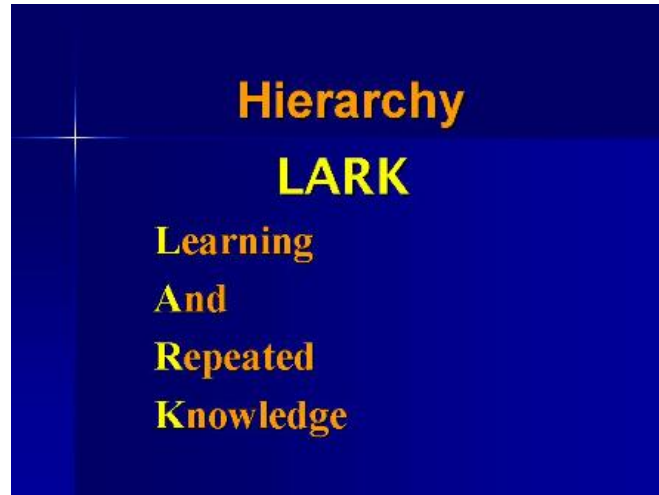# Chapter 16. Sustainable Development
Jerry Hembd and Jane Silberstein

## BEHAVIOR OBJECTIVES

After studying this chapter and completing the online learning activities, students should be able to

1. Define sustainability and sustainable community development.

2. Discuss the IPAT identity and the three variables it employs to quantify the human impact on the environment.

3. Discuss the implications of a systems approach to community development.

4. Explain the evolving views of community and community economic development from the 1950s to present within a community capitals context.

5. Discuss The Natural Step (TNS) sustainability framework.

6. Discuss the five interrelated system levels that comprise the TNS framework.

7. Describe the ABCD planning process.

8. Explain backcasting from principles and how it incorporates sustainability into the ABCD planning process.

9. Define the seven steps to change (signposts for the journey to sustainability) as set forth in the TNS context.

10. Discuss the four challenges posed by the transition to sustainability and give examples of each.

# LARK Activity 16.1

**Step 1.** Create a short answer (150-250 words) to each of the following questions.

1. Describe the two key concepts contained in the Brundtland Report definition of sustainable development. What are some potential policy implications, at the local level, of each of these concepts?

2. What is the most important distinguishing characteristic of sustainable community development that differentiates it from traditional approaches to community development?

   - a focus on social capital rather than financial capital
   - systems thinking and the inclusion of a focus on dynamic interactions betweens parts of systems *
   - a disregard for geopolitical boundaries in the planning phase
   - consideration of each dimension of community – society, economy and environment separately

3. What are the four parts of the IPAT framework and the relationship between them?

4. What is subsidiarity and why is it relevant to sustainable community development?

5. What are the three views of community?
   - Silos, overlapping silos, nested silos
   - Small, medium, large
   - Economy-based, environment-based, society- based

6.  What are the four waves of economic development and how do they relate to the evolving views of community?

7.  What are the five interrelated system levels that characterize The Natural Step Framework?

8.  What are the four system conditions of The Natural Step and which of the four is necessary in order for the other three to have significance?

9.  Why is the fourth system condition essential for the other three to have the desired impact?

10. What is the ABCD process? How is it used? Explain each step.

11. In what ways does the ABCD process differ from a typical strategic planning process?

**Step 2.** Form groups of 4 or 5 members and share your results with each other.

## SOAR Activity 16.1

## Viewing a Problem from Different Perspectives

Systems thinking has been referenced throughout this chapter. Systems thinking is a problem-solving process that views "problems" as parts of an overall system. As a framework, systems thinking looks at components of a system and emphasizes that each component can best be understood in the context of its relationship to other components in the system. Systems thinking views systems and subsystems in a holistic manner.

Problem solving in a systems thinking manner involves choosing a problem and then defining and structuring it. In the context of community development, gathering information about stakeholder perspectives is very important to fully understanding the identified problem.

For this exercise, find three or four other students and form a team. Together, do the following:
1) Choose a community issue or problem with which you have some familiarity (it can be in your home town or the place that you are currently living) and describe it with as much detail as you can. In order to understand the system in which the problem is embedded, it helps to look at the problem from a variety of different perspectives, some of which may be unfamiliar to you.
2) After defining the problem, think of all the disciplines that could possibly contribute to the resolution of this problem. What might an engineer contribute? An ecologist? An economist? A psychologist? A lawyer? Select six disciplines and then do the following for each discipline:
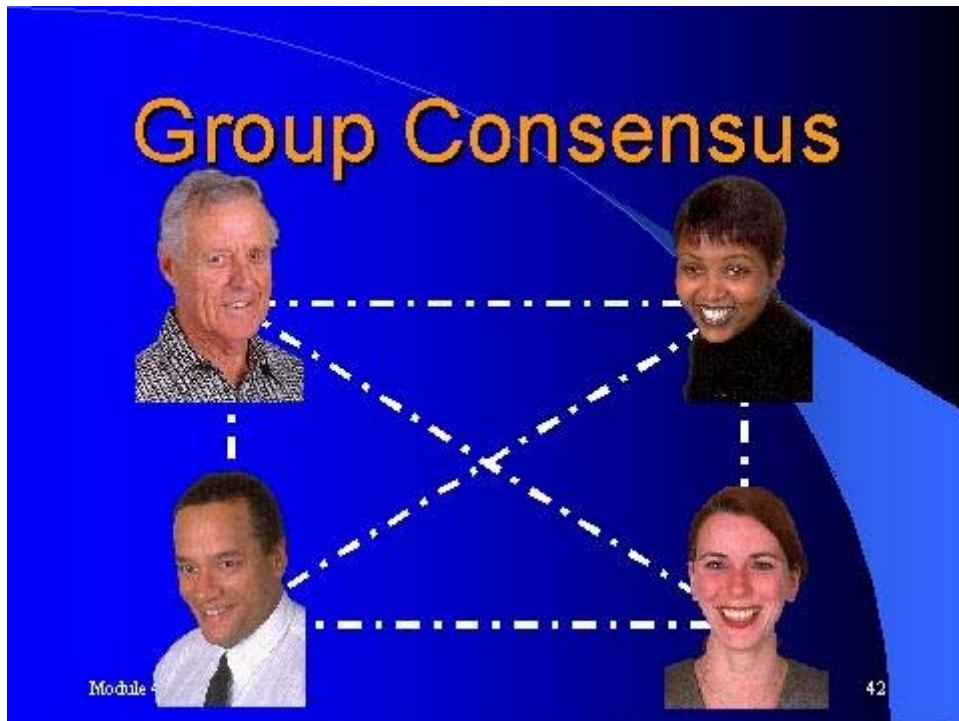- Restate the problem.
- Define the most important elements of the problem.

- State the assumptions underlying the problem.
- Decide what information is necessary to resolve the problem.

*Adapted from an exercise in:*
Farley, J., Erickson, J.D. & Daly, H. (2005). Ecological economics: A workbook for problem-based learning. Island Press. Page 60.
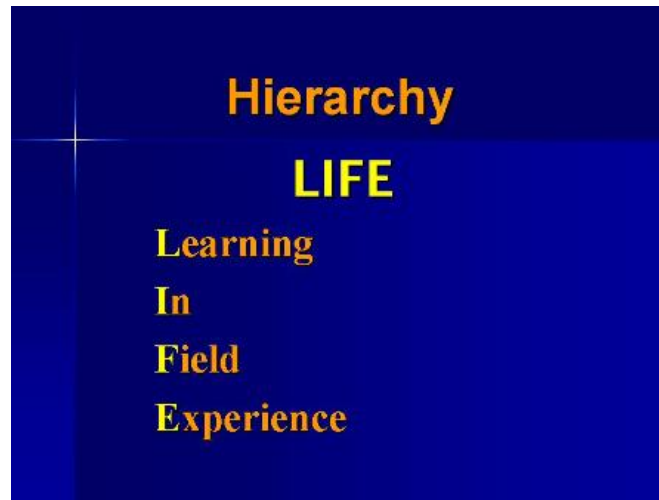
**SOAR Activity 17.2**

**The Importance of Understanding the Preanalytic Vision Prior to Problem Identification and Problem Solving**

The ABCD planning process differs from most planning models in two fundamental ways. First, backcasting from principles entails the development of a community vision that clearly complies with the four system conditions. Success, in this case, is defined at the principle level, where sustainability principles have been agreed upon at the beginning of the process as part of what has been referred to as a shared "preanalytic vision (Daly & Farley, 2005)." The preanalytic vision is the starting point for problem solving and represents the "bias" that the problem solver brings to the problem. Ecological economists, for example, are biased by the belief that the economy is contained and sustained by the ecosystem. This belief represents a paradigm that is graphically represented in figure 17.1c.

At the following two websites, you will find parts one and two of a community vision statement, in this case for the City of Bayfield, Wisconsin. Pick either part and attempt to identify five elements of a preanalytic vision, that is, beliefs embedded in the vision, that characterize the paradigm or bias brought to the creation of this vision.
http://www.cityofbayfield.com/Vision%20of%20Bayfield.pdf
http://www.cityofbayfield.com/Respect%20for%20Nature.pdf

## LIFE Activity 16.1

## Evaluating the Sustainability of a Community Development Project

**Step 1.** For this exercise, find three or four other students with whom to form a team. Together, select a community development project with which you are familiar. It can be development of a public or private structure or facility, a new business proposal, or any project that is going for review before a government entity such as a planning commission.  To evaluate the proposal in terms of its sustainability, go to this web page -- http://www.pca.state.mn.us/oea/sc/criteria.cfm -- and rate the project according to the checklist provided.  Since a rating scale is not provided, use the following for each checklist item:

1=unacceptable
2=acceptable
3=exceeds standards

Rate the project individually and then discuss as a team.  Discover and tabulate where you differed in your ratings and where you were the same.

Robinson and Green
Introduction to Community Development
Online Learning Modules
**LIFE Activity 16.2**

**Creating a Simple Action Plan for Your Community Using The Natural**

**Step System Conditions as a Guide**

For each of the four system conditions, identify three actions a community could take to move toward meeting that condition. Then, using Step D of the ABCD planning process, ask the three questions included as part of that step for each action you have listed.

**System Condition 1:** List three actions that could be taken in your community to reduce dependence upon fossil fuels.

**System Condition 2**: List three actions that could be taken to reduce dependence upon synthetic chemicals and other unnatural substances.

**System Condition** 3: List three actions that could be taken to reduce encroachment upon nature (land, water, wildlife, forests, soils, etc.)

System Condition 4: List three actions that could be taken to better meet human needs fairly and efficiently.

**Step D Questions:**
- o Does this action or solution proceed in the right direction with respect to all four principles of sustainability?
- o Does this action or solution provide a stepping stone or flexible platform for future actions?
- o Will this action or solution provide sufficient return on investment and add impetus to the process? **Note:** Return on investment (ROI) is a calculation used to determine whether a proposed investment is wise and how well it will repay the investor. To calculate ROI, the benefit (return) of an investment is divided by the cost of the investment; the result is expressed as a percentage or ratio.