Draft for Review
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SMR FUTURE DIRECTION AND ACTIVITIES

DRAFT FOR DISCUSSION

Since 1999, the Sustainable Minerals Roundtable (SMR) has provided a forum within which stakeholders representing diverse interests, could discuss the role of energy and mineral resources in a sustainable America. Participants in the SMR have worked together to identify an initial set of four criteria and eighty-two indicators of the contribution of nonrenewable resources to sustainability. With the publication of the First Approximation Report, Phase I of the Roundtable Process will be completed. This milestone does not, however, represent the completion of work on energy and mineral indicators. Phase II of the SMR Process will focus on four major areas: Criteria and Indicator Development; Interpretation; Outreach; and Coordination. These activities would occur simultaneously to the degree possible and are clearly interdependent.

Criteria and Indicator Development

Activity 1: Refine and Extend the Indicator Set

The criteria and indicators developed by the SMR form a starting point for a complete set of sustainability indicators for energy and mineral systems; however, the set is incomplete at this point in time. One of the important activities of Phase II will be to review, extend as needed, and finalize the indicator set. The current indicator set reflects the backgrounds and knowledge of many of the most active participants, and as a result, is oriented toward metal mining. Participants in Phase II will need to ensure that the indicator set includes all measures necessary to assess the industrial minerals including construction materials, and fuels sectors.

The current indicator set also focuses primarily on the mine life cycle. SMR participants set as one of their long-term goals, the development of indicators for the product life cycle as well. The National Academy of Sciences panel on Materials Flow Accounting will issue its report in the near future and its conclusions will be reviewed and used as appropriate in planning future SMR activities.

Extending the indicator set over the life cycle will also support commitments made at the 2002 World Summit on Sustainable Development (WSSD). The United States is a signatory to the WSSD Plan of Implementation, Paragraph 46 which calls upon nations to take a life-cycle approach to the economic, environmental, health, and social impacts and benefits of mining activity, and to identify measures and monitoring and assessment mechanisms, including life-cycle analysis and national indicators for measuring progress (United Nations, 2002).

Activity 2: Continue to Populate Indicators with Data

Phase II participants will need to continue the task of populating the indicators with data. Indicators without data convey ideas about what issues the SMR believes to be important, but do not achieve the objective of describing the contributions of energy and minerals to sustainability.

There are many aspects to this activity. An initial step will be to identify data needs and available data sets for each indicator. Issues such as consistency, interoperability, integration, and database management will need to be addressed. Data gaps and incomplete information will pose challenges, as will a lack of standardization of content, format, and structure in national databases (USDA Forest Service 2002).

This activity also has a research component. The draft National Report on Sustainable Forests (2002) called for development of a national strategy for monitoring human community and economic indicators that includes consideration of the cultural, economic, and social impacts of management activities on regions and communities. The First Approximation Report of the Sustainable Rangeland Roundtable echoed that call. The culture and economy of rural communities, whether rangeland-, forest-, or mineral-dependent, have some differences but also many similarities. The tools that will be developed to track cultural and spiritual, as well as economic, impacts should be equally applicable to all communities. Significant work on community impacts has been done for the minerals sector as part of the Mining Minerals and Sustainable Development Project (MMSD 2002). As the SMR participates in future efforts to develop community indicators, it will share that body of knowledge.

The work of populating remaining indicators with data, and producing a discussion of the indicator status and trend, will also need to be continued. This is time-consuming work. An initial task of Phase II will be to solicit commitments of resources from participating organizations to undertake reporting on specific indicators.

Points for Discussion: How are we addressing 'testing' of indicators? To what degree should refinement and extension be a consequence of testing?

Indicator population will need stable commitments of resources. How do we get institutional commitments of resources?

Should research needs be highlighted in the FAR? Should the search for resources to support needed research be part of Phase II?

Interpretation

Activity 1: Solicit Alternative Interpretations

No indicator on its own can address the breadth of issues associated with sustainability. Each indicator contributes to a more complex whole, that is, an understanding of the role energy and mineral resources play in achieving sustainability. Therefore, participants of the Roundtable recognize that the indicators are meaningful as, and should be, interpreted as a set.

The Roundtable will not undertake this task. Rather, it will encourage individuals and groups to make their own assessments, combining and interpreting the indicators as they deem appropriate. This decision was made because the overall meaning of the indicator

set depends upon value-based decisions concerning what should be sustained, for whom, how, and at what point in time. There are diverse opinions on each topic, and as a result, difference of opinion about how energy and mineral resources and operations can and should contribute to sustainable development.

We anticipate that the interpretation process will also identify gaps and redundancies in the indicator set, which suggests the need for a feedback loop from the interpretation process to the indicator development activity. We also see a science component to this activity and will encourage research on alternative methods for indicator interpretation.

Activity 2: Comparison of Alternative Interpretations
We anticipate that most stakeholder groups will agree on some points of interpretation, but strongly disagree on others. Therefore, another Activity will be to compare and contrast the alternative interpretations and assessments, identifying points of agreement and disagreement. We will then convene a meeting of all interested stakeholders to share the interpretation results and engage in dialog about their meaning and potential uses.

Points for Discussion:
Will alternative interpretations need external funding? Who will select the groups/organizations to do the work?

Should we plan a series of public meetings at which comparison of the interpretations would be presented to the public?

Outreach

Activity 1: Increased Awareness of the SMR Process and Products
The Roundtable will undertake an active outreach program to both share the results of the SMR process and the indicators. The goal of this activity is to increase recognition of the usefulness and importance of the SMR criteria and indicator set. The activity will take many forms: academic publications; briefings to agency leaders, Congressional staffers, and State and Tribal governments; development of a suite of educational and outreach materials for use in various settings; presentations to academic and professional training programs; and presentations at professional societies.

Activity 2: Increased Knowledge about Energy and Minerals in Sustainability
The SMR will work to increase recognition that energy and mineral resources have a place in a sustainable future. A major rational for this outreach activity can best be explained in terms of the set of likely futures that could be faced by the North American nonrenewable resources industry and related communities of interest. Using a time frame of 15 years, the Scenarios Work Group of the MMSD North American project envisioned four possibilities for the North American mining industry: 1) New Horizons, 2) Phoenix Rising, 3) Money Divides, and 4) Perfect Storm (MMSD NA 2002). In the best-case scenario (1), there is greater trust among interest groups, the opening of new mines is accepted by stakeholders and welcomed by local communities, and the industry enjoys a positive relationship with the financial services industry. In contrast, the worst-case scenario (4) describes a future in which mistrust and lack of support for the industry is

pervasive, exploration and development activities are met with strong opposition, and venture capital funds dry up.

The driving forces for these scenarios differ dramatically. A New Horizons future is characterized by an industry and its regulatory agencies that strive toward better social and environmental performance, community engagement and open communications, essentially an embrace of the principles of sustainable development. In a Perfect Storm future, 'old line' thinking predominates in government and industry, operating practices deteriorate as short-term cost cutting takes precedence over long-term planning, and communication among government, industry and the public is increasingly accusatory and confrontational. Sustainability principles are ignored or explicitly rejected.

Any of these scenarios could occur, though clearly, New Horizons would be vastly preferable to a Perfect Storm. The question is "How can we increase the likelihood of a desirable option?" One of the most important ways will be to share information about the importance of managing energy and mineral resources over their production and product life cycles in ways that are consistent with the principles of sustainability.

Points for Discussion:
Are the two activities noted above all that needs to be communicated and if not what else should be included?

We need a communications plan, a team to work on communications ideas, a leaders for the team, aims and goal,s target groups, messages and a budget.

Coordination and Interaction

Activity 1: Coordinate with Groups Working on Energy and Mineral Indicators

There is a significant amount of activity going on with respect to the development of indicators of sustainability for energy and mineral resources. Several Nations are developing their own indicator sets, following a timeline similar to that of the SMR. These include, but are not limited to, Australia, Canada, and the European Union. The SMR will retain its observer status to these efforts. There is also a desire among these countries to share information and a strong interest in identifying a limited, core set of indicators that could be reported by all. The SMR will be the point of contact in the United States for that coordination effort.

Activity 2: Coordinate with Other Sustainability Indicator Efforts

The Roundtable will actively coordinate with the three other Roundtable[1] efforts to ensure consistency of definitions and to avoid duplication of effort. The U.S. Council on Environmental Quality (Connaughton, 2002) is leading a process to develop a framework for and coordinate work on indictors of sustainability for the United States. The SMR indicators, as well as those from the other three resource Roundtables will feed into this framework.

[1] Roundtable on Sustainable Forests (http://sustainableforests.net), Sustainable Rangelands Roundtable (http://www.cnr.colostate.edu/RES/srr/), and Sustainable Water Resources Roundtable (http://water.usgs.gov/wicp/acwi/swrr/).

Points for Discussion:
We need to coordinate across scales within the sector as well as between national scale groups.

We need to reach out to representatives of downstream activities.

We need to communicate and coordinate with Intergovernmental Organizations such as the World Bank, OECD, and the Mining Ministers of the Americas.

References

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