non binding instruments relevant to AnGR included: Chapter 14 of the Agenda 21, FAO Global Strategy on the Management of FAnGR and also Bonn Guidelines, which supports the ABS of GR when undertaking bilateral agreements. In regional framework, the OAU Model Law which is meant to guide countries in developing *sui generis* systems of protection of both breeders and local communities rights.

In conclusion it was suggested that better management of AnGR requires development of appropriate legislation at all levels, and also increased consideration of AnGR problems and needed solutions at various international fora.

The second presentation by **Dr. Lothar Gründling** underlined the main facts and issues important from AnGR conservation and sustainable use perspective. While AnGR as much as PGR require immediate action to improve their management, the international debate on AnGR is not specific and intense enough to have a substantial impact.

At country level most legislation was developed to respond to needs of plant genetic resources. In particular national policy framework, does not support pastoralists and stock keepers in traditional production systems. The paper gave an overview of advancement in ABS policy development in few countries, and presented five strategies which might be considered in development of legal framework on AnGR, such as: conservation of indigenous livestock by local communities; crossbreeding strategy and strategy on importation of exotic AnGR with risk assessment and notification; strategy on ABS and capacity building. As example, basic elements of conservation and ABS strategies were discussed.

The third presentation by **Prof. Johnson Ekpere** described in details rationale and process of development of African Model Law, as an initiative of the Organization of African Unity to support member countries in development of their national legislation to fulfil obligations under the Article 27.3(b) under the WTO TRIPs Agreement.

The paper presented fundamental objectives and the basis guidelines for protection of the rights of local communities, farmers and breeders under the Model Law and discussed the applicability of the Model Law to AnGR context. Finally the paper considered relationship between the Model Law and other international instruments, paying special attention to its implications for a possible International Treaty on Animal Genetic Resources.

The fourth presentation by **Mr. Álvaro Toledo** discussed lessons to be learnt from experience of the international debate on PGR. The paper analyzed similarities as well as distinctive features of Plant and Animal GR and their implications in developing legal instruments for their better management. The paper provided overview of the main developments since 70thies in the PGR sector, which finally led to adoption of the International Treaty on PGR for Food and Agriculture in November 2001. The objectives, scope and the provision for ABS adopted in the Treaty were described as well as funding strategy to enable implementation of the Treaty. The presentation was concluded with a question if there is a need of a Treaty addressing AnGR. To support consideration of this issue, the paper provided a set of questions, which have facilitated discussion in the working groups.

The last presentation by **Dr Adam Drucker** focused on major issues for consideration in development on a legal international framework on AnGR. They include: livestock germplasm flow and foreseen trends in international germplasm exchange and associated potential benefits; research and development in livestock germplasm both in terms of responsibilities and benefits; economics of conservation of PGR and AnGR as well other policy factors, beside ABS that have be considered in order to support better management of AnGR. Each issue was considered in depth with commentaries drawing attention to especially important issues. The special focus was on various policy-induced distortions, which may affect negatively the management of AnGR.

Group discussion:**Working Group 1: Harmonization at regional level**

Outcomes:

- African Model Law was seen as a basis for policy development in SADC region.
- The SADC Secretariat was seen as a driving force and its role in supporting this process will include: mobilization of resources, direct assistance (legal and technical expert team), supervision of implementation, and efforts to include other African countries.
- The areas for harmonization for legal framework will cover: veterinary standards, trade protocols, ABS, animal identification, recording and improvement, product quality (both genetic material and food products)

Policy development process implies empowerment of national authorities and should be conducted by participatory process, including civil society and industry.

Working Group 2: Raising Awareness

The group underlined the need to develop awareness strategies addressing three levels:

- Political local leaders, to involve them in the conservation efforts.
- Technical level: to raise awareness of real values of AnGR through valuation, breed surveys, characterization and training.
- Livestock keepers, to enhance conservation through increased use of indigenous stock, based on cost benefit analysis, using breeding improvement schemes (like open nucleus) and considering provision for incentive measures (subsidies and involvement in extension and training).

How do we work towards raising awareness? Through workshops/ training / media especially radio

Challenges: Encourage enthusiasm in policy makers.

Requirements: Appreciation of role of livestock in family life and GDP (both monetary and non monetary benefits), access to information to enable informed decision on which breeds to be kept, with understanding of risks associated with utilization of certain AnGR, recognition of adaptation features, and compatibility between eco-geographic zones / productions systems and AnGR.

Establishing a balance between breeders and producers is the role of government, and it includes: evaluation of demands for breeding material, linking breeders with producers and market, facilitation of establishment of breeders societies and breeding services such as ID and recording

Working Group 3: Requirements for an International Agreed Legal Framework

The argument that there is the International Treaty on PGR is not sufficient, there is a need to search for real international/regional justification as a basis for starting the discussion.

Rationale/justification for International Treaty on AnGR

Animal genetic resources for food and agriculture are a global concern, as they are essential to achieve food security, promote sustainable livelihoods, especially in marginal areas, and influence other types of biodiversity and environment. The continued erosion of these resources imposes a risk on future animal production.

Animal genetic resources have been spread since the beginning of farming and continue to be exchanged widely through regions and continents. The current pattern of gene flow between regions shows that all countries, to various extent, depend on AnGR coming from elsewhere. The

local breeds play essential role in many farming systems, and there is a need to find specific solutions to promote their sustainable management.

A specific legal instrument is necessary in order to enhance conservation and sustainable utilization of AnGR, and to provide a mechanism in order to regulate/ facilitate access and benefit sharing. Development of legal instrument will support enhancement of awareness (donors, national policy makers,...) and result in commitments of governments. Such instrument will provide for maintaining AnGR for future generations.

What kind of instrument is possible to develop?

Non binding instruments such as Code of Conducts, Guidelines, or voluntary industry commitments, are useful tools that provide a degree of commitment. They may be perceived just as a technical tool and can lack full implementation by governments.

Binding instruments, being bilateral, regional or international, provide for a higher degree of awareness and action but this may take a long time to achieve.

A strong commitment is required to make real changes in AnGR management and an international discussion is necessary to clarify how to move forward. An international binding agreement will be therefore required.

Key elements of a possible International Treaty on AnGR

Preamble:

Animal genetic resources are of a global concern. They are essential for using marginal areas and vital to ensure the sustainable livelihoods of the rural poor. There are linkages between animal genetic diversity and cultural diversity. *In situ* conservation is the main possibility to conserve genetic diversity worldwide what implies that the critical role played by local communities has to be acknowledged. The Treaty should be a tool to protect and respect the indigenous knowledge. The existing instruments and on-going programmes have to be recognized. Set of guiding principles should be mentioned

Possible Elements:

1. Regime for conservation and sustainable use of animal genetic resources, including breeding/crossbreeding
2. Regime for germplasm exchange, including mechanisms of access and benefit-sharing,
3. Capacity building at all levels
4. Livestock keepers rights, including access to rangeland
5. Regime for research and development
6. Institutional arrangements (support mechanisms: networking, the Global Strategy on Management of Farm Animal Genetic Resources, DAD-IS.
7. Founding mechanism.

The group discussions and the presentations were very rich and encouraging. Thus the motivation of the whole group was high.

As a next step towards finalisation of the workshop, a 'wrap up' of outcomes had to be generated.

9 Conclusions of the workshop, Insights and lessons, recommendations and the SADC position

For 'stocktaking' of the outcomes of the discussions over 3 days, table groups were asked to brainstorm on the major findings, lessons and insights that they gained during the discussions so far. A variety of issues and lessons came out. A synthesis group composed of the major players took their time to pull together the key lessons and tried to establish a SADC position. (see below)

Insight lessons

Think Regional act Nationally!

- African region should speak as one
- Lobby groups w/ include private sector and NGOs
- Need for regional & continental common stance
- Legal & technical people should work on policy, law, treaty... together
- African countries need to lobby as regional blocks for the FAnGR treaty
- Improve (through various stream linings) representation & communication to/at international platforms (re: livestock)
- Capacity building for policy making/in. bodies needed
- Lack of national policies and legislation on FAnGRs

Inventories

- Enough information is available - move on to develop & implement appropriate legislation and policies
- Inventory on policies & legislations on FAnGR - National

Awareness on the value of FAnGR

- Tell Embassies: agriculture includes animals and plants
- Importance of improved understanding + capture of AnGR values
- Recognition of role of indigenous breeds
- A wish to create awareness of importance of livestock (among communities, politicians, etc.)

Need to begin treaty consideration/formulation process as means of increasing Gov. + donor commitment

- Need for harmonization at national level to avoid fragmentation
- SADC Secretariat to prepare statement of intention to SADC & A.U. Council of Ministers
- **SADC** : Submit workshop report to Africa Ministers meetings in July + lobbying
- Enhance activities, investment, policy formulation for livestock sector
- **SADC**: Submit workshop report to ITWG meeting (?) or lobbying
- Gene flow studies needed within SADC + outside
- Pro-activeness in addressing AnGR issues in national /international *fora*
- Conservation incentives
- Need to develop a SADC - SOW AnGR Report
- Investment + Capacities field trivial compared to potential benefits
- There is a need for consultation + feed back between national + international feed backs
- Establish, maintain & improve livestock gene banks in Africa now!

SADC Position

- SADC task-force to work on the draft guidelines-include this workshop outputs
- SADC harmonization on livestock Policy
- Need for guidelines on: ID, movement, trade, breeding, improvement, etc. => Develop treaty
- Indigenous livestock breeds are more "original" than many plant resources in Africa - protect now!
- Adapt the model law (AU) to develop a *sui generis* system - funding from AU/IBAR
- Use of A.U. model law for development of FAnGR legislation
- Livestock keepers' rights
- There is need for a FAnGR Treaty
- Strengthen the network at SADC & International (e.g. discussions (electronic))
- An integrated Regional Action Plan is required (for an agreeable SADC position)
- Issues have to be brought up by participants to ensure ownership commitment
- SADC position to be presented at FAO commission
- Sectoral approach in agriculture needs harmonization (national)

Summary of the major insights, common issues, lessons learnt and recommendations from the Workshop (prepared by the synthesis group)

The SADC Workshop on Legal Framework on Generation on Benefits, Sustainable Use and Conservation of FAnGR was held in Maputo, 20th -23rd May 2003. The major observations from the Workshop were as follows:

- The contribution of FAnGR sector is undervalued, and there is a need to create a better awareness of the monetary and non-monetary value of livestock among SADC countries and at international fora;
- There is a need for proactiveness and holistic approach in addressing FAnGR issues in national /regional /international level and for development of SADC common position;
- There is a lot of information on FAnGR in the region and there is a need to establish a sub-regional FAnGR database to enable analysis of all aspects of FAnGR management;
- Bearing in mind that *in-situ* conservation is the most practical approach in African region, there is a need to adopt participatory approach in conservation and use, involving all stakeholders, including livestock keepers in all stages of decision making process;
- To achieve a better management of FAnGR in the SADC region there is a need for enhanced capacity for research and development and management through improved budgetary allocation and support.

Recommendations from the Workshop

The SADC Workshop on Legal Framework on Generation on Benefits, Sustainable Use and Conservation of FAnGR was held in Maputo, 20th -23rd May 2003.

In the end of deliberations the Workshop recommends as follows:

- SADC should establish a Task Force to work on the draft guidelines on policy and legal framework on FAnGR to include the outcome of this Workshop;
- SADC countries should adapt OIA Model Law to develop a *sui generis* legislation

- SADC region should work towards development of the International Treaty on Farm Animal Genetic Resources as an instrument to enhance food security, sustainable livelihoods and rural development along the lines with ITPGR;
- Establish and strengthen FAnGR networking at national, regional and international level to increase activities, investment, policy formulation for livestock sector;
- SADC should develop a common position on FAnGR to be presented at international fora, especially the CGRFA of the FAO;
- SADC Secretariat should submit the statement of intent on implementation of these recommendations to the SADC Council of Ministers and to the Conference of African Ministers of Agriculture meeting in Maputo this July;
- SADC Secretariat should submit Workshop Report as information document to the 3rd Session of the Intergovernmental Technical Working Group on AnGR for Food and Agriculture in November this year.

10 *Future Action at country / organisational level*

Once the lessons and conclusions of the workshop topics were agreed upon, the question arose 'what next'. The facilitator asked participants to form country groups as a forum to discuss follow-up steps within the represented countries. For the international organisations, a follow-up was discussed within their members. The task was:

Suggested task:

Come together as "country groups": Prepare a small "action plan" in terms of:

1. What needs/can be done for promoting FAnGR? (Opportunities?)
2. What can be our/my role + contribution in that: What should I/we do?
3. How am I /are we going to take forward the outcome of this workshop in my/our country?

Please give a brief report to the plenary and hand in your "plan" to include in the documentation!

10.1 **Group 1: Zambia, DRC, Mauritius**

Group members: Daka DE (Zambia); Zulu FA (Zambia); Brigitte Kajunka (DRC); Boodoo A.A. (Mauritius)

1 a) Creation of awareness among the stake holders (Livestock farmers, Researchers, extension worker, NGOs, Universities & Colleges, policy makers.

- i) Role of FAnGR in enhancing socio-economic status of people/rural people and food security
- ii) Sustainable use/utilisation of FAnGR i.e. Conservation

❖ How: Farmer/group meetings

Agricultural shows

Field days

Radio

TV

Production of ext. materials i.e. booklets, pamphlets etc

Workshops / seminars

b) Mobilisation of resources to promote FAnGR

c) Support / give incentives to livestock farmers involved in breeding of FAnGR

2 a) Mobilisation / facilitating farmers group formation in the context of AnGR

b) Capacity building of farmer groups and extension providers in FAnGR

c) Production FAnGR extension packages

Disease control/ animal health

Animal Nutrition
 Husbandry practices
 Breeding
 Marketing etc.

d) Lobby for resource to support FAnGR

3. a) Report on FAnGR workshop and follow-up Recommendations

b) Act on gaps

e.g. Breeding policies

legal

Institutional

10.2 Swaziland

By Dora Villakati

1. Promoting FAnGR and opportunities

a) Awareness creation among stakeholders

- Write cabinet for information
- Hold meetings, workshops/field day
- Agricultural News Bulletin
- Media, particularly radio-livestock programmes, newspapers news report
- Production of FAnGR materials

b) Opportunities

- National Advisory Committee and Technical Committee on FAnGR in place
- Representation in biodiversity strategy and Action Plan Committee
- Livestock Development Policy already in place
- Sloe process
- Culturally Swazis are livestock keeping people
- Livestock identification act in places

2. Role

- As National Coordinator for FAnGR will be coordinating all awareness raising activities.
- Coordinators of funding strategy

3. Workshop outcome

- Write report to appropriate authorities
- Advocate for FAnGR policy formulation – identifying gaps from the existing livestock Development Policy

10.3 Lesotho

1. Raise awareness

a) Methods to be used

- presentations in Meetings, workshops and courses
- use Agricultural Bulletin
- Use of media e.g. radio, etc
- Presentation at Agricultural show

b) Target groups

- Politicians (Minister, MPs, Local authorities)
- Technical
- Stock owners

c) Opportunities

- NAC in place
- The show-AnGR process
- Livestock registration project

2. Contribution
 - Presentation at workshop and meetings; Agricultural bulletin
 - Coordination and planning of Meetings and workshops
3. Report to minister and P.S
 - Advocate for reformulation of the livestock policy so it becomes explicit on AnGR
 - Have an input in the livestock legislation currently being reviewed

10.4 Angola

by Bernardete Santana

1. Awareness creation about the FAnGR Meetings, Workshop, Agricultural shows, Cabinet Paper, agricultural News Bulletin, Media
2. Opportunities
 - Changes in the Livestock sector
 - In process – Actualization of livestock legislation
 - Sow process
 - NC Institution for SADC/PNUD/FAO-RAF 97/032
3. Report to the livestock Directorate and Minister about the outcomes from this workshop
 - Advocate for relevance of FAnGR in formulation of livestock development Policy
 - Input into livestock legislation
 - Drive the process of awareness creation

10.5 Uganda-Kenya

Members

- i) Joyce Njoro
- ii) Jacob Wanyama
- iii) Nakimbugwe Helen
- iv) Karanja Paul
- iv) Morten Walloee Tuedt

1. What needs/can be done for promoting FAnGr opportunities?

- a) Fit in the information and experiences from this workshop to the on-going review on Animal Health/Livestock production policies in Kenya.
- b) During the implementation of Uganda's Act aspects like IPR which have been learnt during the workshop should be considered.
- c) More regional co-operation between Kenya and Uganda is needed. We should take advantage of the already existing East African Community
- d) Dissemination of information and experiences from this workshop will be used in the forthcoming 2 workshops viz. International Workshop on Livestock Keepers, Rights in Kenya and the Community Animal Health workshop in Uganda.
- e) There is a need of networking (knowing whom to contact). We should take advantage of networks, which already exist for example the Community Animal Health Network (CAH Net) and try to fit in. We should also try to subscribe to more networks so as to have wider access to information pertaining to FAnGR.
- f) Involve more stakeholders e.g. NGOs, the private sector in the promotion of FAnGR and promote better information flow among stakeholders in livestock

2. What can be our role and contribution in what we should do? And how can we take forward the outcome of this workshop in our country

- a) Start off the network immediately and give 3 more serious contacts.
- b) Make sure the reports from this workshop are distributed to the key relevant stakeholders. An executive summary is needed for people who don't have much time especially policy makers.
- c) We should try to actively participate, contact and encourage stakeholders to participate in the forthcoming International workshops in Kenya and Uganda.

10.6 Mozambique

- Marketing improvement/access of local FAnGR
- Strengthening institutional co-ordination/collaboration
- Guarantee inclusion of workshop outcomes in the livestock policy/strat. doc.
- Information on FAnGR disseminated by local regional media
- Local FAnGR integrated in curricula from 2ndary school
- Follow-up activities on characterisation of local FAnGR
- Develop breeding programs w/ community's involvement

10.7 Botswana

Problems/Challenges

- Directing population of indigenous breeds
- Indiscriminate crossbreeding
- Threats of disease & droughts
- No breeding policies in place – (old legislation on livestock registration)
- Declining contribution of agriculture to GDP (3%) is low which may influence decision making when it comes to allocating resources among competing sectors. (Mining, Tourism, Manufacturing) HIV/AIDS
- Inadequate coordination & Consultation in the negotiation of International Conventions. Most international Environmental Conventions and coordinated by Ministry of Environment by the MCSA but participation of FAnGR personnel has been low or absent especially at FAO

The following for a and activities will be what needs to be exploited for promoting FAnGR issues:

Opportunities

1. Preparation of the SOW-AnGR Report.
2. Conservation of indigenous livestock project
3. National Advisory Committee on Management of Farm Animal Genetic Resources
4. National and District Shows (Posters & SADC – video to tertiary institutes).
5. Community – Based Activities – GEF/SGP Sheep and Goat Project
6. Livestock Advisory Committee (L.A.C.)
7. Possibility of Establishing a research program on Farm Animal Genetic Resources
8. National Planning – structure e.g. current Development of the National Biodiversity Strategic Action Plan.
Development of the Bio-safety legal Framework
9. National Vision 2016

** I am at the National Coordination for FAnGRs, and project officer for the Conservation of indigenous livestock project. I am a Secretary to both the NAC Committee and the National Livestock Recording and Performance Testing Coordinating Committee and SOW-ANGR. I am also a member of the National Planning Committees.

- National Biodiversity Authority
- National Biodiversity Strategic Action Plan

- Biodiversity legal Framework Coordinating Committee
- Advisory Committee to the GEF/CGP Sheep & goat Conservation Programme.
- I report periodically to the L.A.C. therefore can highlight important issues to them

How am I going to take forward the outcome of this workshop in my country:

- Prepare a report to the Permanent Secretary MA
- Report to the National Advisory Committee for FAnGR
- To follow-up and make contacts with the Foreign Affairs Office on the Officer handling FAO issues based in Rome
- Infuse some issues from the workshop into the SOW-AnGR Report

10.8 Malawi

1. Promotion of FAnGR
 - Reactivating institutions that are involved
 - Complete and report on the breed survey and SOW-AnGR to bring insight information on the status of AnGR
 - Institutions to be encouraged to do research on indigenous animals not emphasising only economic traits but adaptive traits
 - Characterisation of indigenous stock
 - Inventory of other non-monetary FAnGR contributions to come up with actual/total impact of FAnGR
 - Rural raisers informed about benefit and contribution of AnGR
2. Promote awareness to stakeholders emphasising the total impact of the AnGR to the livelihood of the rural communities and nation.
3. Detailed reports – to Ministry, Dept, FAO University and NGOs involved with rural community development.
Discussions to be held.

10.9 Tanzania

Members: Mr. K.J.Boki – M.WLD; Dr. J.K.K. Msechu – M.WLD; Dr. S.H. Mbagala – SUA; Mr. Meghji, M. – NGO; Mr. M.M. Mbeyale - NAIC

A. OPPORTUNITIES & STRENGTH

- i) Big diversity in FAnGR – we need to take stock through breed survey planned for 2003-04
- ii) Adequate human resources
- iii) We have Agriculture & Livestock Policy continuing statement on FAnGR and in addition the Policy is in the process of review
- iv) Livestock associations, NGOs + CBO activities
- v) Adequate marketing infrastructure currently under the auspices of Tanzania Livestock Marketing programme (TLMP)
- vi) Peace and Tranquillity prevailing

B. ROLE AND CONTRIBUTION

- i) Raising awareness – i.e. the importance of FAnGR and the positive and negative effects of indiscriminate crossbreeding.
- ii) Urge mainstreaming of elements of FAnGR in our Training Curricula
- iii) Influence policies + policy makers to take up the issue of FAnGR more seriously

C. How to take forward the outcome

- 1) Prepare country report and submit copies to:
 - Ministry of water and livestock development
 - Ministry of Agriculture and Food Security
 - Reports to other stake holders e.g. Tanzania Dairy board

- Use local media – TV, Radio, Newspapers
- Strengthen research in indigenous animals – publication local + international

10.10 Zimbabwe

By S. Moto, E. Rusike; E. Nengomasha

1. a) Hold a stakeholders' workshop to report back the results of the FAnGR breed surveys. Invite policy makers to concretise them of the importance of FAnGR
 - b) Formulate future action plan/strategy for the development of the livestock sector in view of the agrarian reform
2. a) Identify other key stakeholders especially NGOs with interests in livestock development
 - b) Update the Zimbabwe country report for SOW-AnGR
3. a) Consult with the task force currently developing a *sui generis* system and check progress and how FAnGR can be incorporated or a similar/separate system can be developed
 - b) Report back to the Minister on the outcomes of this workshop to brief him for the forthcoming Ministerial meeting in Maputo in July
 - b) Report back to local communities (ITDG)

10.11 Namibia and South Africa

1. What needs to be /can be done for promoting FAnGR?
 - Awareness creation of the role and importance of AnGR at all levels; using the spoken and written media (publications and radio)
 - Harmonizing of policy issues; need for greater collaborative consultations between different role players (MAWRD & MET; PGR & FAnGR)
 - Publishing of information regarding the potential of indigenous livestock
 - Streamlining of policies and regulations
 - Need for a National Policy on FAnGR
2. What can be our / my role and contribution in that: what should we/ I do?
 - Use position as NC for FAnGR to sensitise the National Biodiversity Task Force (NBTF) in Namibia on the importance of FAnGR.
 - Use the NBTF to assist with changing the current draft of the "Access to Natural Resources and Indigenous Knowledge Act" to include FAnGR, it currently only refers to PGR.
 - Sensitise Management to the importance of FAnGR in Namibia.
 - Publish available data on indigenous livestock in National and International Publications.
 - Prepare "documents" to be used for awareness creation.
3. How are we / am I going to take forward the outcome of this Workshop in our/my Country?
 - Report back to Management.
 - Compile an inventory of available Policies and related legislation; identify gaps and areas for improvement – and address them.
 - Have consultations with the drafters of the draft "Access to Natural Resources and Indigenous Knowledge Act" to change it to include Farm Animal Genetic Resources and not only Plant Genetic Resources. (No need for two separate acts if all genetic resources could be covered in one Act.)

- Produce and publish information to create awareness on the importance of Indigenous Livestock.
- Ensure greater collaboration with parties, which have to attend international meetings; to ensure that important issues are addressed.
- Include donor-funded programmes into the mainstream activities of the Ministry.

10.12 International Group: ILRI and FAO

- WS recommendations used to orient (further) analysis of questions



- **A** Arising from the desire to develop a legally binding instrument
- **B** Related to volume + importance of international gene flows
- WS outputs used to clarify science-based issues of legal binding FAGR instrument
- Explore possibilities to initiate global AnGR discussion group within DAD-IS
- Use experience of the WS in other regional SOW-WS
- Follow-up on gene flow study → need commitment of SADC for information provision
- Support II phase and extension of SADC/UNDP/FAO project
- Contribute/participate at livestock keeper rights workshop, Kenya
- Bio security portal
 - Animal and Plant health and life
 - Bio safety
 - Capacity building

10.13 GTZ Follow up

- Report on Workshop with CDROM with all previous workshop documentation for broad distribution until the end of 2003
- Paper of Lothar Gündling (revised) until mid June
- Presentations and/or papers on SADC website for workshop by mid June
- Workshop results will be fed into a pastoralists and NGO workshop organized by LPP and ITGD at the beginning of September in Nairobi (focus on livestock keeper rights)
- GTZ takes note of the recommendations and will feed it into the political discussion process with BMZ and BMVEL.

GTZ will consider supporting the further process in SADC and at the national level within the limitations of financial means. Support may focus on capacity building for:

- All stakeholders, in particular at the political level, technical level and livestock keepers through cooperation with NGOs
- Possible subjects:
 - As the basis for poverty alleviation and food security: valuation of FAnGR, better market access/marketing for traditional livestock keepers and their products
 - Policy making, legislation, international negotiations

10.14 CTA's contribution to the promotion of FAnGR:

By I.Boto

1. Support to the dissemination of the results of this workshop:

Funding of the proceedings of this workshop:

1. Funding of the proceedings of this workshop as well as the CD-ROM
 2. Support to other form of dissemination such as briefing notes, etc.
2. Awareness raising through information and communication technologies targeting specific audience:
- videos
 - rural radio programme to livestock keepers
 - electronic forums and consultations
3. Lobbying strategies: CTA will contribute to sensitize the policy makers in African regional organisations and to the European Union and international organisations.
4. Funding the participation of African experts (all regions) to technical follow-up meetings organised by other organisations.

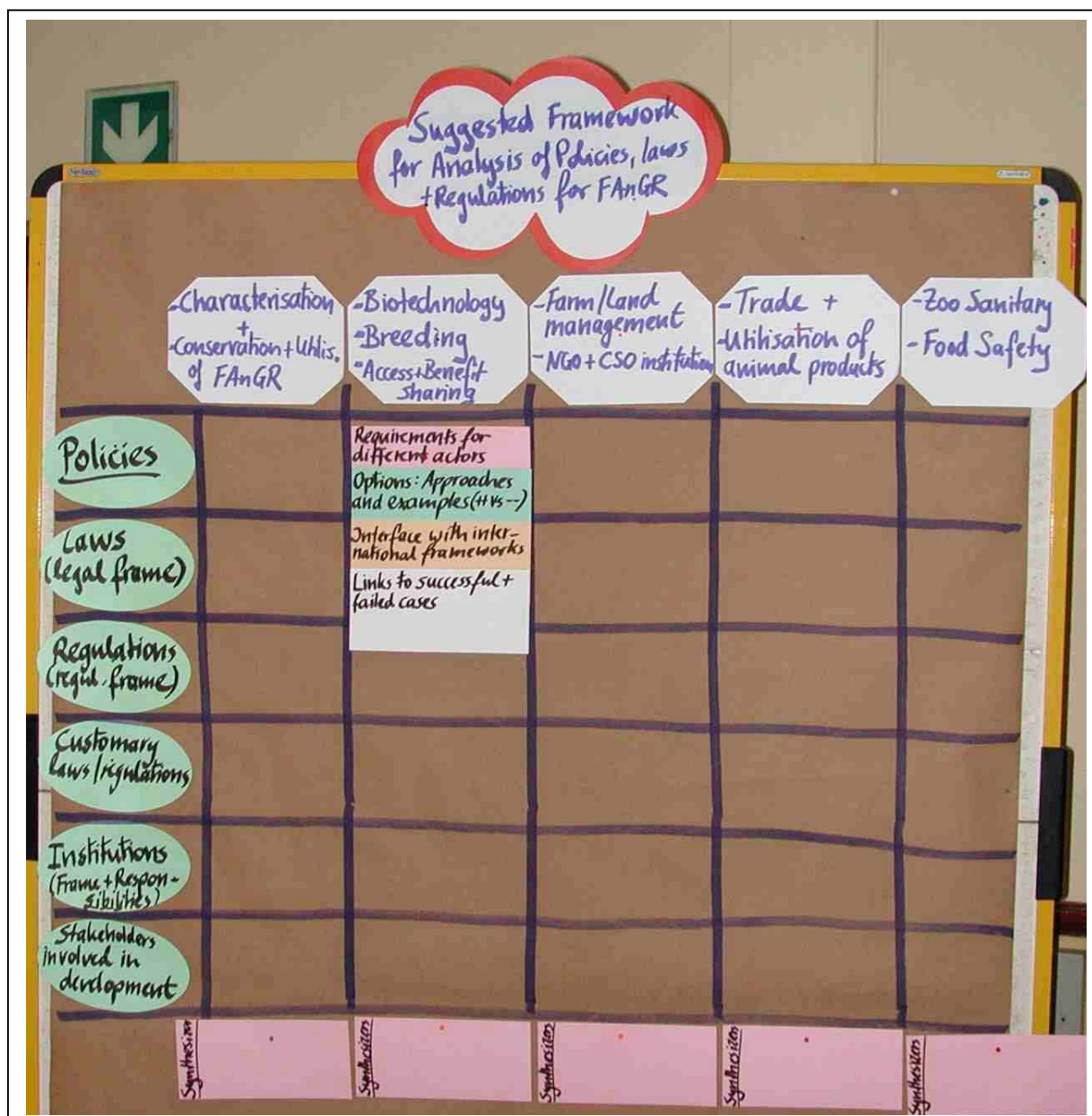
Plenary following the report back of summary group

Plenary discussion and comments

- The workshop was an ideal opportunity to discuss international treaties at all levels, SADC, local and international. There are good reasons for a treaty on animal genetic resource; it will raise the standing of FAnGR. A narrow treaty will leave out some issues but will be faster in implementation. A more comprehensive document covering more issues will take longer. It is therefore important to discuss the scope of the treaty. Development at a local level has the advantage of increasing capacity. Legal training is important especially at international, regional and local levels.
- SADC has the mechanisms for international collaboration. MOU's are held with other regions and FAO, CTA and GTZ can help to narrow the gap.
- AU, IBA and NEPAD networking is in place but no region has really effective collaboration at present. Collaboration takes place through the AU including funding and organization.
- It was suggested that there particular focus on the Committee of Genetic Resources.
- The Secretariat of Commission should be contacted and requested to consider the matter. A paper should be written in the proper language and submitted.
- There is a only one person to deal with livestock issues in the SADC office.
- It was suggested that a sub-committee of the FAnGR Regional Coordinator and the National Coordinator of South Africa should formulate a document for circulation.

11 *Synthesisers' reports on the analytical framework*

At the end of the workshop, we came back to the analytical framework. Voluntary synthesizers tried to pull the discussions together into the frame. 3 Syntheses were followed through and are shown below.



11.1 **Biotechnology/Breeding/Access & Benefit-Sharing**

Policies	*	*	*
Laws	*	*	*
Regulations	*	*	*
Customary	*	*	*
Institutions	*	*	*
Stakeholders	*	*	*

- Requirements for different actors
- Options: approaches and examples
- Interface with international framework
- Links to successful and failed cases

Process recommendation:

- A working group should be established after this workshop, which has the task to develop further national and regional policies and regulatory and legal framework for SADC region, making use of the African Model Law and the Guidelines for the Development of a Regional and National and National Policy on the Management of FAnGR, already prepared and adopted in Angola 4th Steering Com. meeting.

Other conclusions and recommendations:

1. Continuous genetic improvement of local livestock breeds, combined with creation of the need and (added, market) value for these breeds, is the only sustainable option for conservation. Animal identification and performance testing are essential elements of genetic improvement programmes. National policies should give the framework for this.
2. A legal framework on national, regional and/or global value should recognize the role of indigenous knowledge and pastoralism with respect to animal improvement and conservation of farm animal diversity.
3. National policies should give the framework for breeding strategies/programmes, which contribute to the conservation of valuable livestock breeds, taking into account different agro-ecological zones.
4. A genetic impact assessment for crossbreeding or replacement should be part of the national policy.
5. There is a need for legislative and institutional capacity to balance the rights to genetic resources in the SADC-countries towards the patent system in other countries. On a national or regional level, a sui generis system needs to be developed in order to protect IPR of livestock keepers and breeders of indigenous breeds. For specific purposes, protection of breeds by trademarks and/or protection of breeds by herd book registration (across borders) need to be considered. The African Union model-law provides for a good legal system in this respect. A recommendation to countries can therefore be to look into adapting the model law to national legislation. SADC can facilitate the adaptation of the model law in member countries.
6. Exchange of genetic material between farmers, breeders within and between communities, countries or region is of great importance for development of livestock. Protection of property rights must not result in a decrease of exchange of genetic material, but a regulatory framework on a national, regional or global level, needs to deal with patenting of genes and the connected sharing of the future benefits. There is a need for legislation and institutional capacity to ensure the current exchange and use of genetic resources.
7. The policy framework on national level should stimulate the use or development of technology, relevant for breeding and conservation.
8. National, regional and/or global regulatory framework should anticipate on development with respect to genetic modification and other biotechnology developments, which may affect conservation and sustainable use of AnGR.
9. On the international level there is a need for co-ordinated and strong delegations going to all the relevant ongoing negotiations, e.g.:
 - The WIPO Standing Committee on Patent Law;
 - The Intergovernmental Committee on Genetic resources, traditional knowledge and folklore (WIPO);
 - The TRIPs-council;
 - The Commission on Genetic resources under the FAO.

11.2 Characterization Of Farm Animal Breeds

Characterization of Farm Animal Resources

- Should not be restricted to phenotypic characteristics
- Place more emphasis on historical, cultural and livelihood aspects
- In the case of indigenous breeds, there must be reference to the communities that have created them
- Indigenous Knowledge (selection criteria, myths of origin, social exchange mechanisms and cultural significance) must also be documented.
- Livelihood significance is as important as production characteristics.

New approaches to characterizing breeds on the basis of their owners' concepts and ideas, and taking into account IK are being developed.

Such characterisation will also be important for negotiating possible benefit-sharing arrangements, because they

- Identify the rights holders, if genetic material is being made use of for commercial purposes.
- Provide the basis for ownership claims and IPR protection (including new forms).

Scientific breed classification does not match local concepts.

- Understanding the social networks in which animals are circulated can help to decide whether animals should be classified as belonging to one or to different breeds

11.3 Farm / land management / NGO+CSO Institutions

- Conservation not possible without linking it to land use or access rights for livestock keeping communities
- Education should not alienate people from their traditional cultures
- An international Treaty would support conservation by raising the profile of AnGR
- Requirements for different actors
- Options: approaches and examples
- Interface with international framework
- Links to successful and failed cases

Suggested framework for analysis of policies, laws + regulations for FAnGR

	-Farm/land management-NGO + CSO Institution
Policies	<ul style="list-style-type: none"> • Access of resources - water, pastures, land, livestock, education, Improved Infrastructures
Laws (legal frame)	<ul style="list-style-type: none"> • Conservation of livestock production package
Regulations (regulatory framework)	<ul style="list-style-type: none"> • Movement to control disease • (crossbreeding) • Destruction of environment (pastures, medicinal herbs, water, fuel)
Customary laws/regulations	<ul style="list-style-type: none"> • Recognition of existing local institutions • Different cultural backgrounds dictating production systems • Recognition of IK
Institutions (Frame and Responsibilities)	<ul style="list-style-type: none"> • Local institutions-Traditional healers • Stakeholders • Government • Livestock keepers • CSO/MGO

	<ul style="list-style-type: none"> • Private sector • Internationals
Stakeholders involved in development	
Synthesisers	Joyce - Elija -

Process recommendation:

- A working group should be established after this workshop, which has the task to develop further national and regional policies and regulatory and legal framework for SADC region, making use of the African Model Law and the Guidelines for the Development of a Regional and National and National Policy on the Management of FAnGR, already prepared and adopted in Angola 4th Steering Com. meeting.

Other conclusions and recommendations:

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- A legal framework on national, regional and/or global value should recognize the role of indigenous knowledge and pastoralism with respect to animal improvement and conservation of farm animal diversity.
- National policies should give the framework for breeding strategies/programmes, which contribute to the conservation of valuable livestock breeds, taking into account different agro-ecological zones.
- A genetic impact assessment for crossbreeding or replacement should be part of the national policy.
- There is a need for legislative and institutional capacity to balance the rights to genetic resources in the SADC-countries towards the patent system in other countries. On a national or regional level, a sui generis system needs to be developed in order to protect IPR of livestock keepers and breeders of indigenous breeds. For specific purposes, protection of breeds by trademarks and/or protection of breeds by herd book registration (across borders) need to be considered. The African Union model-law provides for a good legal system in this respect. A recommendation to countries can therefore be to look into adapting the model law to national legislation. SADC can facilitate the adaptation of the model law in member countries.
- Exchange of genetic material between farmers, breeders within and between communities, countries or region is of great importance for development of livestock. Protection of property rights must not result in a decrease of exchange of genetic material, but a regulatory framework on a national, regional or global level, needs to deal with patenting of genes and the connected sharing of the future benefits. There is a need for legislation and institutional capacity to ensure the current exchange and use of genetic resources.
- The policy framework on national level should stimulate the use or development of technology, relevant for breeding and conservation.
- National, regional and/or global regulatory framework should anticipate on development with respect to genetic modification and other biotechnology developments, which may affect conservation and sustainable use of AnGR.
- On the international level there is a need for co-ordinated and strong delegations going to all the relevant ongoing negotiations, e.g.:
 - The WIPO Standing Committee on Patent Law;
 - The Intergovernmental Committee on Genetic resources, traditional knowledge and folklore (WIPO);

- The TRIPs-council;
- The Commission on Genetic resources under the FAO.

12 Next Steps

Then the immediate next steps were elaborated:

What	Whom	When
1. Workshop Documentation	Jenny + Jurgen	
2. Synthesis Publications of the 4 workshops + CD rom	Andreas, Beate, Isolina, Mtei, Joel	End of 2003
3. Recommendation to Ministers meeting	Mtei/FAnGR	July
4. Establish task force/proposal SADC	FanGR + SA	mid August
5. Paper for IGWIII	FanGR + SADC sub-committee SA	mid August
6. Working group on model law	National coordinators	immediate

13 Workshop Evaluation and Closing

Table groups of the workshop participants were invited to think of a slogan that "said it all" about FAnGR. Following this they evaluated the workshop on a like/not like basis.

Discuss at your tables:

- a) A statement/slogan which "says it all" what we discussed...
- b) What you did not like in this workshop
- c) What you liked a lot in this workshop

The slogan that "says it all"

- Animal would appear to have a lot of voice and a lot of noise so that they can be heard by governments
- FAnGR the key to sustainable livelihoods
- No FAnGR - no food
- Value animal agriculture
- Think regional, act nationally
- Plants have spoken - animal speak louder
- Local is lekker
- Regional efforts to enhance management and increased profile of FAnGR

Things we did not like

- No time for ourselves - we didn't see beyond the hotel
- Time constraints limited informal discussion
- Would have preferred a visit to a small scale farmer
- Insufficient time
- No breaks outside the hotel
- Limited time for discussion
- Time pressure (facilitator)

Things we liked

- Appreciated the opportunity to learn about FAnGR (from legal profession)
- Active participation by all members
- Facilitation, organization, group participation and interaction
- Interactive and flexible programme
- Good food and sharing
- Good venue, facilitation and spirit
- Liked interaction and the atmosphere was good (facilitator)

Workshop Closure

Comments from the Participants

A sincere thanks to everyone for attending, their commitment and their participation. To the hosts Dr Macamo and Renualdo our hosts and support staff. Also to GTZ, FAO, CTA and ILRI for their wonderful cooperation. To the GTZ office, particularly Arrsa. To the moderator who kept us alive! To the presenters for their high standard of their papers that will be a reference for the future. To the Cardoso Hotel and staff for their wonderful facilities and food
Safe journey

From GTZ

It proved to be quite a task and we are glad for the successful outcome. Thanks to Jürgen for managing to get us through a full programme. We are looking forward to the next workshop.

From the FAO

Her first workshop of this sort was very impressive as were the spirit and enthusiasm. This was an important step on the SoW report and she foresees that its momentum will carry through beyond the end of the programme and shape new ideas. Looking forward to the next meeting

From the representative of the Minister of Agriculture

He was glad that Mozambique was chosen for this meeting despite its difficulties. He thanks to the staff of the Animal section in particular to Romualdo and his team. The country owes its thanks to everyone.

The meeting is officially closed. Thank you very much.

From the facilitator

After the evaluation, the facilitator thanked all the participants for their active and lively participation. Particularly the process steering groups' contribution was acknowledged as they took the co-responsibility for the successful workshop process.

The workshop was closed by Dr. Mtei from SADC. He thanked everybody and wished a good trip home.

14 Annex

14.1 Annex 1: Open Space presentation on: International human rights instruments addressing intellectual property

The following presentation was given at an evening session

By Merida Roets¹, Justin Van Fleet², and Stephen Hansen²

¹ Scientific Roets CC, ² American Association for the Advancement of Science

Universal Declaration of Human Rights (1948) (UDHR)

Article 27

1. *Everyone has the right freely to participate in the cultural life of the community, to enjoy the arts and to share in scientific advancement and its benefits.*
2. *Everyone has the right to the protection of the moral and material interests resulting from any scientific production which he is the author.*

International Covenant on Economic, Social and Cultural Rights (ICESR)

Article 15

1. *The States Parties to the present Covenant recognize the right of everyone;*
 - (a) *To take part in cultural life;*
 - (b) *To enjoy the benefits of scientific progress and its applications;*
 - (c) *To benefit from the protection of the moral and material interests resulting from any scientific, literary or artistic production of which he is the author.*

Convention on Biological Diversity (CBD)

Article 8

j Subject to its national legislation, respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices;

Draft Declaration on Indigenous Rights

Article 29

Indigenous peoples are entitled to the recognition of the full ownership, control and protection of their cultural and intellectual property.

They have the right to special measures to control, develop and protect their sciences, technologies and cultural manifestations, including human and other genetic technologies and cultural manifestations, including human and other genetic resources, seeds, medicines, knowledge of the properties of fauna and flora, oral traditions, literatures, designs and visual and performing arts.

International Labour Organization Convention

No. 169

Article 15 (1)

The rights of the people concerned to the natural resources pertaining to their lands shall be specially safeguarded. These rights include the rights of these peoples to participate in the use, management and conservation of these resources

INTRODUCTION TO THE IP MANUAL OF THE AAAS

Intellectual property does not have to work in opposition to traditional knowledge. In fact, intellectual property rights can actually reward traditional knowledge holders by promoting both their material and moral interests. The key to realizing the benefits of intellectual property is in understanding how the intellectual property rights system works and the place that traditional knowledge can have in the system.

STEPS IN THE PROCESS - STEP 1

Locating and Identifying the Knowledge

- The smallest unit of knowledge applicable to traditional knowledge is called a knowledge claim. A knowledge claim, as it applies to IP, contains three essential components: a biological resource, a preparation or process, and an end result or product derived from a preparation or process.

STEPS IN THE PROCESS - STEP 2

Identifying who holds the knowledge

- *After identifying a traditional claim, the next step who the knowledge holders and stakeholders for that claim are. The knowledge holders are the people who hold the knowledge and stakeholders are the people in the community with a direct interest in the knowledge. When making a decision relative to a specific knowledge claim, one must consult all of the stakeholders of that claim (which is often the entire community) before making a final decision about how it should be applied to intellectual property.*

STEPS IN THE PROCESS - STEP 3

Identifying Intellectual Property Options

- *Determining Cultural Categories*
- *Spiritual*
- *Subsistence*
- *Economic*
- *Traditional secret*
- *Medicinal*
- *Historic*

Determining Community Goals and Interests

- *Profit*
- *Dissemination for Public Good*
- *Avoid exploitation*
- *Avoid inappropriate intellectual property claims*
- *Preservation*

IMPORTANT IP CONCEPTS

- Prior Informed consent is the approval in advance for the use of one's knowledge. Sufficient information is supplied to a community, either by the intellectual property office, or other party, regarding the aims, risks or implications of using the knowledge, including, where appropriate, its commercial value.

IMPORTANT IP CONCEPTS

- *Sui Generis Protection Systems*
- Sui generis literally means "unto itself" and adheres to nationally recognized laws and ways of handling biological resources and knowledge over that of the international intellectual regime. In theory, a sui generis regime recognizes the rights of indigenous peoples over their knowledge for their own uses, rights that were passed down from previous generations, and to be passed onto future generations. It also recognizes that traditional knowledge and rights to this knowledge is collective, belonging to one or more people, but not to specific individuals within a community, as identifying the indigenous people(s) that developed a

particular item of knowledge would have been impossible in most cases. The rights, to this knowledge are recognized legally by a government and considered inalienable, and cannot be transferred to another individual or group. The right of local and indigenous communities to oppose access to their resources and associated knowledge for cultural, spiritual, social, economic or for other reasons is also recognized. The state may then extend protections to biological resources and knowledge to a community in the form of patents, trade secrets, copyrights or farmer's and breeders rights.

POSSIBLE IP PROTECTION OPTIONS FOR THE SOUTH AFRICAN BOER GOAT

- Patents
- Petty (or Utility) Patents
- Plant Patents
- Plant Variety Certificates
- Registries
- Trade Secrets
- Intellectual Property and Biodiversity
 - Access and Benefit Sharing
 - Different types of benefits
 - Start-up . upfront benefits
 - Process benefits
 - Product benefits
 - Moral and relation benefits
- Geographical Indicators
 - A geographical Indicator identifies a good as originating in a territory of region or locally in that territory, where a given quality, reputation, or other characteristic of the good is essentially attributable to its geographic origin.
- Trademarks

IMPLEMENTING THE SA BOER GOAT IP PROJECT

- Document the knowledge
 - Name or description title of the resource to be protected
 - Summary of the process of discovery/development
 - Resulting Product description
 - Variations of the product (if any)
 - Description of use
- Follow through with an IP option (using model)
- Designate an IPR Committee Group that represent the stakeholders (to handle the registration processes in collaboration with a legal professional)

CONCLUSION

- A system exists to clarify IP issues of indigenous resources
- The time is ripe to implement a case study internationally to test legislation for the benefit of developing countries

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