

4. Future Directions

The developments under this program of regional workshops have provided a solid basis for the final Expert Workshop on Global Biogeochemistry and Upscaling, held in Lawrence, Kansas November 11-14, 2001. The work, with the outcomes of the final synthesis workshop, also provides one of the major information frameworks for the final synthesis effort of the first phase of the LOICZ core project of IGBP, which is scheduled to culminate in the production of a book at the end of 2002.

Specific products and outcomes of the workshops include development, expansion and refinement of the database contents, data manipulation tools, and Web-LOICZView analysis applications. In a more focused scientific sense, they also include:

- demonstration of the power of supervised and unsupervised (WLV) clustering in developing both descriptive and functional classifications of the coastal zone;
- organization and understanding of the biogeochemical budget data in terms relevant to the process of up-scaling and synthesis;
- development of initial products and results of the coastal typology approach; and
- expansion of the range of applications and users of the approach, tools and data.

The final point above encompasses not only additional users of the LOICZ budget and typology approaches, but also those who are adapting the approach to higher resolution characterizations at smaller scales, and extensions of the tools and conceptual approaches to variables, problems and issues (such as biogeography) that flow naturally from but go well beyond the biogeochemical budgets issues. These developments provide a rich basis for continued development, in which the LOICZ synthesis process will be both a documentation of accomplishments to date and a springboard for future progress.