



ESAP Newsletter

Issue No. 9, 2003

Ethiopian Society of Animal Production

ESAP Executive Committee Report (2001-2003)

The Ethiopian Society of Animal Production (ESAP) was established in 1990 with the objective of promoting the advancement of livestock production through sustained scientific research, development and extension. ESAP provides common forum to exchange scientific ideas and research outputs in animal science and publishes these in various forms and disseminate to users. It has been working towards fostering interest in research and development in animal production; as well as safeguarding professional quality, academic standards and relevance in research. It has been fostering interaction and promoting discussions towards appropriate policy options for the advancement of livestock production in the country.

In the last two years, the Executive Committee of the ESAP has conducted twenty regular and six extraordinary meetings to discuss on administrative issues, preparations for the 10th and 11th annual conferences, and publications of the last two conference proceedings, two issues of ESAP's official journal (EJAP), and one special publication on forage extension. Discussions were also held on CD-ROM preparations, fund soliciting and renewal of licenses of ESAP, and on issues related to professional input to government institutions, NGOs and professional societies.

It is pertinent to mention at this point the serious difficulties, with the Ministry of Justice, in securing renewed license for ESAP. The requirements for renewal have been revised and enforced without prior official notification to ESAP. This entailed the loss of considerable time in the handling of the procedural issues, which have not been finalized as yet. We are therefore in a dangerous situation, given that the Ministry of Justice has issued serious warnings that may lead to revoking of our societal license. The next Executive committee should take this as a matter of priority.

Our effort in soliciting funds for financing our publications and conference has not been very encouraging. The Ethiopian Science and Technology Commission, the Ethiopian Agricultural Research Organization, Alemaya University, and the Institute of Biodiversity Conservation and Research continued to

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provide us financial support. We were not very successful in securing similar support from other sources. We believe this needs to be another major activity by the incoming Executive Committee. This is particularly so because the costs of publishing are steadily increasing and these are well beyond our financial base that comes from membership contributions.

The 10th annual conference, held from 21 to 23 August 2002 with the Theme 'Challenges and Opportunities of Livestock Marketing in Ethiopia' was a huge success in sensitizing the target stakeholders on the major issues around the Theme. We are very grateful to the Livestock Marketing Authority for providing home to the Theme and for working hand-in-hand with the Executive Committee during the preparation and conduct of the Conference. The Conference Proceeding is now finalized and this document has high value for research, training and development and advocacy in livestock marketing. Poster presentations and product displays were also very informative.

The 11th Annual Conference has also been prepared in the same spirit. The Theme of this conference is 'Farm Animal Biodiversity in Ethiopia: Status and Prospects'. The Institute of Biodiversity Conservation and Research (IBCR) kindly accepted to provide home for this Theme, as well as partly sponsor the Conference. As we did last year, a concept note on the theme was prepared and disseminated to lead thinking around the theme particularly for invited papers. Announcements were communicated to the members on the date and theme of the Conference. At least 10 invited papers on the Theme will be presented in this Conference. About 40 other technical papers on various aspects of livestock production were accepted for

presentation at the Conference. We are glad to note that the quality and depth of the papers presented in the Conferences is improving. We attribute this improvement at least to the following reasons

1. Members of ESAP have growing interest on the objectives and mission of ESAP, and they increasingly share their research information through the Conference;
2. We also have a strong editorial guideline in place;
3. We also use a broad range of reviewer's, most of which happen to be members of ESAP.

Progress on EJAP has, however, been not very encouraging. The Editorial Board has serious difficulties in executing the essential routine activities. As it did last year, the executive Committee of ESAP had to intervene to finalize publication of the latest issues of EJAP. As indicated in the Conference program, this has to be discussed in the General Assembly to rectify the difficulties.

The current financial status of ESAP is sound, but we need to look for further funding opportunities to strengthen our base. Summary of the expenses and the account balance are presented in table 1 and table 2.

Table 1. Expenses

Items	Amount in Birr	
	27/08/2001 to 05/08/03	06/08/2002 to 15/08/2003
1. Office running costs	20524.39	27133.51
1.1 Salary	8640.00	8520.00
1.2 Transport	149.95	191.20
1.3 Labour	909.00	844.50
1.4 Entertainment	4768.00	12876.60
1.5 Purchase of receipt & payment voucher	472.50	-
1.6 Telephone	1606.84	1685.81
1.7 Post office box rent	48.00	48.00
1.8 Mailing cost	249.75	379.50
1.9 Fax expenses	64.65	63.00
1.10 Photocopy and stationery	1367.80	546.40
1.11 Photo developing and printing	43.50	-
1.12 External Auditing fee	1000.00	1000.00
1.13 Allowances to Journalists	770.00	840.00
1.14 Purchase of bouquet	100.00	-
1.15 Miscellaneous	334.00	185.60
2. Proceeding Publication cost	15726.90	26742.15
2.1 Editing	3600.00	4500.00
2.2 Printing	12126.90	22242.15
3. Printing of EJAP volume one	4406.27	29708.75
3.1 Editing	4406.27	2763.00
3.2 Printing	-	26945.75
4. Publication: Forage Extension Manual	6653.85	
5. Purchase of computer	-	12983.50
6. Purchase of Equipments	-	93.00
7. Purchase of LaserJet toner	-	1473.00
8. Tax	-	179.40
Total Expenses	47311.41	98360.41

During the last 13 years of ESAP's existence, 11 Annual Conferences were held and 10 proceedings published. ESAP has also published three issues of its journal (EJAP) and three special publications. We believe that these publications have considerable

contribution to development of the agricultural research and development in Ethiopia. ESAP publications have served and continue to do so as core source information on livestock development policy options and in providing valuable database for livestock development extension programs in the country. ESAP has established two networks: the Small Ruminant Research Network and the Animal Traction Network. It has also established and strengthened its relationships with national and international organizations and with sister civic societies. ESAP has also participated in a number of national and international conferences pondering over agricultural issues in Ethiopia, and has made significant contribution in terms of providing development policy options for the advancement of livestock production in the country.

Currently, ESAP has about 500 regular and

Table 2. Account balance

Cost Items	Amount in Birr	
	27/08/2001 to 05/08/2002	06/08/2002 to 15/8/2003
1. Beginning Balance	82775.61	73145.57
2. Income	37481.50	59039.41
2.1 Sales	3234.00	8584.00
2.2 Registration & membership fee	7540	13320.00
2.3 Donation:	26707.50	37135.41
2.3.1 Ethiopian Science & Technology	18707.50	<u>27232.50</u>
2.3.2 Ethiopian Agri. Research Org.	2000.00	2000.00
2.3.3 Save the Children (USA)	1000.00	-
2.3.4 Alemaya University	5000.00	-
2.3.5 Angereb Enterprise	-	1000.00
2.3.6 Neway Enterprise	-	<u>1200.00</u>
2.3.7 MacMillan	-	600.00
2.3.8 GL-CRISP	-	4102.91
2.3.9 Dr. Getachew Gebru	-	1000.00
3. Overall total	120257.11	132184.98
3.1 Total expense	47311.41	98360.41
3.2 Closing balance	73145.57	33824.57
3.2.1 Cash in Bank	72097.57	32003.97
3.2.2 Cash in hand	1048.00	3760.09

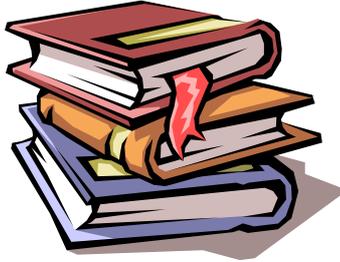
associate members. Cognizant of these satisfactory achievements so far, ESAP realizes that there exist a number of future challenges for research and development in animal production in Ethiopia. These include:

- Emerging global issues such as climate change, environmental pollution, food security and safety and the HIV/AIDS pandemic;
- Need for manpower and institutional capacity development at all levels;
- Worsening poverty in rural and urban areas of the country;
- Environmental degradation and associated influences on animal production;
- Wastages and inequity in the use of available livestock genetic resources in the country.

- Lead and advocate for the creation of a consortium of civic societies in agricultural research and development;
- Rapidly growing demand for livestock products
- Opportunities in the fast growing information technology and knowledge management, and
- Opportunities with the use of the emerging biotechnological tools for livestock improvement and production.

The executive Committee thus believes that members of ESAP must stand together and continue addressing these and other such challenges ahead and strategically plan to be able to contribute to the betterment of the livelihood of the resource poor communities in our country.

The Executive Committee



Two ESAP members recognized for their professional achievements

ESAP is pleased to congratulate two of its members, Professor Tesfu Kassa and Ato Solomon Demeke Cherkos for their professional success

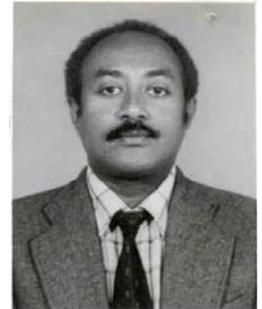
Dr. Tesfu Kassa Mekonnen

Awarded the rank of a professor

Professor Tesfu Kassa, who was an Associate professor at the Institute of Pathobiology (IPB), in recognition of his scholastic and professional achievements had been awarded the rank of a Professor.

Professor Tesfu Kassa Mekonnen was born in Dire Dawa on the 12th of June 1954 completed his elementary and secondary education at Prince Mekonnen Junior and secondary schools, respectively. Between 1971 and 1974, he attended the Pre-Medical School study programmes at Addis Ababa University. In 1975, he left for Iran and joined the Faculty of Veterinary Medicine (FVM), Shiraz (Pahlavi) University, and obtained a First Rank Doctor of Veterinary Medicine (DVM) degree in 1979. Professor Tesfu won a fellowship from the Royal Veterinary College (Sweden) in 1983, and upon the successful completion of the 15th FAO/SIDA International Postgraduate Course in Animal Production, he was awarded an FRVCS. In 1984, he obtained his M.Sc degree in Obstetrics and Gynecology from FVM, Swedish University of Agricultural Science, Uppsala. Professor Tesfu has also participated in several professional short courses, which included economics of animal health and disease control, radio- and Enzyme-Immuno-assay Techniques. Professor Tesfu was also the winner of 1996 J. Williams Senior Fulbright Research Award for a one-year sabbatical research leave at Gainesville, Florida.

Professor Tesfu started his academic career at Alemaya College of Agriculture in January 1980 and got transferred and worked as full-time staff at FVM-AAU for over 7 years. Professor Tesfu has then been employed as an Associate professor at the Institute of Pathobiology (IPB) with his home base at FVM-AAU. He has taught several undergraduate and graduate program courses in Theriogenology, Clinical studies and camel and its diseases. He has also supervised over 35 DVM and MSc research projects. Professor Tesfu is one of the leading researchers at IPB-AAU. He has produced over 85 publications of various types (scientific reports, abstracts, and articles in workshop/conference proceedings and in peer reviewed journals). Professor Tesfu has made significant contribution to the establishment of Radio-immunoassay Laboratories in national institutions including FVM, IPB and IAR. By way of soliciting research funds and through collaborative research undertakings, he has served as an anchor to IAEA, IFS, ILRI, CISP and EARO. While at IPB, professor Tesfu has assumed several administrative responsibilities including Acting Director of IPB-AAU, Head of the Animal Health and Zoonotic Diseases Department (formerly referred to as Department of Radiobiology), and was also involved in different standing and ad-hoc committees. Professor Tesfu Kassa Mekonnen, provides valuable service to civic societies and



professional associations in and outside Ethiopia, and is currently an active member of the Ethiopian Society of Animal Production (ESAP).

Professor Tesfu is married to W/o Almaz Worku and is a father of a boy, Adam (Tuafie) Tesfu. In recognition of his long and dedicated scientific work, and valuable contribution to research and academic development in Ethiopia, he was awarded the rank of full Professorship from Addis Ababa University in 2003. The Executive Committee of ESAP, *on behalf of its members, would like to record words of CONGRATULATIONS to Professor Tesfu and his family. Well-done Professor!*

The Executive Committee of ESAP

Ato Solomon Demeke Cherkos

Nationally recognized for outstanding achievement in the field of science and technology



Hay-Box Chick Brooding Technology hailed a success!

Ato Solomon Demeke Cherkos was one of the three distinguished innovators and technologists drawn from the Agriculture, Industry and Mines, Water and Energy Research and development Sectors, who were awarded the National Prize for a distinguished innovator.

The major innovative breakthrough made by Ato Solomon Demeke is the development of hay-box chick brooder in which no artificial heat is employed. The supply of baby chicks along with the constructional design of the hay box chick brooding technology attracts regions of Ethiopia where there is no electricity.

It is difficult to adopt electric chick brooder by rural household poultry producers in Ethiopia, owing to the unavailability of electricity, the number of chicks to be raised and the remote location of the farm sites. There is no toxic discharge and emission from the technology and it is friendly with the environment.

Compared to the natural brooding, the significance of the hay box brooding technology is that:

- It is more productive than natural brooding.
- It releases the broody hen to go back to production.
- It offers safety against predators such as birds of prey, pets and wild animals.
- It better fits market oriented production system since batches of up to 70 chicks could successfully be grown at a time with the use of the box.

The technology has proved a success in diverse locations across the country. Batches of 10-70 baby chicks have been successfully raised at Debre Zeit, Nazret, Denbi, Alemgena, Boset, Tiya, Wenchi, Sheno, Jimma, Meki, Alem Tena, Holleta and Kombolcha. The development activity on the technology was also extended to Gambella and Asossa regions with joint work with UNHCR. The demand for the technology by individual farmers, a governmental and non-governmental organization,

Specification of the Brooding Technology

No. of Chicks	Box Dimension (cm)	Run Dimension (cm)
10	30x26x26	30x57x57
30	30x45x45	30x98x98
50	30x57x57	30x126x126
70	30x68x68	30x150x150

is high.

Ato Solomon Demeke was born in 1953 in Misrak Hararge, Kombolcha Wereda. He completed his elementary and secondary education at Kombolcha Elementary School and Harar Medhanealem Comprehensive Secondary School, respectively. Solomon obtained his B.Sc degree in Animal Science in 1980 and M.Sc degree in Animal Production in 1984, both from Alemaya University. He has also attended various professional courses at national and international levels.

Ato Solomon Demeke joined the Jimma College of Agriculture in 1980, and since then he has served the college in various capacities. In addition to assuming teaching responsibilities in areas of animal nutrition and poultry production, Ato Solomon served the college as an acting head of animal science department, research coordinator, and Dean of Jimma College of Agriculture. He also served in different institutions and public enterprises as a member of the board of directors.

Ato Solomon Demeke was a research grantee of various national and international research funding organizations and member of some professional societies. He was awarded the International Foundation for Science/King Baudouin Award and Fulbright Research Fellowship to his exceptional merit in research. Ato Solomon participated in a number of regional,

national and international conferences, seminars and workshops. He published more than 20 research and review articles in national and international symposium and workshop proceedings and scientific journals.

Improving Pastoral Risk Management on East African Rangelands

Lafa Dheedinsaa Afrikaa Ba'aa Keessatti Rakkina Tu'anna Hormaata Hori Foyyeessu

Retunoto Enyamali Eramatare Too Laramatak Too Ilpurkeli Lol-Kila-Orok Lo-Loosaen

Kuimarisha Usalama wa Ufugaji Katika Mbuga za Afrika Mashariki

በምሥራቅ አፍሪካ የግጦሽ ክልል
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GL-CRSP PARIMA



Ethiopian Pastoralists and the policy environment: Linking Research and decision making

Dr. D. Layne Coppock, Associate Professor, Dept. of Environment & Society, Utah State University, and Principal Investigator, PARIMA

Some key research results were presented at a recent meeting supported by the global livestock CRSP Pastoral Risk Management (PARIMA) project, at ILRI in Addis Ababa that was held for researchers, decision makers, and development actors on August 15, 2003. The meeting was opened by H.E. Ato Belay Ejigu, A/Minister, Ministry of Agriculture.

Nearly 20 years of observation (from 1980 to 1999) indicates that the regional cattle herd in Borana exhibits a "boom and bust" cycle with growth in numbers followed by a sudden crash once every 6 to 7 years. The crashes, which result in cattle mortality rates of 37 to 62%, do not appear to be merely caused by drought years, but rather by drought or dry years in combination with high stocking rates. The economic value of cattle losses over 20 years may be in the hundreds of millions of USD. The time required for the regional herd to achieve a density of over 20 head per square kilometer is what sets the regular periodicity of crashes. The next crash is predicted to occur in the period 2004-06. How could the pastoralists better prepare themselves for this event? It seems that even a minor degree of economic diversification away from livestock could benefit wealth conservation for pastoral households, and PARIMA is exploring community-level savings and credit interventions as one means to introduce this idea to the people. However, dramatic improvements in livestock marketing, as well as increased levels of human empowerment in the form of even rudimentary education, are needed for widespread impact. Even if the risk management process starts in earnest now, it may take many years of effort to be able to mitigate poverty and manage the entire system more effectively.

PARIMA has been ongoing in southern Ethiopia and northern Kenya since 1997. It has been largely funded by the United States Agency for International Development (USAID). The project has involved several US universities, Egerton University in Kenya, the International Livestock Research Institute, and a variety of local collaborators, especially in the Borana

Zone of the Oromia Region. Key regional collaborators in Ethiopia have included the Oromia Agricultural Development Bureau, the Oromia Cooperative Promotion Bureau, and several NGOs such as Action for Development (AFD) and Save the Children USA.

The general objective of PARIMA has been to use risk management principles as a means to promote pastoral development. Risk management principles involve such things as income diversification, asset diversification, and human empowerment to enable pastoralists to make better use of information and use of available resources. This is a radical departure from previous pastoral development philosophy that focused on technology generation for forage improvements, water development, and livestock production. The philosophy of the PARIMA project recognizes that pastoral people are usually doing the best they can for animal production given the large ecological and economic constraints of the rangelands. The rangelands are often full of animals, and the challenge, rather, is to help people diversify a bit to reduce impacts of drought (usually massive animal deaths and thus major losses of capital assets). The people also may need assistance in livestock marketing.

The PARIMA project is involved in research, outreach, and training. Research includes socio-economic surveys as well as monitoring and evaluation of impacts resulting from pilot, community-led intervention projects. We are also interested in the patterns of dissemination of new ideas among pastoralists from both sides of the Ethio-Kenya border. Kenyan pastoralists tend to be more advanced in terms of economic diversification and community organization. The Ethiopians, however, have a strong unifying culture and an excellent base of natural resources. Outreach involves

capacity building for local pastoralists, development agents, and decision makers. Training involves degree and non-degree efforts. The non-degree efforts focus on workshops, cross-border tours, market chain tours, and related activities.

Overall, the core research and degree training has been supported since 1997 by the Global Livestock Collaborative Research Support Programme (GL-CRSP) of the Global Bureau, USAID-Washington. The USAID Mission to Ethiopia has supported outreach and non-degree training since 2000. The PARIMA project is now part of the Southern Tier Initiative, a strategic objective of the USAID Mission. The GL-CRSP recently approved extension of the core PARIMA project for the period 2003-06. New initiatives prominently include an effort to link the newly formed pastoral research group of the Oromia Agricultural Research Institute (OARI) in Yabelo with that of the Kenya Agricultural Research Institute (KARI) in Marsabit, Kenya. Several research leaders from OARI recently visited KARI-Marsabit to craft a strategy for cross-border interaction. The KARI-Marsabit team has pioneered some efforts in community-driven, participatory research, as well as efforts to refine technology involved in niche markets for pastoralists to better meet demand in rangeland towns. This prominently includes small-scale dairy processing. Problems on both sides of the border are similar, and it is expected that the collaboration will be very useful.

For more information on this project contact:

*Dr. Getachew Gebru of PARIMA, UTAH State University
email: g.gebru@cgiar.org*

Pastoralist Forum Ethiopia speaks on the behalf of Ethiopian Pastoralists

Pastoralist Forum Ethiopia, a local umbrella non-governmental organization, has recently been legally registered by the Ministry of Justice with Certificate No 1125.

The Forum is engaged in pastoral policy advocacy on behalf of the marginalized Ethiopian pastoralists and it plays facilitation and coordination roles in collaboration with its members and other actors who are involved in pastoral development issues.

Panos Ethiopia, a London-based International NGO specializing in information and communication, hosts the Forum.

Since its formation in 1998, the Forum has played a significant role in raising the profile of pastoralists through national for a, took the initiative and undertook two national conferences Pastoral Development in Ethiopia (2000), and Pastoral Development and poverty Reduction (2001). In addition, the Forum engaged in the national pastoral

poverty reduction strategy and A Chapter on Pastoralism was submitted to the Federal Government for inclusion in the national PRSP, which was considered in the final PRSP, Sustainable Development and Poverty Reduction Program (SDPRP).

The Forum also organized and coordinated the fourth and fifth Ethiopian pastoralist day in 2002 and 2003, respectively. In these initiatives, many pastoral development and policy issues were reviewed,

discussed and suggestions were made on the pastoral development policy gaps. On the basis of these suggestions, the Forum prepared a pastoral development policy recommendation document and submitted to the Ministry of Federal Affairs.

Currently, the Forum has developed a three-year pastoral advocacy and development program and it is in the process of implementation. The major activities of this program are establishment of a Pastoral Center, which will be open for researchers, journalists, decision-makers, and the public advocacy

on pastoral development policy; and participation in the implementation and M&E of SDPRP.

The Forum has 20 member NGO's Forum membership is open to a wide range of organizations (Governmental and NGO's), as long as they are working on pastoralism and pastoral development related activities in the country.

Any suggestion and inquiries about the Forum is welcomed.

Further contact: *Melakou Tegene (Board chair) Tezera Getahun (PFE, coordinator); P.Box 1570, code 1110 ; Addis Ababa, Ethiopia; Tel. 0251 166 63 59/60/62;*

Transformation of the Global CRSP/Livestock Early Warning (LEWS) Project into Livestock Information Network and Knowledge System (LINKS)

The Livestock Early Warning System subproject in the USAID Global Livestock CRSP is one of four regional projects currently underway in East Africa. Texas A&M University is the lead institution in collaboration with Ethiopian Agricultural Research Organization, National Agricultural Research Organization of Uganda, Kenyan Agricultural Research Institute, Selian Agricultural Research Institute of Tanzania, Egerton University, Makerere University, and Sokoine University. The LEWS project has also developed working relationships with many other key institutions and projects that have an impact on pastoral livelihoods in East Africa.

The LEWS project has demonstrated that information technology can be designed to deliver near real-time information on forage conditions for the region, coupled with 90-day projections of forage conditions every 10 days, to decision makers at multiple levels. Information on emerging forage supplies and deviations from long-term averages, as it impacts decisions to sell or move animals, provide food relief interventions, or anticipate potential conflict, is obviously valuable to decision makers. However, forage information alone fails to provide a rich picture of the likelihood of disease outbreak, excessive livestock mortality, anticipated patterns of movement, and information on livestock market prices

The LEWS research program is evolving toward a broader handling of livestock information and analysis needs through the use Information and Communication Technology (ICT) for livestock marketing systems culminating in a new project called Livestock Information Network and Knowledge System (LINKS). LEWS activities, however, will remain a key component of the LINKS project, but the emphasis will shift to a broader application of emerging ICT and improved geographical monitoring and analysis systems to serve the livestock sector of Eastern Africa. The strategic intervention of a livestock information network and knowledge system at this time will significantly strengthen the existing activities that are designed to improve livestock

markets and trade in Eastern Africa. The system will serve key institutions and pastoral communities in Ethiopia, Kenya, Somalia, Djibouti, and northern Tanzania.

The main goal of LINKS project is to increase the household income of pastoral communities in Eastern Africa by improving livestock marketing efficiency, strengthening institutional market policy, and increasing livestock off-take during the emergence of drought, through the implementation of an integrated livestock marketing information system. The central theme of the LINKS project is to create equitable livestock information and communications systems that provide monitoring and analysis technology to foster strategic partnerships between pastoral communities, markets, and policy makers.

The LINKS project staff will work in partnership with national institutions in East Africa to ensure local ownership and sustainability of the project. Local involvement by key institutions will be emphasized throughout the planning, development, and deployment phases of the project. LINKS will devote a substantial amount of time and resources to capacity building and institutionalization.

Contacts: *Drs. Jerry W. Stuth, or Abdi Jama Dept. of Rangeland Ecology & Management, 2126 TAMU, Texas A&M University, College Station, TX 77843-2126, USA. E-mail: jwstuth@crsit.tamu.edu or aaajama@tamu.edu*

Livestock Production and Famine Prevention: Contribution of Two Scientists for a Regional Effort

The Amhara Regional Agricultural Research Institute (ARARI) organized a regional symposium on situation analysis and prevention of famine in the Amhara Region from May 15-17 2003 at Bahir Dar. The thematic areas of the symposium included the status of natural and human resources of the region; the causes and features of famine in the region; evaluation of the policy and institutional structure related to food security in the region; the structure of rural and urban livelihoods in the region and potential entry points for improvement; and research and development experiences that can be replicated in the region to reduce the risk of food shortage.

The symposium was attended by officials of the regional government and regional bureaus, non-governmental organizations working in the region and representatives of federal and regional research institutes. Seventeen papers were presented by contributors from the regional and federal research institutes, World Food Program (WFP), International Livestock Research Institute (ILRI), and the United States Agency for International Development (USAID).

Dr Azage Tegegne and Dr Workneh Ayalew of ILRI were among the contributors who presented papers on the symposium. Dr Azage presented a paper entitled **Urban and Peri-urban Dairy Development in Ethiopia: Lessons from the Ada'a-Liben Woreda Dairy and Dairy Products Marketing Association, Ethiopia**. He started his paper with an assertion that dairy development can contribute strongly to reducing rural poverty and commercializing agriculture. He justified his argument with a description of Ada'a Liben Woreda Dairy and Dairy Products Marketing Association. Though only five years old, this association was reported to have come up with:

- Improved livelihoods and quality of life of marginalized people (women and children) and
- Improved environment: animal and waste management, product quality, reduced public health risk.

In so doing the Association has proved very relevant and effective in addressing community-level difficulties in food security. So far it has had good leadership and financial management. It has generated many opportunities for employment and further income generation particularly for retired senior citizens and women.

Dr Azage concluded with following statements:

There is a huge potential for dairy development in the Amhara Region. The good practice and the lessons learned from the Ada'a-Liben dairy and dairy marketing association can be used as a basis for scaling-up to many peri-urban and urban centers in the region. However, the potential, socio-economic

conditions of each urban center and the market opportunities have to be determined in advance before launching such an initiative. Care has to be taken to ensure full community participation and empowerment of the people in undertaking such activities in a sustainable manner. Capacity building at various levels is also central for the successful implementation of such programmes.

Dr. Workneh presented a concept paper entitled **Drought Mitigation Strategies to Reduce Losses in Livestock**. He started with the fact that drought is becoming more frequent and this is very crucial, and unless precautionary measures are taken in advance, the death toll in livestock will continue to rise to the extent that the pastoral mode of production as such is endangered.

Dr Workneh argued in favor of optimizing the use of available drought tolerant livestock breeds, improving access to drought forecast and monitoring information, establishing an effective partnership within and among local and international institutions, facilitating timely and adequate provision of credit, and improvising on traditional risk management strategies in order to abate the consequences of drought on livestock and consequentially on human livelihoods.

Given the current significance and future potential of livestock in the regional economic structure, these deliberations have a lot to contribute in the design of research, development, and policy interventions. In general, what and how the livestock subsystem can contribute to the development of agriculture in the country is becoming more evident, and we at ARARI, acknowledge the contributions made by ILRI scientists to this effect.

ARARI has a strong belief on the effectiveness of collaborative efforts in livestock research with institutions like ILRI.

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