

A PROPOSAL TO THE STRATEGIC PLANNING COMMITTEE

Submitted by the Subcommittee on Sustainable Practice

January 3, 2000

PROPOSAL

The Subcommittee on Sustainable Practice proposes:

1. A new charge for the Campus Environmental Policy Committee (CEPC)
2. A framework and methodology for the CEPC to use in addressing the wide range of environmental issues facing Berea College
3. Direct linkages between the CEPC and the Sustainability and Environmental Studies (SENS) Program

Current CEPC Charge:

The CEPC monitors policies and procedures relating to the campus physical environment and makes recommendations on policy to the General Affairs Council. Suggestions related to operational decisions are made to the appropriate vice president. In performing this task, the committee keeps abreast of environmental safety issues (such as radon gas, second-hand smoke, exhaust emissions, and hazardous materials) and security arrangements (including appropriate lighting, building location and use, and patrolling/monitoring of buildings and grounds). It also monitors building use, construction, replacement, and renovation, and makes recommendations on architectural style and design, quality of workmanship, color, equitable space allocation and appropriate landscaping.

The Committee is composed of two members elected from the General Faculty, one member of the General Affairs Council, the Facilities Management Director, a designated member of the Student Life Staff, and two students. The committee should call on other members of the campus community for necessary expertise not represented on the Committee itself.

Proposed CEPC Charge:

The College Environmental Policy Committee (CEPC) co-ordinates and monitors the progress of Berea College toward sustainability as defined by the Subcommittee on Sustainability (SOS 1998).

The responsibilities of the CEPC include:

- Developing a suite of indicators of sustainability for Berea College in the areas of energy, materials, water, social capital, ecological capital, facilities and economics.
- Prioritizing goals and proposing targets for each indicator or set of indicators, and criteria for evaluating the College's progress toward sustainability in terms of the full suite of indicators.
- Overseeing the regular measurement of the indicators and the preparation, at least bi-annually, of a summative report. The report will describe the status and trends of the indicators and, based on the evaluation criteria, assess the College's progress toward sustainability. This report is submitted to the Strategic Planning Committee for action and dissemination to the college community.
- Recommending policies or adjustments to existing policies that abet the progress of Berea College toward sustainability. Recommendations are to be sent to the Strategic Planning Committee for action, and may be forwarded either as part of the summative report or individually.
- Periodically reviewing the indicators to assess their usefulness and appropriateness.

The Committee is expected to determine the most appropriate and efficient process for collecting and synthesizing indicator measurements, and may develop arrangements with various groups within the College to accomplish these goals. The CEPC is composed of two elected members of

the General Faculty, the Director of the Sustainability and Environmental Studies Program, the Compton Chair in Ecological Design, the Director of Facilities Management and one designated student.

Sustainability Areas and Indicators

The following areas serve as a framework for the CEPC in developing sustainability indicators for the College (See Appendix A and B):

- Energy
- Materials
- Water
- Social capital
- Ecological capital
- Facilities
- Economics

An indicator is something that helps you understand where you are, which way you are going and how far you are from where you want to be. Indicators with which we are all familiar include the unemployment rate and the Gross Domestic Product, numbers which are powerful and recognizable indicators of the performance of the economy. Indicators of sustainability help a community to measure its progress toward sustainability, and to design policies to increase progress. Indicators are often linked to the three themes of economic, social and environmental sustainability.

Criteria for Indicators

Indicators are as varied as the systems that they monitor. However, there are certain characteristics that effective indicators have in common. The following criteria are based on those of Sustainable Seattle (1998) and the Urban Indicators Programme of the United Nations Centre for Human Settlements (<http://www.undp.org/un/habitat/guo/develop.htm#policy>).

Effective indicators are:

- **Relevant.** In the context of your reason for measuring, they tell you something about the system that you need to know.
- **Reflect community values.** The crucial role of indicators is communication. Indicators illustrate community values and elicit reactions.
- **Clear and attractive.** Easily understood by all stakeholders, and resonate with the intended audience. The press publicizes them and uses them to monitor and analyze community trends.
- **Statistically measurable.** Data exist that are relevant to the system of interest. If data are not readily available, a practical method of data collection or measurement exists or can be created.
- **Logically and scientifically defensible.** Understandable rationales exist for using the specific indicator and for drawing general conclusions from it (alone or in combination with other indicators).
- **Reliable.** You must be able to trust what the indicator shows. Indicators should be measured consistently through time, so that you have comparable data.
- **Leading.** Indicators must give you information while there is still time to act.
- **Policy-relevant.** Can anything be done to affect the indicator? Is there a clear linkage between the indicator and policy options?
- **Necessary and – in combination with other indicators – sufficient.** Is the indicator essential or does it measure something peripheral to the primary goal of the community? For complex goals, no single indicator will suffice. A suite of indicators is needed, and the entire

list needs to be evaluated to ensure that all the bases are covered and that unnecessary redundancy is avoided. Linkages among indicators and the processes that they measure are important, and indicators help to illustrate and examine those linkages.

Evaluating Indicator Measurements

The interpretation of indicators often focuses on desirable trends rather than absolute thresholds, and when a group of indicators is being measured, some of the indicators may show opposing trends. For example, the citizens group Sustainable Seattle tracks 40 indicators of sustainable community. In 1998, eight of their indicators showed declining sustainability trends (including Solid Waste Generated and Recycled, and Local Farm Production), eleven showed improving sustainability trends (including Air Quality, and Water Consumption), and the remaining indicators either showed neutral sustainability trends or sufficient data was lacking to characterize them that year (Sustainable Seattle 1998). The Sustainable Seattle indicators serve to identify those areas where greater effort is needed. They are less useful in answering the question “Is Seattle Sustainable?”

Linkages between CEPC and SENS

Among the objectives of the Sustainability and Environmental Studies (SENS) Program is the development and administration of a sustainability curriculum, and the facilitation of the incorporation of sustainability issues throughout the Berea College curriculum. Providing opportunities for experiential learning is central to meeting these objectives, and the actions of the CEPC as it co-ordinates and monitors the progress of Berea College toward sustainability offer abundant opportunities for student involvement. Close coordination between the CEPC and the SENS Program will maximize these opportunities. The primary mechanism for this coordination is the inclusion of the SENS Director and the holder of the Compton Chair in Ecological Design (a faculty member in the SENS Program) as members of the CEPC. The designation of one CEPC position for a student offers the opportunity for direct participation by SENS minors.

The SENS Program can move toward its objectives while helping the CEPC to fulfill its responsibilities by:

- Managing student involvement in the development, assessment, and evaluation of indicators of sustainability for Berea College. Students could undertake these tasks through labor positions managed by the SENS Program or in fulfillment of the experiential learning requirement of the SENS minor.
- Promoting and overseeing student initiated classes, class research projects, and activities by HEAL and other student groups that provide specific information required by the CEPC; assisting in disseminating results of the sustainability assessment; and educating students, faculty, and staff on issues related to sustainability and the implementation of policies recommended by the CEPC and adopted by the College.
- Involving students directly in campus renovation and building projects through an intern program to be associated with the new Chair in Ecological Design, and through the use of Berea projects as case studies and applied exercises in courses in ecological design to be taught by the Chair.

RATIONALE

Although the Campus Environmental Policy Committee (CEPC) is currently charged with “monitoring policies and procedures relating to the campus physical environment,” neither the CEPC nor any other office or committee is responsible for systematically and thoroughly addressing environmental issues at Berea College. The current CEPC charge is limited because it

does not provide a consistent and logical framework for handling the wide range of environmental concerns that should be addressed. Further, the current charge is overly broad, including responsibilities that fall within the duties of other offices or committees, such as:

- environmental safety issues that are addressed by Chemical Hygiene and Scientific Instrumentation,
- security issues that are addressed by Public Safety and the Safety Committee, and
- campus architectural-style decisions, which are addressed by the standing architect and individual building committees.

The proposed charge:

- directs the CEPC to monitor campus sustainability areas and issues using measurable indicators and to recommend new policy or policy revisions to facilitate progress toward sustainability
- places the CEPC under the Strategic Planning Committee rather than the General Affairs Council so that it may be more directly involved in institutional change and long-term planning
- requires the CEPC to prepare a report, at least bi-annually, describing the status and trends of sustainability indicators
- expands the membership of the committee to include the Director of the Sustainability and Environmental Studies (SENS) Program and the holder of the Compton Chair in Ecological Design in order to facilitate linkages between the CEPC's work and the curriculum and to provide technical support to the CEPC

The seven sustainability areas and the criteria for developing indicators of sustainability were derived from the SSP's review of environmental assessments and indicators developed by other academic institutions and communities of various sizes. Using the sustainability areas and associated indicators as a framework to monitor sustainability will provide continuity to the CEPC's mission even as the specific membership of the committee changes through time. The use of measurable indicators will allow the College to track its progress toward sustainability in an objective manner.

The present CEPC was established before the creation of the SENS program; thus, there is currently no formal linkage between them. Establishing a link between the CEPC and the SENS Program will provide mutual benefits including experiential learning opportunities for students and research support in monitoring, evaluating, and interpreting indicators. The SSP deemed inclusion of the SENS Director and the holder of the Compton Chair in Ecological Design as members of the CEPC as an effective and adequate means of establishing a working relationship between the CEPC and the SENS Program.

Clearly the activity of such a CEPC would have implications for the long term planning. For that reason the SSP recommends that the reformed CEPC report to the SPC, and not the GAC as previously.

This new charge and location in the governance has consequences for the membership of the committee. If the CEPC is no longer reporting to the GAC, the charge does not specify that a member from that latter committee must be on the CEPC. Also, since the new committee has no formal outreach function there was no necessity to specify " a student from the student government" or "member of the Student Life Staff" in the charge, though students from SGA may be so designated by the CEPC. Also, since this charge indicates that the focus will only be on practices and consumption/waste of the

College, it was felt that there was little necessity to include a member from the Berea College Utilities.

References Cited

SOS. 1998. Interim Report, December 4, 1998. Subcommittee on Sustainability, Berea College, Berea, KY.

Sustainable Seattle. 1998. Indicators of Sustainable Community 1998. Sustainable Seattle, 514 Minor Avenue North, Seattle, WA.

Appendix A. Applied areas and issues related to the sustainability of Berea College.

Berea College's sustainability depends not only on its on-campus (including farm and forest lands) facilities and operations, but on its relationship to its local, regional and global environment through the purchase and importation of energy, materials, and services (input environment), the discharge of waste products (output environment), and interactions with groups beyond the campus (input and output environment). For each of seven main areas of sustainability, the following table lists the issues and topics that the CEPC should consider as it recommends policies to increase the College's sustainability.

Input Environment	On-campus	Output Environment
Energy		
Fuel and electricity production Food production Materials production Transportation Water systems	Building operation Transportation Facilities maintenance Facilities construction Food preparation and handling Agricultural operations Forestry operations	Gaseous emissions Solid waste (e.g., cinders) Waste heat
Materials		
Materials used in production and packaging of College inputs	Paper and office supplies Chemicals Construction materials Office and lab equipment Vehicles and Durable Goods Food Agriculture and forest inputs	Landfill disposal Recycling Composting and application Agriculture and forestry outputs
Water		
Watershed functions	Residential use Non-residential buildings Landscape irrigation Farm use Heating plant Campus hydrology	Waste water
Social capital		
Alumni Incoming students, faculty, and staff	Faculty, students, staff, trustees Numbers Knowledge, and Values Well being	Graduates
Ecological capital		
Interaction of college lands with surrounding landscape	Land Biodiversity Air and water quality	Interaction of college lands with surrounding landscape
Facilities (built environment)		
	Buildings and infrastructure Roads and paths Campus grounds	
Economics		
Status of economic sectors in which the College has investments	Assets and asset allocation Income Expenses	Town, regional and global economy

Appendix B. Example indicators of sustainability for Berea College.

The following examples illustrate the types of indicators that the CEPC might consider as it develops a set of indicators of sustainability for Berea College. This table is not intended to represent a complete or final list of indicators.

Input Environment	On-campus	Output Environment
Energy		
Energy efficiency (energy use per unit of output) of College suppliers	Total and per capita energy use	Total CO ₂ emissions related to the College's use of energy
Proportion of energy from various renewable and non-renewable sources.		
Materials		
Resource efficiency of College suppliers (units of natural resources consumed to produce one unit of product)	Total and per capita consumption of materials	Pounds of materials in waste stream
	Internal reuse and recycling of materials as a proportion of total material flow	Percent organic wastes composted and used as fertilizer
		Pounds of hazardous waste produced
Water		
Nitrogen and phosphorus concentrations in the College reservoirs	Total and per capita water use	Ground and surface water quality
	Percent impervious surfaces on College lands	
Social capital		
Number of high school and elementary students enrolled in College service projects for potential Berea applicants	Average score of students, faculty and staff on a sustainability literacy test	Average score of graduating seniors on a sustainability literacy test
Ecological capital		
Acres of permanently protected greenspace within the Berea city limits	Acres of undeveloped land owned by College	Connectivity of wildlife habitat on college lands with habitat on surrounding lands
	Biological diversity on College lands	
	Rate of soil erosion on College lands	
Facilities (built environment)		
	Energy use (per square foot) of College buildings	
Economics		
Percent of College endowment invested in companies meeting environmental and social standards set by the College	Size of College endowment	Percent of college spending and investments made locally
	Annual gifts and income	
	Total and per student expenses	

