

**ASSESSMENT TEAM: MANAGING NATIONAL PARKS IN THE CONTEXT OF
CHANGING POPULATIONS AND ECONOMIES**

NARRATIVE SUMMARY

We received funding from the Global Livestock Collaborative Research Support Program (GL-CRSP) to fund an extension of our planning activities for the first six months of 2005 for the purpose of enhancing the capacity for analyzing and supplying tools and information that integrate reliable, scientific knowledge on ecosystem dynamics and indicators of human well being into decision-making processes as they affect the sustainability of both the Greater Serengeti-Mara and Yellowstone ecosystems.

We accomplished the following:

1) We convened a workshop in Yellowstone in February 2005 to develop case studies regarding the maintenance and enhancement of migration corridors in land-use change hot spots in which findings from each ecosystem function as one tool to explore policy alternatives;

2) We convened a meeting of the project Management and Science Committee in February 2005 to refine project objectives and to develop policies and protocols for ongoing collaboration and to produce a written proposal and plan for future collaboration;

3) We sponsored travel by Yellowstone, Serengeti and Mara collaborators to the GL CRSP Program Conference in Dublin in July 2005 during which time we further developed our proposal by developing a policy analysis focus in collaboration with Dr. Tim Clark of Yale University;

4) We submitted a proposal to the GL-CRSP in June 2005 in which we proposed a strategy to address interrelated substantive and procedural problems stemming from challenges in integrating people, wildlife, and livestock in landscapes undergoing rapid social, economic, and demographic changes.

RESEARCH

Problem Statement and Approach. The Yellowstone and Serengeti-Mara are two of the world's largest and ecologically intact ecosystems. The geographic extent of the two systems are defined in several ways, including the migratory movements of large herds (e.g., wildebeest, elephants, elk, antelope) that move outside the Parks' protected areas seasonally. Outside the Parks, wildlife migrations traverse a matrix of public and private lands that are managed for widely different purposes. In both systems, a diverse set of management authorities — federal, state and local government entities, along with individuals and associations, with an equally diverse set of goals manage land and/or resources outside the Parks. In the Greater Yellowstone, this has led to a “dense, highly fragmented and complex policy arena (Table 1). Similarly, in the Serengeti-Mara ecosystem land tenure and management policies are similarly complex, compounded by the international border bisecting the ecosystem.

In our deliberations and analyses during and subsequent to the February 2005 Workshop, we worked together to identify common issues shared by the GYE and GSME that would warrant a deeper, collaborative policy analysis.

PROGRESS

YESEMA collaborators worked to refine a policy analysis (*sensu* Clark 2002) framework for our ongoing collaboration. Using this framework, institutional complexity and rapid social, economic and demographic changes in the GYE and GSME combine to create a situation where the capacity and flexibility of existing management policy systems responsible for effective resource management

Table 1.

Entity	Policy/mission	Tenure
Serengeti (Tanzania):		
Serengeti National Park	Wildlife tourism and conservation	Federal
Ngorongoro Conservation Area	Wildlife tourism and conservation; local land use restricted to herding and small scale farming	Federal
Loliondo Game Controlled Area	Herding, small-scale farming, wildlife tourism, hunting leases, mechanized commercial farming	Federal; villages hold title to the land; some private land
Maswa Game Reserve	Wildlife tourism, hunting leases	Federal
Ikorongo Game Reserve	Wildlife tourism, hunting leases	Federal
Grumeti Game Reserve	Wildlife tourism, hunting leases	Federal
Tanzanian Wildlife Research Institute	Manages all wildlife in Tanzania	Federal
Mara (Kenya):		
Masai Mara National Reserve	Wildlife tourism, hunting leases	County Council Trust
Inner Group Ranches (Siana, Kolyaki, Ol Choro Oirua)	Multiple land uses: herding, farming, wildlife tourism	Private plots, some areas are communal property (in trust)
Outer Group Ranches (Lemek, Nkorinkori, others)	Multiple land uses: mechanized commercial farming, small holder farming, herding, some wildlife tourism	Privately owned
Yellowstone (USA):		
Yellowstone National Park	Conservation of nature	Federal
Grand Teton National Park	Conservation of nature	Federal
US Forest Service (seven national forests in three regions)	Multiple use: timber, recreation, wildlife, mining	Federal
Bureau of Land Management	Multiple use: timber, recreation, wildlife, mining	Federal
US Fish and Wildlife Service	Migratory bird species, Threatened & Endangered species, Federal Refuges, Livestock Depredation	Federal
Montana Fish, Wildlife and Parks	Conservation of fish, wildlife, cultural resources. Law enforcement; outreach	State
Idaho Department of Fish and Game	Conservation of fish and wildlife, law enforcement	State
Wyoming Department of Game and Fish	Conservation of fish and wildlife, law enforcement	State

decision-making is increasingly overtaxed. Project participants agreed that the ongoing focus of the project should be on wildlife-livestock interactions as a window into the effectiveness of resource management policies. This is a particularly effective venue for collaboration because in the GYE and GSME, effective management of all resources, but particularly wildlife and its relationship to livestock, is increasingly jeopardized by human

social dynamics, institutional complexity, and other forces and factors (e.g., parks and reserves as well as working ranchlands). The experience of the YESEMA project collaborators up to this point in time confirms the more general recognition that this complexity severely limits timely and effective management decision-making. This in turn is leading to degradation of the ecological function of the entire ecosystem and ability of the region to

sustain people and wildlife.

Together we developed a proposal for ongoing work with the goal of contributing substantially to the resolution of actual management issues arising from wildlife-livestock-human interactions. We proposed an “active learning” project that: 1) further refines our leadership team so that it functions effectively to oversee, direct, and manage the project as it evolves; and 2) uses proven methods to address complexly interrelated substantive and procedural problems stemming from challenges inherent in integrating people, wildlife, and livestock in landscapes undergoing rapid social, economic, and demographic changes. Methods include: (1) developing case studies of best management practices, (2) implementing and learning from prototype interventions to improve management, and (3) enhancing the “capacity” (i.e., knowledge and skills) of people at various levels and in targeted communities, including high-level resource managers, administrators, and policy makers through workshops, joint study tours, policy discourses, and other focused activities.

GENDER

In our Workshop and subsequent activity we started to explore the potential ways in which gender and culture intersect to influence the way in which people, wildlife, and livestock interact as a component of the long-term sustainability of the greater ecosystems. We made plans and initial contacts to ensure that the ongoing proposed work would be inclusive of diversity in participants, perspectives (identities, expectations, and demands), as well as values. We developed two specific proposal elements to address gender issues. First, laid plans to ensure that relevant gender-based perspectives are represented in the group activities such as seminars and working groups. Second, in activities related to case studies and prototyping of policy interventions, we developed strategies to conduct literature surveys to assess the state of knowledge of gender-related issues associated with a particular case study or prototype. We proposed to develop a network of regional experts to guide us in this aspect of the project (e.g., the Maasai Women Development

Organization (MWDO) and Tanzania Gender Networking Programme (TGNP)). Given the YESEMA Project’s focus on management complexity in the face of rapid social and economic change, we proposed to perform rapid assessment (e.g., focus groups) if the available literature is dated and not reflective of current gender relationships as they relate to the topic at hand.

POLICY

Policy makers in the form of park and natural area managers have been involved in the development of the YESEMA conceptual framework and proposal for ongoing work as participants and reviewers. These policy makers include:

- Yellowstone National Park: Dr. Glenn Plumb (Supervisory Wildlife Biologist), Mr. John Varley (Director, Yellowstone Center for Resources)
- Montana Fish, Wildlife and Parks: Mr. Kurt Alt (Regional Wildlife Biologist), Mr. Pat Flowers (Regional Director)
- Serengeti National Park: Mr. Justin Hando (Chief Park Warden)
- Tanzania National Parks: Dr. Emmanuel Gereta (Special Assistant to the Director), Mr. Edward Kishe (Director, Environmental Inventory and Monitoring)
- Tanzanian Wildlife Research Institute: Mr. Charles Mlingwa (Director General)
- Masai Mara National Reserve: Mr. Michael Koikai (Chief Park Warden); Mr. Samson Lenjirr (Chief Biologist)
- Group Ranches in Narok and Trans Mara Districts (Mr. Paul Montet and Mr. Patrick Ole Ntutu, community leaders)

Our contribution to policy development to date has been 1) opening a dialogue between researchers and managers that served to enhance the effectiveness of researchers in defining management-relevant science objectives and communicating results; 2) building trust between researchers and managers by reflecting on differences in values, perspectives, and cultures; and 3) opening up a dialog between the different land management entities (e.g., Yellowstone

National Park and Montana Fish Wildlife and Parks) in a neutral environment where the overarching GLCRSP objectives served to facilitate new understanding of the problem model.

DEVELOPMENT IMPACTS

Environmental impact and agricultural sustainability. We contributed to increasing our understanding of Yellowstone National Park management issues that transcend jurisdictional boundaries (e.g., land use change, wildlife-domestic animal disease transmission) that affect livestock production on the lands outside the Park.

Contributions to host country. We worked to enhance the capacity for collaboration between Kenyan, Tanzanian and North American researchers on research issues of relevance to wildlife conservation in the context of regional economic development. In addition we increased the understanding of Serengeti National Park issues that transcend jurisdictional boundaries (e.g., wildlife-domestic animal disease transmission, opportunity costs of biodiversity conservation)

Linkages and networking. We enhanced the capacity for collaboration between regional land grant universities, federal and state agency-based scientists, east Africa-based researchers and Yellowstone National Park on policy-relevant research questions.

OTHER CONTRIBUTIONS:

Support for free markets. By design, our project did not contribute directly to the support for free markets.

Contributions to mission objectives. Our project contributed to the mission objectives of maximizing the sustainable use of natural resources by working with communities and enhancing the effectiveness of local and national government entities charged with wildlife management.

Concern for individuals. Our project enhances individual livelihoods because for human rights to reach their full expression, natural environments must be secured and managed in sustainable ways so that people live in clean, healthy environments full

of functioning ecosystems and rich in the diversity of living forms.

Support for democracy. Our project supports democracy by enhancing the capacity of land management institutions to devise and implement transparent, robust and credible management decisions.

Humanitarian assistance. Our proposed ongoing work contributes to humanitarian assistance by developing strategies to define benefits to communities associated with wildlife management in the context of livestock management.

COLLABORATING INSTITUTIONS AND PERSONNEL

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