

**THE RENEWABLE DEAL, ASPECT TWO,
PLANK FIVE: ECOLOGICAL INTEGRITY**

(Revised 05 Jan 09)

Plank Five: Make the preservation and restoration of ecological integrity the primary value in public land planning and management.

Plank Five (1): Order the enforcement of existing USFS and BLM regulations which require that all public lands planning use maintenance or restoration of organic integrity as the central land use planning principle in their management plans.

Plank Five (2): Apply Best Available Management Practice to rangeland grazing (see Plank Two, Chapter Two for details on Best Available Management Practices currently in use which restore rangeland biodiversity and the hydrological function of watersheds).

Plank 5, Section 1: Organic Integrity as the Central Land Use Planning Principle

Towards the end of the Clinton administration, both the United States Forest Service Committee of Scientists and the United States Geologic Service Forest and Rangeland Ecosystem Science Center advised the United States Forest Service and Bureau of Land Management, respectively, to change their regulations concerning Forest Management Plans and Area Resource Management Plans to make restoration and conservation of the ecological integrity of the public lands the central criterion around which land management plans were organized.

In the case of the Forest Service, the recommendations of the Committee of Scientists were incorporated into regulations which were published in the *Federal Register* _____. When the George W. Bush administration came into office, it promptly put these regulations into abeyance, giving as rationale that the USFS did not have the technical ability to define and measure “ecosystem integrity” on the basis of sound science. Until such capacity was acquired, the application of the new Forest Management Plan regulations was suspended. [*Federal Register* _____].

In the case of the Bureau of Land Management, no new regulations have yet been published concerning use of ecosystem integrity as the central organizing principle for new Area Resource Management Plans. However, the practical methods for measuring rangeland ecosystem integrity were published in *Interpreting Indicators of Rangeland Health*, Technical Reference 1723-6, in 2000. TR 1723-3, produced by the United States Department of the Interior, Bureau of Land Management, National Science and Technology Center Information and Communications Group based in Denver, Colorado, is supposed to be the “bible” used by BLM range managers for assessing the condition of public rangelands, and to guide them in restoring those rangelands towards ecological integrity. The Technical Reference defines the attributes of rangeland health, and provides specific methods for measuring seventeen indicators of rangeland health on an ongoing basis to determine if range restoration objectives in a given area of interest are being achieved.

The need for implementation of this plank is illustrated by:

In the December 20, 2005 issue of the *Proceedings of the National Academy of Sciences*, the Alliance for Zero Extinctions, a coalition of 52 leading conservation groups, reported as many as 794 species of mammals, reptiles, amphibians, birds, and conifers are on the brink of extinction. Nearly half of the species listed are amphibians and almost one-quarter are birds. The research team, led by Taylor Ricketts of the World Wildlife Fund, used data from the World Conservation Union's *Red List of Threatened Species* to identify "centers of imminent extinction" that host species that are both highly threatened and found in only one remaining place. The study identifies 595 such sites more than 100 of which have more than one endangered species living in it. The study did not analyze threats to taxonomic groups such as insects or fish for data reasons.

Particular concentrations of sites were found in the South American Andes, Brazil's Atlantic Forest, the United States, the Caribbean, and Madagascar. One Hawaiian site contributed 13 amphibians to the list, while another contributed five birds.

The study has found that extinctions have now expanded from island regions which are particularly vulnerable to introduced exotic species, particularly predators like cats, rats, and snakes. Extinctions are now expanding to the "continental storehouses of biodiversity" including lowland forests and mountainous areas. Extinction risk is highest in developing regions with high human population densities.

Although extinction is a natural process, the rates of species loss are now 100-1,000 times the background rate and are predicted to increase another ten times. The 794 species at risk in this study is three times the number of recorded extinctions since 1500.

The Myth of the Tragedy of the Commons

Circa the first Earth Day in 1970, Garrett Hardin taught environmentalists to worry about the "tragedy of the commons.. In writing about "common" or shared pastures in Europe, Hardin argued that rationally individualistic herders would decide to add a few more sheep or cattle to the pasture, until they created the collectively irrational tragedy of ruined pastures.

As William Freudenburg wrote in *Worldwatch* (January/February 2009), Hardin was wrong, historically. Most common pastures managed collectively have been managed sustainably for hundreds of years; far longer than the industrial era has survived to date. The herders keep each other in check. In Europe, the tragedy of the commons - the ruin of the commons pastures - resulted from the enclosure movement, when lawyers and governments helped aristocratic landlords "enclose" the formerly common pastures with walls, kicking off the subsistence villager herders who had managed the pastures sustainably for centuries. The landlords then introduced the 18th century version of "factory farming," overstocking the enclosed pastures heavily with sheep which were then exported to supply newly-industrializing urban areas of

England and its colonial navies with meat. The pastures failed in productivity because of depletion of calcium, causing acidification of the soil; the calcium was being exported to England in the bones of the sheep.