

Appendix: Definitions and Explanation of the Data

Major land uses presented in this report are the latest from a series of land-use inventories, based on available land use data from a wide variety of sources, conducted by the Economic Research Service and predecessor agencies. The estimates were constructed from available data, rather than used exactly as developed by source agencies. This process is necessary because land-use data, regardless of origin or utility for specific purposes, have limitations for comprehensive inventory purposes.

Data are typically obtained from surveys differing greatly in scope, methods, definitions, and other characteristics. Individual sources account for only one or a few uses and for only a limited part of the total land area. The available data contain conflicts and overlaps that must be reconciled. Definitions and explanations of the various land-use categories are:

Cropland—Total cropland includes five components: cropland harvested, crop failure, cultivated summer fallow, cropland used only for pasture, and idle cropland. The estimate of total cropland in 2002 includes total cropland as reported by the 2002 Census of Agriculture (USDA/NASS, 2004a) plus an upward adjustment to conform to data on principal crops harvested in each State as reported by the National Agricultural Statistics Service for 2002 (USDA/NASS, 2005). In 2002, the Census estimate of total principal crops harvested was about 98 percent of the estimate for the same crops from NASS.

Cropland used for crops—Three of the cropland acreage components—cropland harvested, crop failure, and cultivated summer fallow—are collectively termed cropland used for crops, or the land input to crop production. Annual estimates of cropland harvested are based on both Census data and the series on principal crops harvested as maintained by NASS. Annual estimates of crop failure are based on differences in planted and harvested acreage of principal crops from the NASS series. Annual estimates of cultivated summer fallow historically have been based on fragmentary data from a variety of sources. Since the late 1970s, they have been based on data from the Census of Agriculture and unpublished NASS data.

Cropland harvested—Includes row crops and closely sown crops; hay and silage crops; tree fruits, small fruits, berries, and tree nuts; vegetables and melons; and miscellaneous other minor crops. In recent years, farmers have double-cropped about 4 percent of this acreage.

Crop failure—Consists mainly of the acreage on which crops failed because of weather, insects, and diseases, but includes some land not harvested due to lack of labor, low market prices, or other factors. Crop failure is calculated using the difference between cropland planted and cropland harvested. However, some cropland planted is not intended to be harvested. Thus, the acreage planted to cover and soil improvement crops not intended

for harvest is excluded from crop failure and is considered idle. In recent years, crops have failed on about 2-3 percent of the acreage planted for harvest.

Cultivated summer fallow—Refers to cropland in subhumid regions of the West cultivated for one or more seasons to control weeds and accumulate moisture before small grains are planted. This practice is optional in some areas, but it is a requirement for crop production in the drier cropland areas of the West. Other types of fallow, such as cropland planted to soil improvement crops but not harvested and cropland left idle all year, are not included in cultivated summer fallow but are included as idle cropland.

Cropland pasture—Generally is considered to be in long-term crop rotation. However, some cropland pasture is marginal for crop uses and may remain in pasture indefinitely. This category also includes land that is used for pasture before crops reach maturity and some land used for pasture that could have been cropped without additional improvement. Cropland pasture and permanent grassland pasture have not always been clearly distinguished in agricultural surveys.

Idle cropland—Includes land in cover and soil-improvement crops and cropland on which no crops were planted. Some cropland is idle each year for various physical and economic reasons. Acreage diverted from crops to soil-conserving uses (if not eligible for and used as cropland pasture) under Federal farm programs is included in this component. Cropland enrolled in the Federal Conservation Reserve Program (CRP) and Wetland Reserve Program (WRP) is included in idle cropland.

Grassland pasture and range—Grassland pasture and range comprise all open land used primarily for pasture and grazing, including shrub and brushland types of pasture, grazing land with sagebrush and scattered mesquite, and all tame and native grasses, legumes, and other forage used for pasture or grazing. Because of the diversity in vegetative composition, grassland pasture and range are not always clearly distinguishable from other types of pasture and range. At one extreme, permanent grassland may merge with cropland pasture, or grassland may often be found in transitional areas with forested grazing land. The estimates in this report are composites of data from the Census of Agriculture, Bureau of Land Management, Forest Service, and several other Federal agencies. The 587 million acres classed as grassland pasture and range in 2002 included 395 million acres in farms (USDA/NASS, 2004a). Also included are estimates of private grazing land not in farms and public, nonforested grazing land.

Forest land—As defined by the Forest Service, the 749 million acres of forest land in 2002 consists of “land at least 10 percent stocked by trees of any size, including land that formerly had such tree cover and that will be naturally or artificially regenerated. Forest land includes transition zones, such as areas between heavily forested and nonforested lands that are at least 10 percent stocked with forest trees and forest areas adjacent to urban

and built up lands. Also included are pinyon-juniper and chaparral areas in the West and afforested areas” (Smith et al., 2004). There are a number of components to total forest land, which are described below.

Timberland—Forest land that is producing or is capable of producing crops (in excess of 20 cubic feet per acre per year) of industrial wood and not withdrawn from timber utilization by statute or administrative regulation. Currently inaccessible and inoperable areas are included (Smith et al., 2004).

Reserved forest land—Forest land withdrawn from timber utilization through statute, administrative regulation, or designation without regard to productive status (Smith et al., 2004).

Wilderness areas and parks are included in this category. The definition changed slightly in 1997. Prior to 1997, the reserved forest land definition depended on the timberland designation. Reserved timberland was classed as “productive reserved” forest while non-timberland reserved forests were classed as “unproductive reserved” and included under the “other forest” land category (see below).

Other forest land—Forest land other than timberland and reserved forest land. This includes available and reserved unproductive forest land, which is incapable of producing 20 cubic feet per acre per year of industrial wood under natural conditions because of adverse site conditions such as sterile soils, dry climate, poor drainage, high elevation, steep slopes, or rockiness. Urban forest land is also included (Smith et al., 2004). This definition changed slightly starting in 1997. “For 1997, Other Forest no longer includes land classified as unproductive reserved. This area, amounting to about 12 million acres in 1997, is now included in the Reserved Forest category” (Smith et al., 2001).

Forest-use land—A Major Land Uses category based on the use of the forest land as opposed to the forest cover alone. The forest-use category includes both grazed and ungrazed forests but excludes an estimate of forest land in parks, wildlife areas, and similar special-purpose uses from the Forest Service’s inventory of total forest land. While it is impossible to eliminate overlap with other uses, this reduced area is a closer approximation of the land that may be expected to serve commercial forest uses as opposed to having forest cover. Nevertheless, forest-use land may still be economically unsuited for timber harvests. In addition, private landowners may have objectives other than timber harvest. For example, Birch (1996) found that only 29 percent of private forest owners reported managing their land primarily for timber production.

Forest land grazed—Forested grazing land consists mainly of forest, brush-grown pasture, arid woodlands, and other areas within forested areas that have grass or other forage growth. The total acreage of forested grazing land includes woodland pasture in farms plus estimates of forested grazing land not in farms. For many States, the estimates include significant areas grazed only

lightly or sporadically. The Census of Agriculture, the National Resources Inventory, and the Forest Inventory and Analysis are the principal sources of data (USDA/NASS, 2004a; USDA/NRCS, 2000; Smith et al., 2004). Historical data from these and other sources were used in developing the 134-million-acre approximation.

Forest-use land not grazed—Forest-use land not used for grazing.

Forest land in special uses—Forest land in special uses such as in parks, wildlife areas, and similar special-purpose uses, estimated at 98 million acres for 2002.

Special-use areas—Special uses include areas in highway, road, and railroad rights-of-way and airports; Federal and State parks, wilderness areas, and wildlife refuges; and national defense and industrial areas. The sources and procedures used in developing these estimates are outlined in the footnotes to table 9.

Miscellaneous other land—Includes miscellaneous other uses such as industrial and commercial sites in rural areas; cemeteries; golf courses; mining areas; quarry sites; marshes; swamps; sand dunes; bare rocks; deserts; tundra; rural residential; and other unclassified land. In this report, urban land is reported as a separate category. In the ERS “Major Land Uses” data product, urban area is included as part of the special uses category.

Urban area—Nationally, there are two sources of data on urban area. First, the Census Bureau compiles urban area every 10 years, coincident with the Census of Population. Second, the Natural Resources Conservation Service publishes developed land—including urban components—in 5-year intervals prior to 1997 and 1-year intervals subsequently, as part of the National Resources Inventory (NRI).

Census Bureau—Census urban areas include densely-populated areas with at least 50,000 people (“urbanized areas”) and densely-populated areas with 2,500 to 50,000 people (“urban clusters”). Densely-populated areas include census blocks with a population density of at least 1,000 people per square mile, surrounding blocks with a density of at least 500 people per square mile, and “less densely settled blocks that form enclaves or indentations, or are used to disconnect discontinuous areas with qualifying densities” (DOC/BOC, 2002). In the 2000 Census, urban clusters (UCs) replaced previous designations that were based on the boundaries of Census-designated places. Included in the Census urban area definition are residential areas and concentrations of nonresidential urban area such as commercial, industrial, and institutional land; office areas; urban streets and roads; major airports; urban parks and recreational areas; and other land within urban defined areas. The definition allows for exceptions and special cases. Portions of extended cities that are essentially rural in character are excluded.

National Resources Inventory—Developed land in the National Resources Inventory consists of urban and built-up areas and land devoted to rural transportation (USDA/NRCS, 2000).

Urban and built-up areas—Consist of residential, industrial, commercial, and institutional land; construction and public administrative sites; railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage plants, water control structures, small parks, and transportation facilities within urban areas.

Large urban and built-up areas—Include developed tracts of 10 acres or more.

Small built-up areas—Include developed tracts of 0.25 to 10 acres, which do not meet the definition of urban area but are completely surrounded by urban and built-up land.

Rural transportation land—Includes highways, roads, railroads, and rights-of-way outside of urban and built-up areas.

Residential area—Residential area is the sum of acres in lots used for housing units. This series was introduced in 1997 to the Major Land Uses report. Due to the limits of available data, it is not possible to distinguish rural housing lots from land classified under other uses. Much of this land may be included with “miscellaneous other” land, but some overlap could also exist with forest use, grassland pasture and range, and other categories. Data for this series are from the American Housing Surveys (AHS) (HUD/BOC, 1996, 1999a, 1999b, 2002, 2004). The AHS started the current series in 1980 and collects sample-based data every 2 years.