

12-1-2009

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David Layne Coppock
Utah State University

Seyoum Tezera
PARIMA

Solomon Desta
Utah State University

Recommended Citation

Coppock, David Layne; Tezera, Seyoum; and Desta, Solomon, "Costs of Implementing Collective Action and Capacity Building Among Pastoralists in Southern Ethiopia" (2009). *ENVS Faculty Publications*. Paper 217.
http://digitalcommons.usu.edu/envs_facpub/217

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Costs of Implementing Collective Action and Capacity Building Among Pastoralists in Southern Ethiopia

Seyoum Tezera, PARIMA-Ethiopia; D. Layne Coppock and Solomon Desta, Utah State University

Pastoral Risk Management Project (PARIMA)

Research Brief O9-O3-PARIMA

December 2009

Since 2000, the PARIMA project has implemented risk-management activities among semi-settled pastoralists in southern Ethiopia. The goal has been to improve human welfare via collective action and capacity building. Outcomes include progress in income generation, asset conservation, and livelihood diversification. Fifty-nine collective-action groups were created. Dominated by women, they included over 2,000 founding members and groups have recently merged to form 37 cooperatives, consistent with government policy. Creating sustainable impacts via collective action and capacity building requires many inputs. Taking raw, illiterate volunteers and transforming them into sustainable groups took up to three years, on average. Costs of implementing this program are estimated at USD 34 per person for a target population of 13,800 direct beneficiaries, based on an exchange rate of 9.1 Ethiopian Birr per USD. This is about USD 1 per person per month. The project has generated many direct and indirect benefits for individuals and communities, but these are very difficult to quantify. We speculate, however, that there has been a large and positive net benefit from the project once costs are considered. Simply knowing potential costs is useful because it helps development agencies decide how such programs might be effectively designed and implemented.

Background

The PARIMA project has operated in southern Ethiopia since 1997. Our efforts to engage semi-settled pastoralists using participatory approaches began in 2000. Our approaches departed from top-down research traditions because we focused on more of a bottom-up, participatory process that put outreach at the front and sought to empower local people and build stakeholder partnerships. Methods and outcomes of our work are documented in detail elsewhere (Coppock et al., 2007, 2009; Desta et al., 2004, 2006; Tezera et al., 2008). The 59 PARIMA collective-action groups created over six years have proven to be sustainable, and all have been recently transformed into legally recognized producer cooperatives. This process has involved about 2,300 people overall, of whom 76% have been women. The primary goal of collective action has been defined by the people themselves, namely improving incomes and well-being via capacity building and livelihood diversification. We have also estimated that the total number of direct beneficiaries for this effort exceeds 13,800 people; these include family members associated with the founding members of collective action groups.

Use of participatory rural appraisal (PRA) methods was the foundation for identification of priority problems and potential solutions at pastoral settlements on the Borana Plateau. Problems were dominated by a scarcity of food and water, while local solutions centered on the need to increase incomes and diversify livelihoods. Inspiration

for the (mostly female) volunteers to organize themselves and undertake collective action came from observations of dynamic women's groups in northern Kenya, made during a field tour when Ethiopian women were taken across the border in 2001 (Coppock et al., 2009). The successes of the Kenyans were embraced and emulated across the Borana Plateau. Once Ethiopian collective-action groups were formed, investments were made by PARIMA to build capacity of group members, who identified needs for various forms of training. PARIMA then solicited partners to create or adapt short courses for illiterate pastoralists. Interventions included proxy non-formal education (PNFE) to improve basic literacy and numeracy skills, exposure to micro-finance, small-business development, management of group dynamics, and livestock marketing. Efforts were also made to help create a northbound marketing chain linking pastoralists, traders, and exporters.

Methods used for information described in this brief are straightforward. We simply kept a record of all operating and implementation costs associated with the program over seven years. We express these costs in terms of the founding members of the collective-action groups (2,300) as well as in terms of the population of direct beneficiaries (13,800). The final results are expressed in USD using an exchange rate of 9.10 Ethiopian Birr per USD. This was the exchange rate in force throughout the capacity-building period.

Table 1. Summary of costs (USD) required for capacity building among a target population of 2,300 or 13,800 people.

Activity ¹	Total Cost	Cost per Person Based on 2,300 ¹	Cost per Person Based on 13,800 ¹	Percent of Target Population Engaged (2,300; 13,800) ¹	Percent of Grand Total Cost
PRAs/CAPs	\$7,200	\$3.13	\$0.52	26%; 4%	1.4%
Training for pastoralists					
Short courses ²	\$55,618	\$24.18	\$4.03	17%; 3%	18.5%
Tours ³	\$63,864	\$29.27	\$4.63	31%; 9%	13.5%
PNFE	\$13,650	\$6.57	\$0.99	50%; 16%	3.0%
Loan capital augmentation	\$137,500	\$59.78	\$9.96	100%; 17%	27.5%
Monitoring and evaluation	\$10,074	\$4.38	\$0.73	17%; 3%	2.0%
Local technical implementation and supervision	\$185,350	\$73.91	\$13.43	100%; 17%	34.1%
Column Totals:	\$473,256	\$217.12	\$34.29	NA	100.0%

¹Activities, costs, and percent engagement are defined in the footnotes for Table 2.

²Figures averaged across the seven courses shown in Table 2.

³Figures averaged across the four tours shown in Table 2.

A full assessment of the usefulness of the program would require that all direct and indirect benefits be tabulated so that a net benefit in relation to the costs could be estimated. We know that by late 2007, the founding participants, overall, had accumulated cash savings on the order of USD 93,000. Over 5,150 micro-loans (96%) were repaid by this time, with a cumulative loan value over USD 647,600. We know that many groups have made considerable profits from the livestock export trade since 2003. Livelihoods have been diversified to include commercial livestock trade, shop keeping, rental house construction, sand and gravel enterprises, cash-crop production for vegetables and cereal grains, bakeries, and butcheries. It is apparent that founding members now commonly send their children to formal schooling. Despite our general knowledge of all these components, a sum total impact across all direct and indirect beneficiaries remains elusive, as the appropriate multipliers for this situation are unclear. Simply knowing the costs of project implementation is still useful, however, in helping development agencies decide how such programs might be effectively designed and implemented.

Findings

Overall, we estimated that it takes up to three years, on average, to transform raw, illiterate volunteers into functional and sustainable groups capable of solving their own problems and undertaking a gradual process of livelihood diversification (Tezera et al., 2008.) This time frame is broken out into several phases, including a group establishment phase (three to six months), a growth phase (eight to 12 months), and a maturation phase (12 to 16 months).

Table 1 aggregates and summarizes the detail costs shown in Table 2. Overall, loan capital augmentation plus technical support costs added to over half of the grand total project costs. The cost per person based on the 2,300 founding

members was USD 217, and this decreased to USD 34 per person when considering the 13,800 direct beneficiaries.

Estimated detail costs for 23 activities are shown in Table 2. The activities include four efforts concerning diagnostic or information collection and evaluation, eight types of training courses, and four types of educational tours. Overall, the most expensive activities in terms of total costs were loan capital augmentation and technical support, while the least expensive activities were local tours and some of the short courses. Percent of the target population engaged was about 100% for six activities considering the 2,300 founding members, and this dropped to 16-33% when considering the 13,800 direct beneficiaries. The other activities engaged 2-26% of the founding members or less than 5% of the direct beneficiaries.

Practical Implications

Estimating such costs over a seven-year program is challenging. Our final figure of USD 34 per person for direct beneficiaries equates to about USD 1 per person per month. This uses a three-year training period for group formation, and assumes that diffusion of ideas and skills widely occurs across the target population. The USD 1 per person per month is reportedly a “typical” level of expenditure that is incurred in African rural development projects (Dr. K. Smith, USAID Ethiopia, personal communication), so it appears to be reasonable from that perspective. Recently in 2009, the Ethiopian Birr was devalued from 9.10 per USD to 12.58 per USD, a decline on the order of 40%. Development agencies that operate on the basis of USD could therefore see a major decline in the local costs to implement a program similar to what is described here.

The USD 34 per person may still be prohibitive, however, for cash-strapped national development organizations to consider. There are probably several opportunities to

Table 2. Component breakdown of costs (USD) required for capacity building among a target population of 2,300 or 13,800 people.

Activity ¹	No. Reps, Rounds, or Courses ²	People per Rep, Round, or Course ²	Reps/Rounds/Courses x People ²	Cost per Rep ²	Total Cost	Cost per Actual Participant ³	Cost per Person Based on 2,300 ⁴	Cost per Person Based on 13,800 ⁵	Percent of Target Population Engaged (2,300; 13,800) ⁶
PRAs/CAPs	12	50	600	\$600	\$7,200	\$12.00	\$3.13	\$0.52	26%; 4%
Group dynamics*	12	192	2,304	\$930	\$11,160	\$4.85	\$4.85	\$0.81	100%; 16.7%
Group leadership*	4	30	120	\$1,459	\$5,836	\$48.63	\$2.54	\$0.42	5%; 0.9%
Book-keeping*	3	16	48	\$1,076	\$3,228	\$67.25	\$1.40	\$0.23	2%; 0.3%
Small-business management*	3	30	90	\$3,686	\$11,058	\$122.86	\$4.80	\$0.80	4%; 0.6%
Livestock marketing and value chains*	3	17	51	\$1,317	\$3,951	\$77.47	\$1.72	\$0.29	2%; 0.4%
Entrepreneurism*	3	15	45	\$2,250	\$6,750	\$150.00	\$2.93	\$0.49	2%; 0.3%
Livestock-product processing*	5	30	150	\$2,727	\$13,635	\$90.90	\$5.93	\$0.99	6%; 1.1%
Capacity building for partners—courses**	3	10	30	\$2,500	\$7,500	\$250.00	\$3.26	\$0.54	NA
Kenya tours	2	30	60	\$6,272	\$12,544	\$209.07	\$5.45	\$0.91	3%; 0.4%
Mentor tours	6	767	4,600	\$4,500	\$27,000	\$11.73	\$11.73	\$1.96	100%; 33%
Regional tours	4	30	120	\$5,000	\$20,000	\$166.67	\$8.69	\$1.45	5%; 0.9%
Local tours	10	36	360	\$432	\$4,320	\$12.00	\$1.88	\$0.31	16%; 2.6%
Capacity building for partners—tours	3	10	30	\$450	\$1,350	\$45.00	\$0.57	\$0.10	NA
PNFE*	65	35	2,275	\$210	\$13,650	\$6.00	\$5.93	\$0.99	99%; 16%
Loan capital augmentation	2,300	1	2,300	\$59.78	\$137,500	\$59.78	\$59.78	\$9.96	100%; 17%
Monitoring and evaluation—data collection	12	396 (samples)	4,752	\$396	\$4,752	\$1.00 (per sample)	\$2.07	\$0.34	17%; 2.9%
Monitoring and evaluation—data entry, preliminary analysis	12	396 (samples)	4,752	\$444	\$5,322	\$1.12 (per sample)	\$2.31	\$0.38	17%; 2.9%
Technical backstopping and field operating	-----	-----	-----	-----	\$50,000	\$21.74	\$21.74	\$3.62	100%; 16.7%
Partner office operating	5	460	2,300	\$11,500	\$57,500	\$25.00	\$25.00	\$4.16	100%; 16.7%
Local PARIMA field staff costs	1	2,300	2,300	\$69,000	\$69,000	\$30.00	\$30.00	\$5.00	100%; 16.7%

¹Some of the activities require clarification. The PRA/CAP denotes implementation of participatory rural appraisals and creation of community action plans. The nine activities accompanied by asterisks (*) are short courses. PNFE denotes proxy non-formal education, defined as a lower cost, more flexible classroom activity that occurs at pastoral villages. The focus is on essential skill development (literacy, numeracy) and teachers have minimum material support and are selected by the communities. Most of the other course titles are self-explanatory, and details on course content can be obtained from the authors. The item accompanied by a double asterisk (**) indicates costs associated with local development agents attending courses. The Kenya tours were conducted twice to expose 30 Ethiopian women leaders to the achievements of Kenyan women just across the border. The mentor tours brought a few Kenyan women leaders to Ethiopia on six occasions to meet with newly formed Ethiopian groups. Regional tours involved taking Ethiopian group leaders to the Ethiopian highlands to observe cooperative action among farmers and dairy producers as well as to see aspects of livestock-related value chains. Local tours involved taking Ethiopian group leaders to visit other Ethiopian groups on the Borana Plateau to exchange ideas. Capacity building tours for partners denotes costs associated with having local development agents attend tours. Loan capital augmentation represents external funds added to group savings and allow more rapid development of micro-loan extension. Monitoring and evaluation, as well as technical backstopping, involved regular data collection and group performance assessments. These efforts were largely conducted by the PARIMA team. Partner office operating represents costs associated with collective-action group offices as well as some support to offices of collaborating government agencies. Local PARIMA field staff costs include coverage for enumerators, outreach personnel, and researchers, typically on a part-time basis. The outreach field supervisor as well as the researchers had graduate and post-graduate university degrees, which elevates personnel costs.

²Where “rep” stands for repetition.

³Cost for each person directly involved in each activity.

⁴The founding number of collective-action participants was around 2,300. Not every person out of 2,300 directly participated in each activity. These figures average the costs of a given activity across the population of founding members.

⁵ Given an average family size of six persons, the 2,300 founding participants each affect five other people for a total of 13,800 direct beneficiaries. Not every person out of 13,800 directly participated in each activity. These figures average the costs of a given activity across the population of direct beneficiaries.

⁶Each activity reached a different percentage of the target population. Percentages based on a target population of 2,300 are shown to the left, while those based on a target population of 13,800 are shown to the right.

reduce the cost per person, if necessary. Given we were also learning in this process, our efforts were somewhat exploratory and sometimes inefficient. Because of this, we feel that costs across the board could probably be reduced simply with added experience should the effort be repeated. In particular, class sizes could be increased, and monitoring and evaluation could be conducted in a simpler manner with less skilled staff. A commitment to a series of training courses and careful mentoring is vital, however, as investment in these aspects of capacity building yields high returns. All of the tours were immensely valuable in terms of instilling motivation and new

ways of thinking among group leaders. If some tours were dropped in a cost-cutting measure, the most likely ones to delete could be the cross-border exchanges. Given there is now a strong domestic source of well-trained group leaders and entrepreneurs to teach and inspire others, there is now less of a need for foreigners in such a capacity.

Acknowledgements. Funds for the capacity building described in this brief were provided by the USAID Mission to Ethiopia. The authors appreciate the comments of Dr. D. Bailey that were used to improve some of the ideas presented here.

Further Reading

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About the Authors: Mr. Seyoum Tezera is a senior field assistant with PARIMA based at the International Livestock Research Institute (ILRI) in Addis Ababa, Ethiopia. Email S.Tezerra@cgiar.org. Dr. Solomon Desta is a research associate with PARIMA through Utah State University and is also based at ILRI in Addis Ababa. Email: S.Desta@cgiar.org. Dr. D. Layne Coppock is an Associate Professor in the Department of Environment & Society at Utah State University, Logan, USA. Email Layne.Coppock@usu.edu.

The GL-CRSP Pastoral Risk Management Project (PARIMA) was established in 1997 and conducts research, training, and outreach in an effort to improve the welfare of pastoral and agro-pastoral people with a focus on northern Kenya and southern Ethiopia. The project is led by Dr. D. Layne Coppock, Utah State University. Email: Layne.Coppock@usu.edu.



The Global Livestock CRSP is comprised of multidisciplinary, collaborative projects focused on human nutrition, economic growth, environment and policy related to animal agriculture and linked by a global theme of risk in a changing environment. The program is active in East and West Africa, and Central Asia.

This publication was made possible through support provided by the Office of Agriculture, Bureau of Economic Growth, Agriculture and Trade, under Grant No. PCE-G-00-98-00036-00 to the University of California, Davis. The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID.

Edited by David Wolking & Susan L. Johnson