A common concern expressed by land managers and biologists is that they do not know enough about the strengths and weaknesses of different field and remote-sensing methods for rangeland assessment and monitoring. Many are uncertain about which method or combination of methods are most useful for collecting rangeland data to meet their specific monitoring or assessment objectives, or they rely on methods that they have used previously without evaluating whether or not they provide the most appropriate information for their specific objective. Rapid technological developments, limited experience with only a few methods, or the scattered nature of detailed information pertaining to different methods (especially field versus remote-sensing methods) are just some of the reasons for this discomfort. The Rangeland Assessment and Monitoring Methods Guide (Methods Guide for short; available at http://www.rangelandmethods.org) was developed to address these needs and as a resource to synthesize and interpret information on a wide diversity of techniques for collecting data on the condition and trend of rangeland resources.

The Methods Guide is a Web-based resource that provides researchers and managers with information necessary to make informed decisions about which field and remote-sensing method or combination of methods could be most useful and cost-effective for their individual needs. Originally developed by The Nature Conservancy’s Idaho Chapter Landscape Toolbox project and Oregon Chapter Sagebrush Cooperative, the Methods Guide is now being maintained and further developed by the USDA Agricultural Research Service’s Jornada Experimental Range. The Methods Guide project benefited from the advice and contributions of over 20 rangeland scientists and managers in both the design and content-creation phases of the project.

The Methods Guide consists of two parts (Fig. 1) described in greater detail in the following sections. First, it offers a discovery tool that provides information on field and remote-sensing methods relevant to user-defined management questions or objectives. The second part is a wiki devoted to describing rangeland applications of each of the methods. The Methods Guide is intended to be the users’ first step in selecting assessment and monitoring protocols by providing information on strengths, limitations, and rangeland applications. This information helps focus further inquiry on a more limited range of techniques.

Scope of the Methods Guide
The reasons for monitoring or assessing rangelands are diverse, but they are invariably tied to management decision making. Accordingly, monitoring and assessment should be tied to specific management goals. Each successful monitoring and assessment program must begin with clearly defined objectives for why monitoring is taking place, what is to be measured, and how the data will be analyzed and used for management purposes. It is easy (and common) to skip these preliminary steps and jump right into selecting methods and designing a monitoring or assessment plan. However, failure to explicitly define objectives and information requirements often leads to data being collected that is either not used (i.e., analyzed and interpreted) or is insufficient to meet management needs.

The Methods Guide was designed to assist in the design of monitoring and assessment programs after monitoring objectives have been set. In this context, the Methods Guide is a supportive resource for weighing which techniques could help answer specific management questions. Using the Methods Guide without having a set of clearly articulated objectives runs the risk of “shopping” for attractive methods and may yield inappropriate results.

The Methods Guide was developed to provide information on assessment and monitoring techniques. It was not intended to provide information or recommendations on land management actions.

The Methods Guide includes a diversity of field and remote sensing assessment and monitoring techniques and

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1 Find more on the Landscape Toolbox project at http://www.landscapetoolbox.org.
2 Find more on TNC’s Oregon Chapter Sagebrush Cooperative at http://sagebrushcooperative.org.