

INVENTORY, ASSESSMENT & MONITORING (IAM)

Inventory

- To List
- To Count
- Resource Inventory
 - Vegetation
 - Soils
 - Sites
 - Buildings
 - Infrastructure

Assessment

- ▣ Condition of items in the inventory
- ▣ Resource Inventory
- ▣ Site, soil or vegetation condition
 - Rangeland Health Indicators
 - Watershed Health
 - Riparian Health

Monitoring

- Monitor – to watch or check
- Detect change



Monitoring *implies a series of observations over time for the purpose of detecting change.*

MONITORING

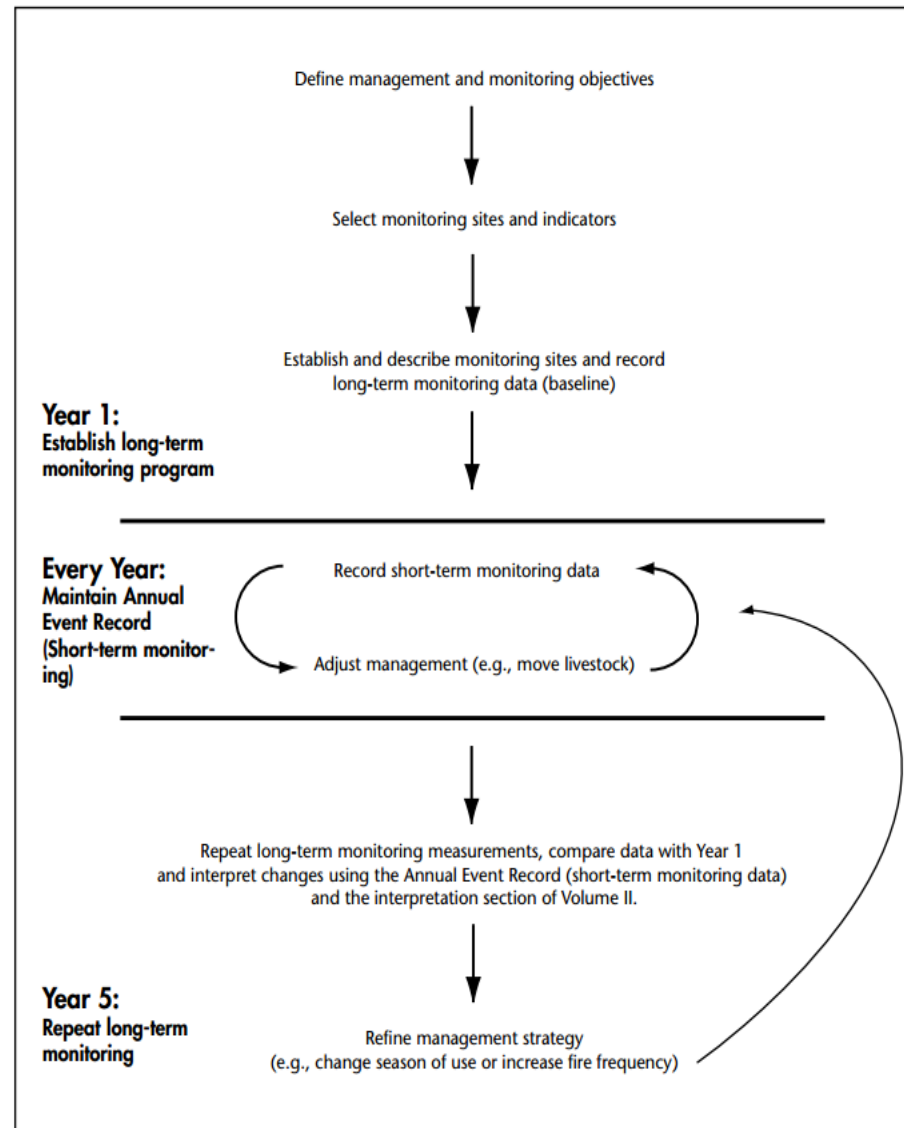
Why, Who, What, Where,
When, and How Long?

Why Monitor?

- ▣ Most important question.
- ▣ Is management meeting objectives?
- ▣ Objectives need to be clear, meaningful and attainable.
- ▣ Vague objectives = vague results.

**What, Where, When and How
Often – depends on your
objectives**

Monitoring and Management Flow Chart



Management Objectives

Long-term Monitoring

- Sustainability: Maintain or increase land productivity* and the number of land use options.
- Minimize risk of land degradation.

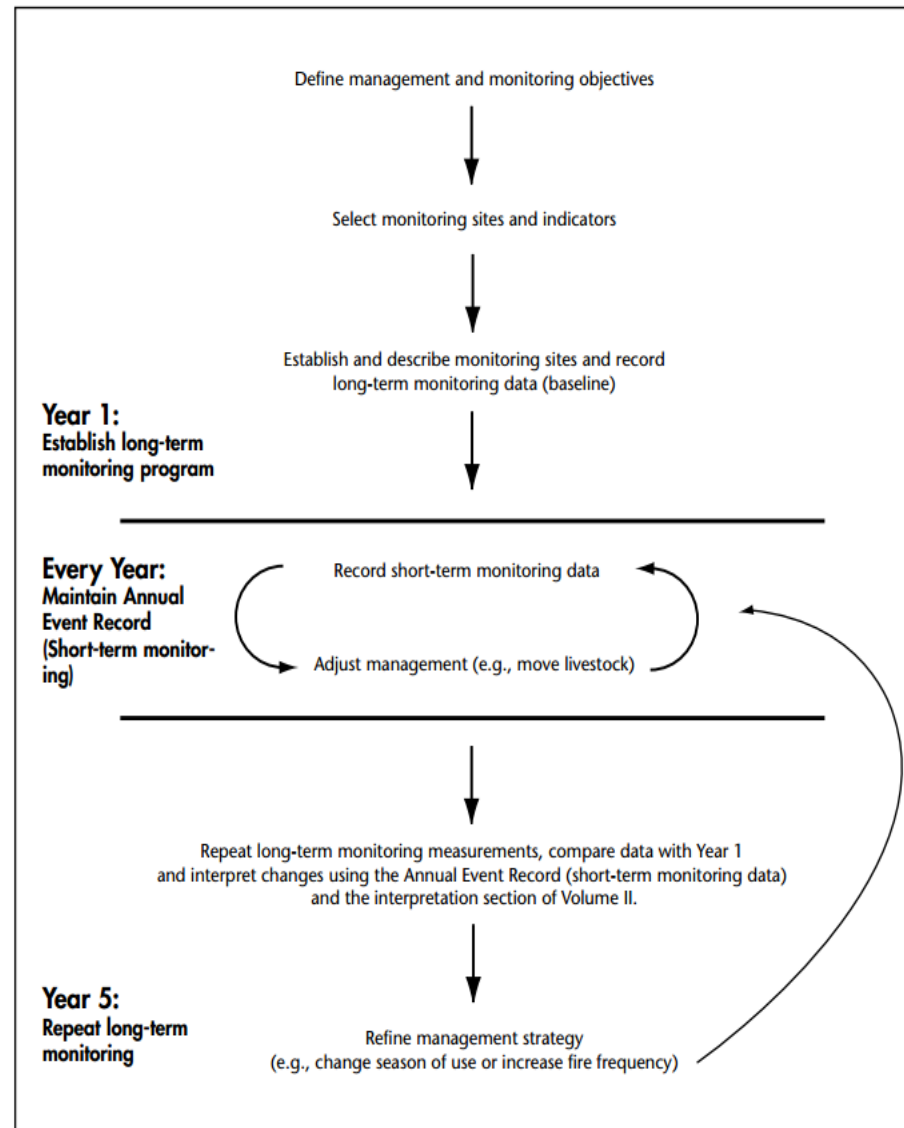
Short-term Monitoring

- Maintain adequate cover to limit soil erosion and promote water infiltration.
- Maintain or increase cover of one or more species that persist through catastrophic disturbance
- Limit invasive species

Measurable Objectives

- Residue (RDM) level meets standards for the site.
- Increase ground cover from 70 % to 90 %
- Reduce bare ground from 30 % to 10 %
- Decrease bare ground patch size (gap)
- Increase canopy cover from 50 % to 70 %.
- Increase soft chess from 40 % to 60 %
- Prevent gully from getting larger.
- Decrease invasive species
- Increase purple needle grass
- Increase hiding cover for deer.
- Reduce fire hazard

Monitoring and Management Flow Chart



What to Monitor?

Monitoring Strategy

Long-term Monitoring

- *Monitoring Intensity Level I*
Photo points
- *Monitoring Intensity Levels II and III*
Photo points and one or more of the following measurements:
 1. Line-point intercept (III) or step point (II) (for cover and composition)
 2. Gap intercept (III) or step gap (II) (for size of bare patches)
 3. Soil stability test (III) or bottle cap test (II) (for soil erosion resistance)
 4. Belt transects (III) (for invasive species)

Short-term Monitoring

- *Monitoring Intensity Level I*
Daily to monthly observations
- *Monitoring Intensity Level II*
Daily to monthly observations and
 1. Step-point (percent cover only)
 2. Step-gap (percent steps completely in bare patches)

Monitoring Methods

- ▣ Keep Records
- ▣ Photo Monitor
- ▣ Vegetation Attributes
- ▣ Soil Attributes

Records

- ▣ Fertilizer application.
- ▣ Pesticide application
- ▣ Herd health practices
- ▣ Pasture use

End of IAM