NEMIA PEER REVIEW

Instructions for Reviewers of the Socioeconomic, Ecological, and Planning and Zoning Assessments

Four criteria have been used to evaluate integrated assessments (Clark and Majone 1985): technical adequacy, value, legitimacy, and effectivity. The purpose of this review is to assess “technical adequacy” as measured by the peer review process and the general acceptance of the science by the scientific community. Your input is critical to evaluating the creditability, rigor, and integrity of the technical assessment you have been asked to review.

In an integrated assessment, each technical assessment should be able to withstand scientific review as a standalone chapter. Therefore, our peer review guidance questions focus on the strengths and weaknesses of the technical assessments separate from the entire IA report. Please review your chapter with the understanding of how it fits into the context of the larger IA process and report, but work under the assumption that the chapter should be a useful, credible product by itself. For your reference, all chapters of the NEMIA report are available on the NEMIA peer review website.

In addition, we developed the peer review guidance questions with future integrated assessments in mind – IAs that will incorporate many of the lessons learned during the process of conducting this pilot IA. As such, you may find that some of the questions do not apply to the assessment you are reviewing. Please ignore these questions and focus on those that do.

In a separate document, please address the following questions about the assessment you have been asked to review:

1. Background
   a. Is sufficient background information presented to place the assessment in context with the entire IA?
   b. Is the level of background information appropriate for the intended audience?
   c. Is there additional information or references that should be provided in the background?
   d. To what extent do the authors use the literature to provide background information?
   e. Are the purpose, goals, and objectives of the assessment clear?

2. Methods
   a. Is the assessment’s overall methodology explained clearly and sufficiently?
   b. Assess the rigor/appropriateness/effectiveness of the methods used to:
      i. Document the status and trends of current conditions
      ii. Explain the causes and consequences of those trends
   c. Forecast future conditions
   d. Do you have suggestions for strengthening the methodology?

3. Data
   a. Are the data sufficient for the analyses performed?
   b. Were the data retrieved from credible, reputable sources?
   c. What other datasets should the authors have considered?
4. Results
   a. Do the authors adequately:
      i. document the status and trends of current conditions?
      ii. explain the causes and consequences of those trends?
      iii. forecast future conditions?
   b. Have the authors chosen the best format (table, figure, or numbers in text) for presenting results?
   c. Are there other figures/tables that would have helped better illustrate text?
   d. Are the types of figures chosen appropriate, and are there places where multiple figures should be substituted for single, complex ones?

5. Interpretation/Discussion/Conclusions
   a. To what extent do the authors use the literature to interpret
      i. the results of the status and trends assessment?
      ii. the forecasts of future conditions?
   b. Do the author's conclusions follow clearly from the study's results?
   c. Are there data that don't support the conclusions? If so, do the authors address it adequately?
   d. Do the authors discuss the limitations of their findings?

6. Overall
   a. Is the text written clearly and organized logically?
   b. Is the format of the assessment consistent with style formats?
   c. Should the text be expanded or condensed? If so, which sections?
   d. Is the assessment organized logically, efficiently, and clearly?
   e. Is the assessment value-independent? If no, what biases are evident?
   f. Overall, what are the assessment's strengths?
   g. Overall, how could this assessment be improved?
   h. How does this assessment differ from what is described in the IA factsheet?
   i. Do the authors make clear any assumptions they made?
   j. Is the writing style appropriate? Do you have any stylistic suggestions?

7. Research integrity
   a. What sort of related previous research is mentioned?
   b. Are there sufficient references to information from primary literature?
   c. Are the references from peer-reviewed sources?
   d. Could the authors make better use of their references? How?

8. In addition to reviewing your selected chapter, we are also seeking comment on how the IA organizing team could have planned each assessment to more closely align with the IA model as described in the Michigan Sea Grant IA Fact Sheet (see below). In other words, if we had unlimited resources and complete direction, how could this assessment have been done better?