

September 1989

DISASTER ASSISTANCE

Crop Insurance Can Provide Assistance More Effectively Than Other Programs



Resources, Community, and
Economic Development Division

B-209866

September 20, 1989

The Honorable E (Kika) de la Garza
Chairman, Committee on Agriculture
House of Representatives

Dear Mr. Chairman:

Your letter of April 20, 1989, expressed concern that the federal government's responses to natural disasters affecting American agriculture have been generally reactive and ad hoc. You raised concerns about the apparently conflicting roles and objectives of the disaster relief programs, the lack of an overall strategy for dealing with recurring disasters affecting the nation's farmers, and the high costs of recent federal agriculture disaster relief efforts. Consequently, you expressed the desire to develop a more efficient, predictable, reliable, equitable, and less costly disaster relief policy for American farmers.

As you and the Chairman, Subcommittee on Conservation, Credit, and Rural Development, House Committee on Agriculture, requested, and as agreed with the Subcommittee Chairman's office, this report addresses (1) the Department of Agriculture's (USDA) role in providing agriculture disaster assistance since 1980, including the cost of providing this assistance, and (2) criteria for assessing the federal role in providing disaster assistance to farmers and how well current programs meet these criteria.

Results in Brief

Since 1980, USDA has provided disaster assistance to farmers through direct cash payments, loans, and an insurance program. The federal government has incurred costs of approximately \$17.6 billion in support of these programs: \$6.9 billion for direct cash payments, \$6.4 billion for disaster emergency loans, and \$4.3 billion for crop insurance.

The public policy principles we used for assessing the best way to provide disaster assistance are based largely on the premises that disaster victims should be treated equitably and consistently over time and that overall program and society costs should be minimized. Using these premises, we identified eight criteria that should be considered in devising an effective disaster assistance strategy. Although none of the three programs fully satisfy all of our criteria, crop insurance satisfies more of them than the other agriculture disaster assistance programs.

actual losses so they can return to normal farming operations. However, from 1975 to 1985, the emergency loan program was expanded to include loans for purposes other than actual losses, such as expanding farm operations.

FmHA also provides physical loss loans. To qualify, a farmer must have sustained damage to or destruction of physical property, such as a barn, that is essential to the successful operation of the farm. According to an FmHA official, approximately 80 percent of the emergency loans are for emergency production loss loans and 20 percent are for physical loss loans.

Crop Insurance

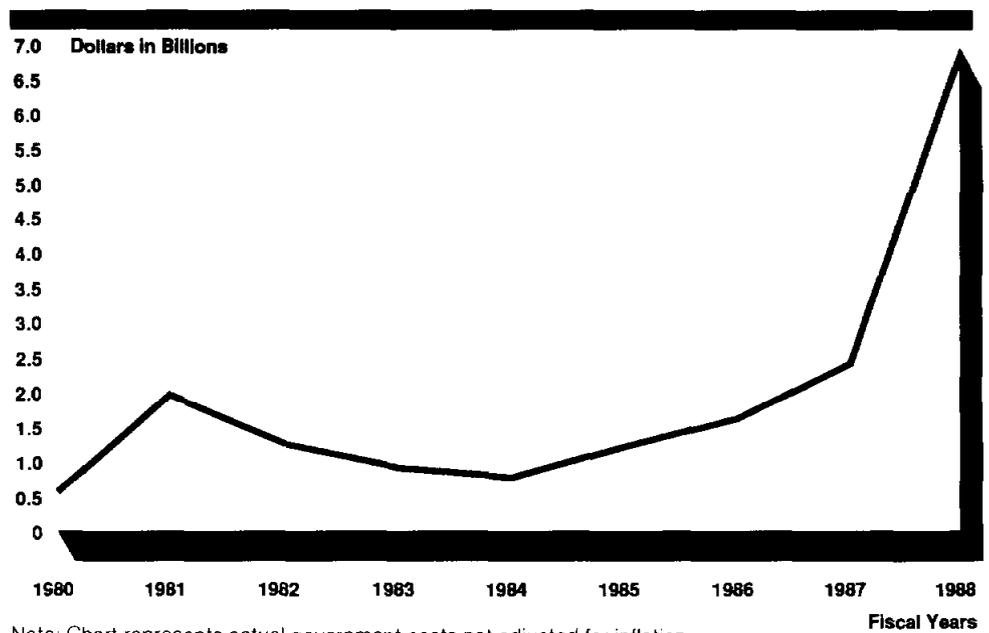
The third component of federal agriculture disaster assistance is crop insurance. FCIC administers the federal crop insurance program, which protects participating farmers against unavoidable losses caused by natural risks, such as droughts, floods, insect infestations, and other natural disasters. All farmers are eligible to participate if an insurance program exists for the farmer's crop in his or her county. In 1988, there were 19,611 county programs covering 50 different program crops.³ Participants can elect coverage of 50, 65, or 75 percent of their normal yield at 3 different levels of prices, with 1 level equaling at least 90 percent of the crop's expected market price. Insurance premium rates vary depending upon the level of coverage chosen and the location of the farm. FCIC subsidizes 30 percent of the premium costs for all policies up to the 65-percent coverage level. The effective average rate of subsidy is 25 percent of total premiums.

Before 1980, USDA primarily provided disaster assistance through direct cash payments, paying an average of \$436 million per year to farmers between 1974 and 1980. As a result of these high, recurring costs, the direct payment program was criticized for being expensive and encouraging producers to farm in areas that were susceptible to natural disasters. Consequently, new legislation was enacted in 1980 that greatly expanded the scope and availability of crop insurance.⁴ At the time, the Congress believed that an expanded crop insurance program covering

³The number of county crop programs is determined by identifying the number of crops covered in each county and adding the totals of each county together. For example, if County A offers crop insurance for 10 crops and County B for 7 crops, then the total number of county crop programs would be 17.

⁴The Federal Crop Insurance Act of 1980 (P.L. 96-365, Sept. 26, 1980).

Figure 1: Government Costs for Agriculture Disaster Assistance Programs (FY 1980-88)



Note: Chart represents actual government costs not adjusted for inflation.

Source: USDA.

from \$28 million in 1980 to \$1.2 billion in 1988. Between 1985 and 1988 alone, FCIC required a \$1.8 billion infusion of new funds to pay indemnities owed to policyholders.

Appendix I of this report contains more detailed information on the role and costs of USDA-provided disaster assistance between 1980 and 1988.

Criteria for Assessing Current Disaster Assistance Programs

Over the past 13 years, we have reviewed a broad array of issues affecting federal disaster assistance programs for farmers. In conducting our work in this area, we have taken the position that the policy principles of equity and efficiency are essential elements of any desirable disaster assistance program. These principles suggest that an equitable disaster assistance policy ensures that aid is provided consistently among victims suffering similar losses over time. And an efficient disaster assistance policy ensures that overall program and societal costs are minimized. Our work over the years has led us to identify the following eight criteria that should be considered in designing an equitable and efficient disaster assistance policy:

1. The amount of disaster assistance provided should be determined by the amount of a farmer's loss, not by the severity of the disaster.

Despite the intentions of the 1980 act to alleviate the need for ad-hoc disaster assistance programs, crop insurance has been competing throughout the 1980s with direct assistance and loan programs that have received larger amounts of federal funds and have had more attractive terms for farmers. A restructuring of the agriculture disaster assistance programs that removes these disadvantages could help determine the effectiveness of the crop insurance system.

In concluding that crop insurance meets more of these criteria than the other programs, we recognize that FCIC has had a history of management problems that, in the short term, makes it difficult to justify the current crop insurance program as the sole source of disaster assistance to farmers. Consequently, if the Congress chooses to rely on the crop insurance program exclusively to provide crop disaster assistance, a transition period for strengthening the program would probably be necessary.

We also recognize that crop insurance is only appropriate for compensating victims who lost crops owing to a disaster. Other forms of assistance, including alternative insurance programs, would be more suitable for disaster-caused damages to farming and ranching infrastructure, such as the destruction of a barn, to help restore the productive capacity of a producer's enterprise.

Agency Comments

We received official comments on this report from FCIC, ASCS, and FmHA. FCIC and ASCS agreed with our findings and conclusions and FmHA did not comment on the findings and conclusions. Officials from all three agencies made technical suggestions that have been incorporated into the report, as appropriate.

In developing our responses for this report, we obtained program cost data and information about program operations from FCIC, ASCS, and FmHA. In identifying the costs, we included all major USDA disaster program costs used to compensate producers for lost crops and to help restore the productive capacity of their farms and ranches. We did not independently verify the accuracy of these data. In developing the criteria section of this report, we relied extensively on the analysis in our 1980 report, Federal Disaster Assistance: What Should the Policy Be? (PAD-80-39, June 16, 1980), and on other GAO reports cited in appendixes I and II. In comparing the various disaster assistance programs, we based our analysis primarily on how the programs have been implemented since 1980. We conducted our work between June and August 1989.

Contents

Abbreviations

ASCS	Agricultural Stabilization and Conservation Service
CCC	Commodity Credit Corporation
FmHA	Farmers Home Administration
FCIC	Federal Crop Insurance Corporation
GAO	General Accounting Office
USDA	U.S. Department of Agriculture

making insurance available for all commercial crops, (2) increasing premium subsidies, and (3) instituting crop yield guarantees to raise the yields covered against loss.

Overview of USDA's Role in and Associated Costs of Providing Disaster Assistance During the 1980s

In part because of the relatively low participation rates in the crop insurance program, disaster assistance continued to be provided to farmers during the 1980s through all three forms of assistance—insurance, direct payments, and loans. Between 1980 and 1988, USDA incurred costs of approximately \$17.6 billion on these programs. (See table I.1.) Total costs for all three programs have increased every year since 1984. (See fig. I.1.)

Table I.1: Government Costs for Agriculture Disaster Assistance Programs (FY 1980-88)

Program	Fiscal year									Total
	1980	1981	1982	1983	1984	1985	1986	1987	1988	
Crop insurance	\$28,015	\$138,947	\$480,724	\$345,865	\$325,956	\$462,696	\$731,613	\$557,515	\$1,206,713	\$4,278,044
Disaster payments ^a	303,352	1,422,363	337,390	127,897	26,979	17,795	16,610	667,723	4,012,856	6,932,965
Emergency loans ^b	245,261	402,171	440,681	436,225	438,673	730,337	865,598	1,180,047	1,647,491	6,386,484
Total	\$576,628	\$1,963,481	\$1,258,795	\$909,987	\$791,608	\$1,210,828	\$1,613,821	\$2,405,285	\$6,867,060	\$17,597,493

^aIncludes disaster payments paid in 1989. Does not include administrative costs for 1980.

^bTotal administrative costs for 1980-81 not included. Administrative costs for those years only include money received from the revolving fund.

Source: USDA.

USDA incurred costs of approximately \$4.3 billion supporting crop insurance, with total government contributions increasing from \$28 million in 1980 to \$1.2 billion in 1988. USDA also spent \$6.9 billion providing direct assistance payments to farmers, with expenditures reaching peaks in 1981 (\$1.4 billion) and 1988 (\$4 billion)³ as the result of especially severe droughts in those years. USDA's emergency loan program costs, which totaled \$6.4 billion, also increased during the decade, rising from \$245 million in 1980 to over \$1.6 billion in 1988. Although most of the total costs have been due to interest subsidies, an increasing part of the rise in costs has been due to rapidly increasing loan defaults leading to debt write-offs.

³Including 1989 outlays appropriated in 1988.

1989, this program covered 472 crops and various other types of assistance.

Most of ASCS's disaster assistance funding has been used to reimburse producers for crop and feedstock losses. But ASCS also administers cost-sharing programs to help producers restore their farms and ranches from damage caused by a disaster.

Unlike the crop insurance program, which farmers can use to manage their risks before the planting season, lawmakers decide about whether to authorize a direct payment program after a disaster has occurred. Consequently, farmers and ranchers experiencing localized disasters may not receive direct payments if a program to help them is not established.

During the 1980s, USDA spent approximately \$6.9 billion in direct disaster assistance payments, much of which (\$5.6 billion) was spent for crop losses. (See table I.2.) At the beginning of the decade, ASCS's disaster payments program provided direct payments to farmers who experienced low yields or were prevented from planting their crops because of a disaster. Although, in compliance with legislation, ASCS began phasing out the program in 1980 in lieu of crop insurance where it was available, expenditures continued under the program throughout the 1980s. For example, ASCS administered two large, congressionally mandated ad-hoc drought relief programs in 1986 and 1988. In 1986, over \$500 million was made available for a disaster relief program. In 1988, the Congress made more than \$4 billion available for disaster payments as a result of one of the most severe and widespread droughts of the century.⁵

⁵In addition, the recently enacted Disaster Assistance Act of 1989 (P.L. 101-82, Aug. 14, 1989) will provide about \$897 million in disaster assistance.

before January 1, 1989, and at 50 percent of the average market price in the county to livestock producers suffering from drought or excessive moisture thereafter.⁷

- Emergency Conservation Program (\$102 million): Established in 1978, this cost-share program was used throughout the decade to provide emergency funds to restore to productive use farmland seriously damaged by natural disasters, and enact emergency water conservation measures during periods of severe drought.
- Forage Assistance Program (\$4 million): This program, which began in 1988, provided cost-share funding to help livestock producers reseed permanent forage crops on established pastures that were damaged by the drought in 1988 to facilitate late fall 1988 and early spring 1989 grazing and haying.
- Tree Assistance Program (\$1 million): This program, which also began in 1988, provided cost-share payments to small- and medium-scale commercial tree producers who experienced significant seedling losses because of the 1988 drought.

Role and Costs of the Emergency Loan Program

The Farmers Home Administration (FmHA), a credit agency of USDA, provides emergency loans at subsidized interest rates to eligible producers who have sustained actual losses as a result of natural disasters. These loans are made available in specific areas declared as disaster areas by either the President, the Secretary of Agriculture, or the FmHA Administrator. The purpose of emergency loans is to provide farmers direct assistance to cover actual losses so that they can return to normal farming operations. However, from 1975 to 1985, the emergency loan program was expanded to include loans for purposes other than actual losses, such as expanding farm operations. As of March 31, 1989, the emergency loan program, with 92,275 borrowers, comprised about \$8 billion of the \$23.6 billion outstanding principal on FmHA's farmer loan programs.

FmHA currently offers both emergency production loss and physical loss loans in counties where a disaster has been declared. To qualify for an emergency production loss loan, an applicant must have sustained a loss of at least 30 percent of a normal year's production in any single enterprise, such as all cash field crops or one or more types of livestock operations. These enterprises must normally generate sufficient income to be considered essential to the success of the total farming operation. To

⁷ ASCS could not provide us expenditures for the Emergency Feed Assistance Program because CCC's accounting procedures do not specifically identify the revenues or costs of the program.

Moreover, the cost of providing emergency loans could remain high in the coming years, even if no new loans are made, because delinquent borrowers held \$6.2 billion in debt, as of March 31, 1989. Past due principal and interest payments total \$5.2 billion. FmHA faces the possibility of writing off some or all of this debt, which would substantially increase the cost of operating the emergency loan program.

The likelihood that farmers will ultimately pay off this debt is diminished by the nature of the loans. Emergency loans are more risky than other types of farm loans because they are made to help farmers generate income to recover from losses rather than generate additional income. To maintain their normal earnings in subsequent years, farmers have to substantially increase their productivity and income to pay for the added expenses of principal and interest. Given this dilemma, it is questionable whether many of these delinquent borrowers will be able to repay this debt.⁹

Role and Costs of the Federal Crop Insurance Program

USDA's Federal Crop Insurance Corporation provides multiple-peril crop insurance to farmers to protect them against unavoidable crop losses due to adverse weather, insects, and plant disease. Participants can elect coverage of 50, 65, or 75 percent of their normal yield at three different levels of prices, with 1 price being at least 90 percent of the crop's expected market price. Insurance rates vary depending upon the level of coverage chosen and the location of the farmer. FCIC subsidizes 30 percent of the costs for all policies up to the 65-percent coverage level. The effective average rate of subsidy is 25 percent of total premiums. Unlike USDA's loan and grant programs, which require a disaster to be declared for farmers to be eligible, all farmers are eligible to participate if insurance programs exist for their crops in their counties.

During the 1980s, the scope of the program grew from 4,683 county crop programs in 1980 (covering 30 crops in 39 states) to 19,611 county crop programs in 1988 (covering 50 crops in 50 states).¹⁰ (See table I.4.) However, federal crop insurance has not replaced other forms of disaster assistance to farmers during the 1980s primarily because the percentage of eligible acres insured has remained low. Since 1980, the

⁹See *Farmers Home Administration: Problems and Issues Facing the Emergency Loan Program* (GAO/RCED-88-4, Nov. 30, 1987).

¹⁰The number of county crop programs is determined by identifying the number of crops covered in each county and adding the totals of each county together. For example, if County A offers crop insurance for 10 crops and County B for 7 crops, then the total number of county crop programs would be 17.

Appendix I
Federal Role in and Costs of Providing
Agriculture Disaster Assistance During
the 1980s

Crop insurance program costs, which are composed mainly of indemnity payments to policy holders to pay insurance claims and administrative costs, have totaled \$6.6 billion between 1980 and 1988. (See table I.5.) To fund its program, FCIC has received 6.9 billion from two sources—premiums paid by farmers and federal appropriations.¹³ Since 1980, FCIC has received a total of \$2.6 billion in producer premium payments and \$4.3 billion from federal appropriations. Federal appropriations were used to subsidize lower insurance premiums¹⁴ (\$0.7 billion), pay for administrative expenses (\$1.3 billion), and provide cash periodically (totaling \$2.3 billion in paid-in capital)¹⁵ to make up for funding shortfalls.¹⁶ (See table I.6.)

If the crop insurance program were actuarially sound,¹⁷ FCIC would accumulate cash reserves in years when there were few claims to pay for claims in years such as 1988 when there was widespread drought, according to FCIC's Assistant Manager for Actuarial and Underwriting Services. He said that over time, the amount of indemnities FCIC paid on claims would be offset by premiums and premium subsidies FCIC receives from insurance policy sales. However, the crop insurance program has been unable to achieve this goal. In fact, the program has incurred a loss every year this decade, and its \$657 million loss for 1988 is the largest loss in the program's history. Consequently, the program has required a capital infusion of \$2.3 billion during the decade, in addition to its regular appropriations for administrative expenses and premium subsidies, to remain solvent.

¹³The CCC provided FCIC approximately \$279 million more than FCIC needed to make up for funding shortfalls between 1980 and 1988. These funds represent, in part, FCIC's reserve capital.

¹⁴Premium costs are subsidized at a rate of 30 percent for the cost of all policies up to 65 percent coverage. The effective average rate of subsidy is 25 percent of total premiums.

¹⁵This includes a \$113 million loan due the Treasury.

¹⁶The CCC provides FCIC paid-in capital, which is funded by appropriated money.

¹⁷In this report, actuarially sound refers to the ability of premium revenues, including federal premium subsidies, to offset the costs of indemnities.

Comparison of Disaster Assistance Programs

Over the past 13 years, we have reviewed a broad array of issues affecting the United States' disaster assistance programs for farmers. In conducting this work, we relied on the policy principles of equity and efficiency as essential elements underlying any good disaster assistance program. An equitable disaster assistance policy ensures that aid is provided consistently to victims suffering similar losses over time. An efficient policy ensures that public policies are designed to minimize overall program and society costs for a given level of assistance. Our work over the years has led us to identify eight criteria that should be considered in designing an equitable and efficient disaster assistance policy.

Although none of the three programs currently providing disaster assistance—direct payments, loans, and insurance—fully satisfy the requirements of all the criteria, crop insurance satisfies more of them than the other forms of assistance. The crop insurance program can provide assistance for lost crop damages more equitably and efficiently than other disaster assistance programs. It should be noted, however, that crop insurance would not be suitable for disaster-caused damages to farming and ranching infrastructure, such as the destruction of a barn. For damages to the productive capacity of producers' enterprises, other forms of disaster assistance, including other forms of insurance, continue to be needed.

The following section identifies the eight criteria we have identified, explains the rationale behind each criterion, and describes how well each disaster assistance program satisfies each criterion.

of factors, we could not pinpoint precisely the factors that led USDA to its different responses to the two droughts.

Of the currently available forms of providing disaster assistance, the crop insurance program most consistently provides farmers with assistance directly related to the amount of loss suffered by the farmer because the terms of the compensation in an insurance policy are determined before the disaster occurs. In effect, the decision about how much to compensate disaster victims under the crop insurance program has been made before the disaster occurs. When a disaster occurs, lawmakers and program administrators under the crop insurance program do not have to react to determine where assistance should be made available and what level of assistance should be provided.

Unlike disaster assistance provided by insurance, the availability and terms of the emergency loan and direct payment programs are frequently determined after a disaster occurs. Accordingly, the amount of disaster assistance provided under these programs depends upon decisions made after a disaster occurs and are not automatically linked to individual losses.

Criterion 2: Disaster Assistance Programs Should Provide Similar Amounts of Assistance to Farmers Suffering Similar Amounts of Losses

An equitable disaster assistance program would provide similar aid to victims suffering similar losses. All three programs provide disaster benefits directly and indirectly, with some indirect benefits provided through the tax code, primarily as deductions to income. The value of these deductions, however, is higher for taxpayers in higher tax brackets than for those in lower tax brackets. Consequently, similarly affected disaster victims may obtain different levels of total assistance from a given program if they are in different tax brackets.

These tax benefits are not unique to disaster assistance. Any deduction, such as the mortgage interest deduction, provides higher income individuals with larger tax benefits. Although all three programs give rise to these types of tax benefits, tax benefits under the emergency loan program may be more substantial.

When computing their income taxes, farmers can recoup part of their uncompensated disaster losses by deducting these losses from their income. In a progressive tax system, a \$1 deduction provides more tax benefits to someone in a high marginal tax bracket than someone in a low marginal tax bracket because the deduction reduces the tax by a larger amount. Because all three programs generally do not compensate

Criterion 3: Disaster Assistance Programs Should Not Provide Farmers More Assistance Than the Amount of Their Disaster Losses

This principle supports the idea that the amount of disaster assistance a farmer receives should correspond to the farmer's loss. If farmers were able to receive more assistance than their losses, they could begin to view the programs as not only a way to manage risk but as a source of revenue to improve their financial positions. This could change the entire nature of the disaster assistance programs and could possibly undermine the risk management purposes of the programs.

Farmers could receive more revenues than their losses under crop insurance and direct disaster payments if their claims are not based on actual production histories for their farms. Since 1987, virtually all crop insurance claims are supposed to be based on actual production histories, but county average production data can be substituted when these records are not available. When county averages are used, however, some farmers who produce less than the county average can receive more crop insurance indemnities than their actual losses. The problem is more significant for direct disaster payments, which often cover many crops for which farmers do not have actual production histories. County averages must also be substituted in these cases.

Alternatively, under the emergency loan program, the problem of overpayment should not be a significant issue because emergency loan recipients are obligated to pay back the assistance they receive. Therefore, there should be little risk that loan recipients would be made better off than before the disaster. In practice, however, many loan recipients do not pay back their loans. Because loan amounts are not always based on actual production histories and could be based on county averages that are higher than a loan recipient's normal yields, loan recipients who have their loans restructured could be made better off than they were before the disaster.

Criterion 4: Disaster Assistance Programs Should Not Create Incentives to Encourage Farming Practices That Increase the Likelihood and Extent of Losses

Federal disaster relief programs should not encourage farmers to adopt farming practices that increase the likelihood and extent of disaster losses. Subsidized disaster assistance programs discourage farmers from taking risk-reducing measures because, with subsidies, farmers may be able to obtain disaster assistance that provides nearly complete protection at a cost lower than prevention. Generally, the more a program is subsidized, the less likely it is that farmers will try to reduce risks. As a result, the government's costs increase by more than the additional cost of providing a greater subsidy for a given disaster because the extent of the disaster will be greater as well.

The availability of direct payment and emergency loan programs has varied significantly over time, making it difficult for farmers to develop risk management plans. In contrast, once a crop insurance program has been established in a county, it has remained available for farmers in that county year after year. Accordingly, since 1980, the crop insurance program has helped farmers manage their long-range planning better than the emergency loan and direct payment programs.

The past history of direct payment disaster assistance programs, for example, indicates that decisions about whether to provide assistance and the extent of this assistance are made after the planting season has begun. Legislation authorizing the 1986 and 1988 disaster assistance acts, which determined how much disaster-related damage would be covered, did not pass into law until well after spring planting. Similarly, legislation regarding 1989 disaster relief was not enacted until August 1989 after serious debate over how many crops to include and to what extent losses should be compensated. As a result, farmers analyzing ways to manage the risk of disaster did not have sufficient information at the beginning of the growing seasons to make informed decisions about purchasing crop insurance, or whether to accept the risk that federal assistance in the form of direct payments or subsidized loans would be provided if they fell victim to a natural disaster.

The history of FmHA's emergency loan program also contributes to the uncertainties surrounding farmers' decisions about managing risks because of the constantly changing nature of the program.⁵ Since its inception in 1949, the emergency loan program has gone through several cycles of broadened and tightened eligibility and benefits. Inevitably, when eligibility requirements were relaxed and program benefits were expanded, USDA's cost for providing disaster relief grew through increased delinquencies, loan losses, and for a period, loan forgiveness. Each time, the increased cost led to policy and legislative changes to narrow the program, which lasted for a time before the program was expanded again. For example, the lending provisions of this program were narrowed with the passage of the Food Security Act of 1985. Under the act, the Congress shifted the burden of protecting against disaster losses away from the federal government and more to the farmer. To do this, the 1985 legislation limited the amount of assistance farmers

⁵See *Farmers Home Administration: Problems and Issues Facing the Emergency Loan Program* (GAO/RCED-88-4, Nov. 30, 1987).

they chose.⁶ In addition, under the Disaster Assistance Act of 1988, farmers could receive 90 percent of the established price for a crop for any deficiency in production greater than 75 percent of the crop, and 65 percent of the established price for any production deficiency between 35 and 75 percent.

Loan programs, however, do not provide farmers any of their expected income (unless the loan is forgiven) and increase farmers' debt burdens, which makes it difficult for some farmers to obtain financing for normal operations and recover from future disasters. In addition, under FmHA's past emergency loan policies, many farmers incurred debt that they could not repay, which led to financial ruin. Some farmers not only lost their property but incurred debt liabilities that affected their future earnings.⁷ As of March 31, 1989, farmers participating in FmHA's emergency loan programs are past due in principal and interest payments in the amount of \$5.2 billion. In addition, delinquent borrowers hold \$6.2 billion in outstanding principal. Unless FmHA forgives this delinquent debt, it will have to foreclose on many of these farmers.

Criterion 7: Disaster Assistance Programs Should Have Predictable Annual Costs

To prepare accurate program cost estimates, the Congress and the administration need accurate forecasts of the annual cost of agriculture disaster assistance programs. Given the unpredictable nature of disasters, it is difficult to forecast agriculture disaster costs precisely. Nonetheless, achieving a predictable approach for determining agriculture disaster assistance costs is a desirable goal.

None of the three disaster assistance programs currently provides predictable cost data. For example, ASCS direct payment program expenditures cannot be anticipated as part of the normal budget cycle because they derive from ad-hoc programs that are legislated as the result of disasters. The Disaster Assistance Act of 1988, for example, was enacted on August 11, 1988, less than 2 months before the end of the fiscal year. Predicting the costs of FmHA's emergency loan program is also difficult since a substantial part of the program costs depends on

⁶Based on a policyholder electing the 75-percent maximum coverage of the farmer's normal yield and the 90-percent expected market price ($0.75 \times 0.90 = 0.68$). Actual coverage could be higher or lower depending on changes in the prevailing market prices.

⁷See *Farmers Home Administration: Problems and Issues Facing the Emergency Loan Program* (GAO/RCED-88-4, Nov. 30, 1987).

For example, approximately one-third of FCIC's business is actuarially sound, with costs that are predictable on the basis of the assumptions and the level of confidence adopted, according to FCIC's Manager. A direct payment program also could be funded on an actuarially sound basis by estimating annual crop losses and determining the costs of compensating these losses. The only differences with an insurance program are that revenues would come exclusively from the government and that a premium rate structure would not be needed. Similarly, the costs of an emergency loan program could be determined actuarially by estimating crop losses, the demand for loans, and the costs of loan subsidies and loan defaults. The major difference with an actuarially sound direct payment program is that costs of a loan program would take the form of interest subsidies and defaults instead of direct payments.¹⁰

Criterion 8: Disaster Assistance Programs Should Meet Their Objectives at the Lowest Possible Cost

Given the current and foreseeable federal budgetary constraints, one goal of any disaster assistance policy should be to reduce program costs. Regardless of their objectives, programs should meet those objectives at the lowest possible cost.

One way disaster assistance programs can meet their objectives at the lowest possible cost is by incorporating incentives to reduce risky farm practices. As noted in the discussion under criterion 4, subsidized disaster assistance programs discourage farmers from taking risk-reducing measures because, with subsidies, farmers may be able to obtain disaster assistance that provides nearly complete protection at a cost lower than prevention. Although all three disaster assistance programs create incentives to encourage risky farming practices, crop insurance (because of its use of deductibles) and the emergency loan program (because borrowers are obligated to repay principal) meet criterion 4 better than the direct payment program, even though both programs are subsidized.

In addition, offering farmers more than one form of disaster assistance, as in 1986 and 1988, causes USDA to spend more for disaster assistance than it probably would have if only one form of assistance were available to a farmer. Generally, farmers must sign crop insurance policies before the growing season, while in recent years, disaster assistance direct payment programs have been enacted later in the growing season when the effects of a drought have become apparent. As a result, direct

¹⁰Although the programmatic costs of all three types of programs would be stabilized if they were designed on an actuarially sound basis, the actual government outlays each year would still be determined by the actual extent of crop losses to be compensated, and hence would still be unpredictable.

Another critical problem that the crop insurance program faces is that it has had to compete throughout the 1980s with direct assistance and loan programs that have received larger amounts of federal funds and have had more attractive terms for farmers. Consequently, its participation rates have remained low, and it has never developed an actuarially sound program. We believe a restructuring of the agriculture disaster assistance programs that removes this disadvantage could help determine the effectiveness of the crop insurance system.

We also recognize that crop insurance is only appropriate for compensating victims who lost crops owing to a disaster. Other forms of assistance, including alternative insurance programs, would be more suitable for disaster-caused damages to farming and ranching infrastructure, such as the destruction of a barn, to help restore the productive capacity of a producer's enterprise.

Major Contributors to This Report

Resources,
Community, and
Economic
Development Division,
Washington, D.C.

John W. Hill, Associate Director
Clifton W. Fowler, Assistant Director
Jeffrey W. Itell, Evaluator-in-Charge
Matthew F. Greenwald, Evaluator

Requests for copies of GAO reports should be sent to:

**U.S. General Accounting Office
Post Office Box 6015
Gaithersburg, Maryland 20877**

Telephone 202-275-6241

The first five copies of each report are free. Additional copies are \$2.00 each.

There is a 25% discount on orders for 100 or more copies mailed to a single address.

Orders must be prepaid by cash or by check or money order made out to the Superintendent of Documents.

**Appendix II
Comparison of Disaster Assistance Programs**

Table II.1: Matrix Showing How Well Different Forms of Disaster Assistance Meet the Criteria

Criteria	Crop insurance	Disaster payments	Emergency loans
1. The amount of disaster assistance provided should be determined by the amount of a farmer's loss, not by the severity of the disaster.	Yes	No	No
2. Disaster assistance programs should provide similar amounts of assistance to farmers suffering similar amounts of losses.	No	No	No
3. Disaster assistance recipients should not provide farmers more assistance than the amount of their disaster losses.	Depends ^a	Depends ^a	Depends ^a
4. Disaster assistance programs should not create incentives to encourage farming practices that increase the likelihood and extent of losses.	Depends ^b	Depends ^c	Depends ^b
5. Disaster assistance programs should be consistently available over time to allow for long-range planning.	Yes	No ^d	No
6. Disaster assistance programs, in the way they provide financial assistance, should help farmers withstand and recover from the effects of natural disasters.	Yes	Yes	Depends ^e
7. Disaster assistance programs should have predictable annual costs.	Depends ^f	No	No
8. Disaster assistance programs should meet their objectives at the lowest possible cost.	Depends ^b	Depends ^c	Depends ^b

^aWould meet criterion if actual production histories were used exclusively.

^bWould meet criterion to the extent that programs were not subsidized. For crop insurance, incentives would be reduced to the extent that premiums reflected actual risks and that subsidization of high-risk participants by low-risk participants was minimized.

^cWould meet criterion to the extent that losses are only partially compensated and that compensation for risky farming practices was prohibited.

^dThe Emergency Feed Program and the Emergency Feed Assistance Program are consistently available to producers to help them with long-range planning.

^eMeets criterion only to the extent that loan principal is forgiven.

^fMeets criterion to the extent that the program is run on an actuarially sound basis.

payment programs have been designed to provide crop insurance policy holders additional benefits so they are not penalized for purchasing insurance. Consequently, as with the Disaster Assistance Act of 1988, some farmers can receive close to 100 percent of their expected earnings, which is significantly more than they would have received under either the crop insurance or disaster payment programs individually.

Conclusion

Though none of the disaster assistance programs meet all of these criteria, our past work indicates that the crop insurance program is a more equitable and efficient way to provide disaster assistance than the emergency loan and direct payment programs. Crop insurance treats disaster victims more equitably than loan and disaster programs because disaster victims who experience similar losses are more likely to receive similar benefits. Crop insurance also provides farmers disaster assistance more efficiently because farmers generally have more incentive to reduce risk under the program than they do under loan and direct payment programs.

Our analysis of how well each of the programs satisfies our criteria is summarized in table II.1. According to our analysis, the crop insurance program satisfies three of these criteria, the disaster payments program satisfies one, and the emergency loan program satisfies none. If some program characteristics were changed, as described in the table's footnotes, these programs could satisfy seven, four, and four criteria, respectively. None of the programs can satisfy criterion 2, which concerns the effect of the tax system on the amount of assistance provided. Our analysis shows, however, that the effect of the tax system is larger under the emergency loan program than the direct payment and crop insurance programs. In addition, none of the programs have predictable annual costs (criterion 7). Each program could have predictable annual costs if it were managed on an actuarially sound basis, although annual outlays would still be unpredictable.

In concluding that crop insurance meets more of these criteria than other forms of assistance, however, we recognize that FCIC has had a history of management problems that, in the short term, makes it difficult to justify the current crop insurance program as the sole source of disaster assistance to farmers. Consequently, if the Congress chooses to rely on the crop insurance program exclusively to provide crop disaster assistance, a transition period for strengthening the program would probably be necessary.

varying interest rates, borrower default rates, and FmHA's policy decisions about the amount of loan write-offs. For example, FmHA is currently identifying how much of the past due \$5.2 billion in emergency loan outstanding principal and interest will be written off in 1989.

The crop insurance program costs also cannot be predicted because the program does not operate on an actuarially sound basis. During the 1980s, the program has not received sufficient revenues from premiums and government subsidies for premiums and administrative expenses to offset the costs of the program. Consequently, the CCC has provided cash periodically (totaling \$2.3 billion in paid-in capital) to make up for funding shortfalls. These costs were not anticipated as part of the budget process.⁸

With an actuarially sound insurance system, rates are established in anticipation of catastrophic events.⁹ As a result, premiums are established on the basis of the expected average cost of losses each year and remain relatively consistent from year to year. Therefore, in some years, an insurance program may take in more revenues than premiums, and in other years the reverse might happen. Over time, however, the amount of premiums collected should equal the amount of losses in an actuarially sound insurance system.

Accordingly, under an actuarially sound insurance program, the government's maximum budgetary exposure is more predictable because most of the government's contributions are tied to premium costs (on the basis of the government's premium subsidies), which remain relatively stable over time. The government would not have to make up funding shortfalls during major disasters since, under an actuarially sound system, the insurance system would generally have accumulated sufficient funds to pay large amounts of indemnities. Knowing the maximum budgetary exposure, as well as the amount of premiums collected on the policies, would enable budget officials to make more predictable budget estimates.

In theory, all three programs could be designed on an actuarially sound basis to provide more predictable and stable funding for disaster losses.

⁸Although CCC funding needs are estimated each year by FCIC in its budget submissions and coordinated with the CCC budget submissions, FCIC cannot accurately estimate its CCC funding needs until after the budget submissions are made.

⁹FCIC has long had a goal that 10 percent of annual premium income be available to establish the reserve for unforeseen losses, but FCIC has been unable to accumulate these reserves since 1980.

were able to obtain by requiring crop insurance as an eligibility condition for emergency loans, restricting loans to family farmers, and limiting emergency loans to those who are unable to obtain credit elsewhere. Conditions have since been made less restrictive, for example, by temporarily waiving the crop insurance purchase requirement because of the 1988 drought.

In contrast to the changing nature of the direct payment and emergency loan programs, the availability of crop insurance has gradually increased since the 1980 act. Thus, farmers have been able to rely on its availability from year to year. In making long-range plans, farmers are able to factor the availability and benefits of managing risk through crop insurance into their decision-making calculations.

Frequent program changes have also affected USDA's ability to adequately plan to administer these programs. For example, the Disaster Assistance Act of 1988 required ASCS on very short notice to determine disaster assistance payments on many nonprogram crops with which it had very little experience. In many cases, ASCS had to determine farmers' crop losses without knowing these farmers' actual production histories. As of May 30, 1989, ASCS was administering compensation payments for 472 crops, of which only 23 were program crops for which actual production histories were available. According to ASCS officials, farmers' disaster payments in many cases were based on county averages, which resulted in many cases of over- and undercompensation to individual farmers instead.

Criterion 6: Disaster Assistance Programs, in the Way They Provide Financial Assistance, Should Help Farmers Withstand and Recover From the Effects of Natural Disasters

Another goal of any disaster assistance program should be to help farmers to financially withstand the effects of natural disasters. Although each of the three programs provides farmers assistance, disaster assistance experience in the 1980s indicates that cash assistance helps farmers recover better from natural disasters than assistance in the form of loans.

Insurance and direct payment programs, because they provide cash instead of credit, achieve this goal better than the emergency loan program. Both programs provide farmers cash assistance that can help keep them in business after the effects of the disaster have passed. Crop insurance, for example, provides policyholders up to 68 percent of their expected earnings, depending on the coverage and price election options

Although none of the programs meet this criterion, the crop insurance and emergency loan programs, even though they are subsidized, meet it better than the direct payment program. Insurance programs use deductibles to avoid creating incentives to encourage farming practices that increase the likelihood and extent of losses. Deductibles cause farmers to continue bearing some risk because they will bear some costs when a disaster occurs. A deductible represents a portion of a loss that the insurance policy does not cover. FCIC provides coverage for 50, 65, and 75 percent of crop loss, under which policyholders do not receive compensation for the first 50, 35, and 25 percent of crop losses that occurs.

Similarly, the emergency loan program provides farmers more incentives to reduce risk than the direct payment program because all of the principal has to be paid back. However, this incentive has been diminished because FmHA has frequently restructured loans to avoid borrower defaults. Many emergency loan borrowers during the 1980s incurred debt they could not repay. The amount of debt FmHA has written off has increased every year since 1981, from \$309,000 in 1981 to \$808 million in 1988.

Disaster payment programs, because they are fully subsidized by the government, provide little incentive to avoid risks. The amount of risk borne by farmers can be increased by compensating farmers for only a partial amount of their losses. In the two most recent instances in which direct payments have been used—1986 and 1988—the Congress and USDA have followed this practice. Another measure that can encourage farmers to reduce their disaster risks under a direct payment program would be to prohibit certain risky farming practices, such as farming in flood-prone areas, from coverage.

Criterion 5: Disaster Assistance Programs Should Be Consistently Available Over Time to Allow for Long-range Planning

Like all businesses, farming has certain risks, including the risks associated with weather and natural disasters. And, like other business managers, farmers make decisions about risk and to what extent they want to protect their enterprise from events beyond their control. However, since the federal government became involved in production agriculture in the 1930s, government risk-reduction programs have changed from time to time. As a result, many farmers have not always had adequate information before the planting season to make informed risk management decisions.

Appendix II
Comparison of Disaster Assistance Programs

farmers for their entire loss, each program could provide farmers with some tax benefits. The direct payment and crop insurance programs compensate farmers for part of their losses, but the emergency loan program provides assistance that farmers are obligated to pay back. Thus, farmers can deduct their entire disaster loss under the emergency loan program. This aspect of the loan program could result in large differences in tax benefits between high- and low-income farmers suffering similar losses.

In addition to uncompensated disaster losses, farmers may also deduct business expenses from their income arising from disaster assistance programs. These expenses would generally include the cost of a crop insurance policy and interest payments on emergency loans. Because the direct payment program generally does not have business expenses associated with it, farmers receiving emergency loans or purchasing crop insurance can generally expect to receive more tax benefits than direct payment program participants. These benefits also are more favorable to those in higher tax brackets.² The following simplified example illustrates how tax benefits can differ under the emergency loan program.³

Two farmers, suffering identical disaster-related losses of \$10,000, both receive a \$10,000 loan at 5 percent interest from FmHA.⁴ Farmer A has taxable income of \$80,000 and Farmer B has taxable income of \$20,000. Both farmers at the end of the tax year can deduct the entire loss (\$10,000) plus their interest expenses (\$500) for a total deduction of \$10,500 in arriving at their taxable income. Under the current tax law, Farmer A has a higher marginal tax rate (33 percent) than Farmer B (15 percent). The \$10,500 deduction is worth \$3,465 in reduced taxes to Farmer A ($\$10,500 \times 0.33$) but only \$1,575 to Farmer B ($\$10,500 \times 0.15$). Thus, Farmer A realizes an additional amount of indirect assistance of \$1,890 solely due to the difference in tax treatment for disaster loans.

²The value of these deductions has been reduced by the Tax Reform Act of 1986, which lowered marginal tax rates. The highest marginal tax rate for individuals was reduced from 50 to 33 percent.

³The example assumes that both farmers had income during the tax year because either their disasters were limited or they had diversified farming operations. The example also assumes that both farmers do not have tax deductions that can be carried forward to future years or carried back to previous years.

⁴For this example, both farmers are considered sole proprietors—each filing a joint return—and not corporations.

Criteria for Weighing the Merits of Current Forms of Disaster Assistance

Criterion 1: The Amount of Disaster Assistance Provided Should Be Determined by the Amount of a Farmer's Loss, Not by the Severity of the Disaster

The level of federal disaster relief provided victims over time should be directly related to the amount of loss suffered by the farmer, and not to the severity of the disaster that occurred. This principle has not always been followed under the current arrangement of providing direct payments, loans, and insurance.

Major changes in disaster assistance policy have often occurred in the wake of widespread natural disasters, like a hurricane or a drought. During these periods, direct payment and loan assistance programs have been liberalized even though individual losses were less, in many cases, than those of an isolated disaster. For these isolated cases, terms of disaster assistance could be and sometimes are less generous or assistance is not available at all. Such ad-hoc approaches to disaster assistance policy, in which disaster relief programs or program terms are established after a major disaster has occurred, create inconsistencies and violate basic notions of treating similarly affected farmers equally.

For example, as we reported in 1987,¹ the Congress responded with much higher levels of assistance to disaster victims in 1986 than 1985, even though both droughts appeared to be severe in that they were spread over large geographic areas. In 1985, a drought followed by a severe winter affected primarily the northern plain states. In 1986, the southeastern and the mid-Atlantic states suffered a drought that caused crop and livestock damage estimated in excess of \$2 billion. In each case, the droughts were reported by some individuals as possibly the worst to affect their areas in the last 50 years. Despite the severity of both droughts, the Congress authorized a direct payment program for crop losses costing over \$500 million in 1986, but no program was made available in 1985. In addition, USDA provided a wider range of livestock feed assistance programs in 1986 than in 1985. Because USDA's decisions to provide livestock assistance were based on a subjective consideration

¹See *Emergency Assistance: Operation of USDA's Livestock Feed Programs* (GAO/RCED-87-59, Mar. 6, 1987).

**Appendix I
Federal Role in and Costs of Providing
Agriculture Disaster Assistance During
the 1980s**

Table I.5: FCIC Program Costs (FY 1980-88)

Dollars in thousands

Category	Fiscal year									Total
	1980	1981	1982	1983	1984	1985	1986	1987	1988	
Indemnities ^a	\$342,626	\$407,266	\$529,108	\$583,744	\$651,205	\$662,076	\$600,878	\$406,435	\$1,087,500	\$5,270,838
Administrative expenses	28,015	91,951	139,306	131,306	177,604	199,608	193,503	169,894	198,322 ^b	1,329,509
Total	\$370,641	\$499,217	\$668,414	\$715,050	\$828,809	\$861,684	\$794,381	\$576,329	\$1,285,822	\$6,600,347

^aIndemnities for 1980-83 represent totals for crop years rather than fiscal years.

^bEstimate.

Source: FCIC.

Table I.6: FCIC Sources of Funding (FY 1980-88)

Dollars in thousands

Category	Fiscal year									Total
	1980	1981	1982	1983	1984	1985	1986	1987	1988	
Government										
Premium subsidy	\$0	\$46,996	\$91,418	\$64,559	\$98,352	\$100,088	\$88,110	\$87,621	\$108,391 ^d	\$685,535
Expenses appropriation	28,015	91,951	139,306	131,306	177,604	199,608	193,503	169,894	198,322 ^d	1,329,509
Paid-in capital	0	0	250,000	150,000	50,000	163,000 ^c	450,000	300,000	900,000	2,263,000
Total	28,015	138,947	480,724	345,865	325,956	462,696	731,613	557,515	1,206,713	4,278,044
Producer										
Premium	156,465 ^b	332,163	307,253	226,813	337,809	340,133	291,633	264,350	314,754 ^d	2,571,373
Other ^a	5	34	284	1,194	3,633	5,959	5,311	6,586	7,258	30,264
Total	156,470	332,197	307,537	228,007	341,442	346,092	296,944	270,936	322,012	2,601,637
Total (government and producer)	\$184,485	\$471,144	\$788,261	\$573,872	\$667,398	\$808,788	\$1,028,557	\$828,451	\$1,528,725	\$6,879,681

^a"Other" includes interest income FCIC received from policyholders and reinsured companies, recoveries on uncollectible accounts previously written off, and recoveries of amounts through litigation.

^bProducer premium for 1980 is based on crop year totals.

^cIncludes a \$113 million U.S. Treasury loan.

^dFCIC estimates.

Source: FCIC.

**Appendix I
Federal Role in and Costs of Providing
Agriculture Disaster Assistance During
the 1980s**

amount of eligible acres enrolled in the program has risen from 9.6 percent in 1980 to 24.5 percent in 1988, well below the 50-percent target established for the program in 1980.¹¹ At the same time, acres insured under the various county crop programs increased from 26.3 million acres (out of a potential 274 million acres) to 55.5 million acres (out of a potential 226 million acres) during the period.

Table I.4: FCIC Program Participation Trends (1980-88)

Category	Crop year									
	1980	1981	1982	1983	1984	1985	1986	1987	1988	
Number of county programs	4,683	6,027	14,577	15,415	17,868	18,892	19,053	19,263	19,611	
Number of crops insured	30	30	30	33	40	42	44	44	50	
Eligible acreage ^a	273,889	282,333	280,046	240,103	276,073	265,967	247,987	224,694	226,422	
Acres insured ^a	26,272	44,996	42,721	27,935	42,668	48,537	48,632	49,132	55,541	
Participation rate (percent)	9.6	15.9	15.3	11.6	15.5	18.2	19.6	21.9	24.5	

^aIn thousands.
Source: FCIC.

In work we did in 1988, crop insurance experts and farmer groups told us that one reason for low participation in the crop insurance program was that other federal disaster assistance programs provide farmers with direct cash payments at no cost to the farmers, resulting in the perception that crop insurance is unnecessary.¹² They also told us that (1) some farmers were unwilling or unable to bear the cost of crop insurance because of what they perceived to be the poor condition of the farm economy, (2) many farmers believed that crop diversification is an adequate risk management tool and that crop insurance was not needed, (3) some farmers were deterred by what they thought were complex record-keeping and paperwork requirements to prove their crop yields, and (4) many farmers and insurance agents were frustrated by frequent changes in program rates, rules, and policies. FCIC has had a history of management problems which may have contributed to a lack of confidence in the program. The work being done now by the Federal Crop Insurance Commission addresses some of the problems we have identified.

¹¹FCIC expects a participation rate of 35 to 40 percent in 1989, in part due to the Disaster Assistance Act of 1988, which requires disaster assistance recipients who suffered a crop loss in excess of 65 percent of normal yields to purchase at least the minimum amount of crop insurance, if available, for the 1989 crop year. Under certain circumstances, the purchase requirement can be waived.

¹²See *Crop Insurance: Participation in and Costs Associated With the Federal Program* (GAO/RCED-88-171BR, July 6, 1988).

**Appendix I
Federal Role in and Costs of Providing
Agriculture Disaster Assistance During
the 1980s**

qualify for a physical loss loan, a farmer must have sustained damage to or destruction of physical property that is essential to the successful operation of the farm; that is, if the property is not repaired or replaced, the farmer will be unable to continue reasonably sound operations. According to an FmHA official, approximately 80 percent of the emergency loans are for emergency production loss loans and 20 percent are for physical loss loans.

FmHA's costs for operating the emergency loan program have totaled \$6.4 billion in the 1980s. (See table I.3.) Two-thirds of these costs (\$4.3 billion) have come from interest rate subsidies, which represent the difference between the interest rate charged to borrowers and the government's cost to borrow this money. The cost of writing down or writing off delinquent debt, which occurs when principal and interest cannot be collected and is reduced or written off as a loss, totaled \$1.4 billion during this period. These costs have accelerated rapidly, rising from \$2.7 million in 1980 to \$808 million in 1988, as greater numbers of FmHA emergency loan borrowers found themselves unable to pay their debts. The costs of writing off emergency loans have risen so fast in recent years that they surpassed the cost of FmHA's interest rate subsidies in 1988.⁸

Table 1.3: FmHA Emergency Loan Program Costs (FY 1980-88)

Dollars in thousands

Category	Fiscal year									Total
	1980	1981	1982	1983	1984	1985	1986	1987	1988	
Interest subsidy	\$211,780	\$352,458	\$378,657	\$368,250	\$352,397	\$571,536	\$649,297	\$692,384	\$688,898	\$4,265,657
Loan write-off	2,696	309	7,188	9,942	18,202	64,669	109,742	370,929	808,005	1,391,682
Administrative costs	^b	^b	64,874	57,746	70,337	52,925	59,493	54,849	64,266	424,490
Settlement loss on guaranteed loans	32	0	0	36	62	121	56	0	91	398
Other ^a	30,753	49,404	(10,038)	251	(2,325)	41,086	47,010	61,885	86,231	304,257
Total	\$245,261	\$402,171	\$440,681	\$436,225	\$438,673	\$730,337	\$865,598	\$1,180,047	\$1,647,491	\$6,386,484

^aIncludes costs for property management, loan servicing, and other miscellaneous expenses.

^bTotal administrative costs unavailable for 1980-81. Administrative costs from the revolving fund are included in "other" category for 1980-81.

Source: FmHA.

⁸FmHA has written off debt according to the debt restructuring provisions of the Agricultural Credit Act of 1987 (P.L. 100-233, Jan. 6, 1988).

**Appendix I
Federal Role in and Costs of Providing
Agriculture Disaster Assistance During
the 1980s**

Table I.2: ASCS Disaster Payments Program Costs (FY 1980-89)

Dollars in thousands

Program cost	Fiscal year									Total
	1980	1981	1982	1983	1984	1985	1986	1987	1988	
Crop disaster assistance ^a	\$257,753	\$1,029,905	\$306,100	\$114,925	\$1,121	\$14	\$35	\$556,469	\$3,379,895 ^d	\$5,646,217
Emergency feed program ^a	23,402	328,504	16,051	(134) ^c	(43) ^c	175 ^c	996	85,800	531,121 ^e	985,872
Emergency conservation program	22,197	15,701	4,400	9,854	15,488	11,415	7,103	4,657	10,786 ^f	101,601
Forage assistance program	0	0	0	0	0	0	0	0	4,433 ^g	4,433
Tree assistance program	0	0	0	0	0	0	0	0	1,469 ^g	1,469
Administrative costs	b	48,253	10,839	3,252	10,413	6,191	8,476	20,797	85,152	193,373
Total	\$303,352	\$1,422,363	\$337,390	\$127,897	\$26,979	\$17,795	\$16,610	\$667,723	\$4,012,856	\$6,932,965

^aIncludes cash payments and commodity certificates, based on face value on issuance day.

^b1980 administrative cost data unavailable. Figures for 1981-88 are estimates.

^cReflects prior year adjustments.

^dIncludes actual FY 1989 payments through July 31, 1989, equal to \$3,364,492,000.

^eIncludes actual FY 1989 payments through July 31, 1989, equal to \$459,297,000.

^fIncludes actual FY 1989 payments through June 30, 1989, equal to \$6,023,000.

^gNo payments made in 1988, but includes actual FY 1989 payments through July 31, 1989.

Source: ASCS.

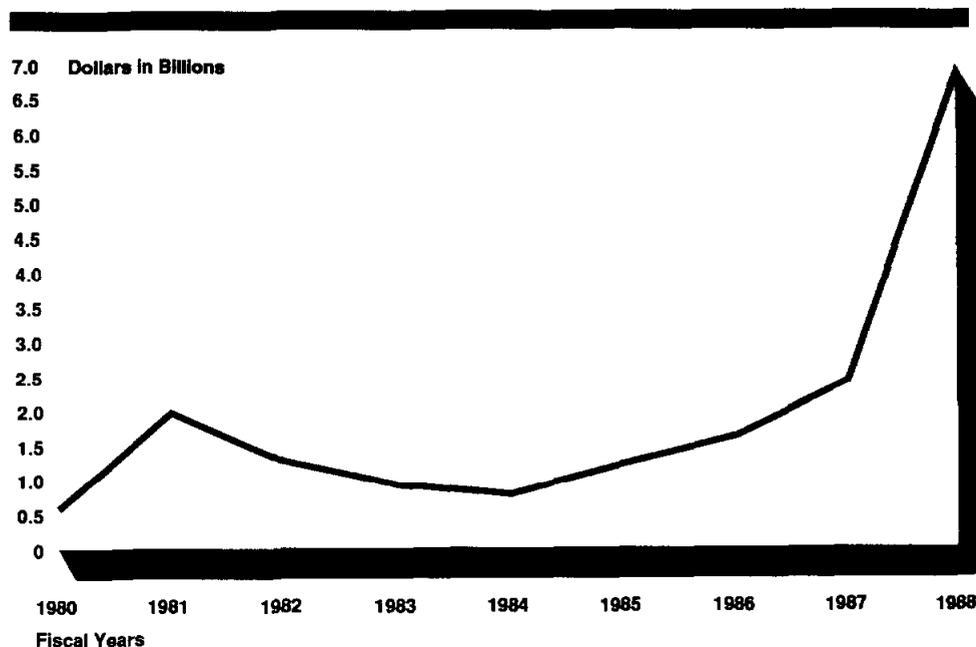
In addition to the \$5.6 billion spent on crop losses, USDA also spent an additional \$1.3 billion for disaster assistance (including almost \$200 million for administrative expenses) during the 1980s under the following programs:

- **Emergency Feed Program (\$986 million):** Established in 1977, this program was used to reimburse producers who lost at least 40 percent of their feed production to disaster for up to 50 percent of their commercial feed costs. This program was terminated in 1982 and reinstated in 1986. ASCS also has managed the Emergency Feed Assistance Program since 1983, which provided Commodity Credit Corporation (CCC) grain at 75 percent of the basic county loan rate⁶ for disasters occurring

⁶The price per unit at which the government will provide loans to farmers to enable them to hold their crops for later sale.

**Appendix I
Federal Role in and Costs of Providing
Agriculture Disaster Assistance During
the 1980s**

**Figure I.1: Government Costs for
Agriculture Disaster Assistance
Programs (FY 1980-88)**



Note: Chart represents actual government costs not adjusted for inflation.
Source: USDA.

**Role and Costs of the
Disaster Assistance
Payment Programs**

Under the direct payment program,⁴ the Agricultural Stabilization and Conservation Service (ASCS) provides payments for a variety of crops, including trees and hay, in the event of damage caused by natural disasters. In addition, livestock producers are eligible for assistance under certain aspects of the program. Although the specific program provisions may vary between the groups of farmers and ranchers receiving assistance, virtually all of the disaster payment programs provide cash assistance to disaster victims. This form of agriculture disaster relief was used in 1988 as part of federal attempts to deal with the severe drought that affected much of the United States. To be eligible to receive payments under the Disaster Assistance Act of 1988 (P.L. 100-387, Aug. 11, 1988), producers must have suffered a crop loss of over 35 percent and have gross annual revenues of less than \$2 million. Producers must apply for disaster assistance by completing applications and providing acceptable historical crop production evidence. As of March

⁴At the beginning of the decade, ASCS administered the Disaster Assistance Payment Program. This program was phased out in the early 1980s and replaced by direct payment programs in 1986, 1988, and 1989.

Federal Role in and Costs of Providing Agriculture Disaster Assistance During the 1980s

Background of the Disaster Assistance Debate

Throughout the 1980s, the U.S. Department of Agriculture (USDA) has provided disaster assistance to farmers through direct cash payments, subsidized loans, and subsidized insurance. These programs are designed to help protect farmers from loss of income if their crops are damaged or destroyed by natural causes. Before 1980, however, USDA provided disaster assistance mainly through direct cash payments, paying an average of \$436 million per year to farmers between 1974 and 1980, and by providing emergency loans. Federal crop insurance, which has existed since 1938, provided only a limited amount of disaster assistance. By 1980, for example, crop insurance was available in only one-half of the nation's counties, covering only 30 crops. Program participation rates were low: In 1979, for example, only 11 percent of eligible acreage was insured.¹

Because of criticism that the direct payment program was too expensive and encouraged producers to farm in areas that were susceptible to natural disasters, the Congress enacted new legislation in 1980 which greatly expanded the crop insurance program.² At the time, the Congress believed that a greater emphasis on crop insurance would alleviate the need for expensive ad-hoc disaster assistance programs. Since that time, while the coverage of and participation in the program has grown, the amount of eligible acres insured under the program never reached the 50-percent goal that the House Agriculture Committee envisioned when the 1980 legislation was passed.

With the failure of crop insurance to establish its predominance over other forms of disaster assistance since the 1980 act, there is significant congressional interest in reviewing and revising overall agriculture disaster assistance policy in conjunction with the development of the next farm bill. Several studies, including this one, are being conducted to weigh the relative merits of the various forms of assistance now being provided. For example, the Congress created the Federal Crop Insurance Commission in 1988 to make recommendations to improve the program and lessen or eliminate the need for additional disaster assistance programs. In July 1989, the Commission recommended restructuring the crop insurance program to improve its effectiveness, increase participation rates, and reduce the need for ad-hoc disaster assistance direct payment programs. Among the Commission's recommendations are (1)

¹Data in this paragraph came from *Federal Crop Insurance: Background and Current Issues* (Congressional Research Service, Dec. 12, 1988).

²The Federal Crop Insurance Act of 1980 (P.L. 96-365, Sept. 26, 1980).

Contents

Letter		1
Appendix I		12
Federal Role in and Costs of Providing Agriculture Disaster Assistance During the 1980s	Background of the Disaster Assistance Debate Overview of USDA's Role in and Associated Costs of Providing Disaster Assistance During the 1980s	12 13
Appendix II		23
Comparison of Disaster Assistance Programs	Criteria for Weighing the Merits of Current Forms of Disaster Assistance Conclusion	24 34
Appendix III		37
Major Contributors to This Report	Resources, Community, and Economic Development Division, Washington, D.C.	37
Tables		
	Table I.1: Government Costs for Agriculture Disaster Assistance Programs (FY 1980-88)	13
	Table I.2: ASCS Disaster Payments Program Costs (FY 1980-89)	16
	Table I.3: FmHA Emergency Loan Program Costs (FY 1980-88)	18
	Table I.4: FCIC Program Participation Trends (1980-88)	20
	Table I.5: FCIC Program Costs (FY 1980-88)	22
	Table I.6: FCIC Sources of Funding (FY 1980-88)	22
	Table II.1: Matrix Showing How Well Different Forms of Disaster Assistance Meet the Criteria	36
Figures		
	Figure 1: Government Costs for Agriculture Disaster Assistance Programs (FY 1980-88)	5
	Figure I.1: Government Costs for Agriculture Disaster Assistance Programs (FY 1980-88)	14

We are sending copies of this report to the Secretary of Agriculture; the Director, Office of Management and Budget; and other interested parties. Copies will be provided to others upon request. If we can be of further assistance, please contact me at (202) 275-5138. Major contributors to this report are listed in appendix III.

Sincerely yours,

A handwritten signature in cursive script, reading "John W. Harman". The signature is written in black ink and is positioned above the printed name and title.

John W. Harman
Director, Food and Agriculture Issues

2. Disaster assistance programs should provide similar amounts of assistance to farmers suffering similar amounts of losses.
3. Disaster assistance programs should not provide farmers more assistance than the amount of their disaster losses.
4. Disaster assistance programs should not create incentives to encourage farming practices that increase the likelihood and extent of losses.
5. Disaster assistance programs should be consistently available over time to allow for long-range planning.
6. Disaster assistance programs, in the way they provide financial assistance, should help farmers withstand and recover from the effects of natural disasters.
7. Disaster assistance programs should have predictable annual costs.
8. Disaster assistance programs should meet their objectives at the lowest possible cost.

Our analysis of how well each of the programs meets the criteria is summarized in table II.1. (See app. II.) According to our analysis, the crop insurance program satisfies three of these criteria, the disaster payments program satisfies one, and the emergency loan program satisfies none. If some program characteristics were changed, the crop insurance and emergency loan programs could satisfy four more criteria, and the direct payments programs could satisfy three more.

Appendix II describes each criterion in detail, explains the rationale behind each criterion, and describes how well each disaster assistance program satisfies each criterion.

Conclusions

Although none of the three forms of disaster assistance currently provided—direct cash payments, loans, and insurance—fully satisfies the requirements of all eight criteria, crop insurance satisfies more criteria than the other programs. The crop insurance program can provide assistance more equitably and efficiently than the emergency loan and direct payment programs.

more crops and a larger part of the country would alleviate the need for expensive, ad-hoc disaster assistance programs.

Despite the expanded scope and availability of crop insurance, the Congress has continued providing disaster assistance to farmers through direct payment and emergency loan programs during the 1980s. One reason for this is that crop insurance participation rates have remained relatively low. Since 1980, the amount of eligible acres enrolled in the program has risen from 9.6 percent in 1980 to 24.5 percent in 1988, well below the 50-percent target established for the program in 1980.⁵ In work we did in 1988, crop insurance experts and farmer groups told us that one reason for low participation in the crop insurance program was that competing federal disaster assistance programs provide farmers with direct cash payments at no cost, resulting in the perception that crop insurance is unnecessary.⁶

Disaster Assistance Costs During the 1980s

During the 1980s, the Congress continued to provide disaster assistance to farmers through direct payments, loans, and insurance. From 1980 through 1988, USDA spent approximately \$17.6 billion to support all three programs. Total costs for all three programs have increased every year since 1984. (See fig. 1.) Direct payments cost a total of \$6.9 billion, reaching peaks in 1981 (\$1.4 billion) and 1988 (\$4 billion)⁷ as the result of especially severe droughts. USDA's emergency loan program costs were \$6.4 billion from 1980 through 1988 and have been increasing steadily throughout the decade. Specifically, emergency loan program costs have risen from \$245 million in 1980 to over \$1.6 billion in 1988. Although most of the total costs have been due to interest subsidies, an increasing part of the rise in costs has been due to rapidly increasing loan defaults leading to debt write-offs.

The federal share of crop insurance costs since 1980 is about \$4.3 billion. As was the case with other forms of disaster assistance, the federal costs for supporting crop insurance increased during the decade. Total government contributions for the crop insurance program increased

⁵FCIC expects a participation rate of 35 to 40 percent in 1989, in part due to the Disaster Assistance Act of 1988, which requires disaster assistance recipients who suffered a crop loss exceeding 65 percent of normal yields to purchase at least the minimum amount of crop insurance, if available, for the 1989 crop year. Under certain circumstances, the purchase requirement can be waived.

⁶See *Crop Insurance: Participation in and Costs Associated With the Federal Program* (GAO/RCED-88-171BR, July 6, 1988).

⁷Including 1989 outlays appropriated in 1988.

Federal Role in and Costs of Providing Agriculture Disaster Assistance Between 1980 and 1988

Throughout the 1980s, USDA has provided disaster assistance to farmers through direct cash payments, subsidized loans, and subsidized insurance. Each of these programs helps farmers deal with a loss of income if their crops are damaged or destroyed by natural causes. Within USDA, the Agricultural Stabilization and Conservation Service (ASCS) administers direct cash payment programs for disasters, the Farmers Home Administration (FmHA) administers the emergency loan program, and the Federal Crop Insurance Corporation (FCIC) administers the federal crop insurance program.

Direct Payments

Under the direct payment program,¹ ASCS provides payments for a variety of crops, including trees and hay, in the event of damage caused by natural disasters. In addition, livestock producers are eligible for assistance under certain aspects of the program. Although the specific program provisions may vary among the groups of farmers and ranchers receiving assistance, virtually all of the disaster payment programs provide cash assistance to disaster victims. This form of agriculture disaster relief was most recently used in 1988 as part of federal attempts to deal with the severe drought that affected much of the United States.² To be eligible to receive payments under the Disaster Assistance Act of 1988 (P.L. 100-387, Aug. 11, 1988), producers must have suffered a crop loss of over 35 percent and have gross annual revenues of less than \$2 million. Producers must apply for disaster assistance by completing applications and providing acceptable crop production evidence. As of March 1989, this program covered 472 crops and various other types of assistance.

Emergency Loans

FmHA provides emergency loans at subsidized interest rates to eligible producers who have sustained actual crop and livestock losses as a result of natural disasters. These loans are made available in specific areas declared as disaster areas by either the President, the Secretary of Agriculture, or the FmHA Administrator. To qualify for an emergency production loss loan, an applicant must sustain a loss of at least 30 percent of a normal year's production in any single enterprise. The purpose of emergency loans is to provide farmers direct assistance to cover

¹At the beginning of the decade, ASCS administered the Disaster Assistance Payment Program. This program was phased out in the early 1980s and replaced by direct payment programs in 1986, 1988, and 1989.

²In addition, the recently enacted Disaster Assistance Act of 1989 (P.L. 101-82, Aug. 14, 1989) will provide about \$897 million in disaster assistance.

