Tools for Forest Plan Development

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Overview

- Define some requirements for modern planning tools
- Describe three examples of tools in use or under development
- Illustrate how these tools have been used in forest planning

Requirements for Planning Tools

- Openness
- Collaboration
- Practicality
- Stakeholder support
- Efficiency
- Durability

Ecological Sustainability Evaluation Tool (ESE)

- Based on The Nature Conservancy's Conservation Action Planning (CAP) Workbook
  - Allows more conservation targets
  - Links ecosystem and species targets

ESE Tool
Sustainability Framework

- Ecological Systems
  - Select Conservation Targets
  - Identify Key Attributes
  - Identify Indicators
  - Set Indicator Rating Criteria
  - Assess Current Condition
  - Develop Conservation Strategies

- Develop Plan Components

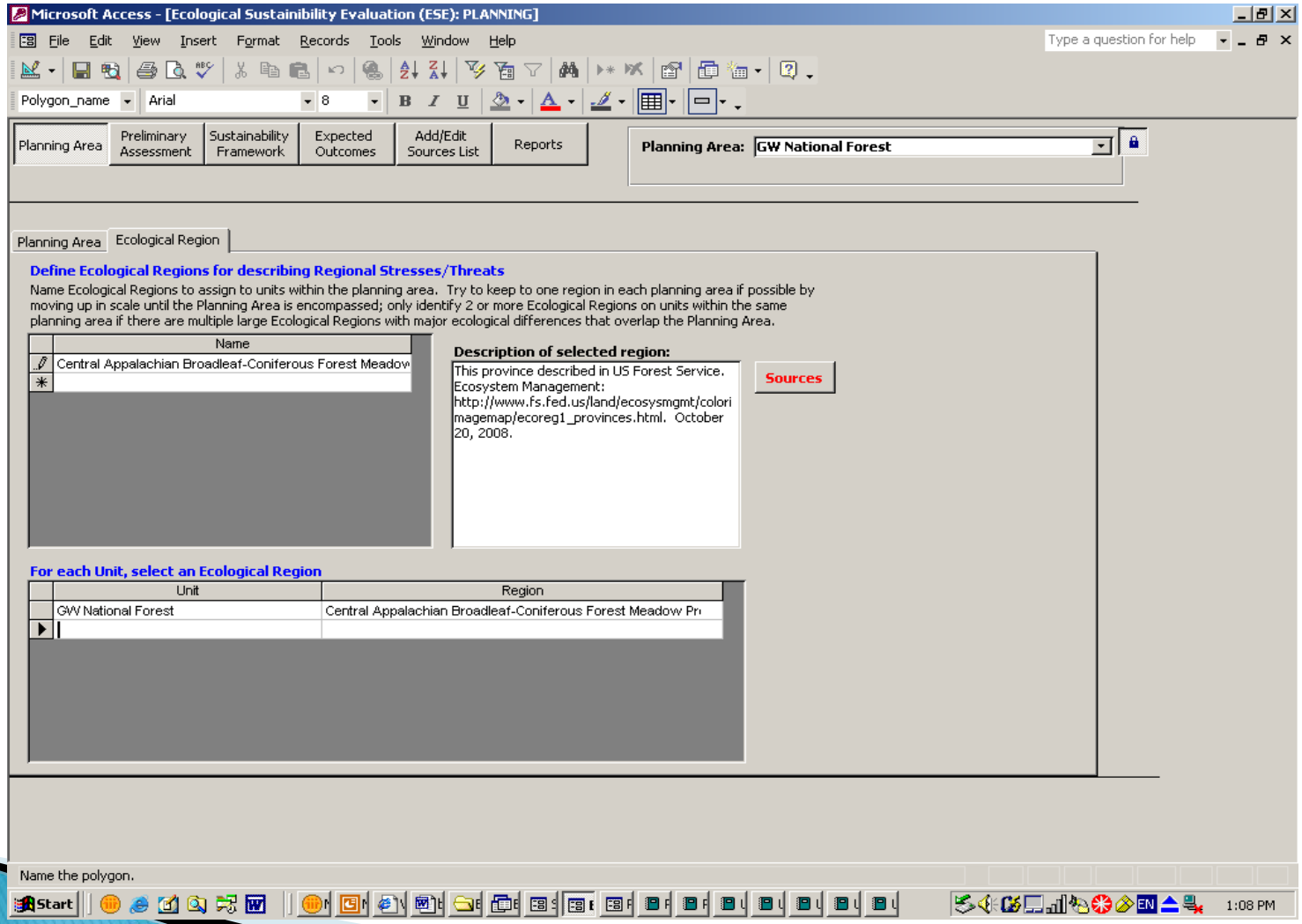
Ecological Sustainability Evaluation Tool (ESE)

- First used
  - Ozark-St. Francis NF, Ouachita NF plan revisions
  - Assistance from NatureServe, Conservation Southeast, Inc., Arkansas Game and Fish Commission
- Second version
  - Uwharrie National Forest and NF in Mississippi plan revisions
- Revisions through NatureServe

Ecological Sustainability Evaluation Tool (ESE)

- Planning Steps
  - Planning Area/Ecological region
  - Preliminary Assessment
  - Sustainability Framework
  - Expected Outcomes
  - Reports

Ecological Sustainability Evaluation Tool (ESE)



Template for Assessing Climate Change Impacts and Management Options (TACCIMO)

Template for Assessing Climate Change Impacts and Management Options (TACCIMO)

- A partnership between
  - Southern Research Station – Southern Global Change Program
  - Southern Region – National Forest System
  - Southern Region – State and Private Forestry

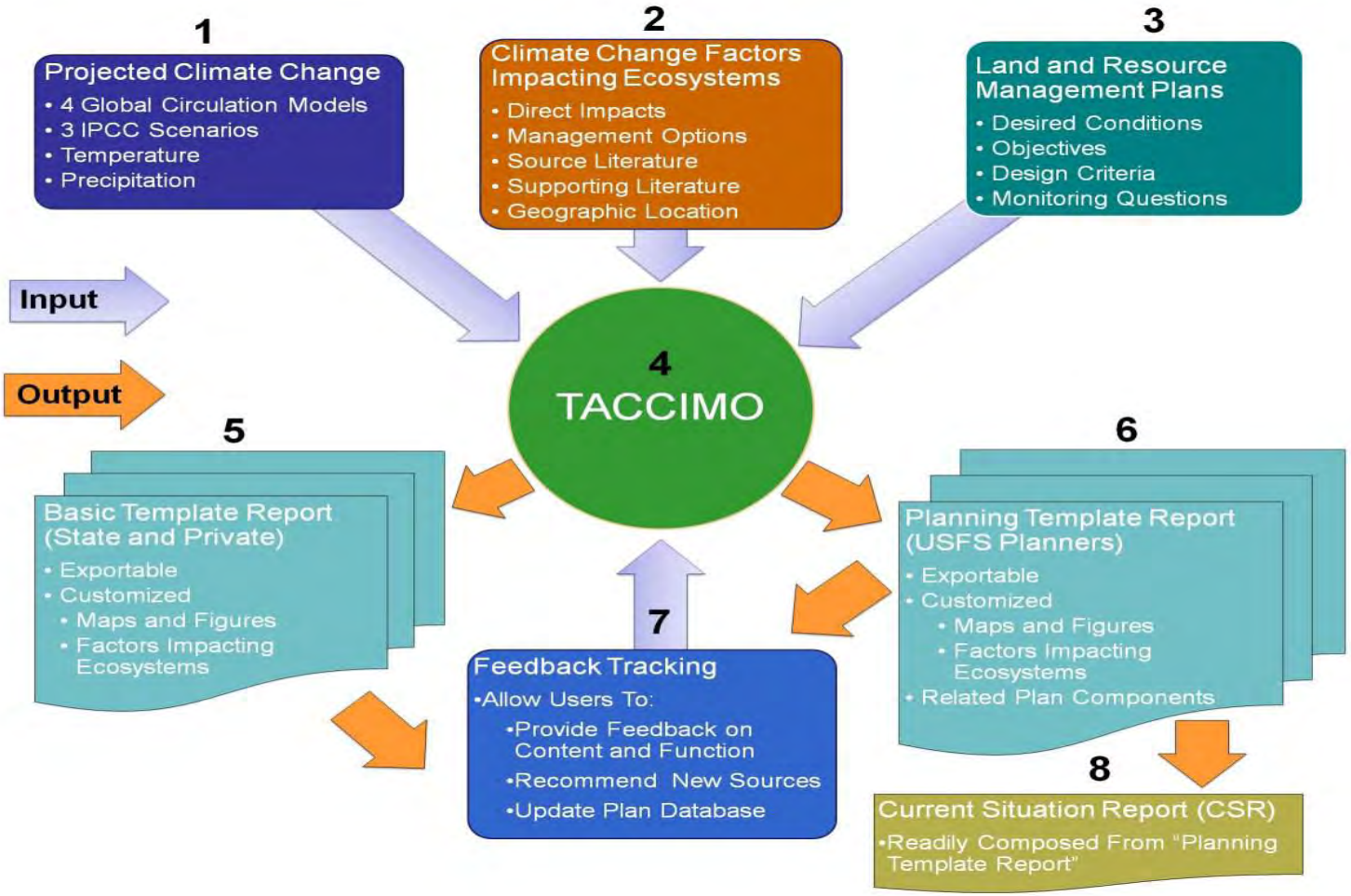
What TACCIMO Does

- Allows managers to review current climate change forecasts and threats,
- match them with management options,
- and determine how they may impact forest management and planning

How TACCIMO Functions

- The web-based interface uses a relational database to synthesize inputs based on user selections to generate reports and maps
- Users provide feedback and suggest improvements

TACCIMO Flow Chart



Climate Change Factors

Current & Accessible Climate Change Forecasts

Percent Change in Temperature

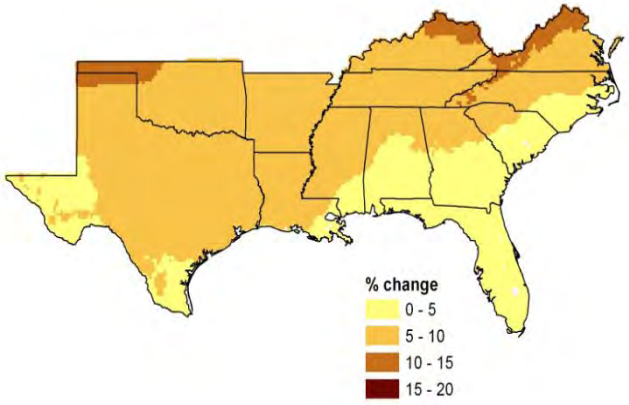


Figure 5. Example map showing percent change in temperature from 2000 – 2020 based on CCSM3, A1B .

Percent Change in Precipitation

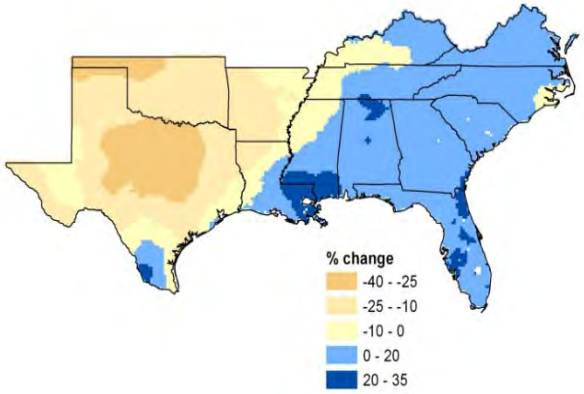
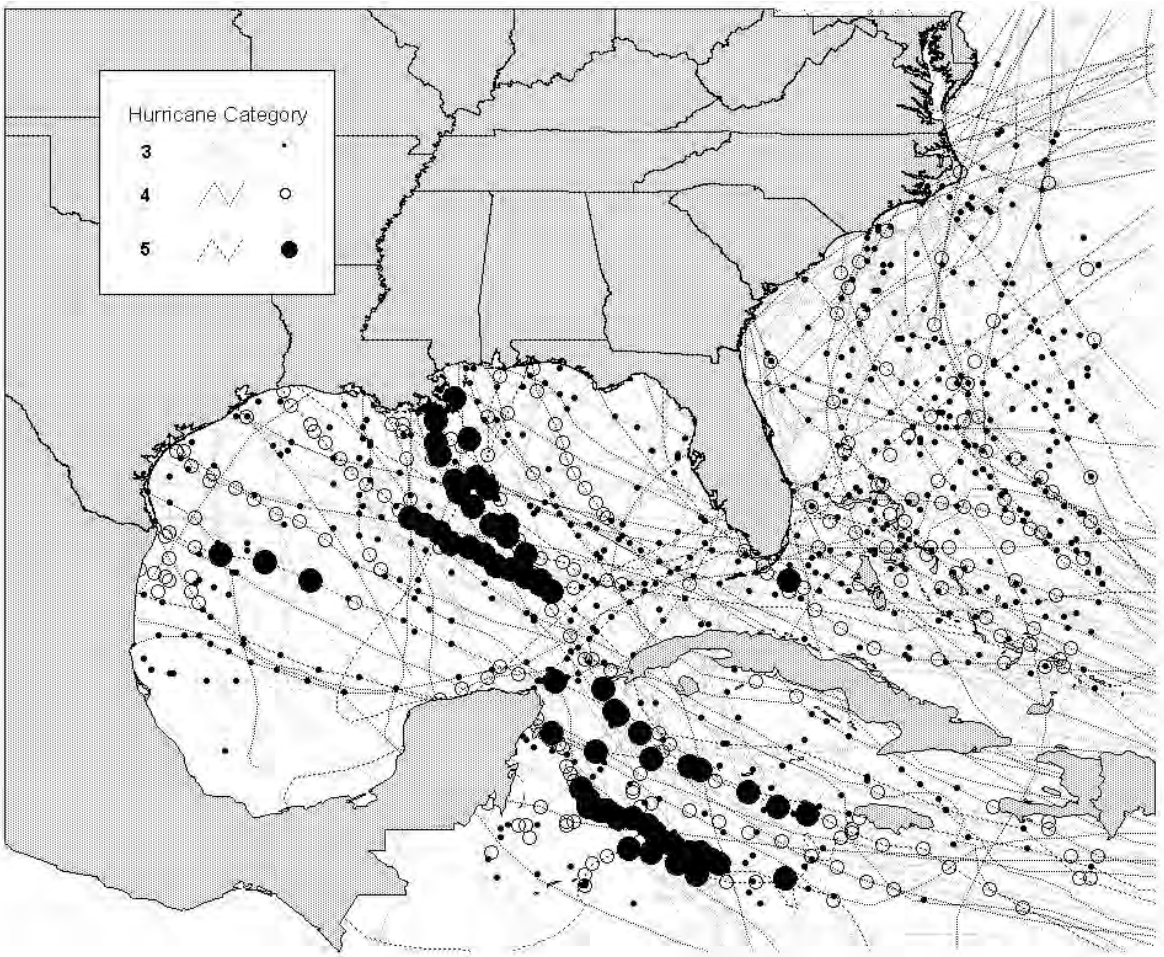


Figure 6. Example map showing percent change in precipitation from 2000 – 2020 based on CCSM3, A1B.

Map of Hurricane Tracks



Human Dimensions Toolkit

Human Dimensions Toolkit

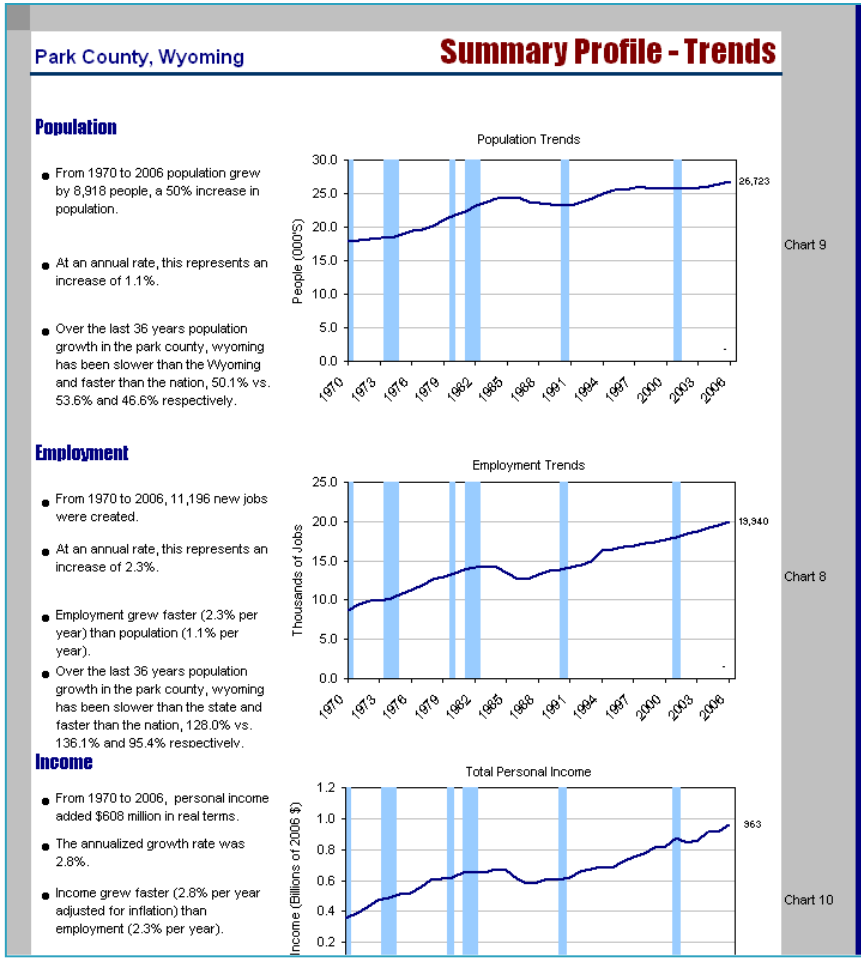
- Developed through a partnership between the US Forest Service, Bureau of Land Management, and Headwaters Economics
- Reliable, up-to-date, consistent, defensible and easily retrievable social and economic information for national, regional, and forest-level planning

Human Dimensions Toolkit

- A web-based computer program that will produce reports (Economic Summary, Timber, Travel and Tourism, etc.) for use in land and resource planning

- An easy-to-use, robust source of secondary social & economic information (derived from Census, Bureau of Economic Analysis, Bureau of Labor Statistics, etc.)

Economic Profile System and Study Guide



Park County, Wyoming

Summary Profile - Trends

Population

- From 1970 to 2006 population grew by 8,918 people, a 50% increase in population.
- At an annual rate, this represents an increase of 1.1%.
- Over the last 36 years population growth in the park county, wyoming has been slower than the Wyoming and faster than the nation, 50.1% vs. 53.6% and 46.6% respectively.

Population Trends

People (000'S)

26,723

Chart 9

Employment

- From 1970 to 2006, 11,196 new jobs were created.
- At an annual rate, this represents an increase of 2.3%.
- Employment grew faster (2.3% per year) than population (1.1% per year).
- Over the last 36 years population growth in the park county, wyoming has been slower than the state and faster than the nation, 128.0% vs. 136.1% and 95.4% respectively.

Employment Trends

Thousands of Jobs

19,940

Chart 8

Income

- From 1970 to 2006, personal income added $608 million in real terms.
- The annualized growth rate was 2.8%.
- Income grew faster (2.8% per year adjusted for inflation) than employment (2.3% per year).

Total Personal Income

Income (Billions of 2006 $)

363

Chart 10

Study Guide & Supplemental Information for Page S1

Trends

What do we measure in this page?

This page shows long-term trends in population, employment, and real personal income. (All income figures in these profiles are in real terms; i.e., adjusted for inflation).

The light blue vertical bars show periods of national recession.

Why is it important?

Long-term, steady growth of population, employment, and real personal income is an indication of a healthy, prosperous economy. Erratic growth, or long-term decline in these indicators, is an indicator of a struggling economy.

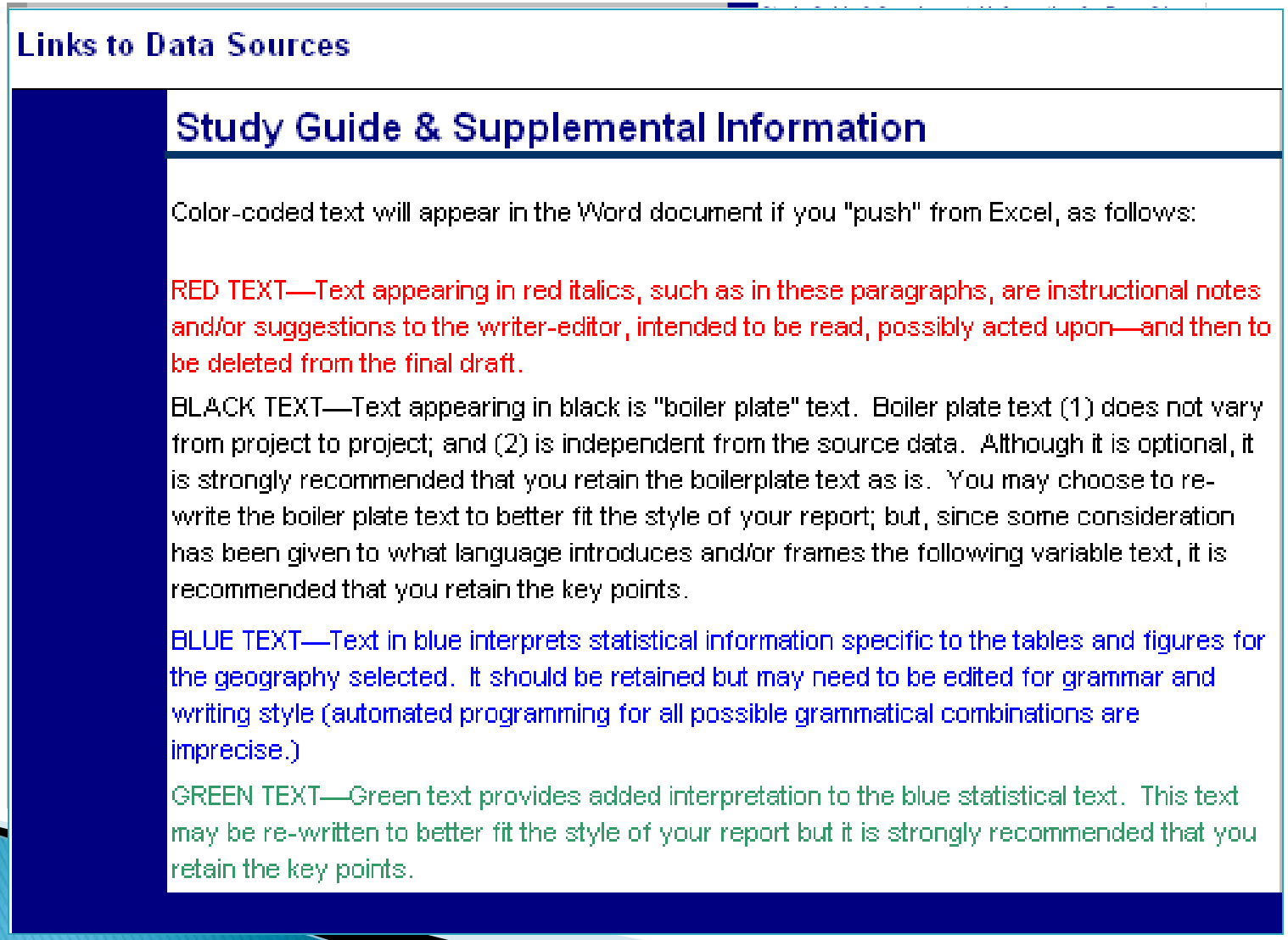
Is growth necessary for economic well-being? Not necessarily. Depending on how well it can plan for growth, and absorb it so that it benefits the broadest number of residents, growth may or may not be part of a community's goals. For some, slow, steady growth may be preferable than rapid growth, especially if it erratic.

One indicator of economic performance is whether the local economy is negatively affected by periods of national recession (the light blue vertical bars). Does the local economy slow or decline during a national recession, or does it appear unaffected?

Data Sources

U.S. Department of Commerce. 2008. Bureau of Economics Analysis, Regional Economic Information System (**BEA REIS**), Washington, D.C.

Study Guide Detail



Links to Data Sources

Study Guide & Supplemental Information

Color-coded text will appear in the Word document if you "push" from Excel, as follows:

RED TEXT—Text appearing in red italics, such as in these paragraphs, are instructional notes and/or suggestions to the writer-editor, intended to be read, possibly acted upon—and then to be deleted from the final draft.

BLACK TEXT—Text appearing in black is "boiler plate" text. Boiler plate text (1) does not vary from project to project; and (2) is independent from the source data. Although it is optional, it is strongly recommended that you retain the boilerplate text as is. You may choose to re-write the boiler plate text to better fit the style of your report; but, since some consideration has been given to what language introduces and/or frames the following variable text, it is recommended that you retain the key points.

BLUE TEXT—Text in blue interprets statistical information specific to the tables and figures for the geography selected. It should be retained but may need to be edited for grammar and writing style (automated programming for all possible grammatical combinations are imprecise.)

GREEN TEXT—Green text provides added interpretation to the blue statistical text. This text may be re-written to better fit the style of your report but it is strongly recommended that you retain the key points.

Study Guide Detail

Value Added Manufacturing

What do we measure in this page?

On this page we measure whether the timber industry in the region has diversified into various forms of value-added manufacturing, from growing and harvesting to primary or secondary manufacturing. The higher the value-added ratio, the more jobs there are in manufacturing compared to growing and harvesting.

Why is this important?

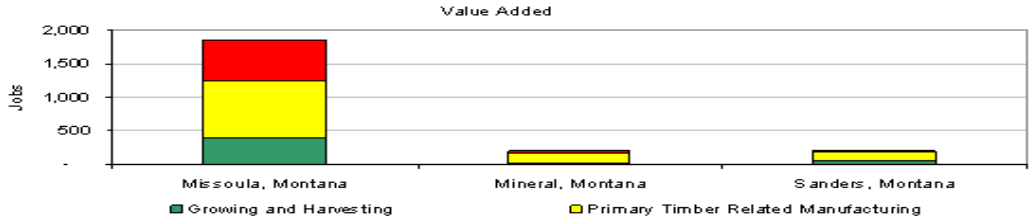
A county or region with a high degree of value-added manufacturing is able to capture more of the value of the raw logs for the benefit of the local economy. Timber coming off the forest has a greater impact on jobs if it leaves the region as a manufactured product rather than a raw log.

How well is the region capturing the maximum value from the timber?

In order to track how well the region has been able to capture the maxium value from the harvested timber, this report breaks timber related employment into three categories. 1) "Growing and Harvesting" are jobs directly related to logging and forestry. These jobs typically are in the forest. 2) "Primary manufacturing" includes the manufacturing that generally takes raw logs and does the first stage of processing (e.g. sawmills and paper mills). 3) "Secondary manufacturing" includes manufacturing that generally takes the output from the primary manufacturing and produces finished products. These jobs tend to yield the most income per log and are often located far from the source of the logs. For more information about how these sector breakouts are defined, see the detailed table at the end of this profile or the appendix.

Component of Timber Industry	Missoula, Montana	Mineral, Montana	Sanders, Montana	Montana	United States
Direct (Growing and Harvesting)	390	13	54	1,251	79,795
Primary Manufacturing	858	152	126	2,513	257,239
Secondary Manufacturing	611	33	24	2,608	787,494
Total Timber Related Jobs	1,884	209	204	6,372	1,124,528
Valued Added Ratios					
(Primary + Secondary / Direct)	3.8	14.2	2.8	4.1	13.1
(Primary / Direct)	2.2	11.6	2.3	2.0	3.2

The value added ratio ranges from 2.8 in Sanders, Montana to 14.2 in Mineral, Montana. By Comparison, the ratio is 4.1 in Montana and 13.1 in the United States. Where this ratio is low, there may be opportunities for more value added manufacturing.
Communities that are maximizing the value of the timber output will have a lot of primary (in yellow) and secondary (in red) employment.



HDT Reports

- Economic Summary
- Sector Summary
- Timber
- Mining & Energy
- Travel & Tourism
- Land Use
- Poverty and Race
- Quick Start Guide

- Wildland-Urban Interface
- Services (Sectors)
- Non-Labor Income
- Agriculture
- Government
- County Payments
- Environmental Amenities
- Complete User's Guide

Complete

Under Development

Conclusions

- Planning rule should reflect the principles of modern planning practice.
- Tools are available or in development now to facilitate transparency and consistency, while maintaining scientific rigor.
- Partnerships between scientists and managers will lead to the most effective tools.