

# ADVANCING HUMANITY IN BELIZE

## *Learning Community*

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## CONTEXT FOR MCMASTER'S BELIZE INITIATIVE

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For the past four years, the McMaster School for Advancing Humanity has invested in Belize through its support of both faculty and students. When we look back on that investment, we can assess the development of this project as a way to compile evidence and assess the program's effectiveness. Projects driven by our onsite partners—Programme for Belize and local agricultural communities, villages, and schools—have evolved both in depth and breadth largely because of the initiative's management framework, which has been employed since 2005. Integrated Natural Resource Management (INRM) schema developed by the Consultative Group for International Agricultural Research (CGIAR) continues to provide a common focus for the group (Izac & Sanchez, 2001). INRM provides a framework for integrating and applying theoretical concepts to the context of real world issues. Even though the faculty and students selected as McMaster Fellows and Scholars change each year, meaning that the disciplinary perspectives of the group change, the work itself is driven by our Belizean partnerships. The issues that challenge the abilities of the group are aligned with a common goal. We are working to empower small, isolated indigenous communities to develop in a sustainable manner by focusing on improving their well-being while simultaneously working to support environmental conservation.

The 2008 McMaster Belize Learning Community made a concerted effort to ground our disciplinary perspectives in the issues at hand and to cross-train each other to develop some level of familiarity with the protocols that would be implemented on the ground. This proved extremely advantageous because as the projects unfolded on the ground, the synergy between disciplines was maintained, and the group was able to view issues, problems, and results from a more synergistic vantage point. The group was challenged to promote interdisciplinary research out of necessity because we are, and for the past three years have been, working simultaneously with Programme for Belize, the managers of the Rio Bravo Conservation and Management Area, and the indigenous populations that need to move beyond a subsistence level of living on the periphery of the preserve. Considering not only research results but the perspectives of each of our partners has allowed us to effectively address the needs of the communities and their environment.

Interdisciplinary study is at the core of our multiple disciplinary research and our ability to respond to the multiple perspectives of our partners. According to Klein and Newell (1996) "Interdisciplinary studies may be defined as a process of answering a question, solving a problem, or addressing a topic that is too broad or complex to be dealt with adequately by a single discipline or profession. Interdisciplinary study [IDS] draws on disciplinary perspectives and integrates their insights through construction of a more comprehensive perspective" (p. 393-394). The reality that we deal with on the ground is well-served by this interdisciplinary research approach.



In his article, "With All Good Intentions," Ledford (2008) comments on the increasing number of interdisciplinary research collaborations, stating that "the rise of interdisciplinary research and the ease of long-distance communication have encouraged this trend, along with funding agencies that earmark grants for collaborative projects" (p. 682). In addition, Ledford stresses the importance of management plans in effectively facilitating interdisciplinary research (p. 684). Utilizing Integrated Natural Resource Management as the schema for our work allows all disciplinary projects to be viewed with a much more inclusive and collective perspective relative to both the problems at hand and the hopes for the future.

Understanding that people struggling to feed their families tend to place a low priority on environmental preservation is not a difficult concept for anyone to accept. Yet "these poor people depend upon the 'natural capital' that supports their lives just as much as they do on the more tangible assets of money and property.... The diversity of nature and the health of ecosystems are essential to people's survival in a turbulent and constantly changing world" (Sayer & Campbell, 2004, p. 8). Substantial evidence supports the fact that degraded ecosystems are correlated to poverty, famine, and natural disasters. Through our work in Belize, we have been able to show that improvement in income levels, access to education, and even infrastructure do not have to come at the expense of the environment as long as the development considers multiple stakeholders' perspectives.

Evidence of the effectiveness of our integrative approach can be seen in (1) the project's ability to respond to various stakeholder perspectives through interdisciplinary research; (2) the development of key project areas, such as education, water quality, biodiversity, agriculture, and productivity; and (3) the partnership development and networking that both offer our services to other concerns in Belize and/or secure additional resources for our current partners.

Specific evidence of effective project development areas is illustrated in the project summaries that follow. For example, the 2005 survey for intestinal parasites in the water of the New River Lagoon evolved in 2007 to a targeted survey for the same intestinal parasites in village and school wells and cisterns. Developing a baseline water quality analysis (2005) for the New River Lagoon was maintained in 2007 while expanding its reach to assess drinking water quality in wells and cisterns of the people who live on its shores.

The agricultural-practices assessment conducted in 2005 evolved to provide soil nutrient and crop-specific information that has most recently been used

to combat misinformation given to papaya farmers. The number of farmers reached is growing, which provides evidence that there is an increase in agricultural income potential and a reduction of negative environmental impact.

Another on-going initiative is our projects that promote literacy (2006). We provide support for functional literacy through an international pen-pal project, as well as biodiversity education through the distribution of *Leaving Wild*, a book authored by a McMaster Scholar. In addition, a medicinal plant survey begun in 2005 has developed in 2007 into a dual project focusing on the use and location of medicinal plants and a survey of our partner villages' access to health care.

Geographically our work area has expanded from an approximate 10-mile radius from Hillbank Research Station in 2005 to a nearly 25-mile radius in 2007. Given the condition of the roads that we travel on, the areas that we are able to visit each year is somewhat weather dependent. That said, the geographical growth of the project's scope is still undeniable. This expanded work area has been in direct response to developing dynamics on the ground.



Our reputation as effective partners is growing and, in some cases, is escaping the boundaries of the country itself. This was evident in January 2008 when I was contacted by Belize Open Source, an emerging nonprofit organization in California. Pat Coyle, the program's director, had received my name and Defiance College from his contacts in Belize. Belize Open Source has asked us to work with them to develop a sustainable development plan for a 40-acre property donated to the August Pine Ridge community.

This is just one example of the partnerships that have been emerging. Within this year's group, we have begun to make viable connections with the World Parrot Trust, the Audubon Society, Potters for Peace, Books for Belize, the Consortium for Belize Educational Cooperation (COBEC), and others. We are excited about the opportunities to work with additional partners and, more importantly, feel that it is necessary to leverage as many resources as possible for the people with whom we currently work.

As a result of the projects detailed in the pages that follow, we progressively see more ways in which we can have an impact through this community-based research. While there always seem to be new directions, aspects of focus, questions posed as a result of the research, and potential partners, there is also always renewed motivation. We are inspired by the body of accumulated work and the impact of this work on our Belizean partners.

## REFERENCES

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