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## RANGE ASSESSMENT: HOW MUCH SHOULD A MANAGER DO?

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The argument that rangeland managers should assess the condition of their vegetation stresses the serious costs, to the nation and to the manager, which may arise from failing to do this. At this level the argument is crude and it is no wonder that few managers do assess their range. There is a need for someone to spell out the benefits and costs of range assessment. The following sets out a framework for such an attempt.

### *Perceiving the need to assess range*

Initially it is necessary for the manager to perceive that a problem exists. He will do this when he perceives that the situation he observes may be different from what he considers it should be. Beliefs play a very important role in determining that which is perceived.

### *Deciding when to assess*

A manager should assess his range when the costs of assessing it appear to be less than the expected benefits that will accrue from the assessment.

It must be remembered that there is already a crude form of assessment which is based on habit, custom and tradition. These should be abandoned whenever the cost of the resultant errors and the value of the experience gained from a new process of assessment are greater than the cost of learning and the cost of using this method to assess his range.

### *Deciding how much assessment to do*

This is perhaps the hardest thing for a manager to determine. He must realize that

- . as more observations are made the accuracy of his estimate of range condition increases at a decreasing rate;
- . the per unit cost of accuracy (in time and effort) increases as the number of observations made increases.

By realizing these two points the cost of achieving various levels of accuracy and hence levels of confidence in one's estimates can be made.

The value of range assessment depends on the magnitude of the degradation which is possible without and with assessment. Much of this depends on the ability of a manager to be flexible and to alter his managerial decisions as trends become apparent. Range assessment provides an early warning system.

Even using range assessment it is possible to make a mistake. The seriousness of such a mistake will depend on the probability of making it and the size of the mistake. When a manager decides on the accuracy of assessment he will adopt he must realize that he is assessing his range to reduce the probability (likelihood) of making a mistake and/or the size (cost) of making that mistake.

The value of an assessment does not only accrue to the immediate situation as with assessment there is learning and improved biological perception. Learning is a cumulating process, hence allowance must be made for the value of the "experience gained" from assessment as well as the immediate value of the information.

Assessment takes time and hence may delay decision-making. Particularly, high levels of accuracy take time to achieve. Such delays may mean that assets are not fully employed, however, such an approach may produce a more certain income.

Finally the value of accuracy and the seriousness of losses resulting from mistakes are personal and depend on a long list of items including the psychological nature of the manager, his wants, tastes, preferences, his family obligations etc.

In summary, a manager should spend no more time and money on range assessment than this additional information is worth to him. There is no reason why he should spend his money to assess the range for future generations.

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