FOUR PROCESSES FOR SUSTAINABILITY

These areas of human activity – Science, Education, Communication, Culture - are particularly important because they can a) improve performance of projects and b) help people relate better to sustainability. They are not considered Themes of Sustainability (link) in the Biosphere Eco-City Model because they do not act directly on results. Rather they provide broad indirect support for projects under all Themes. The processes (discussed below) are:

Science – research on needs, methods, evaluation, application of results
Education – public understanding, training, curriculum development
Communication – public information, networking, information sharing
Culture – traditions, community inputs, urban & rural approaches

Applying these processes to a project can, for example: improve accuracy, increase learning, enlarge public awareness and add relevance. The processes assist in the development of projects and in building on project results for future activities.

Because these processes are already well developed areas of human activity, they have the strength to significantly affect how people relate to sustainability. People know and respect the processes, so their application to sustainability activities helps people to trust those activities. As well, all four processes are already part of everyone's lives and are therefore channels to exchange ideas on sustainability.

How the Processes for Sustainability are applied will depend on opportunities in a Biosphere Eco-City (BEC). There may be existing organizations that would provide linkages for the processes. Also, the Council of Stakeholders or a BEC team could explore the processes.

In the case of Ottawa, the process of Communication has been a strong focus, with 22 presentations made to groups, schools and committees (by January 2012). On the process of Education, the Ottawa BEC Council has engaged four students from each two universities, and also developed a Sustainability Plan with an elementary school. If you are interested in joining the Ottawa BEC Team for Communication and Outreach, click Contact Us.

Short explanations of the four Processes for Sustainability follow:

SCIENCE – research on needs, methods, evaluation, application of results

Sound science is an essential part of a Biosphere Eco-City. There is an emphasis on both social and natural sciences, reflecting a joint focus on people and nature. In setting up a project, there will be research on such things as the needs of various groups, population dynamics, economic relationships, regional ecology, and so forth. The use of

scientific methods and evaluation techniques are important to ensure that lessons from projects may be applied elsewhere.

EDUCATION – public understanding, training, and curriculum development

One goal of education in a Biosphere Eco-City is to support the development of an ethic of sustainability among residents and stakeholders. Educational support may range from informal public presentations to the formal integration of Biosphere Eco-City studies into curricula of schools and universities. Training for businesses may be needed for staff to carry out projects. Also training is sometimes necessary to allow citizens to provide effective input in project consultations or take part in project activities.

COMMUNICATION – public information, networking, and information sharing

Communication is an ongoing process. It supports the development of projects, transmits results to partners, and informs the public of results. In certain cases, this will require the translation of scientific information into a form that non-scientists can readily understand. Because a Biosphere Eco-City is also a demonstration area, its results may be shared nationally and internationally. Information on both what succeeded and what did not work as well can be useful.

CULTURE – traditions, community inputs, urban & rural approaches

Culture is the background within which a city functions. The culture in which people are raised can give them habits and attitudes that support sustainability. For example, people with an agricultural background, especially from a family farm, understand that the by-products of one activity are the inputs to another. They know that straw removed from grain becomes bedding for animals. Farmers also know how to improvise, often fashioning tools and making repairs with whatever materials are on hand. I Long-time urban residents, for their part, may understand how particular developments can affect a community's character. They may also know how to organize volunteer efforts for to support people in need. New arrivals to the city can bring with them other cultural strengths that will be assets for sustainability.