

**IMPROVING PASTORAL RISK MANAGEMENT
ON PASTORAL RANGELANDS
(PARIMA)**

PROJECT DESCRIPTION

The PARIMA project was established in 1997 and conducts research, training, and outreach in an effort to improve the welfare of pastoral and agro-pastoral peoples with a focus on northern Kenya and southern Ethiopia. Foundation concepts include the exploration of opportunities to better diversify incomes and assets and how to improve access to natural resources, information, and various public services. Creating market linkages for pastoralists is a large component of PARIMA's work to protect against risk and bolster economic security. PARIMA also facilitated the development of pastoral women's groups, building the capacity of women to manage their resources, identifying key opportunities for investment and designing systems of banking that work in their communities.

LEAD PRINCIPAL INVESTIGATOR

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SUMMARY OF ACHIEVEMENTS

- The period 2006-2007 has proven to be yet another active and sustainable year for the 60 collective-action/micro-finance groups that have formed in southern Ethiopia since 2001 as part of PARIMA. This model of collective-action/micro-finance has been adopted throughout the Oromia State of Ethiopia and extended to communities in the region. Total membership currently stands at 2,085, and the groups have merged into legally recognized cooperatives. Because milk marketing is predominately a female task, it is noteworthy that Ethiopian women are the primary leaders of these groups and represent 79% of their membership.
- As of September 2007, cumulative savings on investments in livestock trading and other small-business activities of the cooperatives equaled USD \$93,344.00. Internally extended loans over the past five years total 4,527 with a cumulative value of USD \$558,989.00 and a 100% repayment rate.
- PARIMA has also facilitated the creation of a network of 17 regional and 17 local partner organizations to achieve development impact in southern Ethiopia through the creation of the pastoral collectives described above. Members include federal and local governments, NGOs, and community-based organizations (CBOs).
- Through a truly collaborative effort requiring the use of indigenous knowledge, relaxation of policy constraints, use of modern technology, careful hands-on training, applied research and trust building, PARIMA has facilitated the re-introduction of prescribed fire on the Borana Plateau of southern Ethiopia to improve pastoral area management and protection.
- In order to understand the elements of cross-border conflict as it relates to natural resource management along the Ethio-Kenya border, PARIMA interviewed some 200 pastoralists and mapped the area using GPS technology. Findings

indicate that pastoralists have traditionally moved across the border in search of forage area during dry periods, and such movements, and therefore livelihoods, are threatened by current border conflicts.

RESEARCH BRIEFS

GL-CRSP Research Brief 07-01-PARIMA: Collective Action among Agro-pastoralists in Baringo District, Kenya: Identifying and Nurturing the Entrepreneurs

Authors: Mark N. Mutinda, Stellamaris K. Muthoka, and Abdillahi A. Aboud, Egerton University; D. Layne Coppock, Utah State University

Summary. The rural population of the Baringo District in the Rift Valley of north-central Kenya faces numerous challenges including widespread environmental degradation and poverty. The region has endured decades of failed development projects, proliferation of food aid, and has been studied extensively. PARIMA researchers have recently undertaken a different approach that focuses on bottom-up participatory action research and outreach among the Il Chamus and Tugen ethnic communities. The objective is to explore new ways to empower local people via provision of information, novel experiences, and initial access to resources to allow them to envision an alternative future and implement their own activities to better manage risks. This research brief details the first phase of this activity. Twelve potential entrepreneurs (six from each of the two ethnic groups) were carefully selected and sent on an extensive training and educational tour to Mwingi District in eastern Kenya. There, participants visited a variety of successful, community-led development projects. The tour helped to convince the entrepreneurs of neglected opportunities in Baringo. They have since taken a leading role in assisting their communities to form collective-action groups. Furthermore, the groups are now successfully registered with the Kenyan government and pursuing work plans aimed at improving their circumstances.

GL-CRSP Research Brief 07-02-PARIMA: Stakeholder Alliance Facilitates Re-Introduction of Prescribed Fire on the Borana Plateau of Southern Ethiopia

Authors: Getachew Gebru, Solomon Desta, D. Layne Coppock, Utah State University; Lemma Gizachew, Oromia Agricultural Research Institute; Dadhi Amosha, Pastoral Risk Management Project; Feyissa Taffa, Oromia Pastoral Area Development Commission

Summary. On the semi-arid Borana Plateau of Ethiopia, heavy grazing by livestock, reduced mobility of pastoralists, and lack of fire have contributed to conversion of open, mixed savanna communities to dense woodlands and bushes. The implementation of a new prescribed fire program to restore bush-encroached rangelands in southern Ethiopia—and hence increase herbaceous forage supplies for livestock—is given as an example of an integrated action involving multiple institutions to address resource-management problems. Planned fire was traditionally conducted over hundreds of years by pastoralists until the 1970s. The resumption of planned fire was preceded by key activities including: mobilization of the pastoral community, review of government proclamations regarding the use of fire, interaction with policy makers, capacity building among pastoralists and agency personnel on how to implement and manage planned fires, development of an overall prescribed burn plan, selection of geo-referenced sites, and then implementing large-scale burns on an annual cycle. The process has required a combination of indigenous knowledge, relaxation of policy constraints, use of modern technology, careful hands-on training, applied research, and building trust to create a truly collaborative approach. The key elements of change have been participatory action research, outreach, and engagement with a wide variety of stakeholders. One springboard for success has been the commitment of the Oromia Agricultural Research Institute (OARI) and the Oromia Pastoral area Development Commission (OPaDC) to support an authentic, demand-driven research agenda with a focus on applied and adaptive work in the pastoral areas.

| PARIMA Degree Training for 2006-2007 | | | | | |
|--------------------------------------|-------------|--------------|--------------------|------------------|--------|
| Name (Last, First) | Nationality | Gender (M/F) | University | Discipline | Degree |
| Haile, Getachew | Ethiopian | M | Alemaya University | Range Management | MS |
| Jillo, Abdulahi | Kenyan | M | Egerton University | Human Ecology | PhD |
| Mutinda, Mark | Kenyan | M | Egerton University | Human Ecology | PhD |
| Olekaikai, Nicholas | Kenyan | M | Egerton University | Human Ecology | MS |

GL-CRSP Research Brief 07-03-PARIMA: Building Effective Community Participation and Stakeholder Partnerships to Promote Positive Change in the Southern Ethiopian Rangelands

Authors: Solomon Desta, D. Layne Coppock, Getachew Gebru, Utah State University; Seyoum Tezera, Dadi Amosha, Pastoral Risk Management Project (Ethiopia)

Summary. Recently there has been increased recognition that authentic community participation and creating strong inter-institutional partnerships are both important in the process of capacity building, generating innovation, and sustaining development achievements in rural Africa. In this brief, the authors summarize a process of community participation and formation of institutional partnerships in support of pastoral risk-management interventions over the past seven years on the Borana Plateau in the southern Ethiopian rangelands. Community involvement has been stimulated using Participatory Rural Appraisal (PRA) methods. This has resulted in the proliferation of pastoral collective-action groups that have diversified livelihoods, engaged markets, and improved incomes. Implementing and sustaining positive change, however, has also been related to building a dynamic network of 47 like-minded partners across Ethiopia and northern Kenya. These partners include community-based organizations, women's groups, policy makers, educators, researchers, private sector firms, various governmental and non-governmental development agents, among others. It is argued that widespread impact across such a large area could not have been achieved without the assistance of many partners that contribute complimentary resources and expertise to plug gaps that can otherwise impede progress.

Challenges and opportunities in creating and maintaining partner networks in support of such rural development are discussed.

| PARIMA Non-Degree Training for 2006-2007 | | | |
|------------------------------------------|------------|-------------|-------------|
| Country | Male | Female | Total |
| United States | 3 | 3 | 6 |
| Ethiopia | 669 | 1289 | 1958 |
| Kenya | 19 | 2 | 21 |
| Total | 691 | 1294 | 1985 |

GL-CRSP Research Brief 07-04-PARIMA: Pastoral Conflict and Use of Key Resources along the Ethiopia-Kenya Border: Implications for Policy and Development

Authors: Anastasia Kagunyu, Shibia Mohammed, Michael Okoti, and Francis Wayua, Kenya Agricultural Research Institute - National Arid Lands Research Center (KARI); Sintayehu Mesele, Getachew Haile, Lemma Belay, Amsalu Tilahun, and Usman Kero, Oromia Agricultural Research Institute - Pastoral and Agro-Pastoral Research Center (OARI)

Summary. The international border between Kenya and Ethiopia occurs in a remote rangeland area. The border has witnessed increased conflicts in recent years, especially between Gabra and Borana pastoralists. The border has also been subjected to heightened political tensions. In this study researchers from both sides of the border have joined together for the first time to conduct extensive field work. General objectives for this research are to characterize key natural resources

and pastoral migration routes along the border and better understand elements of cross-border conflict. Researchers interviewed some 200 pastoralists and mapped the area using GPS technology. Research findings indicate that pastoral communities have traditionally moved across the international border primarily in search of forage for livestock during dry periods. Such movements, however, have been recently curtailed due to conflicts, and many border sites are now considered “no-man’s lands.” Ethnic and political tensions have also negatively affected development projects and cross-border trade. There is an ongoing need for the Kenyan and Ethiopian governments, traditional leadership institutions, as well as local development agents and other elites to support peace and reconciliation initiatives if the situation is to improve.

GL-CRSP Research Brief 07-05-PARIMA: Honey Production, Processing, Quality, and Marketing in the Mountains of Northern Kenya

Authors: Moses Lengarite, Anastasia Kagonyu, and Francis Wayua, National Arid Lands Research Center (KARI)

Summary. Improving risk management for rangeland inhabitants can involve income diversification. Honey production is one possibility, as some locals already do it using traditional means. To what extent can honey production be expanded, the quality improved, and markets expanded? PARIMA researchers report here on a pilot study of honey production and marketing in the mountainous regions of Marsabit and Samburu Districts. Researchers used social science methods and technical assessments in an interdisciplinary approach and conclude from case studies of traders that honey production and processing can already be profitable in the area. Expansion of beeswax processing may further increase profitability. The Nyiru Mountains appear to be a key honey production zone, with peak production occurring during June to July and October. Local marketing systems should be strengthened by assisting the organization of traders and bee-keepers. To enhance the market competitiveness of local honey for urban consumers in Kenya, local honey requires improved

processing and quality assurances. To reduce costs, processed honey should be packaged in bulk using plastic jerry cans. To improve honey quality and price for market, traders should take care to blend crude (and uniformly ripe) honey from sources having similar viscosities, colors, and nectar source-plants.

GL-CRSP Research Brief 07-06-PARIMA: Diffusion of Collective-Action Innovations among Pastoralists in Liben District, Ethiopia

Authors: D. Layne Coppock, Solomon Desta, Getachew Gebru, Utah State University; Getachew Kassa, Addis Ababa University; Seyoum Tezera, Pastoral Risk Management Project (Ethiopia)

Summary. In 2001, PARIMA and her partners began to create collective-action groups among illiterate, settled pastoralists in Ethiopia. These groups—soon dominated by women—focused on savings-led microfinance, small business activity, and livestock marketing to increase incomes and diversify livelihoods. Fifty-nine groups, with over 2,100 members, were formed using intensive training methods, and they have subsequently merged into legally recognized cooperatives. Project team members regard this approach as successful and sustainable. Researchers were curious, however, if “the word has spread” and collective-action has spontaneously arisen beyond the immediate project area. Preliminary findings from recent surveys of settlements in Liben District indicate that diffusion of collective-action behavior has occurred. For example, nine of 20 settlements visited in a 2006 survey had groups that formed without project assistance three years earlier; these groups had 10 to 45 members each and included men only, women only, or women and men combined. These groups occur within a 10-kilometer radius of the original center of PARIMA activity in Liben, and group members pursue settled lifestyles. In contrast, collective-action innovations do not appear among traditional, mobile pastoralists in more remote areas. Uptake of collective-action innovations may offer many development benefits for new adopters, but sustaining the process requires vigilance and continued investment in awareness raising, training,

strengthening of partnerships, and attention to peace building and natural resource management.

GL-CRSP Research Brief 07-07-PARIMA: Consumer Perceptions on the Quality and Marketing of Milk in Moyale, Kenya

Authors: Francis O. Wayua, Mohamed G. Shibia and Moses S. Mamo, National Arid Lands Research Center (KARI), Marsabit, Kenya

Summary. Pastoral income diversification can depend on increasing market involvements. One option is for pastoralists to sell more dairy products to local towns. Researchers used focus-groups involving high-income households, low-income households, managers/owners of hotels and restaurants, and managers of a local milk-processing cooperative in Moyale, Kenya, to answer questions concerning why, how, and where they buy milk, how they assess milk quality, satisfaction with milk quality, and whether milk quality can be improved. All consumers recognize the value of high-quality milk. Higher-income consumers typically procure raw, packaged, or powdered milk at a quality and price they find satisfactory. Problems occur for low-income consumers, however, who must buy raw milk from traders at open-air markets. Traders pool raw milk from many sources and routinely adulterate it with water and other substances prior to sale. Low-income consumers are unsatisfied with the quality of milk they can buy. Discussants offered ideas as to how such problems might be addressed. These include raising awareness on milk-handling procedures and helping consumers organize to affect change in the behavior of traders. Local health authorities also need to be more vigilant about milk-quality enforcement. Some higher- and lower-income consumers said they could pay more for higher-quality milk.

| PARIMA Funding for 2006-2007 | |
|------------------------------|-----------|
| Total Core Funding | \$540,000 |
| Total Cost Share | \$105,329 |
| Leveraged Funding | \$67,000 |
| USAID Buy-ins | \$303,500 |

GL-CRSP Research Brief 07-08-PARIMA: Can Collective Action and Capacity Building Reduce Vulnerability among Settled Pastoralists?

Authors: D. Layne Coppock, Solomon Desta, Getachew Gebru, Utah State University; Seyoum Tezera, Pastoral Risk Management Project (Ethiopia)

Summary. In 2001, PARIMA and her partners began to create collective-action groups among illiterate, settled pastoralists in southern Ethiopia. These groups—dominated by women—focused on savings-led microfinance, small business, and livestock marketing to increase incomes and diversify livelihoods. Fifty-nine groups with over 2,100 members were formed using intensive capacity-building methods. After six years, researchers wanted to compare group members with their neighbors who never participated in the PARIMA program. Team members surveyed 180 individuals from groups and paired control (traditional) communities. Respondents were asked to assess the extent that they perceived positive, negative, or no change in their lives over the past three years in terms of a variety of social, economic, and ecological attributes. Considered overall, an average of 81% of the sampled group members perceived that their lives had improved in everything from income and quality of life to personal confidence and human health. In contrast, an average of only 16% of control respondents felt the same way. These preliminary results suggest that collective action can be a viable development strategy here, especially among poor, settled, or displaced people living in peri-urban areas of the rangelands. Collective action, however, will be most sustainable when accompanied by intensive training, technical support, an effective legal framework, and growing market opportunities.

PUBLICATIONS

Haile, Getachew. “Impact of land use and land cover dynamics on the ecology of the Borana rangelands in Ethiopia.” Master’s thesis. Department of Animal Science and Range Ecology and Management, Haramaya Univ., 2006. 132 pp.

PRESENTATIONS AND PROCEEDINGS

Coppock, D.L., S. Tezerra, S. Desta, G. Gebru, and C. Tadecha. "Change agents facilitate cross-border diffusion of collective-action innovations among pastoral women." Paper presented at the *Innovation Africa Symposium* co-sponsored by CIAT, International Institute for Rural Reconstruction), ILRI and Promoting Local Innovation. Kampala, Uganda, November 21-23, 2006.

Coppock, D.L., S. Desta, A. Wako, I. Aden, G. Gebru, S. Tezera, and C. Tadecha. "Sustainable livelihood diversification among women's groups of northern Kenya." Volunteer paper presented at the *60th Annual Meeting of the Society for Range Management*. Reno, Nevada, February 10-16, 2007.

Coppock, D.L., S. Desta, G. Gebru, and S. Tezera. "Implementing a virtuous cycle of livestock off-take, wealth conservation, and livelihood diversification to improve risk management and reduce poverty among pastoralists in southern Ethiopia." Invited symposium paper presented at the *13th Annual Meeting of the International Symposium for Society and Resource Management (ISSRM)*. Park City, Utah, June 17-21, 2007.

Desta, S., D.L. Coppock, A. Wako, I. Aden, G. Gebru, S. Tezera, and C. Tadecha. "Collective action by women's groups to combat drought and poverty in northern Kenya." Poster presented at the *Annual Conference on International Agricultural Research for Development (Tropentag)*. University of Bonn, Bonn, Germany, October 11-13, 2006.

Desta, S. "GL-CRSP PARIMA risk management research and outreach experiences in pastoral areas." Paper presented at the annual workshop for *Community Based Livestock Early Warning Systems (CB-LEWS)* sponsored by the Crisis Mitigation Office (CMO/AARNET), ILRI. Nairobi, Kenya, December 14-15, 2006.

Gebru, G., S. Desta, D. Amosha, and D.L. Coppock. "Role of participatory action research in

reviving endogenous rangeland management: A case from Southern Ethiopia." Invited paper presented at the *Annual Conference on International Agricultural Research for Development (Tropentag)* "Prosperity and Poverty in a Globalized World: Challenges for Agricultural Research". University of Bonn, Bonn, Germany, October 11-13, 2006.

Gebru, G. "Pastoralists moving into the public policy process: The case of pastoral communities in Oromia Regional State, Ethiopia." Paper presented at the *International Conference on the Future of Transhumance Pastoralism in West and Central Africa*. Abuja, Nigeria, November 21-26, 2006.

Gebru, G. "Experiences of the PARIMA project in natural resource management and savings and credit in Ethiopia." Paper presented at a meeting entitled Comparing and Supporting Endogenous Development in Africa (sponsored by COMPAS, Netherlands). Arusha, Tanzania, February 18-24, 2007.

Gebru, G., and D. Amosha. "Progress in outreach by the PARIMA project and modalities of operation." Paper presented at a meeting entitled *Harmonization of Governmental and Non-Governmental Activities in the Pastoral Areas of Ethiopia* (Organized by the Oromia Pastoral Area Development Commission). Adama, Ethiopia, July 2, 2007.

Gebru, G., S. Desta, and S. Tezera. "The GL-CRSP PARIMA intervention model in the establishment of saving and credit groups and pastoral cooperatives." Paper presented at a workshop entitled *Strengthening Microfinance Institutions and Savings & Credit Associations in Four Emerging Regions of Somali, Afar, Gumuz, and Gambella* (Sponsored by the Ethiopian Ministry of Federal Affairs). Ghion Hotel, Addis Ababa, Ethiopia, July 14, 2007.

Gebru, G. "Experiences on market support and commercial and slaughter de-stockings." Paper presented at the *Livestock Policy Forum* (Sponsored by the Federal Ministry of Agriculture and Rural Development, the Pastoral Livelihood Initiative

of USAID and Tufts University). Ethiopian Management Institute, Debre Ziet, July 26, 2007.

TEAM MEMBERS

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COLLABORATING INSTITUTIONS

Utah State University, Department of Environment and Society (*lead institution*)

Arid Lands Resource Management Project
Community Initiatives Facilitation and Assistance
Cornell University, Department of Applied
Economics and Management
Egerton University, Department of Environmental
Sciences and Resources
International Livestock Research Institute, ILRI
Kenya Agricultural Research Institute
Ministry of Livestock Development and Fisheries,
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Oromia Cooperative Promotion Bureau, Ethiopia
Oromia Pastoral Development Commission,
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Resource Conflict Institute
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