THE SMALL WATERSHED PROGRAM

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T

THE NATURE OF THE PROBLEM

The avowed purpose of the Department of Agriculture's small watershed program is to conserve water by retaining a maximum amount of it on the land where it falls and to retard agricultural damages caused by run-off in a watershed—the land area which contributes to the flow of a stream. A secondary objective claimed by the Department is to complement mainstream works, such as large dams, levees, and dredged channels, by restricting the flow of water during periods of maximum run-off and reducing sedimentation and excessive siltation of the beds of reservoirs and streams. In short, the Department has visualized this program as a part of flood control as well as a foundation for stabilized agricultural production, especially in areas subject to alternating drought and floods, such as the Missouri basin.¹

The program requires two related types of construction—flood-control works and land-treatment measures. The latter ("B" measures) include such soil-conservation measures as terracing, contour plowing, grade control, and crop management, which have been soil-conservation practices for many years. The flood-prevention structures ("A" measures) are small "wet" or "dry" dams, intended either to create permanent pools or to reduce streamflow during heavy rains, gully-control structures, floodways, bank-protection works, and channel improvements. In order that flood-prevention works may be constructed, the land-treatment measures must be at least fifty per cent completed in a watershed. Although primary emphasis is placed on these two complementary phases of the program (with special need for accelerating land-treatment measures), present legislation also authorizes construction related to municipal and industrial water supply, stream-flow regulation, irrigation, drainage, and agricultural water management.

II

THE HOPE-AIKEN ACT

A. Nature of the Program

The principal authorization for the program is the Watershed Protection and *B.S. 1940, Iowa State College; Ph.D. 1951, University of Virginia. Associate Professor of Political Science, University of Nebraska. Author, A While Embattled (1954), and contributor to various legal

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¹ See I U. S. COMM'N ON ORGANIZATION OF THE EXECUTIVE BRANCH OF THE GOVERNMENT, TASK FORCE REPORT ON WATER RESOURCES AND POWER 195-96 (1955); 2 id. at 740-41, 776-86; 1 President's WATER RESOURCES POLICY COMM'N, REPORT 123-40 (1950); U. S. Dep't of Agriculture, Missouri River Basin Agricultural Program, H. R. Doc. No. 373, 81st Cong., 1st Sess. iii-iv (1949); House Subcommittee to Study Civil Works, The Flood Control Program of the Department of Agriculture, 82d Cong., 2d Sess. (1952).

Flood Prevention Act of 1954 (Hope-Aiken Act), as amended in August 1956.² Congress has provided that the national government shall cooperate with the states and their political subdivisions to conserve, utilize, and dispose of water to protect both land and water resources. To this end, the act authorizes the Secretary of Agriculture to assist states or local organizations empowered under state law to carry out, maintain, and operate works of improvement by: (1) conducting investigations and surveys; (2) planning and calculating estimates necessary for adequate engineering evaluation; (3) allocating costs to the various features of a project and determining whether benefits exceed costs; (4) entering into agreements with local organizations and giving them financial assistance; (5) obtaining the cooperation of other federal agencies in carrying out the provisions of this legislation; and (6) making loans not exceeding five million dollars to finance individual local undertakings, to be repaid within fifty years of the date when the benefits of the improvements first become available. The "works of improvement" authorized for assistance are defined by law to mean any undertaking for flood prevention, including both structural and land-treatment measures, as well as projects for the conservation, development, utilization, and disposal of water. The act, thus, authorizes the Secretary to undertake a comprehensive, multipurpose program.

There are, however, important limitations on this authority. Any watershed treated under the terms of the act is not to exceed 250,000 acres in area, nor may it contain any structure (dam) providing more than 5,000 acre-feet of floodwater detention capacity nor more than 25,000 acre-feet of capacity for all purposes (such as municipal water supply in addition to floodwater detention). Further, although the amendment of August 1956 provides that the federal government shall bear the entire cost of constructing the works of improvement devoted to flood prevention, no appropriation may be made for any plan involving a federal contribution of financial aid in excess of \$250,000 nor for a project including a structure providing more than 2,500 acre-feet of total capacity, without authorization by the appropriate committees of Congress. The dividing line for determining congressional committee jurisdiction over these projects is 4,000 acre-feet. If a plan involves the construction of no single structure over this amount in capacity, the Agriculture Committees of the two houses have jurisdiction; if any single structure exceeds the 4,000 acre-feet limitation, the Public Works Committees have jurisdiction. If, however, the project is small enough so that it neither requires federal financial assistance in excess of \$250,000 nor contains any structure larger than 2,500 acre-feet of capacity, no review by congressional committee is now required. The \$250,000 and 2,500 acre-feet limit is also used to determine whether there shall be review of a proposal by the Department of the Interior and the Corps of Engineers. No review by these agencies is necessary for works under this limit, but a project exceeding it must be submitted for review and comment to either or both of these agencies before transmittal to Congress so long as it contains features of appropriate concern to them.

² 68 STAT. 666 (1954), as amended, 16 U.S.C. §§1001-07 (Supp. III, 1956).

Other portions of the act define the responsibilities of local organizations seeking the assistance of the Department of Agriculture. The sponsoring local organization must acquire, without cost to the federal government, the necessary land, easements, and rights of way; assume a proportionate share, determined by the Secretary of Agriculture to be equitable, of the costs of installing works related not to flood prevention, but to agricultural phases of the conservation, use, or disposal of water; arrange to bear the costs of operating and maintaining the works of improvement to the satisfaction of the Secretary; either acquire, or provide assurances to the Secretary that landowners or water users have acquired, water rights pursuant to state law necessary for the installation and operation of works; obtain agreements that recommended farm-conservation practices will be carried out by the owners of not less than fifty per cent of the lands situated above each retention reservoir to be installed with federal aid; and submit a plan to repay any loan made by the federal government under the terms of the act. Provision is also made for local organizations to make optional use of federal engineering assistance for flood-prevention projects, with the costs of nonfederal professional assistance being reimbursible up to five per cent of project cost, although for municipal or industrial water-supply works, the local organization must provide nonfederal professional engineering services to the satisfaction of the Secretary.

The plan of improvement in each case must be scrutinized by either the governor of the state or an agency designated by him. If, within forty-five days of submission, the plan is not disapproved, it is sent forward to the Secretary of Agriculture for his review and amendment, approval, or rejection. Thus, the Secretary has ultimate authority over all small projects falling under the 250,000 acre area limit, the \$250,000 appropriation limit, and the restriction of structure size to 2,500 acre-feet of capacity; and even with respect to larger projects, he has authority to reject or require modification of project plans. The Administrator of the Soil Conservation Service has been assigned the responsibility of effectuating all but one of the provisions of this law.³

B. Scope of the Program

The watersheds to be treated under the Hope-Aiken Act are actually quite small in size, just as the structures to be erected within them are relative mites when compared with such giants as Fort Peck, Oahe, and Gavins Point Dams on the mainstream of the Missouri River.⁴ Few of the projects approved so far approximate 250,000 acres in area or contain structures impounding so much as 2,500 acre-feet of water. The net result is that individual projects, as far as they go, are not intended to approach erosion and floodwater problems from the river basin standpoint. The

⁸ Exec. Order No. 10584, 3 C.F.R. 98 (Supp. 1954). *Cf.* U. S. Dep't of Agriculture, Policy of the Secretary of Agriculture for the Administration of the Watershed Protection and Flood Prevention Act (1956).

⁴ Until 1951, the Soil Conservation Service had constructed only four dams of 5,000 to 25,000 acre-feet capacity and ten in the 3,000 to 5,000 acre-feet range; the largest number was in the 50 to 1,000 acre-feet range. See Hearings before the Senate Committee on Agriculture and Forestry on Watershed Projects, 84th Cong., 2d Sess. 73 (1956).

legislative authorization for these small projects is a continuing one, however, subject only to the support of appropriations. In this respect, therefore, the program is a "national" one, like the others administered by the Soil Conservation Service.

Some indication of the scope of the small watershed program now being carried out under the act (which is in addition to similar projects authorized by the Agricultural Appropriation Act of 1953⁵ and the Flood Control Act of 1944⁶) can be gained from data used for planning activities for the fiscal year 1957. As of May 1956, the Department of Agriculture had received 480 applications for assistance from local sponsoring groups. It had approved 153 of these projects for detailed planning in forty-three states. Of the work plans approved at the planning stage, the Department expected to submit thirty-five to Congress during fiscal year 1956 and an additional seventy-five during fiscal year 1957. It was anticipated that construction would be initiated on fifteen projects during 1956 and on seventy-five during 1957. Funds totaling \$5,526,079 were available for small watershed planning and works of improvement in 1955; in 1956, \$13,423,136 were available, including a carry over from 1955 of more than \$1,600,000. For 1957, the Department requested an increase of \$3,755,935, for a total of \$15,500,000 for the continuation of this work. The increased estimate of three and three-quarter million dollars reflected the anticipated acceleration of requests for assistance, which the Department proposed to distribute to increases in federal contractual aid for works of improvement (which accounts for \$2,620,000), the personnel costs of increased federal engineering supervision of the projects, and a similar item for the acceleration of land-treatment measures upstream from proposed structures (which latter two items account for the remainder of the increased estimate).

On the whole, the projects already authorized for planning assistance are quite small in size: eighty-five of them cover watersheds of 0-50,000 acres; nineteen are from 50,001-100,000 acres; nineteen are from 100,001-150,000 acres; fifteen are from 150,001-200,000 acres; and fifteen are from 200,001-250,000 acres. Individually, the sizes range from the 1,000 acres of the Small Canyon watershed in San Bernardino County, California, to the pugnacious Upper Bully Creek watershed, occupying 247,040 acres in Malheur County, Oregon. Of thirty projects reported to the Senate to be in various advanced stages of planning, individual project costs varied from a minimum of \$60,494 for the Lake Placid-East Chain of Lakes Project in Florida to a maximum of \$5,561,097 for the Upper Brushy Creek watershed in Texas. The estimated time for the completion of these particular watershed protection projects also varied considerably, but the minimum was one year for two projects, ten years for six of them, and five years for all but four remaining ones falling in between the

⁸ 67 STAT. 214. See note 12 infra and accompanying text.

⁶ 58 STAT. 905, as amended, 33 U.S.C. §701f-3 (Supp. III, 1956). See note 9 infra and accompanying text.

These data have been gathered from the following sources, unless otherwise noted: Hearings, supra note 4, at 57-72; Hearings before the Subcommittee of the Senate Committee on Appropriations on H. R. 11177, Agricultural Appropriations for 1957, 84th Cong., 2d Sess. 218-36 (1956); Hearings before the Subcommittee of the House Committee on Appropriations on Department of Agriculture Appropriations for 1957, 84th Cong., 2d Sess. pt. 4, at 1926-29, 1967-2003 (1956).

two extremes. Since it is possible to plan the development of a small watershed as part of a long-term scheme for areas embracing more than the single-project minimum of 250,000 acres, it is difficult to get a clear picture of the time which will actually be required to complete some of these projects.⁸

The Department of Agriculture is presently engaged also in the development of two other groups of watershed projects which differ in certain details from the small projects authorized by the Hope-Aiken Act. Eleven watersheds were authorized for treatment under the Flood Control Act of 1944.9 The land-treatment measures and flood-prevention structures being developed in these particular projects are substantially the same as those now under construction under the authority of the Hope-Aiken Act, but the authorization for them is flood-control legislation; therefore, the lack of limitations on size, cost, the role of local agencies, and coordinating procedures on the Washington level leave the Department with a somewhat freer hand in some respects. These projects are much more ambitious than those planned under the Hope-Aiken Act. The smallest will be completed at an estimated total cost of \$5,450,601, and the largest at a cost of \$112,301,526; the majority will cost \$25,000,000 or more, with the total figure running to \$450,650,873. The nominal "federal" share of this total is presently \$321,893,480. Construction, so far, however, has been disappointingly slow. Aggregate federal funds available through the end of fiscal year 1956 amounted to only \$59,242,969. Although the Department has reported to Congress that local contributions in terms of easements and rights of way are two years ahead of federal funds to utilize them, other official reports suggest that progress has been slow and uneven. At the rate of appropriations requested for 1957 (\$10,700,000), it will require from six to thirty-four years to complete these projects, with the average for all of them being twenty-five years, according to a spokesman for the Department. Moreover, work plans have been completed for only about 13,750,000 acres of a total of slightly over 30,000,000 acres to be treated in these watersheds. When it is noted that the surveys for these (and several other) watersheds were authorized by the Flood Control Act of 1936,10 the scope of the task and the pace of work becomes obvious. The Department's work under the Watershed Protection Act of 1954 is an additional burden.

The immediate forerunner to the small projects authorized by the Hope-Aiken Act was the program of "pilot" watersheds "authorized" by the Agricultural Appro-

⁸ See Hearings before the Subcommittee of the Senate Committee on Appropriations, supra note 7, at 253-54. An official of the Soil Conservation Service estimated that the program may ultimately cost \$80,000,000 per year. Hearings before the Subcommittee of the House Committee on Appropriations, supra note 7, pt. 5, at 80-90, 147-52, 295-303. Cf. 1 U. S. COMM'N ON ORGANIZATION OF THE EXECUTIVE BRANCH OF THE GOVERNMENT, op. cit. supra note 1, at 196, for an estimated total cost of \$17,000,000,000 to the federal government for the entire program.

^o See Hearings before the Subcommittee of the Senate Committee on Appropriations, supra note 7, at 236-41; and Hearings before the Subcommittee of the House Committee on Appropriations, supra note 7, pt. 4, at 1970-76, and pt. 5, at 296-97.

^{10 49} STAT. 1570, 33 U.S.C. §701 et seq. (1952).

¹¹ See Maass, Protecting Nature's Reservoir, 5 Pub. Policy 71, esp. 71-78 (1954).

priation Act of 1953. This authorization was different from the original Hope-Aiken Act, as were the details of financing projects and the role of local agencies. The nature of the installations is, however, the same. The Soil Conservation Service commenced the construction in "pilot" watersheds selected ostensibly to demonstrate the effectiveness of watershed protection measures for flood prevention. Sixty of these projects were originally undertaken, but two were withdrawn, leaving fifty-eight active ones for completion in thirty-one states. It was originally anticipated that these pilot projects would be completed in five years, at a cost of \$28,706,000, but the Service now admits that it will require about eight years and \$31,800,000 to complete them. For the fiscal year 1957, the Department of Agriculture requested \$7,000,000 for these pilot projects. Individually considered, they are generally larger and more expensive than the projects so far authorized under the Hope-Aiken Act. They vary from a minimum of \$60,616 for the Switzler Creek watershed in Kansas to \$6,012,549 for the Walnut Creek watershed in California; nineteen of them will cost more than \$1,000,000 each. The officially estimated local contribution to total costs varies from fourteen per cent to eighty-six per cent, although the Department claims that the average local share is fifty-six per cent.

C. Legislative History

1. Conception and Birth

Congressional concern with watershed management as an aspect of flood control is not new. As early as 1911, Congress passed the Weeks Forest Purchase Act, amended by the Clarke-McNary Act of 1924, for the acquisition of forest lands located on the headwaters of streams for the control of run-off.¹³ Subsequent legislation expanded the role of the Forest Service in connection with flood reduction and watershed protection in forested areas.¹⁴ Shortly after the establishment of the Soil Conservation Service,¹⁵ the Department of Agriculture was authorized by the Flood Control Act of 1936 to undertake preliminary examinations and surveys of measures for controlling run-off, soil erosion, and water-flow reduction in watersheds upstream from the rivers and tributaries under the jurisdiction of the Corps of Engineers.¹⁶

Although the inclusion of the Department of Agriculture in the flood-control program was scarcely more than an afterthought, it was assumed when the act was passed that the Department would cooperate with the Corps in preparing joint survey reports on rivers and their watersheds, with joint responsibility for any

¹² See Hearings before the Subcommittee of the Senate Committee on Appropriations, supra note 7, at 251-52; Hearings before the Subcommittee of the House Committee on Appropriations, supra note 7, pt. 4, at 1981-99.

^{18 36} STAT. 961, as amended, 43 STAT. 653, 16 U.S.C. §§ 513-19, 521 (1952).

¹⁴ 45 Stat. 699 (1928); Flood Control Act of 1936, 49 Stat. 1570, 33 U.S.C. §701 et seq. (1952); Cooperative Forest Management Act, 64 Stat. 473 (1950), 16 U.S.C. §568c, d (1952).

^{18 48} STAT. 195 (1933), as amended, 49 STAT. 163 (1935), 16 U.S.C. \$590a-g (1952).

¹⁶ See 3 U. S. COMM'N ON ORGANIZATION OF THE EXECUTIVE BRANCH OF THE GOVERNMENT, op. cit. supra note 1, at 1032-39, and sources cited.

further actions taken. These expectations did not materialize, however, and the Department soon steered its own course.¹⁷ The Flood Control Act of 1936 authorized the Department to make preliminary investigations and surveys of 1,082 watersheds. By the time the small watershed program was authorized in 1954, however, the Department had sent to Congress only twenty-six detailed surveys and the Missouri Basin Agricultural Program—in all, \$18,000,000 worth of study. The Flood Control Act of 1944 had authorized construction on eleven of these projects, but the remainder of the surveys have been gathering dust in committee files.¹⁸ Obviously, World War II, among other factors, disrupted the Department's work.

In 1951, after the Secretary of Agriculture had submitted to Congress his comprehensive Missouri Basin Agricultural Program, including watershed flood-prevention features, 19 the House Committee on Agriculture, to which the report had been referred, commenced hearings in which members reflected the view that watershed flood prevention should be started without waiting for full river valley or basin-wide development.²⁰ The Committee became convinced that the flood-control works of the Corps of Engineers are not effective upstream in the small creeks and branches of tributaries and that from twenty-five to seventy-five per cent of all flood damage occurs in these upstream areas. Consequently, in May 1952, Representative Poage (D., Tex.) drafted and introduced a bill to implement the small watershed program.²¹ After being amended in committee and favorably reported to the House, it became lodged in the Rules Committee, where it was opposed by the Committee on Public Works, whose members were sensitive to the fears of the Bureau of Reclamation and the Corps of Engineers. But even before Representative Poage had introduced his bill, the Jones Subcommittee of the House Public Works Committee had started hearings on the Department of Agriculture's flood-prevention program, since the existing authority for it was the Flood Control Act of 1936, which had been within the jurisdiction of that committee. After searching review, the Jones Subcommittee gagged on the record and recommended emphatically that the Department be subordinated to the Corps in undertaking flood-control work in the watersheds.²² At this point, the prospects for a small watershed program of any sort were something less than encouraging.

With the change in party majority in the 83rd Congress, however, Representative Hope (R., Kan.) became chairman of the House Committee on Agriculture, and one of his early moves was to introduce a bill embodying most of the features of the one stopped by the friends of public works in the previous Congress.²³ During ex-

¹⁷ See Maass, supra note 11, at 73-76.

¹⁸ See House Subcommittee to Study Civil Works, supra note 1, at 1-7; Maass, supra note 11, at 72, 106; House Committee on Agriculture, Soil Conservation and Watershed Programs, H. R. Rep. No. 1140, 83d Cong., 2d Sess. (1954).

¹⁰ See U. S. Dep't of Agriculture, supra note 1.

²⁰ See Hearings before the Subcommittee on Soil Conservation and Flood Control of the House Com4 mittee on Agriculture, 82d Cong., 1st Sess. 36-37, 87-90, 95-98 et seq. (1951).

²¹ H.R. 7868 and substitute bill H.R. 8243, 82d Cong., 2d Sess. (1952).

⁸³ House Subcommittee to Study Civil Works, supra note 1, at 42-44.

⁹³ H.R. 6788, 83d Cong., 1st Sess. (1953).

tensive hearings, the groups pressuring for the legislation had ample opportunity to voice their sentiments. Not until the bill had passed the House and was sent to the Senate Committee on Agriculture and Forestry did serious opposition from the Corps of Engineers appear. But after some pressures had been applied, with the support of the White House, an amended version (actually a mixture of Representative Hope's bill and another introduced by several senators) of the legislation was enacted in August as the Watershed Protection and Flood Prevention Act of 1954.

In the meantime, however, many diverse groups interested in securing permanent authorization for the Department of Agriculture's program aside from the Flood Control Acts of 1936 and 1944 had formed the National Informal Citizens Committee on Watershed Conservation. This group, conscious of the difficulties standing in the way of regular legislative authorization in the form of a new law, worked with considerable finesse through such key congressmen as Representative Hope, Senator Carlson (R., Kan.), and Representative Carl Anderson (R., Minn.), then chairman of the Subcommittee on Agricultural Appropriations of the House Committee on Appropriations. Despite the failure of the Department of Agriculture or the Bureau of the Budget to include estimates for such a purpose, \$5,000,000 were appropriated as part of the Department's grant for fiscal year 1954. This item was included only after a heavy fight in conference committee by this handful of congressional friends of the movement. In this fashion, the "pilot" watershed program was launched without prior legislative authorization. The congressional and private leaders of this foray into the Treasury confidently anticipated that the "pilot" program would quickly generate enough support on the hustings to insure the passage of permanent authorization for this program in the then near future. Their expectations were, of course, fulfilled with the enactment of the Hope-Aiken Act.²⁴ Events were soon to prove, nonetheless, that even this legislation was not entirely satisfactory to the most ardent supporters of the small watershed program, nor had it completely soothed the fears of its old foes among other related federal agencies and their public clientele.

The lack of progress in the small watershed program since 1936 has been attributable to many factors. The Soil Conservation Service, charged with executing this program, started largely from scratch with its surveys and had scarcely reached the planning stage before World War II hindered its efforts. In addition, there was a deep internal division within the Department of Agriculture which was resolved only by the authorization for the pilot watershed projects. The Missouri Basin Agricultural Program submitted to Congress in 1949 reflected the conviction of the Secretary's office that any approach to the flood problem should be comprehensive in both geographical scope and means employed. Flood-prevention measures would have to be designed in relation to other conservation techniques and farm practices, with consideration given to economic and social results—in short, it should be the

²⁴ See further, Morgan, Pressure Politics and Resources Administration, 18 J. Politics 39, 48-55 (1956).

product of total planning. The "land doctors" of the Service did not, however, want to be concerned with more than the on-farm conservation practices, which, together with the proposed small flood-retarding structures, would constitute the total of their operations. In addition, many persons within the Service preferred to limit the size of individual projects so that they could continue operations through the soil-conservation districts, with which they already had established friendly and effective agency. The construction of small flood-detention structures is a logical extension of on-farm conservation practices, and it is apparent even to the most obtuse observer that the Service would be assured of a century of labor in the nation's service if its program were authorized so as to free the agency from the toils of the Corps of Engineers and its congressional godfathers, the Public Works Committees.

The Jones committee of the House also purported to detect an intention on the part of the Department of Agriculture to pervert the flood-control legislation by using the Agricultural Conservation Payments Program under the guise of flood control. Moreover, the Department was not satisfied with its authorization to function under the Flood Control Acts. Partly, at least, its discontent was owing to the fact that the Public Works Committees authorize construction on a project-by-project basis, whereas the Department's other programs involving conservation had been based on continuing authorizations not requiring approval of each specific plan of works. The Department also had limited funds available to conduct surveys, and, in this respect, it could not compete with the Corps of Engineers in either the thoroughness of its preliminary examinations or the speed of its operations. Too, the Department wished to tie its on-farm and small structure operations in a single budgetary package—in fact, it needed to do so with these complementary programs, so that it could not readily operate on a project basis—and it had the support of the Bureau of the Budget for this approach.

The Department of Agriculture was made painfully aware of the hostility of the House Public Works Committee through the Jones Subcommittee report, which was suspect as a reflection of the animosity of the Corps to the Department's program. Much of this interagency animus was cloaked in technical differences, many undoubtedly genuine enough, which even today make the prospects for effective coordination of the two principal parts of the nation's flood-control program rather dim at best. More recent developments have, in addition, entangled the Bureau of Reclamation in an unhappy triangle of bureaucratic fratricide, put temporarily at rest, however, by recent amendments to the Hope-Aiken Act.

2. Amendment

Little more than one year's experience with the Watershed Protection and Flood Prevention Act convinced some of the public clientele who had given it birth that it was an awkward and ungainly offspring.

²⁵ House Subcommittee to Study Civil Works, supra note 1, at 40-44.

The original Hope-Aiken Act authorized the Department of Agriculture to undertake works of improvement in watersheds not to exceed 250,000 acres in area nor to include any single structure providing for more than 5,000 acre feet of capacity. Non-flood-prevention features included were to be paid for by local sponsors. Both the record of testimony before congressional committees and the terms of the statute purported to emphasize the idea that this program rested on the initiative of local sponsors, who were merely to be "aided" by the federal government. It was heavily stressed that this policy was not just another federal public works program to be forced on unwilling citizens. Significantly, the act permitted the Secretary of Agriculture to assume such share of the cost of installing works of improvement as he might deem equitable in light of the anticipated benefits which were to exceed costs. To insure some measure of coordination, the Corps of Engineers and the Bureau of Reclamation were given sixty days to review all projects involving flood prevention or irrigation works. This review was to be followed by similar scrutiny in the Bureau of the Budget. Finally, any project involving single structure providing for more than 2,500 acre-feet of capacity had to be submitted to the Committees on Agriculture of the two houses of Congress, before any appropriation for it could be authorized. It appears that, in practice, however, the Department actually submitted all plans to Congress for committee review while this provision was in effect.²⁰

The sponsors of the original Hope-Aiken Act were a diverse group, headed in the final stages by the National Informal Citizens Committee on Watershed Conservation, of which Raymond McConnell, editor of the Lincoln (Neb.) Evening Journal, had become the recognized leader. This leadership group drew its membership and support from such established organizations as the National Association of Soil Conservation Districts, the National Association of Manufacturers, numerous local soil-conservation groups and watershed associations (it is estimated that there are more than 800 of these in the country now), and some publishing groups, notably Capper's in Kansas and the Curtis Publishing Company. By May 1954, this group, augmented by many others interested in wildlife, water, and soil conservation, amalgamated to form the National Watershed Congress. This alignment of forces naturally played the key role in securing enactment of the Watershed Act of 1954, although it would be a mistake to assume that it is monolithic in either form or action. The most potent voices within this Congress have been those of the National Association of Soil Conservation Districts and the watershed associations.

On the other hand, the Farm Bureau, the Chamber of Commerce of the United States, the National Association of Manufacturers, and the National Lumber Manufacturers Association, too, have all associated with the National Watershed Congress and have sent representatives to testify at congressional hearings on legislation. In general, they have "supported" the legislation, but have recommended restrictions

²⁶ See Hearings before the Subcommittee on Conservation and Credit of the House Committee on Agriculture on Amendment to Watershed Protection and Flood Prevention Act, 84th Cong., 2d Sess. serial JJ, esp. 11-29 (1956).

which would seriously limit the effect of the small watershed program. Thus, when the Hope-Aiken Act was before committee in Congress, the Farm Bureau advocated a specific statutory provision that the Secretary of Agriculture require local sponsoring units to share fifty per cent of the cost of works of flood prevention. And both the Farm Bureau and the Chamber of Commerce offered an identically-worded amendment to Senator Aiken's bill that would have forced local sponsors to assume the burden of actual construction of projects.²⁷ The watershed and soil-conservation groups, recognizing the inability of the Department of Agriculture to compete with the Corps of Engineers in dam building if this requirement were included, however, successfully fought off this attempt to cripple the program. But, before the Senate Agriculture Committee, the Corps and its powerful friends in and out of Congress opposed the Department's program outright as unsound (or at least yet to be proved) technically and as an unnecessary duplication of activity by federal agencies; and it was this opposition which forced the friends of the Hope-Aiken Act to accept limits on the size of projects and of individual structures.

During the first year and one-half of operation of the program, certain shortcomings appeared. One was that the flexible federal-local cost sharing formula left many sponsoring organizations in doubt as to their share of the cost of a project until it had cleared the office of the Secretary of Agriculture. Furthermore, in areas of poor land, often the ones needing the most extensive and immediate outside assistance for works of improvement, sponsors could not raise the necessary local contributions. These two factors alone stirred sharp complaints soon registered in Congress, so that eight bills were offered in the last session to amend the Hope-Aiken Act.²⁸ The charge was freely made that the Department of Agriculture was, by administrative interpretation and policy, requiring that local units sponsoring projects pay on the average more than fifty per cent of the total costs—a policy remarkably parallel to the one advocated by the Farm Bureau and the Chamber of Commerce in hearings on the legislation. It is scarcely insignificant to note, moreover, that the Department not only did not sponsor any amendments (any more than it did the original legislation), but also openly opposed the key changes sought by the National Association of Soil Conservation Districts and watershed-conscious congressmen.²⁹ Witnesses testifying on the proposed amendments in 1956 also pointed out the fact that the Department could not compete with the Corps of Engineers in building small dams at little cost to localities. It was also facing competition from the Bureau of Reclamation's small projects legislation then pending in Congress. In addition, the decline in farm prices had jeopardized the ability of local

²⁷ See Hearings before the Senate Committee on Agriculture and Forestry on Cooperative Soil Conservation and Flood Prevention Projects, 83d Cong., 2d Sess. 38-42, 82 (1954).

²⁸ H.R. 6687, 8722, 8738, 8742, 8745, 8750, 8804, and 9192, 84th Cong., 2d Sess. (1956).

²⁰ See testimony of Ervin L. Petersen, Assistant Secretary of Agriculture, *Hearings*, supra note 26, at 9-11; see also testimony of Donald A. Williams, Administrator, Soil Conservation Service, in *Hearings*, supra note 4, at 44: "The Department of Agriculture has not recommended the enlargement beyond the 5,000 acre-feet." The National Association of Soil Conservation Districts supported the chief amendments. See *Hearings*, supra note 26, at 35-39.

sponsors to meet costs, so that there was a pressing need for federal credit to assist these projects (again because of competition from the Bureau). A further objection to the original legislation was that the 5,000 acre-feet limitation on the size of a single structure often resulted in the need to construct, at unnecessary additional cost, several smaller structures, sometimes resulting in a less satisfactory system of works in a watershed. There was also complaint from the hustings that the program had been implemented much too slowly by the Department and that the requirements of interagency and congressional review of small projects were unnecessary obstacles to speed.³⁰

These criticisms, voiced before a sympathetic subcommittee of the House Committee on Agriculture, resulted in several important amendments to the original Hope-Aiken Act.³¹ Works of improvement now include municipal and industrial water supply as well as streamflow regulation; the total capacity of one structure may now be 25,000 acre-feet, provided that not more than 5,000 acre-feet are devoted to flood detention; minor projects are exempted from congressional review, and the interagency review period has been cut to thirty days; but most important of all, the federal government must bear the entire cost of flood-prevention structures and may make loans up to \$5,000,000 on a single project at the long-term government interest rate. The committee review provisions, already described in detail earlier in this paper, also can be expected to have significant effects. It is interesting to note that when President Eisenhower signed the amending legislation, he publicly voiced disapproval of the provision requiring the federal government to bear the cost of flood-reduction works as a violation of his "partnership" philosophy of resources development.³²

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A CRITICAL ANALYSIS OF PROBLEMS

A. Big Dams and Little Dams

For nearly a decade now, the shrill debate over the merits of small dams and watershed management, as compared with large dams, for flood control has raged across the rural landscape of the United States. The echoes, muted by the sophisticated struggle within the executive agencies for program, power, and pie, have not failed to reach the ears of congressmen. The Department of Agriculture, as official spokesman for the little dams, claims that floods begin where the rain falls and that seventy-five per cent of the annual flood damage occurs upstream in the watersheds of our rivers. It has also claimed that flood-protection measures against this damage have been largely ignored, while attention and efforts have been devoted almost exclusively to the construction of large works on the mainstreams. Until the passage

⁸⁰ See Hearings, supra note 26, at 32-35, 39-46, 81, 82 for more detailed criticisms of the program and its administration.

⁸¹ 70 STAT. 1088 (1956). Some minor features of this act are not described here. ⁸² Press release, White House, Aug. 7, 1956.

of the Hope-Aiken Act, the Department took the view that it was not being included as a full partner with other agencies in flood-control work. Officially, however, the Department has not disparaged the programs of other agencies, but it has claimed that their works, especially those of the Corps of Engineers, are not as effective as they would be if watershed-treatment measures were installed on the tributaries.

Nevertheless, despite the official position of departmental spokesmen on the Washington level, the evidence on the hustings is that great numbers of followers have crusaded for small dams with messianic zeal, convinced that the construction of big dams is wicked folly.³³ It is among such advocates that the Department of Agriculture has its strongest clientele, and, in turn, there is evidence to suggest that the Soil Conservation Service, if not the Department, has encouraged such faith in its works. Its spokesmen have appeared before Congress disclaiming any conviction that small dams alone will save the nation from floods, while relating in the next breath instances in which deluges of rain failed to destroy the works already installed, leaving peaceful rustic valleys and industrious towns unravaged by the vagaries of nature.³⁴ Critics say, however, that seventy-five per cent of the benefit from such works occurs upstream from the dams.

The technical issues involved in this dispute are complex. It appears, moreover, that some of the conflict amounts to jousting with a straw man. To a layman, at least, it seems that any properly constructed dam will hold some water in place for a period of time. So far as the Corps of Engineers and the Soil Conservation Service are concerned, there has not, however, been complete agreement on the adequacy of some of the structures which the latter has proposed to build. Recently, for example, the Corps announced outright approval of only two out of thirteen small watershed projects submitted to Congress by the Service. Although it voiced six other objections to these projects, its primary one was there is a need for "mature consideration" of the risks involved in constructing dams above urban areas where the design criteria are those employed to protect agricultural bottom lands in rural areas. Since it is no longer the official claim of the Service that its small dams will stop major floods, a question of their effectiveness remains.

The "pilot" watershed program was pushed through Congress in an extraordinary proceeding justified by the plea that the value of this approach needed to be tested and demonstrated. For nine years, however, the Soil Conservation Service had been developing the eleven watersheds authorized by the Flood Control Act of 1944 without having complete hydrological and other data to permit objective evaluation. Even if the "pilot" program could be justified as necessary to continue such an

⁰³ One example of the most extreme literature is Elmer T. Peterson, Big-Dam Foolishness: The Problem of Modern Flood Control and Water Storage (1954). Two examples of official or semi-official writing are: Brown, *Flood Prevention Through Watershed Planning*, 34 Agricultural Engineering 159 (1953); U. S. Dep't of Agriculture, Soil Conservation Service, Taming Runaway Waters (Agricultural Information Bull. No. 16, 1949).

³⁴ See Hearings, supra note 26, at 28; Hearings before the Subcommittee of the House Committee on Appropriations, supra note 7, pt. 4, at 1973.

⁸⁵ Hearings, supra note 4, at 27, 31.

evaluation, no such defense can be made on technical grounds for the continuing national program authorized by the Hope-Aiken Act. If Congress and the Service genuinely desired to have "scientific" support for this program, it would appear logical to have spent available funds on the acceleration of the present projects, without expending an already overworked force on some projects scarcely to be completed within the lifetime of living man. Nor have all the "pilot" projects even been instrumented so as to acquire vitally needed data. The "scientific" value of such information may in the future be better assured by studies conducted by agencies which have no stake in program expansion. It is not amiss here to recall Mark Twain's distinction between a camp meeting and a court of law: it is the difference between manufacturing evidence for the sake of testimony and manufacturing testimony for the sake of evidence. In fairness to the Service, however, it should be said that it has recognized the need to accelerate the accumulation of data and it has asked the assistance of other federal agencies. Furthermore, most of the Soil Conservation Service's research functions have been transferred to the Agricultural Research Service. a move which has caused some alarm among congressmen who are especially sympathetic to the former.³⁶ It is not so much, however, that no research is underway, as it is that not enough of the right kind has been undertaken on a coordinated basis.³⁷

There are other technical factors. The present projects are very small in size individually, but since so little is really known about their future effect on the physical environment, there appear to be few positive answers to these questions. For example, is the present minimum area, 250,000 acres or approximately 390 square miles, too small for optimum development? It has been argued that the small watershed is necessary to secure the support of the people of an area not so large as to blunt their sense of urgency or of participation in the development. They must be able to see their stake in the works.³⁸ Whatever the merit of this view, however, the question is whether local interest is purchased at the cost of comprehensive evaluation and planning. Proper criteria, moreover, should be established to determine priorities for individual projects.

So far, the small watershed program has been both partially damned and supported by responsible survey groups. The Jones Subcommittee of the House was of the opinion that both "upstream and downstream works have their place in a balanced conservation program." The subcommittee did deplore, however, the meager results then available from the \$18,000,000 spent by the Department of Agriculture for surveys in nearly seventeen years. It also was of the opinion that soil and water

²⁶ See Hearings before the Subcommittee of the Senate Committee on Appropriations, supra note 7, at 91-94, 144, 632, 645, 685, 721; Hearings before the Subcommittee of the House Committee on Appropriations, supra note 7, pt. 4, at 1930, 1940-50, 1980.

³⁷ See Presidential Advisory Committee on Water Resources Policy, Water Resources Policy 6-12 (1956); I President's Water Resources Policy Comm'n, op. cit. supra note 1, at 97-122 and App. 3; I U.S. Comm'n on Organization of the Executive Branch of the Government, op. cit. supra note 1, at 1051-94.

³⁸ See I President's Water Resources Policy Comm'n, op. cit. supra note I, at 124-25. This argument was used in support of the Hope-Aiken Act. See Morgan, supra note 24, at 45.

conservation ought not to be disguised as flood control, but should be considered an integral part of a national agricultural program.³⁹ The Task Force on Water Resources and Power of the second Hoover Commission sharply criticized the engineering features of the Department's small watershed program. It found the Soil Conservation Service disingenuous in estimating benefits and reporting cost-sharing data. It raised questions concerning the engineering soundness of construction practices. It reported that the ultimate costs of small dams and related engineering works were higher than those of the larger structures normally erected by the Corps of Engineers and concluded that the inclusion of the Service in the field of dam construction was an unnecessary duplication of agencies in the federal flood-control program. Perhaps significantly, the Task Force did not find that there is no place in a national water resources program for watershed flood-prevention works. Like the Missouri Basin Survey Commission, the Hoover Task Force accepted the view that planning of such works is to be viewed properly in light of the interrelated aspects of land and water use on a comprehensive basis.⁴⁰

The difficulties of coordinated and comprehensive planning and construction and the improbability of their achievement have quite possibly been increased by the amended Hope-Aiken Act. It seems clear enough that the Soil Conservation Service has won its long struggle for permanent authorization of the small watershed program. The areas to be treated and structures which can be built are both so small, however, that the approach may be piecemeal. Moreover, the requirement that any project involving the construction of a dam with 4,000 acre-feet of capacity or more shall require authorization by the Public Works Committees of Congress means that few of these will be planned, if the Department of Agriculture's past unhappy relationship with these committees and the Corps of Engineers and Bureau of Reclamation is any guide to future conduct. More perhaps to the point, the clientele which actively supports the small watershed program has demonstrated its power in Congress and stands as a bulwark for the program against those who would snatch hard won gains from the Service in the name of administrative reorganization.

The picture may not be quite so dark, however. Potentially, the amendments enacted in 1956 broaden the scope of the program by authorizing the inclusion of works for municipal and industrial water supply and for the conservation, utilization, and disposal of water. Although the planning of individual projects is limited to areas of 250,000 acres, it is possible to join several areas under this maximum size under the sponsorship of a single local or state agency. And officially, coordination

³⁰ House Subcommittee to Study Civil Works, supra note 1, at 40-41.

⁴⁰ I U. S. COMM'N ON ORGANIZATION OF THE EXECUTIVE BRANCH OF THE GOVERNMENT, op. cit. supra note 1, at 195; 2 id. at 776-86, 821-28; 3 id. at 1277-98; cf. Missouri Basin Survey Comm'n, Missouri: Land and Water 169-71 (1953); 1 President's Water Resources Policy Comm'n, op. cit. supra note 1, at 139-40. See also, Luna B. Leopold and Thomas Maddock, Jr., The Flood Control Controversy (1954).

with other federal agencies is encouraged to insure the maximum consideration of the effects of upstream works on downstream installations.⁴¹

B. Coordination Issues

Enough has already been said in this paper and in numerous other studies of the general problem to indicate that the lack of effective interagency coordination on the federal level is an unhappy characteristic of the Department of Agriculture's efforts toward flood-prevention work. The unwillingness or inability of the executive branch to settle its internal quarrels over resources policy has persisted with little or no abatement for many years.

The principal adversaries locked in battle over the small watershed program have been, of course, the Corps of Engineers and the Soil Conservation Service. The latter, moreover, and the Bureau of Reclamation recently have been looking cross-eyed at each other out of reciprocal animosity over the potentialities of their respective small projects programs.

It is tempting and easy to magnify conflict at the expense of unexciting evidence of cooperation, but the fact is that while the Corps of Engineers and the Soil Conservation Service have officially been at peace during the past two decades, there is little to show for it in good works. The bases for their differences are numerous, quite apart from any tendency toward self-aggrandizement on the part of either one. Recently, a spokesman for the Corps stated the difficulties from that agency's standpoint: there is need for careful study of the risks involved in building small earth dams upstream from urban areas and of adequate provisions for the operation and maintenance of completed structures; there must be more careful economic justification of projects; problems arise out of the wide variance in standards of federal assistance available to local sponsors in different watersheds; the Hope-Aiken Act fails to set a national drainage policy, although it probably can be used for that purpose; the Corps cannot carry out a policy of cost-sharing with localities in coordination with the Department because the Secretary of Agriculture has allowed wide variation in cost-sharing from project to project; and, finally, there is not an effective means of coordinating the construction of the Department's reservoirs with those erected by the Corps under flood-control legislation, especially as elements of a basin-wide system.⁴² Officially, the Department has offered little criticism in rebuttal. The Administrator, Soil Conservation Service, has testified, however, that field technicians have agreed to modifications of the plans of their respective agencies only to be stymied by disagreements over technical and jurisdictional questions on the Washington staff level below the office of assistant secretary in the two departments (Agriculture and Army).43

Interviews with field personnel indicate that there are other reasons for disagree-

⁴¹ Exec. Order No. 10584, 3 C.F.R. 98 (Supp. 1954). See also U. S. Dep't of Agriculture, Soil Conservation Service, Interim Watershed Protection Handbook §1, at 7; §2, at 5-10 (1956).

⁴² Hearings, supra note 4, at 27-44, esp. 31-32.

⁴⁸ Id. at 44.

ment. The two agencies are planning for two different stages of flood prevention, and neither knows the ultimate effect of the other's works on his own. Instances in which the Corps of Engineers' cost-benefit ratio is low occur, and, if the Department of Agriculture builds upstream, economic justification of downstream works may reach the vanishing point under present standards. Too, the Corps ordinarily plans in terms of big structures which often inundate valuable farm land, thereby enraging farmers. The Corps operates the works it constructs, but the Service wants local sponsors to do this. Moreover, the Corps has the power of eminent domain, but the Service does not, nor does it want such authority; its program has traditionally rested on farmer cooperation. Therefore, the Service often finds that it cannot coordinate construction with the Corps because it cannot guarantee completion dates for its works. Furthermore, the technical procedures of the two agencies are quite different. On the whole, it appears that the Department has lacked detailed survey data on which to base its planning. When both agencies were asked to present a coordinated plan for the Salt-Wahoo Creek watershed in Nebraska in 1951, for example, technical personnel exchanged data and made joint map studies, but made separate plans for construction.44 Recent testimony before Congress indicates that even the exchange of technical information has often been inadequate on the Washington staff level. Finally, in submitting reports and plans to Congress before the passage of the Hope-Aiken Act, the Department often cited either flood-control or agricultural legislation as the authority for its surveys of watersheds.45 Certainly, it was not forthright with congressional committees on this score, but the Department's answer was that it was concerned primarily with an agricultural program.

Whatever the technical differences between the two agencies, however, it would seem that knowledge and good will could erase all conflict, were it not for the facts of administrative life. Unfortunately, knowledge alone is not power. The Corps of Engineers has piously told Congress that it has long favored the widespread application of land-treatment measures to reduce soil erosion and increase productivity:⁴⁶

But we have not attempted to go further than this in discussing the proposed land treatment plans. We are concerned with engineering matters and we have confined our comments and suggestions to the engineer plans proposed in the reports [of the Department of Agriculture]. In passing, however, I should like to say that these reports bear out what we have been saying for many years, namely, that the application of land treatment measures has but a minor effect on major floods.

For its part, the Department of Agriculture, torn by internal rifts arising from conflicting policy aims on the part of its subagencies, has been pushed by a combination of forces into the dam-building business.

The principal difficulty between the Soil Conservation Service and the Bureau of

⁴⁴ See House Subcommittee to Study Civil Works, supra note 1, at 11, 14-19, 23-24.

⁴⁵ Id. at 34-40.

⁴⁶ Hearings, supra note 4, at 27-28. See also Hearings, supra note 26, at 13, 25, 37, 51, 60, 72-73, 76.

Reclamation stems from the latter's fear that its jurisdiction over irrigation may be jeopardized by the small watershed program. Again, because their respective procedures, including authorization of projects, local sponsorship, cost-sharing arrangements, planning and construction techniques, and water use objectives differ, the Department of the Interior and its chief clientele, the National Reclamation Association, opposed the amendments to the Hope-Aiken Act. They claimed that the construction of small dams upstream over a large area would probably affect the streamflow pattern so as to impair or alter materially the potential or actual beneficial developments for irrigation obtained in areas of undetained runoff. The Bureau specifically complained that Department of Agriculture procedures on the survey stage have resulted in such meager information as to leave future results largely to speculation. Since the Hope-Aiken legislation allows the Department of Agriculture to construct works for the "utilization" of water, it is obvious that it can be concerned with irrigation—and the Bureau does not relish the prospect.⁴⁷

Intradepartmental coordination involves the Soil Conservation Service with the Forest Service, too, to some degree. The former agency is charged with primary responsibility for administering the Hope-Aiken Act, but the latter is concerned with installing flood-prevention works of improvement on national forest lands as well as on certain other lands subject to its jurisdiction. It also has jurisdiction over nonfederal forest lands in watershed projects. It appears that, so far, the Forest Service has played a minor role in contributing to the development of small watershed projects under this particular legislation, although it has had heavier responsibilities under other legislation for forest watershed management. Since emphasis is placed on local sponsorship of watershed projects, there may be considerable delay in extending the provisions of this act to the national forests. Especially does the Hope-Aiken Act pose some barrier to easy coordination, in so far as it restricts the rate of assistance under its authority to the rates prevailing under other national programs.⁴⁸ In addition, the Agricultural Conservation Payments Program of assistance to farmers for conservation practices requires coordination with payments for flood-prevention structures. And the Farmers Home Administration is charged with administering the loan provisions of the amended Hope-Aiken Act. 40

C. Executive-Legislative Relations

The history of the small watershed program is a running commentary on the central role of congressional committees in resources programming and of the failure of executive leadership and coordination. It is equally illustrative of the power of organized clientele on the bureau level of the federal executive.

With minor exceptions, there is little evidence that the small watershed program

49 See note 3 supra.

⁴⁷ See Hearings, supra note 4, at 75; Hearings, supra note 26, at 64-65.

⁴⁸ See Hearings, supra note 4, at 79-83. Rumors of discord between the Soil Conservation Service and the Forest Service have reached Congress. See Hearings before the Subcommittee of the House Committee on Appropriations, supra note 7, pt. 4, at 1934-36.

now in effect ever received the enthusiastic and energetic support of the President or even of the Department of Agriculture. It is apparent that the Soil Conservation Service was left to fight for its own program in what amounted to a struggle for bureau autonomy within the Department and parity with the Corps of Engineers and the Bureau of Reclamation. Until President Eisenhower sent a special message to Congress in 1953 favoring the program, 50 there was no official position on it. Prior to 1953, the watershed survey work of the Service suffered from a lack of funds budgeted by the White House. The Bureau of the Budget could not agree with the Department on matters of budgetary procedure, nor did it consider the cost-benefit procedures employed by the Department to be adequate. And although the Department, under the aegis of Secretary Brannan, submitted its Missouri Basin Agricultural Program, such a comprehensive view was not in keeping with the convictions of the Service. It cannot be said, then, that the Department was initiating the small watershed program of the Service. More recently, in 1956, the Department, through Assistant Secretary E. L. Peterson, actively fought the key amendments to the Hope-Aiken Act by objecting to having the federal government assume the costs of constructing flood-prevention structures, opposing any increase of the 5,000 acre-feet limit on dam size, proposing a \$5,000,000 limit on federal loans to aid local sponsors, and opposing the extension of a provision authorizing the Secretary to undertake projects where there can be no sponsor under state law. And the President, it will be recalled, publicly objected to the new cost-sharing provision.⁵¹

The lack of executive leadership in initiating the program was matched by executive inability to coordinate either the programs or the agencies involved. The Bureau of Reclamation and the Corps of Engineers, the latter with special effectiveness, have opposed the Soil Conservation Service flood-control program at every turn, with little open hindrance from the White House. So free of presidential control was the Corps, indeed, that it could succeed in protecting its position by securing the inclusion of the 5,000 acre-feet limitation and the requirement of interagency review in the original act. Its influence was no less diminished when the amendments were passed in 1956. Although the President issued regulations to effect coordination among the agencies concerned, the actual result was that the Corps, and to a lesser extent the Bureau, used review as the occasion to sabotage the Department of Agriculture, if possible. During senate hearings on watershed projects in 1956, the disagreement between the Corps and the Department was so great as to force the committee chairman to require the two agencies to retire to a conference room to smooth out their differences and return within one week. They did so to the committee's satisfaction. In 1952, too, the Jones Subcommittee trenchantly criticized the executive agencies for their failure to reconcile differences so that the task of program

⁵⁰ Program Designed to Conserve and Improve the Nation's Natural Resources, H.R. Doc. No. 221, 83d Cong., 1st Sess. (1953).

⁵¹ See notes 29 and 32 supra. It has been reported that the Bureau of the Budget recommended a veto as did the Corps of Engineers. "The USDA, after some hesitation, asked the President to sign." Richter, Washington Outlook, 9 Soil and Water 8 (1956).

coordination was left to congressional committees composed of laymen.⁵² Although the committees have performed this task, it is clear that members have not relished it, for the responsibility of making decisions on technical matters which may affect the lives of people living downstream from dams does not rest lightly on their shoulders.⁵³

It is difficult to explain these failures of the highest echelons of the executive branch, nor is it within the compass of this study to do so. Certainly, however, key congressmen, especially from the Midwest, Southwest, and Southeast, reflected a much greater sensitivity to pressures for the authorization of this program than did the executive branch outside the Soil Conservation Service. Once the clientele for this service became sufficiently well-organized to be felt in Congress, the program evolved wholly with legislative initiative: first, the authorization for the pilot projects (requiring the allegiance of farm-conscious members of the Appropriations Committees); then, the passage of the Hope-Aiken Act; and, finally, the amendment of the act this past year. Recently, these same congressmen have openly expressed doubts that the executive branch has supported the Service adequately with estimates over a period of many years. Pressed repeatedly in both house and senate committees to answer whether the Service had been authorized by the Bureau of the Budget to seek all the funds which it could use effectively, the Administrator replied that agency estimates were predicated upon a balanced budget rather than meeting full field needs.⁵⁴ It was apparent that members of the Appropriations Subcommittee on Agriculture in both houses were ready to press more funds on the agency than had been requested. It was equally evident that they viewed with alarm an eighty-five per cent increase in the funds of the Extension Service in a period during which the Soil Conservation Service received a seven per cent increase in appropriations.

Congress is not less guilty than the executive branch, however, in contributing to the proliferation of programs and to establishing the autonomy of the Soil Conservation Service. By establishing permanent authorization for the program, subject to the support of appropriations, Congress jerked the rug from under any Secretary of Agriculture who might be inclined to press for the Brannan approach to integrated basin development. It also rendered ineffective the Bureau of the Budget's objections. The recent amendments to the legislation have pulled the fangs of interagency review and have eliminated the provisions for congressional review and possible disallowance for the very small projects. Undoubtedly, conflicting methods of procedure and committee jurisdiction have contributed to this situation. There is little evidence to dispute the Jones Subcommittee's complaint that the Department of Agriculture sought to have its Missouri Basin Program (and five supplemental programs) approved by the Committees on Agriculture rather than by the Committees on Public

⁵² House Subcommittee to Study Civil Works, supra note 1, at 41-42.

⁵⁸ See Hearings, supra note 4, at 27-42.

⁵⁴ See Hearings before the Subcommittee of the House Committee on Appropriations, supra note 7, pt. 4, at 1959, 2000-03; pt. 5, 1-7, 34-39; Hearings before Subcommittee of the Senate Committee on Appropriations, supra note 7, at 233.

Works, which have always scrutinized and authorized construction on a project-byproject basis for the Corps of Engineers and the Bureau of Reclamation.⁵⁵ Strategists for the Department assumed that the Committees on Agriculture would lend sympathetic ears to their requests, and they were proved partially correct when the Hope-Aiken Act was passed requiring committee authorization for many, but not all, small watershed projects. It will be recalled, too, that the Jones Subcommittee's intense hostility to the Department's program as flood control in the accepted sense, led the House Public Works Committee and the Agriculture Committee into a wrangle over jurisdiction over the Hope bill and its predecessor the Poage bill in 1953 and 1952, respectively. Thus, the two committees reflected sympathy with different concepts of water policy promoted by different executive agencies. Once the Hope-Aiken legislation was enacted, however, the Senate Committee on Agriculture reflected disenchantment with the provision for committee review of innumerable small projects. Thus, in 1956, when Senator Holland (D., Fla.) expressed alarm over the pending legislation to amend the Hope-Aiken Act, Senator Ellender (D., La.) countered with the reply that⁵⁶

... we have quite a few of our colleagues who are anxious to broaden that. That is why I consulted with Senator Aiken, and a few others and had many of these bills transferred to the Public Works Committee.

He added that

... we are out of our field when we proceed to build dams and projects that are greater than the size indicated by Public Law 566. If you will recall that was one of the bones of contention.

Thus, when Representative Hope's bill to amend the Hope-Aiken Act⁵⁷ was sent to the Senate, it was referred to the Committee on Public Works, which amended the bill to insure itself jurisdiction over projects involving single structures impounding more than 4,000 acre-feet.⁵⁸

Congress is no better organized to deal comprehensively with resources legislation than is the executive branch. The compartmentalization of legislative power, together with the diffusion of executive authority in the area of resources policy, institutionalizes the influence of those pressure groups skillful enough to make their demands heard. The clue to success, in this case, at least, was access to the congressional committees involved. The watershed groups were numerous and strong enough to gain the service of the Committees on Agriculture, once their alliance with the Soil Conservation Service was cemented. Their strength was not great enough, however, to control the Public Works Committees as well, but it was great enough to minimize

⁵⁵ House Subcommittee to Study Civil Works, supra note 1, at 43-44.

to Hearings, supra note 4, at 44.

⁵⁷ H.R. 8750, 84th Cong., 2d Sess. (1956).

⁸⁸ See Senate Committee on Public Works, Amending the Watershed Protection and Flood Prevention Act, S. Rep. No. 2585, 84th Cong., 2d Sess. (1956); Conference Report, Amending the Watershed Protection and Flood Prevention Act, H.R. Rep. No. 2902, 84th Cong., 2d Sess. (1956).

its hostility to the program. It is also interesting to note that the contest over the amendments in 1956 was principally between the National Association of Soil Conservation Districts and the Farm Bureau. The former charged that the latter had succeeded in influencing the administration of the Hope-Aiken Act to the disadvantage of the soil-conservation enthusiasts. In the test of congressional influence between the two, the soil conservationists won their ends through legislative modification of adverse administrative rulings on the departmental level. Thus, Congress reinforced the autonomy of the Service in the administration of the small watershed program.

D. Federal Relationships

The two primary problems arising from the federal system involve structural adjustments of state and local governments in response to the small watershed flood-prevention legislation and matters of finance.

Official spokesmen and supporters of the Hope-Aiken legislation have repeatedly emphasized the point that the small watershed projects require initiative on the part of local sponsors and merely assistance from the federal government. Except for circumstances in which there can be no local sponsor under state law, the Secretary of Agriculture is not authorized to undertake the planning and construction of a project. Moreover, unlike flood-control projects under the Corps of Engineers, the local sponsors of a watershed project must assume the responsibility and the costs of maintaining and operating completed structures. Nor are the long-term federal loans under this legislation interest-free. Moreover, local sponsors are required to assume some share of the costs of installation. For these latter two reasons in particular, it appears that there must be local units of government capable of assuming legal responsibilities under the Hope-Aiken Act. Should the provisions of this legislation be utilized to their fullest potential, some adjustments in the organization and powers of counties, municipalities, and special districts undoubtedly will be necessary in most states. If the program proves largely to be no more than an extension of the land-treatment measures now undertaken cooperatively by the Soil Conservation Service and the soil-conservation districts, changes of a limited sort will probably suffice in most states.

Interest in this program has been sufficient so far, however, to prompt twenty-seven states to enact legislation to assist local participation in the small watershed projects. Six states have provided for state financial participation in watershed project development; forty-five states have authorized soil-conservation districts to act as local organizations under the provisions of the Hope-Aiken Act; and six states have authorized the creation of soil-conservation subdistricts. Five states have enacted enabling legislation authorizing the creation of watershed districts. In four states, counties have been given some authority to act. In addition, seven states have altered or granted authority to special-purpose districts to secure cooperative action. In several other states, agencies on the local or state level appeared to have sufficient

authority to act.⁵⁹ Although the pattern of organization and authority will undoubtedly vary among the states, *maximum* advantage can be had of federal assistance only if a local agency has powers of eminent domain, taxation, and borrowing, as well as authority to enter into contracts, construct and maintain works, assess benefits and costs, secure easements, rights of way, and water rights, hire technical and administrative personnel, and purchase equipment. Naturally, many projects will be so small that it will not be necessary for such powers to be available in all instances. It would appear, however, that maximum integrated planning and construction can be done only by agencies with such broad authority. In any event, the variety of existing state arrangements makes meaningful generalization here quite difficult.

It may be of some importance to note that, almost without exception, the sponsoring agency for small watershed projects reported by the Department of Agriculture to Congress so far has been a soil-conservation district. 60 Frequently, also, watershed associations and, in some cases, local units of government, such as municipalities, have shared sponsorship. In some other instances, more than one soilconservation district is the sponsor, since the watershed is not confined to the existing boundaries of political subdivisions. Where the projects are very small, subdistricts of soil-conservation districts may be large enough to handle the project. It was with this idea in view that six states enacted legislation authorizing such agencies. There is one obvious objection, however, to the use of the soil-conservation district for carrying out such projects. If the Soil Conservation Service prefers to confine its contacts largely to these units which are, in effect, its local administrative satrapies (organized, to be sure, under state law), effective coordinated water-conservation and use planning may suffer from oversight. It is too early to see a clear pattern of development, but it is certainly possible that the Service will be disinclined to expand its contacts beyond the soil-conservation districts. Furthermore, there is no really very effective agency on the national level to encourage or even force breadth of view upon either the Service or the local sponsoring agencies. Congress has given the Service the green light to proceed with flood-prevention works under the same basic system as it has undertaken the on-farm conservation practices under other national programs. Potentially, the small watershed program may amount to more than this; but, at the moment, there is no assurance that it will. No extended changes in local governments will be necessary if the soil-conservation district is to be the chief agency of local administration for this program. Neither, it may be added, will state agencies be required to play an extensive part, unless this legislation is administered to achieve coordinated and integrated results.

Two other features of this program touch on national-state-local relationships; and although their effect cannot yet be judged in detail, it may be useful, for clarity

See Kirk M. Sandals and L. M. Adams, Progress in State Legislation Relating to the Watershed Protection and Flood Prevention Act (Soil Conservation Service, U. S. Dep't of Agriculture, SCS-TP-126, 1956); Smith, Districts Affecting Water Use and Control, 41 Iowa L. Rev. 181 (1956).
See Hearings, supra note 4, at 58-72.

of understanding, to ask to what degree they actually constitute a radical departure from previous flood-control programs in this regard.

Advocates of the program and official spokesmen for the Department of Agriculture have been insistent that the initiative for a project comes only from the people of the watershed concerned. It is evident, however, that the program has been widely advertised in the rural areas of the country by the Department through its official literature, by means of articles written by high Soil Conservation Service officers, by the more than eight hundred watershed associations now in existence, by books and articles written by laymen in behalf of the program, and by the National Association of Soil Conservation Districts and the National Watershed Congress. The fact that more than four hundred fifty applications have been sent to the Department for "assistance" is, in itself, evidence that the missionary work has been well started. In point of fact, then, there is no practical difference between this sort of local initiative and that involved where the Corps of Engineers, for example, is requested—often virtually begged by water-logged inhabitants—to survey and construct works.

Supporters of the program, in and out of government, have also stressed the fact that local sponsors are required to pay a fair share of the costs in relation to benefits. Since the enactment of the 1956 amendments authorizing the federal government to pay the entire cost of constructing flood-prevention and related features, however, it can no longer be claimed that the sponsors bear an average of fifty-five per cent of total project costs. Nor does it appear likely that they will, in the future, be required to meet one-half, or even a very significant portion, of costs, although this demand has been a focal point of attack on federal flood-control policies since the passage of the Flood Control Act of 1936.⁶¹ There is even some doubt that local sponsors ever actually contributed fifty-five per cent of total costs under the original provisions of the Watershed Protection and Flood Prevention Act of 1954. The data submitted to Congress by the Department in support of the early projects for which it sought authorization were so summary in form and, perhaps, incomplete, as to make analysis difficult and conclusions but tentative. These data do, however, cast some light on the financing of the present program.

In reporting thirteen projects to Congress in 1956 for approval under procedures then required by law, the Department divided costs into those to be met by local sponsors and those to be carried by the federal government. It also reported the costs of land-treatment measures and of flood-prevention and other structures as separate major categories, showing for each project the respective local and federal contributions. The two principal items to be financed locally were the costs of easements and rights of way and land-treatment measures.

It is not clear from these reports whether the Department reported merely its estimates of the value of easements and rights of way or actual direct expenditures

⁶¹ See 2 U. S COMM'N ON ORGANIZATION OF THE EXECUTIVE BRANCH OF THE GOVERNMENT, op. cit. supra, note 1, at 736-38.

by sponsors to secure these rights. In the development of both the pilot and Hope-Aiken projects in Nebraska, most easements and rights of way have been secured at no cost to the sponsors, although some have been purchased. It is probable that this cost is the principal one now to be met by the local sponsors, and it is one feature which differentiates the program from the flood-control practices of the Corps of Engineers.

Furthermore, although land-treatment costs constituted sixty-one per cent of total "local" costs, or thirty-eight per cent of total project costs, the costs of "technical assistance" were reported as part of the federal government's share of expenses. It is difficult, therefore, if not impossible, to determine what phase of land treatment is involved and who is paying for it. It is possible that this figure merely represents the Department of Agriculture's estimate of the value of the individual farmer's contributions of time and machinery for the installation of land treatment to improve his land through the application of standard conservation practices. On the other hand, it is possible that the cost of virtually all the land-treatment costs reported to be "local" are actually subsidized under other federal programs, especially through the medium of the Agricultural Conservation Payments Program. 62 A check on this form of federal subvention to farmers revealed that in Nebraska, permanent land-treatment measures, such as terracing and grade control (which are basic to the flood-prevention program), receive a federal subsidy which usually amounts to seventy-five or eighty per cent of costs. Technical personnel who were interviewed admitted that this program is a basic supplement to the small watershed legislation and that farmers' direct cash expenses for this measure were, in most instances, proportionately very small.⁶³ It seems, therefore, that neither Congress nor the public has been given a clear and accurate picture of the share of costs actually being met by the national

In summary, the federal share of costs is now not only the forty-five per cent originally claimed by the Department of Agriculture, but also the total cost of flood-prevention structures (an estimated additional fifteen per cent of total costs) and an undetermined, but apparently very high, per cent of the costs of land-treatment measures, whether financed under the authorization for the small watershed program or under other programs in the Department or the Forest Service. Persons intimately familiar with these projects, in Nebraska at least, have admitted privately that the total local share of direct costs probably does not exceed ten to fifteen per cent, if that

⁰² The description of each project contains the phrase: "Land Treatment Measures . . . Costs to be met with federal funds provided under authorities other than Public Law 566 are not included. . . ."

⁶³ See U. S. AGRICULTURAL CONSERVATION PROGRAM SERVICE, DEP'T OF AGRICULTURE, NEBRASKA HANDBOOK FOR 1956, at 18-38 (1955). Rates of assistance are given only in terms of unit costs, but interviews with informed persons in the area revealed the high percentage of federal subsidization. One technician, who must remain unidentified, said that most farmers made little or no payment out of pocket for permanent soil-conservation practices, which constitute the backbone of the program. In any event, it seems fair to say that the Soil Conservation Service has not given the public or Congress a clear picture of the out-of-pocket costs of this program to the individual landowners, even allowing for considerable variation in the problems met in different projects. Cf. 2 U. S. Comm'n on Organization of the Executive Branch of the Government, op. cit. supra note 1, at 783.

much. Certainly, then, the small watershed program, in its present form, is scarcely a revolutionary departure from long-established practice in the financing of federal flood-control programs.

IV

Conclusion

Judgment of the small watershed program necessarily involves an analysis of the physical and political environment in which it must be executed, for few subjects of national policy present a more complex mixture of "scientific" data and the stuff of politics. Each of these elements, moreover, is modified by the reciprocal interactions of one upon the other. Much of the discussion of resources policy in the past decade or more, however, has been compartmentalized so as to exclude consideration of technical questions from discussion of governmental structure or process. Many students of government and politics have divorced program issues from problems of administrative structure and have emphasized the latter to the exclusion of the former.

The forms and processes of government take on qualities of deeply cherished symbols in the minds of men who have found them good for their own purposes. More than becoming mere symbols, they acquire the property of universal truths, because those who live with them look upon them as the *causes* of the good life, as in some cases they are. Discussions of intergovernmental relations in resources policy have become enmeshed in this volatile compound, where the benefits and burdens alike are great. There is a disposition, too, to forget that some symbols are not easily transferred successfully from one environment of time or place to another. The Tennessee Valley Authority is a case in point. Although it has been enormously successful in its own locale, all efforts, so far, to duplicate it in other river valleys of the nation have fallen flat. On the level of the federal department or agency, this inextricable relationship between program and organization is apparent. Major resource agencies enjoy the passionate support of their respective followers to the point where all perspective is lost in a wild cacaphony of claim and counterclaim, charge and countercharge. Means become confused with ends.

To say that political institutions are not the works of a divine and systematic order, but images in a mirror reflecting the compromises of social conflict, however, is not to say that study and reflection are useless. It is only to say, as the Sphinx is supposed to have answered a wanderer who requested a distillation of the wisdom of the ages: don't expect too much!

If there is any virtue in establishing a rational nation-wide water resources policy, certain conditions must be met. Policy goals must be set at least within the finite limits of human capacity. In part, however, the establishment of these aims must rest on other accomplishments. Far more basic physical data than are now available

⁶⁴ A notable exception in this literature is Norman Wengert, Natural Resources and the Political Struggle (1956).

must be gathered, collated, and evaluated. There is an element of interaction between these two, since goals without data are unrealistic and data gathered without goals may be only partially useful, perhaps insufficient. But aside from the need for data—the "scientific" element in the equation—an enormously difficult task on the political level must be performed.

The major water resource programs which are presently being executed by a multiplicity of agencies on the national level are specific responses to particular conditions which have stimulated a variety of segments of the American public to demand governmental action in their particular interests. For example, the Corps of Engineers launched its large scale flood-control work in response chiefly to the disastrous Mississippi River flood of 1927. More recently, when similar floods struck in New England, New York, New Jersey, and Pennsylvania in the fall of 1955, a temporary tidal wave of public sentiment demanded federal action to prevent a recurrence of such destruction. On the other hand, the public clientele of the Bureau of Reclamation is totally different from that of the Corps, geographically and otherwise. The Bureau of Reclamation's major task has been to provide water for irrigation and power in the arid and sparsely-settled areas of seventeen western states. If there is little community of interest, if not outright occasional hostility, between these two agencies, there is equally a lack of broad common interest between the segments of our public who support these agencies, year in and year out, at the congressional hearings on program. An even different clientele supports the small watershed program and its legitimate parent, the Soil Conservation Service. Of course, interagency conflicts occur when the clientele is so mixed as to demand action from two or more agencies, or when one agency seeks to broaden the base of its support and thereby invades the jurisdiction of another. The struggle between the Department of Agriculture and the Corps over the watershed program is a good example of both of these causes.

The concern which the various clienteles have for the programs of "their" agencies is keen, because the stake in terms of self-interest is high. At the same time, one can risk the generalization that the people living in the major urban centers of the eastern half of the country (with some obvious exceptions, like Kansas City and St. Louis) have little active interest in flood-control problems, because they are not touched directly. The Corps of Engineers, however, does have powerful support in many of these areas for its rivers and harbors improvements, which vitally affect commercial interests there. Thus, the degree of public indifference to flood-control problems (although certainly not to the issue of municipal supply) is highest in the great centers of population, wealth, and political power in the United States.

The great task of setting national water policy, therefore—one calling for consummate skill—is the perennial one of seeking out and stimulating a broad national concern for the problem, especially in these great urban areas. Once the task of public education is under way, it will be necessary to use this force as a counter-

weight to the particularism which now marks the scene. Compromises in the national interest must be forced upon the minorities which benefit from splintered efforts. The net result of even this process will be only a partial adjustment, for total triumph by one group is achieved only at the cost of total defeat for another. The complexity and variety of our problem is too great to permit such a result. If, then, the structure and processes of government are the products of social combat, only when this conflict has been joined on a national scale can we confidently expect a major reorganization of programs and the administrative machinery to perform the job.

Congress is so constituted and organized, especially its internal workings, that it has, so far, been able to adjust the clashes of particular interest only by divorcing the agencies from each other and permitting them to go their separate ways, hoping that they will not get in each other's hair too often. Congress is not, and, without forsaking the committee system, cannot readily be, organized as a board of directors to supervise the integrated working of the resources machinery. It can deal only with problems ad hoc. The burden then falls upon the executive branch—more particularly, the President. He alone has the position and the means to command public attention, to shape public opinion, in support of his aims. Even he, of course, will have to choose among the competing demands of particular interests, for he cannot be the same thing to all men. He faces the monumental job of forcing a reorganization of administrative machinery in such a fashion as not only to allay the fears of those now comfortably served by the status quo in so far as he can, but also to create new agencies which the general public and the specific interests can accept with the hope that they will be well served by the change.

It may be carrying pessimism too far to say that even a President cannot act effectively until crisis is upon us, but the course of history well demonstrates the force of inertia in the affairs of men. For that vast majority of Americans who can confidently expect a twist of the spigot to produce pure water in sufficient quantities to meet the demands of civilization, this issue is too distant to compete with the grinding of meal for daily bread or with the imaginable terrors of the jungle of international politics. The climax, of course, may soon be upon us, for if present estimates are accurate, we shall be prospecting for every drop of water, even in the humid East, within a decade or two. Until then, without leadership, we cannot expect the level of public concern with the issues to rise above the kind of amused incredulousness prompted by the revelation that grizzly bears are administered by one federal department, brown bears in a second, and polar bears in yet a third.

Administrative reorganization and resources planning, no less than politics, is the art of the possible.