Social Science Library: Frontier Thinking in Sustainable Development and Human Well-being

"Summary of article by Richard B. Norgaard: Sustainable Development: A Co-Evolutionary View"

The challenges of sustainable development (SD) can be organized around three themes:

1) Modernization has been unsustainable because it relies upon a use of limited resources, which damages the environment.

2) Political consensus and bureaucratic mobilization will be more difficult as declining faith in "progress" and growth make the hard choices clearer. Western science is no longer viewed as a panacea, and the decline of the belief in progress has enhanced opportunities for non-Western cultures to define development for themselves.

3) We are shifting from a mechanical to a co-evolutionary understanding of systems, which helps explain why development has been unsustainable and what we must do to attain sustainability.

The Fall of the Idea of Progress

The idea of progress through the technical mastery of nature has been central to western culture for many centuries. Beginning with the Renaissance, through the demise of feudalism and the rise of capitalism, through the maritime, scientific and industrial revolutions, a linear image of development has emerged in which each embellishment is tied to knowledge. The spread of knowledge among the populace leads to its application in the development of better technologies for exploiting nature, improved products, easier living and new institutions for organizing people. This simple image is what third world peoples saw as they embarked upon the path of development after independence. As economists espoused the wonders of growth, the process was all too often presented as a positive-sum game in which hard choices ultimately could be avoided. The call for progress and modernization were vague, yet they evolved into a meta-belief system - a great carpet under which old belief systems and new contradictions were swept for centuries.

Widespread belief in technical progress is increasingly in doubt. During the 20th century we have learned that new technologies not only sequentially deplete resources, but they degrade environments as well. Furthermore, we have become attuned to how our own value systems, to say nothing of those of non-Western peoples, are modified by development, and how these changes in turn affect our choice of social organization and technology. Finally, there is the

growing awareness that the products of these technologies do not necessarily enhance human happiness.

The Rise of an Alternative World View

The push for sustainability may be the beacon of another meta-belief system as it becomes the clarion call of a new age. Broadly conceived, the call for SD resonates with the rise of new understandings of environmental systems, technologies, social organization, value systems and the ways in which all these variables interact with one another. With SD as a meta-belief we enter into a wholly new realm. The changes in our understanding of these factors deserve careful attention, for they indicate how the future will be different.

In this emerging world view, knowledge is intertwined with values, social organization, technologies, and resource systems. People are beginning to recognize that individuals have little identity apart from the organizational or cultural systems of which they are a part. Thus, knowledge and values are a part of the patchwork quilt of cultures around the globe, one in which each patch is complex. No singular understanding is sufficient; rather, multiple understandings are required.

Similarly, our understanding of resource systems and technology is changing. Most ecosystems have been affected by human activity for millennia, and people have always been active agents in the evolution of ecosystems. Understanding ecosystems requires understanding how humans have influenced them over time. The notion that technology is neutral with respect to values, organization, the environment or knowledge is also fading. Technology, by changing how we relate to each other and to nature, has made some values more important and has stifled others.

All of these understandings are giving rise to a co-evolutionary understanding of development. The intertwining of all these variables is more or less symmetrical; no system dominates another, none provides a more obvious starting point for understanding the whole, and each can be understood in the context of the others. This emerging world view is dynamic: not only is each subsystem related to all the others, but each affects the evolution of the others. This co-evolutionary interpretation gives us insights into how development occurred before the use of hydrocarbons, as well as into the nature of unsustainable development, and the challenge of the return to sustainability.

Defining Sustainability

Calls for SD in the latter part of the 80's are vague, and we need to nail down the concept. Five increasingly comprehensive definitions are proposed, emphasizing the sustainability of interactions between regions and cultures. These are:

1) Start at the local level and simply ask whether a region's agricultural and industrial practices can continue indefinitely. Will they destroy the local resource base, environment or people?

2) Ask whether this locality is dependent upon nonrenewable resources beyond its borders which are not being managed in a sustainable manner.

3) Ask whether the region is culturally sustainable, and whether it is contributing as much to the knowledge and institutional bases of other regions as it is dependent upon them.

4) Question the extent to which the region is contributing to global climatic change.

5) Inquire as to the cultural stability of all regions in combination. Are they evolving along mutually compatible paths?

Formulating responses to the questions associated with each of these definitions is a major challenge. The transition to SD will be difficult and will require:

1) a positive sense of interdependence between individuals and cultures, and the evolution of new alliances based on agreement on the appropriate paths to approach these problems rather than upon specific issues or solutions;

2) a changing political and bureaucratic environment, in which national governments will play a diminished or at least a significantly different role in the global arena;

3) a new realm for policy processes in which there exists no prior agreement on the key questions, appropriate frameworks or basic facts - the key will be to produce common understanding amongst people from different disciplines and culture; and

4) better information to smooth the process of reaching public decisions - information that must come through contextual/interpretive thinking.