

# The Human Ecosystem

## Community Update

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Baltimore Ecosystem Study: BES

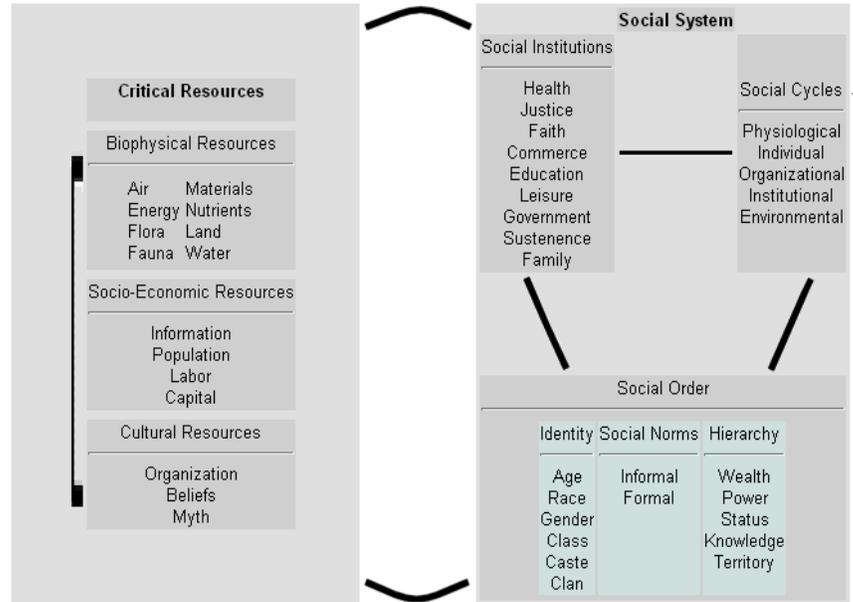
### Why?

Ecologists have generally applied the ecosystem idea to locations distant from the places where people live. However, knowledge about ecosystems, is important for maintaining the quality of life in cities, suburbs, and the fringes of metropolitan areas.

The human ecosystem concept reminds citizens and decision makers that we all ultimately depend on our ecosystems for our well being and survival. In fact, we all live in and manage ecosystems.

### How?

All of the components of ecosystems – biological, social, physical and built – work together. Healthy forms of each of the human ecosystem components are indispensable for sustaining life and health of every city and suburb, town and country.



This graphic illustrates components of the Human Ecosystem - Organisms, the Physical Environment and the interactions between them.

Adapted from Machlis, Force and Burch, 1994.

### What does it mean for you?

An ecosystem is a place on the Earth's surface that includes organisms, the physical environment, and the interactions between these two components. The word "system" means that the parts are related in some important way. The nature and controls of these relationships determine the amounts of resources that are available in ecosystems, and help determine how many and what kinds of organisms are present. The feedbacks between limiting resources and organisms control ecosystem function.

Human ecosystems contain the same kinds of elements – organisms, physical environments, and interactions – as natural ones. However, humans add complexity and change the physical environment in which they live. Buildings, roads, pipes, the energy grid, the waste stream, and parking lots are just some of the new components of human ecosystems. So human ecosystems include buildings, infrastructure, and modified landforms as part of their physical environment.

In a human ecosystem, humans intentionally or unintentionally add new organisms from other parts of the world. These relocated organisms or exotic species may be helpful – but some are harmful, such as disease organisms and pests.

Humans also add the complexity of human groupings, associations, laws, organizations, economies, other cultural products and social tools that humans use to live together and to use resources.



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