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United States
Department of
Agriculture

Soil
Conservation
Service

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August 30, 1991

SOCIAL SCIENCE TECHNICAL NOTE 1
420-VI

SUBJECT: SSC - DETERMINING COST SHARE RATES FOR WATERSHED PROTECTION PROJECTS

Purpose. To distribute Social Sciences Technical Note 1.

Effective Date. This technical note is effective upon receipt.

Explanation. This technical note has been tested by several states across the Nation. It has been revised based on useful comments by SCS personnel at the National, NTC, state, and field levels. The object of the procedure is to vary cost share rates in watershed protection projects according to economic and social needs. The Watershed Projects Division has worked closely with the author, Frank B. Clearfield, national sociologist, on this procedure. The goal has been to provide planners with a procedure that is as workable and uncomplicated as possible.

Filing Instructions. File with other technical notes.

Distribution. The distribution is shown on the reverse side and is based on providing personnel in national headquarters, states, planning staffs, and national technical centers with copies of the procedure. Additional copies can be obtained from Frank Clearfield (202/FTS) 382-1511 or Karl Otte, assistant director, Watershed Projects Division, (202/FTS) 447-4574.

ROBERT R. SHAW
Deputy Chief for Technology

Enclosure

DIST: SSC Technical Note 1 (see reverse side)



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United States
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**Soil
Conservation
Service**

Economics
and Social Sciences
Division

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Determining Cost-Share Rates for Watershed Protection Projects

Social Sciences Technical Note No. 1



Determining Cost-Share Rates for Watershed Protection Projects

United States Department of Agriculture, Soil Conservation Service, Economics and Social Sciences Division, Social Sciences Technical Note No. 1

August 1991

Introduction and Purpose

This technical note provides guidance and a procedure for determining, in PL-566 projects, if a watershed, or a community within a watershed, might need increased cost-share rates and suggests an appropriate rate. The use of the procedure described in this technical note will provide a nationally consistent rationale for requesting increased cost-share rates from the Director, Watershed Projects Division.

The procedure uses a weighted scale of indicators that reflect economic and social conditions in communities. The procedure also gives special consideration to watersheds or communities that have a high percentage of protected groups.

Watersheds may be evaluated on a total watershed area, or, if conditions warrant, evaluations may be made on a sub-watershed (i.e., community) basis. If a watershed, sub-watershed, or community is found to be eligible for increased cost-share rates, and those rates are approved, then all beneficiaries in that area are eligible for that rate.

To ensure that cost-share funds are distributed mostly to socially disadvantaged farmers and ranchers, the Director of the National Watershed Projects Division has placed a dollar cap of \$20,000 on the total amount of PL-566 cost-share money any land owner or beneficiary can receive at the higher rate. After a person has received \$20,000 of PL-566 financial assistance, the cost-share rate reverts to the normal 65% rate. In unusual situations, the state conservationist can request an exception to the \$20,000 limit. This request is to be submitted to the Director of the National Watershed Projects Division with appropriate documentation.

Procedure

The first step is to determine average values in the watershed or community for the indicators below (see "Informational Sources," page 4, for definitions and data sources). In order to provide flexibility to the rating system and not to penalize farmers or ranchers who may be disadvantaged, but have either small or large operations, there are two sub-indicators under indicator 1; choose only one sub-indicator to obtain a rating for 1. For example, if 1a has a rating of 2 and 1b has a rating of 3,

use the highest rating for indicator 1 (rating 3). There are no sub-indicators for indicators 2 and 3.

Add together the three ratings (rating 1a or 1b + rating 2 + rating 3) and use the scale to translate the rating into a cost-share level.

Indicator	Value	Rating	
1a. Value of land and buildings: average per farm in the watershed	75% or less than State average	5	
	76% - 80% of State average	4	
	81% - 85% of State average	3	
	86% - 90% of State average	2	
	91% or more of State average	1	
or			
	1b. Value of land and buildings: average per acre in the watershed	75% or less than State average	5
		76% - 80% of State average	4
		81% - 85% of State average	3
		86% - 90% of State average	2
91% or more of State average		1	
2. Per Capita Income	75% or less than State average	5	
	76% - 80% of State average	4	
	81% - 85% of State average	3	
	86% - 90% of State average	2	
	91% or more of State average	1	
3. Percentage of Protected Groups ^{1,2}	40% and over	5	
	30% to 39%	4	
	20% to 29%	3	
	10% to 19%	2	
	Less than 10%	1	

¹ Protected Groups include: (1) Hispanics, (2) Blacks, (3) Asians or Pacific Islanders, (4) American Indians or Alaskan Natives, and (5) disabled.

² Congress has also identified "female" as a protected group. This rating system does not evaluate "female" as a separately protected group because it is assumed that females compose roughly half the population of all counties, watersheds, and communities. However, if female owner and operators, solely or jointly, are a significantly higher portion of the population in an area than males, then document this difference and request a higher rating for indicator 3.

Rating Scale

Add up ratings of indicators 1a or 1b and 2 and 3 and find the cost-share level in the table below.

Ratings	Cost-Share Level
15	90% ³
11 to 14	85%
9 to 10	80%
7 to 8	75%
5 to 6	70%
3 to 4	65%

³ Although 90% is a relatively high cost-share level, this amount does not guarantee the participation of disadvantaged people (e.g., participation is likely to be low for people who earn \$7,000 per year if 10% of a conservation practice is \$1,000). For populations that are extremely poor, in-kind work can substitute for their part of the payment. This can enable the farm or ranch owner or operator to pay their percent of the conservation measure, even if they have a low cash flow.

Informational Sources

This section outlines sources of information to provide documentation for determining cost-share levels in disadvantaged farm areas. To attain reliable information, it is a good idea to acquire the most currently available information. This may mean acquiring recent census publications from Federal or state agencies, gathering primary data (e.g., personal interviews, written or phone surveys of the community conducted by the district or a local college), or examining secondary data such as real estate reports, newspapers, or university studies. Use as many sources as necessary to arrive at a reasonable estimate of an indicator.

Table 1 lists the Consumer Price Index from 1900 to 1990. It also presents a simple procedure for converting a previous year's dollar value to a 1990 value.

Indicator 1a-1b: Value of land and buildings: Average per farm or per acre in the watershed

Definition and sources of information:

- Defined in the Agricultural Census as an estimate of the current market value of land and buildings owned, rented or leased from others, and rented or leased to others. Market value refers to the value the land and buildings would sell for under current market conditions.
- 1987 Census of Agriculture. Table 10 has state values from State Data section; In the County Data section, both Table 1 and Table 5 have state and county values.
- Interview any or all of the following: local residents, real estate agents, public officials, local leaders, Chamber of Commerce, college teachers, Farmers Home Administration employees, private bankers, real estate newspaper reporters, and tax assessors⁴.
- Mail or phone survey (conducted by a non-federal entity; SCS can conduct a survey if the survey instrument is reviewed and approved by the Office of Management and Budget)
- Real estate section of local newspapers, examine public records of real estate transactions at the courthouse or an appropriate public agency (e.g., FmHA)
- County and City Data Book, U.S. Department of Commerce, Bureau of the Census⁴.
- Tract reports - PHC80-2-258 which list statistics for household income, number employed, et al.
- Table 191 - Economic Characteristics for the Rural Farm Portion of Counties 1980 (Volume 1, Chapter 3, General, Social and Economic Characteristics - Census of Population.

Indicator 2: Per capita income

Definition and sources of information

- Table 2, "Per Capita Income," lists per capita money income in 1987 for each state.

⁴ These informational sources are appropriate to use for each indicator.

- Defined in the County and City Data Book as the aggregated total personal income in a specified area during a calendar year, divided by the resident population. Total personal income consists of all wage and salary disbursements, pensions, transfer payments, bonuses, etc. It is measured before deduction of income and other personal taxes, but after deduction of personal contributions for Social Security, government retirement, and other social insurance programs.
- PL26, No. 86 - Regions of U.S. (County level) Current Population Reports, Local Population Estimates Series P-26, No. 86 (Call 301-763-5060, to request report for your state).
- Bureau of Economic Analysis (Call [202] 523-0917 or 523-0966 for April edition of Current Business Survey, back issue is \$5.50) This lists per capita by county and state or call Government Printing Office.

or

Submit written requests for your state, counties and national to:

Regional Economic Information System
 U.S. Department of Commerce
 Bureau of Economic Analysis, BE55
 Washington, DC 20230
 ATTN: Kathy Albetski

Also available on IBM compatible 5 1/4" floppies and magnetic tape.

- Current Population Report - Consumer Reports, P-60, No. 161 - Money, Income and Poverty Status in U.S., 1987.

Indicator 3: Ethnicity, race, and sex

Definition and sources of information:

- Census Tracts. The 1980 Census of Population and Housing - PHC80-2 - Metropolitan Area.
- County. General, Social and Economic Characteristics, PC80-1-C (Series of numbers to designate the state) Department of Commerce, Bureau of Census.
- Census of Agriculture. State and County:
 - Female - Table 16, Tenure and Operator Characteristics, state section
 - Female - Table 10, Tenure and Operator Characteristics, county section
 - Table 32 - Farm Operators - Black and Other Races
 - Table 33 - Farm Operators - Black and Other Races by Tenure
 - Table 34 - Operators by Selected Racial Groups
 - Table 35 - Operators of Spanish Origin

Expressing Economic Magnitudes in Constant Prices

There are a number of indices that can be used to convert costs, etc. from different time periods to dollars of constant purchasing power. The consumer price index (CPI) is commonly used, and is appropriate for most applications. The conversion process is best explained with an example. Average monthly earnings of a farm laborer in 1909 were \$21.30. How much would it have taken in 1988 to equal the same purchasing power? Multiply \$21.30 by the CPI for 1988, 118.3, and divide by the CPI for 1909, 9. $\$21.30 \times 118.3/9 = \279.97 .

Table 1. Consumer Price Index, 1982-84 = 100

Year	CPI	Year	CPI	Year	CPI	Year	CPI
1900	8.3	1925	17.5	1950	24.1	1975	53.8
1901	8.3	1926	17.7	1951	26.0	1976	56.9
1902	8.7	1927	17.3	1952	26.5	1977	60.6
1903	9.0	1928	17.1	1953	26.7	1978	65.2
1904	9.0	1929	17.1	1954	26.9	1979	72.6
1905	9.0	1930	16.7	1955	26.8	1980	82.4
1906	9.0	1931	15.2	1956	27.2	1981	90.9
1907	9.3	1932	13.6	1957	28.1	1982	96.5
1908	9.0	1933	12.9	1958	28.9	1983	99.6
1909	9.0	1934	13.4	1959	29.1	1984	103.9
1910	9.3	1935	13.7	1960	29.6	1985	107.6
1911	9.3	1936	13.8	1961	29.9	1986	109.6
1912	9.7	1937	14.3	1962	30.2	1987	113.6
1913	9.9	1938	14.1	1963	30.6	1988	118.3
1914	10.0	1939	13.9	1964	31.0	1989	124.0
1915	10.1	1940	14.0	1965	31.5	1990	130.7
1916	10.9	1941	14.7	1966	32.4		
1917	12.8	1942	16.3	1967	33.4		
1918	15.0	1943	17.3	1968	34.8		
1919	17.3	1944	17.6	1969	36.7		
1920	20.0	1945	18.0	1970	38.8		
1921	17.9	1946	19.5	1971	40.5		
1922	16.7	1947	22.3	1972	41.8		
1923	17.0	1948	24.1	1973	44.4		
1924	17.1	1949	23.8	1974	49.3		

Originally prepared by the National Economy and History Branch, ARED, ERS, February 1991

Table 2. Per Capita Income (1987)

State	Amount (dollars)
Alabama	9,615
Arizona	11,521
Alaska	13,263
Arkansas	9,061
California	13,197
Colorado	12,271
Connecticut	16,094
Delaware	12,785
Florida	12,456
Georgia	11,406
Hawaii	12,290
Idaho	9,159
Illinois	12,437
Indiana	11,078
Iowa	11,198
Kansas	11,520
Kentucky	9,380
Louisiana	8,961
Maine	10,478
Maryland	14,697
Massachusetts	14,389
Michigan	11,973
Minnesota	12,281
Mississippi	8,088
Missouri	11,203
Montana	9,322
Nebraska	11,139
Nevada	12,603
New Hampshire	13,529
New Jersey	15,028
New Mexico	9,434
New York	13,167
North Carolina	10,856
North Dakota	9,641
Ohio	11,323
Oklahoma	9,927
Oregon	11,045
Pennsylvania	11,544
Rhode Island	12,351
South Carolina	9,967
South Dakota	8,910
Tennessee	10,448
Texas	10,645
Utah	9,288
Vermont	11,234
Virginia	13,658
Washington	12,184
West Virginia	8,980
Wisconsin	11,417
Wyoming	9,826

Source: Census Bureau Press Release CB90-36, as cited in *Census and You*, April 1990.