Using Traditional Ecological Knowledge to Enhance Agricultural and Extension Education: Exuma, Bahamas

Arin C. Haverland
The University of Arizona
Department of Agricultural Education
Forbes Building, Room 228
Tucson, Arizona 85721
(520-626-2230)
e-mail: arin@ag.arizona.edu

Dr. Edward A. Franklin
The University of Arizona

Abstract
As we prepare our students to become leaders in agriculture, we must also broaden their world views of agriculture. In an era when it is becoming increasingly more difficult to take the class to the field trip, teachers will seek ways to “bring the fieldtrip into classroom”. The creation of a multifaceted international agricultural education curricula will provide agriculture educators from around the world a way to dynamically highlight global agriculture issues in the classroom while illuminating agricultural and environmental values from communities around the world. In addition, partnering with other disciplines in the research and academic realm strengthens relationships and fosters collaboration, which in turn provides a stronger educational resource base for all agricultural educators. A first step in creating an international agriculture curriculum may be to begin with countries that are well known and highly visible in the global community such as the Bahamas.

The Bahamas is a country of immense biodiversity, composed of 700 islands spanning over 800 miles throughout the Caribbean. The Bahamian government, recognizing the need for environmental preservation, has captured global attention by setting an environmental precedent by proposing that 20% of the Bahamas be set aside as marine reserves (Marine Protected Areas or MPAs). MPAs restrict ocean and land based activities such as fishing and tourism which are critical for the Bahamian people. This new policy will also impact land use, land tenure and most importantly agriculture throughout the Bahamas.

For the Bahamians, the land and sea are one. While protecting these areas increases environmental health, education and awareness are equally important. Unless community support is sought and recognized, environmental and agricultural endeavors may fail. A section of these islands, known as the Exumas, Bahamas has been the focal point of ongoing environmental and anthropological research. The Exumian way of life has developed out of two hundred years of intense environmental and agricultural interaction and co-adaptation with both the sea and the land. Threats to Bahamian coastal and land ecologies such as pollution and urban encroachment emphasize the importance of environmental policy and the need for community-centered agricultural and environmental education. By incorporating traditional community based knowledge into current agricultural and environmental programs, Bahamian culture and ecology
may be simultaneously preserved. This paper will discuss the importance of an agricultural and environmental curriculum based on Traditional Ecological Knowledge (TEK), which will provide a community centered, yet globally focused, educational reference unit for protecting coastal ecology while preserving Bahamian environmental and agricultural health. Local Exumian teachers working closely with the Bahamian Ministry of Education have played a key role in identifying educational needs. Agricultural and Environmental research has also proved to be crucial in creating this community-centered curriculum which will provide a foundation for raising global awareness about the complexities of agricultural and environmental issues. Most importantly this curriculum will provide agricultural and extension educators with an exciting format which brings the classroom to the Bahamas and equally addresses cultural attributes and the critical need for math and science performance standards.

---

2 Traditional ecological knowledge may be defined as knowledge, which is gained by co adapting to an environment over several generations. This knowledge is obtained through intense interaction with one’s environment.