Culture as an Expression of Ecological Diversity: Integrating Awareness of Cultural Heritage in Ethiopian Schools

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Culture as an Expression of Ecological Diversity

Integrating Awareness of Cultural Heritage in Ethiopian Schools

Ethiopia has the largest mountainous land mass in Africa, with a diverse and complex environment. The peoples of Ethiopia reflect this diversity in their cultures. The integrity and traditional knowledge embedded in these cultures is being eroded through modern education and cultural globalization. Modern education divorces students from the traditional ecological knowledge of their communities, and makes it very difficult for them to reintegrate into their own societies. This process is being accelerated by urbanization. In 1998, the Institute for Sustainable Development (ISD) began working with school environmental clubs to facilitate interaction between teachers and students, and people in the local student communities who possessed traditional knowledge. We call this project "discovering the value of cultural biodiversity."

The Ethiopian highlands: center of diversity

Ethiopia is one of the Vavilov Centers (or food crop genepools) of the world because of its high agro-biodiversity, which has come about through the interaction of its peoples and their ecological setting, and a long history of cultivation over 5000 years. The great diversity in ecological settings results from the fact that Ethiopia is a tropical country with altitudes ranging from below sea level in the Dallol Depression to over 4000 m on Ras Dashen (Figure 1). The Ethiopian Plateau constitutes around 45% of the land mass, with an altitude above 1500 m, but it is dissected by the Great Rift Valley of Africa and deep river valleys. Rainfall also varies from an annual total of over 2000 mm spread over 10 months at the higher elevations in the west and southwest, to virtually nil in the Dallol Depression. Yet all parts of Ethiopia are inhabited by peoples whose cultures reflect their adaptations to this ecological diversity.

Culture is expressed in all aspects of life—building and furnishing a house, clothing, growing and preparing food, taking care of health, ceremonies and beliefs—and is encapsulated in language. It is thus not surprising to find a correlation between cultural and linguistic diversity, and biological diversity. Ethiopia is among the top 25 countries of the world for its endemic languages, variously estimated to be between 60 and 80.

FIGURE 1 Gemasagedel (cleft cliff) near Tamar Bir, looking down into the foothills below the Escarpment, July 2004. (Photo by Solomon Hailemariam)

The importance of the cultural biodiversity program

All schools are encouraged to develop extra-curricular activities for environmental education. Starting in the 1980s, school environment clubs were developed in a number of high schools by 2 local NGOs, Lem–Ethiopia and the Ethiopian Wildlife and Natural History Society (EWNHS), as well as by the senior author. However, activities were usually restricted to making tree nurseries and organizing trips.

In 1998, the Institute for Sustainable Development (ISD) started a pilot project with Sagon Environment Club in a high school in Addis Abeba. The aim was to find out how much the students knew about traditional crops and to teach good practices in making and using compost. Crops were planted in the rainy season while the students were on vacation. The teacher visited markets around Addis Abeba to buy local farmers' varieties: the cereals barley, durum wheat, *tef* and maize, the pulses faba bean and fenugreek, and the *nigella* or black cumin spice. When the new school year started, the growing crops stimulated much interest among both students and staff, but when the teacher asked the students to weed the plots, they could not distinguish the cereals from the weeds. We saw this as indicative of the divorce of urban students from their traditional backgrounds, and particularly from traditional ecological knowledge.

Ethiopian society, especially in rural communities, still retains much traditional knowledge. Culture, particularly in food habits, dress and ceremonies, is also important. Primary school, grades 1 to 8, includes environmental issues and cultural/traditional aspects in the curriculum, and all teaching is now in a dominant local language. Environmental issues are also incorporated in some secondary school subjects, where English is the official medium of instruction, but most teaching is done in Amharic, the official language of Ethiopia. Yet very few teachers have the experience or opportunity to make the formal learning process interactive. Their pedagogical background is "talk and chalk;" they have huge classes and their success is judged by exam results. Now, however, in an effort to improve the standard of instruction, the government has introduced televised classes, developed in English in South Africa, for all secondary school subjects in grades 9 and 10; but this has a negative impact on the students' relation to their own cultures.

The World Summit on Sustainable Development, 2002

In Ethiopia, ISD together with the Forum for Environment and two other local NGOs, the EWNHS and the Centre for Human Environment, decided to bring the World Summit to the attention of the Ethiopian public through a series of events. One of these was to make visible and celebrate the rich cultural and biological diversity of Ethiopia, ie to help teachers and students "discover the value of cultural biodiversity." The aims include:

- Reconnecting young people with elders and other wise people in their communities to acknowledge the value of traditional practices and skills; and
- Enabling schools, youth groups and community centers to become dynamic "action learning centers."

Sixteen high schools with active environmental clubs representing some of the cultural diversity in the 10 regions of the country were identified to initiate the project. Activities are now being carried out in 21 schools: Addis Abeba, 3 schools; Amhara, 2; Oromiya, 4; Southern Nations, Nationalities and Peoples (SNNP), 4; Tigray, 2; and one each from Afar, Dire Dawa, Gambella, Harar and Somali. Harar is a primary school; all the others are secondary schools. All the schools are located in towns or cities, but the proportion of students from urban/rural backgrounds varies.

The Village of Cultural Biodiversity

In July 2001, teachers from the participating schools were given some background on the World Summit, particularly the links between cultural and biological diversity for sustainable development.

FIGURE 2 A student from Dej. Geresu Dukii High School explaining her traditional foods, Wolisso, July 2002. (Photo by Solomon Hailemariam)

FIGURE 3 Discussion between students and community members in a participatory exercise, Arba Minch, July 2004. (Photo by Solomon Hailemariam)

The workshop included practical activities based on participatory rural appraisal methods, and the participants identified activities that the school environmental clubs could carry out.

July 2002 saw the first "Village of Cultural Biodiversity" celebrated in Wolisso town, 125 km southwest of Addis Abeba. The schools displayed collections of cultural artifacts and traditional foods brought from their home areas (Figure 2), sang songs, and recited poems. Over the 3 days, more than 30,000 people visited the "Village." The students described the exhibition as "seeing all of Ethiopia in one place" and a contribution to building peace in the country through "learning to understand and respect each others' cultures."

July 2004 saw a second "Village of Cultural Biodiversity" held in Arba Minch, but this time with teachers and students from 21 schools. Each school put on a show illustrating the cultures and traditions of their areas. The hall was packed to overflowing with people of all ages eager to listen to and see this rich display of talent.

The exhibition was followed by 3 days of workshops on various topics to enhance the practical skills of teachers and students. Several teachers commented that this was their first experience of practical work in environmental activities, such as studying the animals in a forest, making simple herbal remedies, and interacting with a local community using a participatory approach (Figure 3). Both events received wide media coverage and demonstrated the importance of culture in local lifestyles, so that it is seen as more than just a tourist attraction.

Students as agents of change

Several of the teachers and students involved in the project do not limit their activities to their school compounds. They interact with communities around them. The teacher and the students in Sagon Environment Club set up a simple experiment to compare the effects of compost and chemical fertilizer with the effects of no treatment on various traditional crops. The visual effects were very striking, with the composted plots growing better than the others—birds were often the first to harvest the seeds! Students from farming families invited their parents and neighbors to see the effects of compost for themselves, and this motivated a few farmers to make and use compost. More encouragingly, at least 3 groups of stu-

dents started to make compost and produce vegetables for themselves on land granted to them by the local authorities after leaving this school.

Shola Environment Club at Holeta High School also became involved. By early 2004, members of this club had managed to help 7 local farming communities establish their own environmental groups. The largest Community Environment and Cultural Biodiversity club has 71 members. This club has rehabilitated an area of over 10 ha on a bare hill with indigenous trees, and promoted awareness of the value of traditional medicines and crops. This successful community group is planning to form an area network with the other groups and the school club. This will help to mobilize popular understanding of environmental justice, and make it more possible that the rapid development of flower farms in the area does not undermine the environmental rights of other community members.

Finding Out About Cultural Biodiversity: A First Guidebook has been published to help teachers and students understand how to interact and build up relationships that empower the communities and enable students to re-evaluate and integrate with their cultural backgrounds.

Empowering women and girls

Women make up 51% of the Ethiopian population, but only around 30% of the high school student population and environment club members. Club membership varies from around 70 to over 200 per club, and most of the clubs have at least one female student on their committees.

Little appreciation is expressed of the role of women in maintaining a healthy home and the survival skills needed for this. Starting in 2001, the traditional skills of girls and women in food preparation, handicrafts, and use of simple medicinal herbs were deliberately highlighted. This is helping to articulate and enhance the traditional knowledge and skills of women in using and conserving the biodiversity of their environments. For example, in the "Villages of Cultural Biodiversity," one girl commented that the local media should give more attention to traditional foods, rather than always promoting exotic dishes. Another female student described how the project had helped her re-evaluate the traditional basket-work skills her grandmother practiced, as she proudly showed off her new skills and the items she had made. There is also a growing appreciation among boys of the knowledge and skills of girls, but a lot more needs to be done to enhance the status of girls and women (Figure 4).

FIGURE 4 Traditional dress worn by students of Robe Senior Secondary School, Arba Minch, July 2004. (Photo by Solomon Hailemariam)

14 **FIGURE 5** Traditional houses in Durame, Wollaita, June 2002. (Photo by Solomon Hailemariam)

Educational implications of the project

The educational component of the project cannot be over-emphasized. Students learn best when their learning is based on their environment, and includes practical activities (Figure 5). The project's approach could be used as a way to help direct the educational system of the country to base itself on available wisdom, practices and technologies concerned with biodiversity. The project creates an opportunity for girls and boys to learn from their parents, grandparents, and community elders by facilitating a dialogue between them and helping them re-integrate into their societies with the advantages of a modern education. It is hoped that the more comprehensive learning process will broaden school leavers' professional options, eg in tourism—expected to be a fast growing sector in Ethiopia; tourism requires new skills as well as a sound understanding of the value of ecological diversity. Through valuing traditional skills, learning how to improve them, and learning new skills, school leavers will become competent, self-employed craftspeople and farmers.

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