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NATIONAL PLANNING BOARD
FEDERAL EMERGENCY
ADMINISTRATION
OF PUBLIC WORKS
FINAL-REPORT
1933-34.



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FINAL REPORT—1933-34

NATIONAL PLANNING BOARD

FEDERAL EMERGENCY ADMINISTRATION
OF PUBLIC WORKS

HAROLD L. ICKES, ADMINISTRATOR

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FINAL REPORT—1933-34

MEMBERS OF THE BOARD

FREDERIC A. DELANO, CHAIRMAN

CHARLES E. MERRIAM

WESLEY C. MITCHELL

UNITED STATES GOVERNMENT PRINTING OFFICE

WASHINGTON : 1935

LETTER OF TRANSMITTAL

NATIONAL RESOURCES BOARD,
INTERIOR BUILDING,
Washington, August 1, 1934.

To the Administrator of Public Works:

SIR: We have the honor to submit herewith the final report of the National Planning Board, appointed by you July 20, 1933, and transferred to the National Resources Board by Executive order of the President on June 30, 1934.

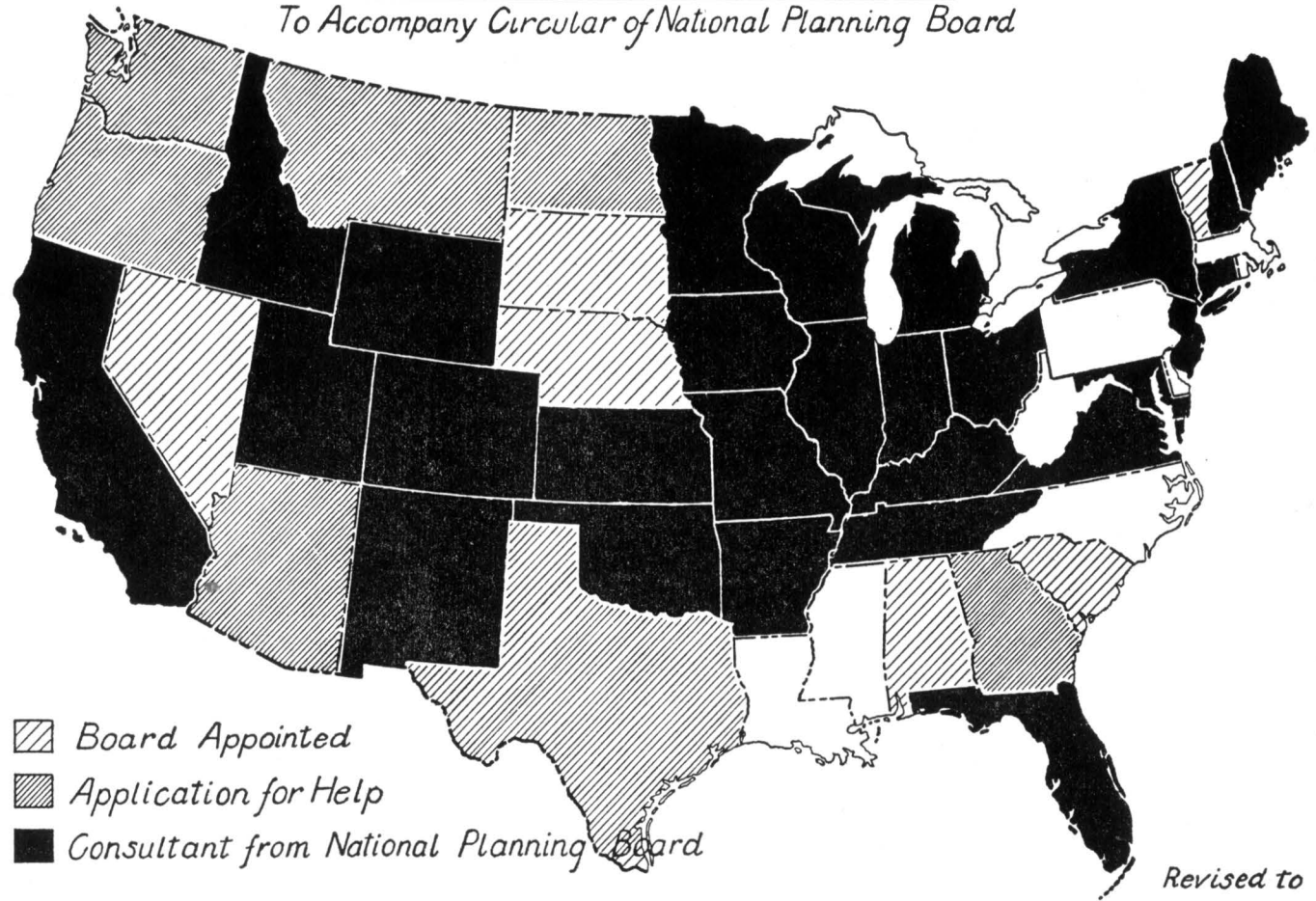
We venture to suggest that as a matter of record the body of this report and appendix F, also possibly the appendix giving the financial statement, be printed as a public document for general distribution.




Respectfully submitted.

(Signed) FREDERIC A. DELANO, *Chairman*.
(Signed) WESLEY C. MITCHELL,
(Signed) CHARLES E. MERRIAM.

STATE PLANNING BOARDS

To Accompany Circular of National Planning Board



-  *Board Appointed*
-  *Application for Help*
-  *Consultant from National Planning Board*

*Revised to
June 30-1934*

Prepared in Office of The National Planning Board

NATIONAL PLANNING BOARD REPORT

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PLANNING ACTIVITIES

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Section I

INTRODUCTION

Functions and Duties of the Board

On July 20, 1933, the Administrator of Public Works appointed the National Planning Board, consisting of three members, Frederic A. Delano, chairman, Charles E. Merriam, and Wesley C. Mitchell, to carry out the functions stated in the first circular of the Public Works Administration, approved by the President, as follows:

Sec. 2. *The central organization.* (a) The Planning Board. Its functions are: (1) To advise and assist the Administrator in the preparation of the "Comprehensive program of public works" required by the Recovery Act, through—

1. *The preparation, development, and maintenance* of comprehensive and coordinated plans for regional areas in cooperation with national, regional, State, and local agencies; based upon

2. *Surveys and research* concerning (a) The distribution and trends of population, land uses, industry, housing and natural resources; and (b) the social and economic habits, trends, and values involved in development projects and plans; and through

3. The analysis of projects for coordination in location and sequence in order to prevent duplication or wasteful overlaps and to obtain the maximum amount of cooperation and correlation of effort among the departments, bureaus, and agencies of the Federal, State, and local governments.

In accordance with this mandate, the Board met and organized on July 30, 1933, and during the year held 17 meetings in different parts of the country. It has undertaken work along four major lines:

1. Advice to the Administrator on the progress and program of public works;
2. Stimulation of State, city, and regional planning;
3. Coordination of Federal planning activities; and
4. A research program on "A Plan for Planning" and "Planning of Public Works."

Staff and Organization

For this work a small central staff was set up in Washington, under Charles W. Eliot, 2d, as executive officer, assisted by Harold Merrill, which has been increased as the work expanded. From the outset, the Board used the regional advisers and State advisory boards of the Public Works Administration for field contacts. The

duties of the regional advisers were described in the Public Works Administration Circular No. 1:

(a) To assist the Planning Board to formulate a plan for each region. In such formulation the regional adviser will consider State plans and apply, so far as applicable, the statement of functions of the Planning Board (art. III, sec. 2 (a), p. 9). The said Board will advise and assist the regional adviser in the premises and he will accumulate and collate and submit to said Board all available information useful to it.

The regional adviser will endeavor to stimulate, by publicity and otherwise, so far as may be within his power, public interest in regional and general planning.

Each regional adviser will obtain from the State advisory board of his region lists of projects under consideration by them and a copy of their recommendations and rejections. Each regional adviser will from time to time visit the offices of the State advisory boards in his region and will advise and consult with them to the end that their action may be consistent with sound regional planning.

The regional advisers of the Public Works Administration were—

1. George W. Lane, New England.
2. Edward J. Flynn, New York, New Jersey, and Pennsylvania.
3. Charles M. Moderwell, Illinois, Indiana, Michigan, Ohio, and Wisconsin.
4. Frank W. Murphy, Iowa, Minnesota, Nebraska, North Dakota, and Wyoming.
5. Marshall N. Dana, Oregon, Idaho, Washington, and Montana.
6. Justus S. Wardell, Arizona, California, Nevada, and Utah.
7. Clifford B. Jones, Louisiana, Texas, and New Mexico.
8. Vincent M. Miles, Arkansas, Colorado, Kansas, Missouri, and Oklahoma.
9. Henry T. McIntosh, Alabama, Florida, Georgia, Mississippi, and South Carolina.
10. George L. Radcliffe, Delaware, Maryland, Virginia, West Virginia, North Carolina, Kentucky, and Tennessee.

Later when the regional advisers and State advisory boards were discontinued, on March 1, 1934, the National Planning Board developed a field organization of its own through appointment by the Administrator of a series of district chairmen (in many cases the same as the previous regional advisers), as follows:

1. New England: No appointment before July 1, 1934.
2. New York, New Jersey, Pennsylvania, and Delaware: No appointment.
3. Maryland, Virginia, and North Carolina: George L. Radcliffe.

4. South Carolina, Georgia, Florida, and Alabama: Henry T. McIntosh.
5. Ohio, Kentucky, West Virginia, Indiana, and Tennessee: Alfred Bettman.
6. Mississippi, Louisiana, Arkansas, and Oklahoma: Vincent M. Miles.
7. Michigan, Wisconsin, Minnesota, Illinois, and Iowa: Charles M. Moderwell.
8. Missouri, Kansas, Nebraska, Colorado, and Wyoming: No appointment.
9. Montana, North Dakota, and South Dakota: No appointment.
10. Texas and New Mexico: No appointment.
11. Oregon, Washington, and Idaho: Marshall N. Dana.
12. California, Nevada, Arizona, and Utah: No appointment.

The principal activities of these district chairmen have been in connection with the stimulation of planning in the States and municipalities.

Financial support has been provided through a budget for the central office carried as an administrative expense of the Public Works Administration and by a series of special allotments or "earmarkings" of Public Works funds for special purposes. All overhead administrative costs have been handled by the administrative division of the Public Works Administration.

Each of the main lines of the work of the Board is outlined in the following sections and appendices:

Summary Financial Statement

EXPENSES OF NATIONAL PLANNING BOARD, PERIOD FROM INCEPTION TO JUNE 30, 1934¹

Central office (original budget approved for \$26,000):	
Members and central office staff:	
Personal services...	\$13,943.11
Travel and subsistence.....	3,009.60
Supplies and miscellaneous.....	2,103.02
	<u>\$19,055.73</u>
Stimulation of planning (allotment of \$250,000):	
District chairmen and State planning consultants:	
Personal services...	45,211.75
Travel and subsistence.....	6,363.66
	<u>51,575.41</u>

EXPENSES OF NATIONAL PLANNING BOARD, PERIOD FROM INCEPTION TO JUNE 30, 1934—continued

C.W.A. project F-92 (fund available, \$13,125):	
Field supervisors and central office assistants:	
Personal services...	6,199.96
Travel and subsistence.....	4,531.52
Supplies and miscellaneous.....	282.15
	<u>11,013.63</u>
Research fund (allotment of \$35,000):	
Research consultants, etc:	
Personal services...	18,083.45
Travel and subsistence.....	2,307.88
	<u>20,391.33</u>
Grand total.....	<u>102,036.10</u>

¹ Including accounts received up to Sept. 15, 1934. Furniture and equipment not separated from general P.W.A. administrative account.

ADVICE ON PROGRESS AND PROGRAM OF PUBLIC WORKS

The Board has endeavored to assist the Public Works Administrator through the provision of statements of criteria for the selection of projects, through confidential discussions with the Administrator and with the staff as to the progress of the program, and through contacts with informed and interested citizens in different parts of the country.

At the outset of the work, the following statement of criteria for selection of projects was submitted by the Board and included in Bulletin No. 1 of the Public Works Administration:

VI. Planning considerations

NOTE.—The engineer will obtain independently such information, in addition to that furnished by the applicant, as is necessary to prepare report under this section.

Conformity with comprehensive city, regional, or State plan

Indicate whether plan is city, regional, or State plan, whether official or unofficial, and give status of plan, date of plan, consultant, recommendation of planning board, if any, present membership and consultant to board and date of recommendation.

Metropolitan or regional significance

Consider relation of project to similar or affected proposals in same metropolitan or regional district.

Priority of projects

Consider comparative importance and desirability of the project to other proposals in same district which have been, or may be submitted, particularly where bonding power or other limitations are likely to limit number of projects which can be undertaken.

Sequence

Consider relation of project to other dependent construction, as bridge approaches before bridges, or sewers before pavements. Is full use of project provided for when completed?

Regenerative character

Consider stimulative effect of project upon other or additional construction by private or public agencies. Desirability and kind of additional work.

Competitive character

Is facility provided by project in competition with existing facilities of same kind, or of same general purpose, such as railroad versus highway, public versus private waterworks, etc.?

Permanence

Is project a palliative or final answer to specific need? Is the utility of the facility provided measurable in terms of years?

Continuing costs

Consider possible additional outlays required for maintenance and operation and who will bear such costs.

Changes in community

Consider effect of direction of community growth, location of industries, population trends, etc., on continuing utility of project.

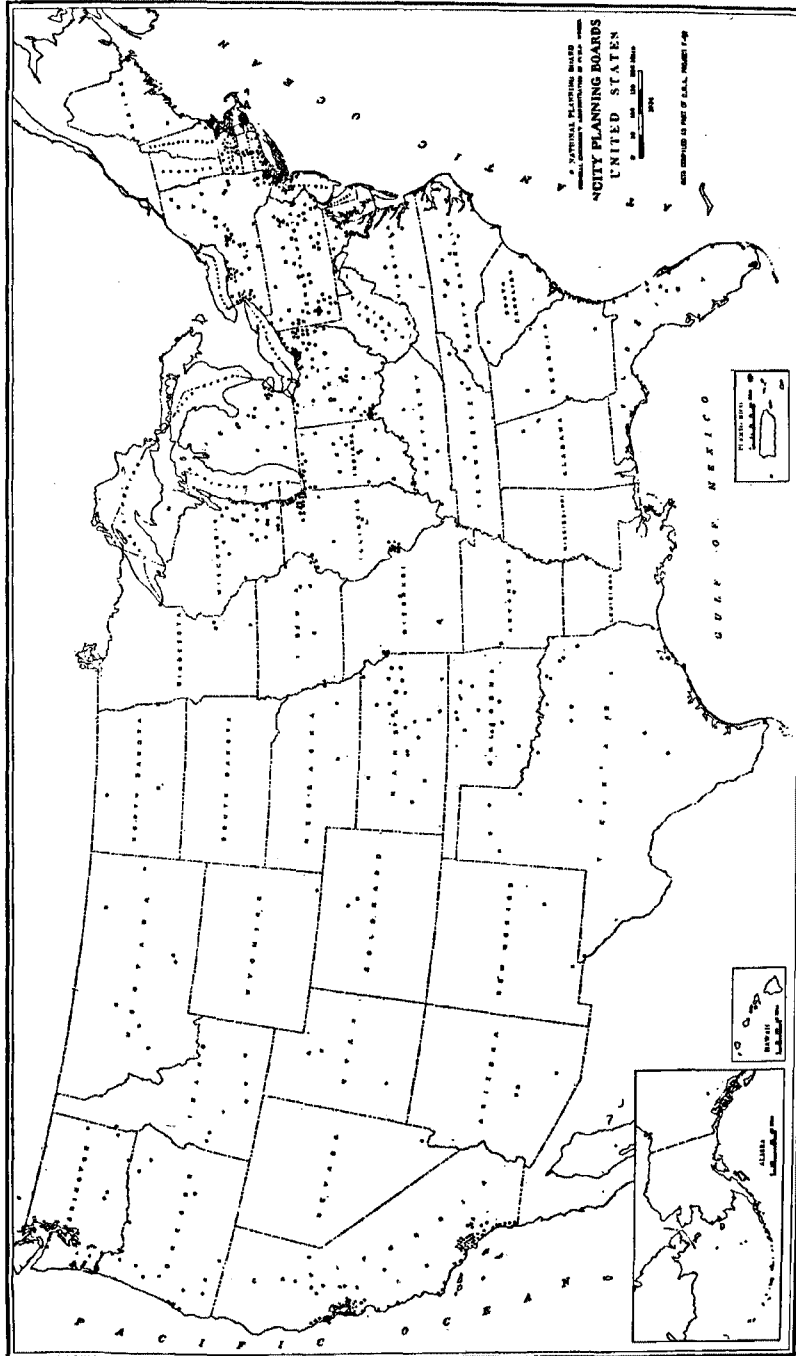
General

State additional significant facts on social and economic desirability of the projects. Has the proposal in its general and economic aspects your approval based on your best judgment?

During the following months, prior to the organization of the division of economics and statistics in the Public Works Administration, the Board kept a record of the type and location of projects, and called attention from time to time to minor dislocations in the program—both in geographic distribution of projects and in the categories of labor and materials which were involved. At the same time the Board cooperated with the Department of Labor in the development of statistical material on the amount of labor directly and indirectly employed on Public Works projects. On September 26, 1933, after careful review of methods used in providing quotas for States, a report was submitted (see appendix) on the geographic distribution of public works, which was used by the Administration as a check upon the distribution of allotments for Federal and non-Federal projects.

Through meetings held in different parts of the country, and contacts thereby established with the field force of Public Works and with private citizens, the members of the Board kept in close touch with the development of the Public Works program and were able to make suggestions to the Administrator for the organization and speeding up of the work.

When a progress report was being prepared by the Public Works organization for submission to Congress, the Board cooperated and endeavored, through critical suggestions, to contribute to the document. Finally, in its research program, special emphasis has been given to future planning of public works based on the experiences obtained during the depression and by the Public Works Administration.



STIMULATION OF PLANNING

The National Planning Board has assumed as one of its primary functions the stimulation of city, regional, and State planning activities. To this end it has held its meetings in different parts of the country to keep in touch with local needs and planning efforts. Contacts with local planning agencies have been consistently cultivated by the staff of the Board and through the regional advisers and district chairmen.

A series of 13 circular letters was sent out during the year from the central office, providing suggestions to the regional advisers and district chairmen, points on State planning procedure and legislation, and with records of the progress made on decentralizing and stimulating planning efforts.

The quite surprising success of the efforts of the Board in this field are very largely attributable to the energy, skill, and tact of the regional advisers, district chairmen, and consultants who have carried on the work in the field.

Previous Federal Assistance to Planning

The progress in city and regional planning has been recorded by the Division of Building and Housing of the Department of Commerce for many years and valuable assistance has been provided to the zoning and city planning movement through the advisory committee and publications of that office. Stimulation of long-range programming of public works by municipalities was one of the principal interests of the Federal Employment Stabilization Board. These activities were continued by the National Planning Board, although along somewhat different lines.

The Public Works Administration emphasized the importance of sound planning from the beginning of its work. In its Circular No. 1, issued July 31, 1933, the first of five tests to determine the eligibility of public works projects was stated as the "relation of the particular project to coordinated planning, and its social desirability." In the same circular first preference is given to those projects "integrated with and consistent with a State plan." The instructions to State engineers, issued as Bulletin No. 1, also recognized the importance of planning and laid down a series of planning

considerations for every project, including conformity with city or regional plans.

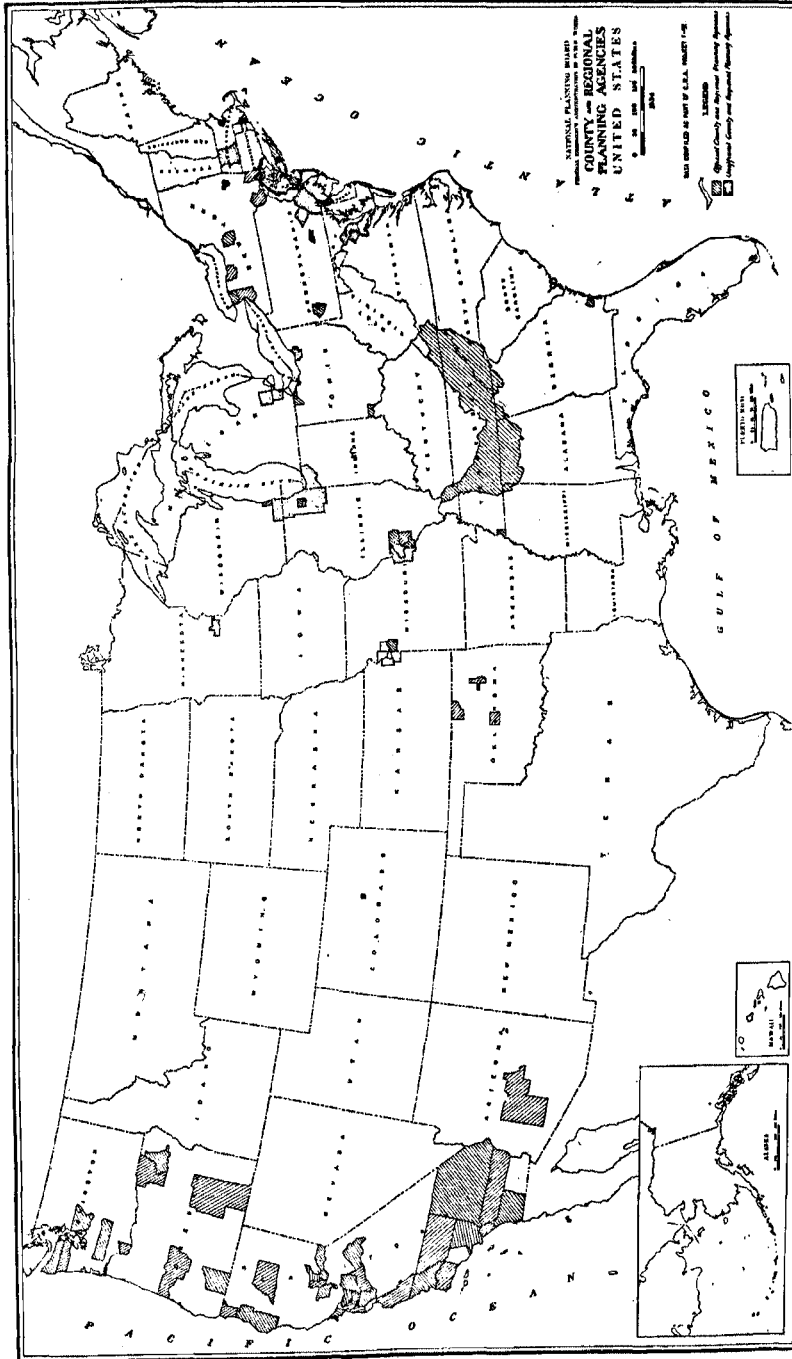
Direct assistance to State and interstate planning boards was made possible through funds allotted to the National Planning Board on November 20, 1933, by the special board of Public Works for the purpose of stimulating planning.

At the suggestion of the National Planning Board, the Federal Civil Works Administration soon after its organization gave its sanction to planning studies and surveys as favored State and local projects. In addition, it made possible several Federal projects of great value to State and local planning work, notably the Federal real property inventory, urban and rural tax delinquency surveys, the farm housing survey, farm land use survey, subsistence homestead study, and the census of American business. Through the National Planning Board, the Federal agencies in charge of these Federal projects were put in touch with local, city, regional, and State planning agencies, many of which cooperated in the organization and conduct of the projects, in obtaining office space, and in other ways assisting in the work. Further impetus has been given to the planning movement through continued cooperative efforts of the National Planning Board, the Federal Emergency Administration of Public Works, and the Federal Emergency Relief Administration.

Survey by National Planning Board

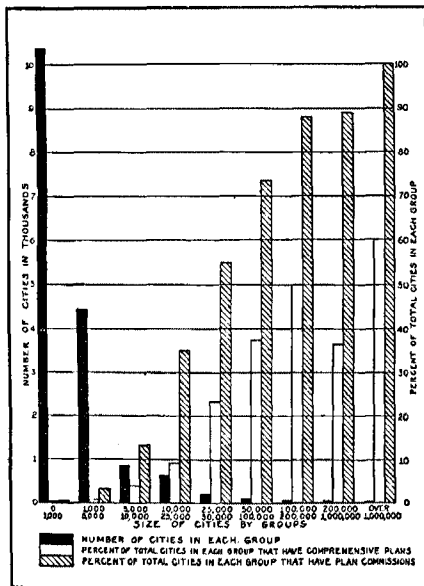
To secure information as to the status of planning work by city, county, and regional planning commissions, the National Planning Board in September 1933 distributed a questionnaire to 841 city and town and 76 county and regional planning agencies. This was followed early in January 1934 by an inquiry into the extent to which these same municipalities and regions were availing themselves of Civil Works Administration assistance for planning studies.

To supplement and check the response to these inquiries, to assist in the stimulation and organization of State and local planning activities, and to aid in supervising Civil Works Administration planning projects, the Board secured from the Federal Civil Works Adminis-



trator the approval of Federal Civil Works Administration project F-92, permitting the employment of 11 field investigators with technical experience in planning and of 10 assistant investigators. The latter were attached to the offices of the 10 Public Works Administration regional advisers. Under the direction of Harold Merrill, Assistant to the Executive Officer, this force, with a small staff of stenographers and engineers, has completed the inquiry and tabulated the results.

The employment of experienced technical men for this field service has been amply justified, not only because of their ability to analyze local planning situations but also because they were able to assist many local agencies with advice on questions of planning and administration as well as on various Federal activities of immediate local interest. Towns and cities are responding, new planning agencies have been created or are promised, and inactive commissions are awakening to their opportunities.



Based on the reports received in the National Planning Board Survey, there are now (1934) in the United States 739 city planning boards, 717 of which are official agencies. There were also 30 municipal zoning boards reported.

County and regional planning organizations in the United States now (1934) total 85 or 9 more than the number listed by the Division of Building and Housing of the United States

Department of Commerce in its report of April 1933. These include 61 county and 23 regional planning organizations and 1 county zoning board. During the past year 12 new county and 6 new regional planning agencies were reported, while 1 county and 2 regional boards were reported abolished, and 2 county and 4 regional boards were inactive.

Considering the country as a whole, it is natural that county and regional planning activities are generally confined to the larger population centers and their environs, the principal exception being some of the county planning projects. Furthermore, these activities are concentrated in three general areas, namely the Eastern States, Central States, and the States on the Pacific coast (see map), but it has been the aim of the National Planning Board to widen the interest and scope of this work.

The National Planning Board fully appreciates the importance of city and regional planning to the whole national planning process, in familiarizing people with planning ideas and procedure and to fill in the special details in larger State, regional or national planning outlines. The healthy growth of city, county and regional planning must ultimately rest on local interest, initiative, and responsibility. While a new impetus may be provided by direct financial and personnel assistance from the Federal Government, the long-range undertaking of stimulating, advising, and guiding local planning effort is the proper function and responsibility of the State and local planning boards and civic organizations. A national planning agency as a clearing house can and should be in a position to help through circulars and bulletins on standards, procedure and experience which may be generally applicable throughout the Nation.

State Planning

A year ago *State planning* was an experiment in such forward looking States as New York and Wisconsin. Today 40 State planning boards are looking forward into the future of their States, and in at least 8 of those commonwealths, legislation has been enacted to put the work on a continuing basis.

Apparently public opinion and the State governments were anxious and ready to start this new planning work, for when the National Planning Board offered its cooperation to the

SUMMARY OF TABULATION OF STAGES OF PLANNING																																					
STATE	OFFICIAL PLAN	OFFICIAL PLAN	STAGES OF PLANNING										OTHER STAGES																								
			PLANNING BOARD		PLANNING BOARD		PLANNING BOARD		PLANNING BOARD		PLANNING BOARD		PLANNING BOARD		PLANNING BOARD		PLANNING BOARD		PLANNING BOARD		PLANNING BOARD		PLANNING BOARD														
			PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED	PREPARED	APPROVED													
ALABAMA	2	1	2	1																																	
ARIZONA	3	2	1																																		
ARKANSAS	2	0																																			
CALIFORNIA	84	3	29	35	1	6	0	2	3	14	8	7	12	37	30	25	12	14	9	6	12	14	4	7	15	7	11	6	13	16	4	8	1	2	6	0	
COLORADO	2	2	2	1																																	
CONNECTICUT	17	1	1	39	0																																
DELAWARE	1	1																																			
DISC. OF COLUMBIA	1	1																																			
FLORIDA	4	1	9	1	6																																
GEORGIA	4	1	3	0	0																																
IDaho	5	1	1																																		
ILLINOIS	32	1	6	3	2	3																															
INDIANA	23	2	21																																		
IOVA	4	2	7	1	1																																
KANSAS	15	1	10	3	6																																
KENTUCKY	4	3																																			
LOUISIANA	1	1																																			
MAINE	3	1																																			
MARYLAND	1	1																																			
MASSACHUSETTS	109	47	6	7																																	
MICHIGAN	17	1	12	2																																	
MINNESOTA	4	3	1																																		
MISSISSIPPI																																					
MISSOURI	9	1	7	1																																	
MONTANA	6																																				
NEBRASKA	2	2																																			
NEVADA	1	1																																			
NEW HAMPSHIRE	1	3																																			
NEW JERSEY	25	5	15	5																																	
NEW MEXICO	2																																				
NEW YORK	109	3	45	11	5	3	4	37	27	16	15	24	20	12	22	17	9	14	14	10	6	13	9	7	5	12	6	14	5	12	1	13	6				
NORTH CAROLINA	10	9																																			
NORTH DAKOTA	2	2																																			
OHIO	57	1	3	37	2	2	1	2	10	9	4	18	13	6	11	5	3	4	8	9	4	1	4	2	3	8	2	9	3	1	12	33					
OKLAHOMA	10	4	3	1																																	
OREGON	16	2	2	1																																	
PENNSYLVANIA	40	2	3	18	3	1	1	2	3	11	4	3	5	14	2	1	11	10	4	2	10	7	6	5	5	7	4	3	4	2	5	1	4	21			
RHODE ISLAND	2	1	1																																		
SOUTH CAROLINA	1	1	1	1																																	
SOUTH DAKOTA																																					
TENNESSEE	5	5																																			
TEXAS	14	1	13																																		
UTAH	1	1	1																																		
VERMONT																																					
VIRGINIA	7	1	5																																		
WASHINGTON	26	2																																			
WEST VIRGINIA	2	1	1																																		
WISCONSIN	23	14	1	2																																	
WYOMING																																					
TOTALS	717	22	30	158	41	3	37	3	19	36	216	163	109	20	212	158	104	102	175	124	74	92	130	41	85	64	52	48	31	57	33	66	75	26	7	146	269

Governors in the hope that 10 or a dozen States might take up the task, a flood of applications for assistance came in from almost every State in the Union.

New Hampshire was the first State heard from. Governor Winant telephoned rather than wait for the mails. He appointed a State planning board, including various State officials, well-known citizens, and representatives from the universities. With the help of three consultants assigned to the work by the National Planning Board, and through the cooperation of the Civil Works Administration, a program and staff were set up and the new undertaking launched.

That was one State planning board, but now there are 40—each on a slightly different basis adapted to the peculiar situations and special needs of the several States. Most of the new State planning boards have about 9 members, although there is one with 21, and one with 5. Every board so far appointed includes important State officials, such as the heads of the highway, conservation, or health departments. Most of the boards also include one or more representatives of the universities of the State among the citizens drawn from private life. Of course, some of the boards among the 40 have a political complexion, but it is noteworthy that almost all of them are definitely nonpolitical in their membership and are so regarded by the Governors who set them up.

The National Planning Board offered to supply services of consultants to State planning boards which qualified under six conditions, as follows:

1. Appointment by the Governor of an unpaid State planning board, including perhaps four department heads, such as public works, highways, conservation, and health, together with three citizens.
2. Assurance by the Governor that if this State planning board gets under way he will sponsor some legislation to put it on a continuing basis.
3. Assurance of reasonable office space and drafting and stenographic help to carry on the work of the proposed board.
4. Development of a planning program, giving the status of planning work already done and outlining specific studies to be undertaken in say the next 6 months. It is hoped that this program will include a land use study, a 10-year program of public works, and perhaps a study for the integration of the transportation system within the State.

5. Any suggestions the Governor or the new board may wish to make of a qualified planner to direct the work.

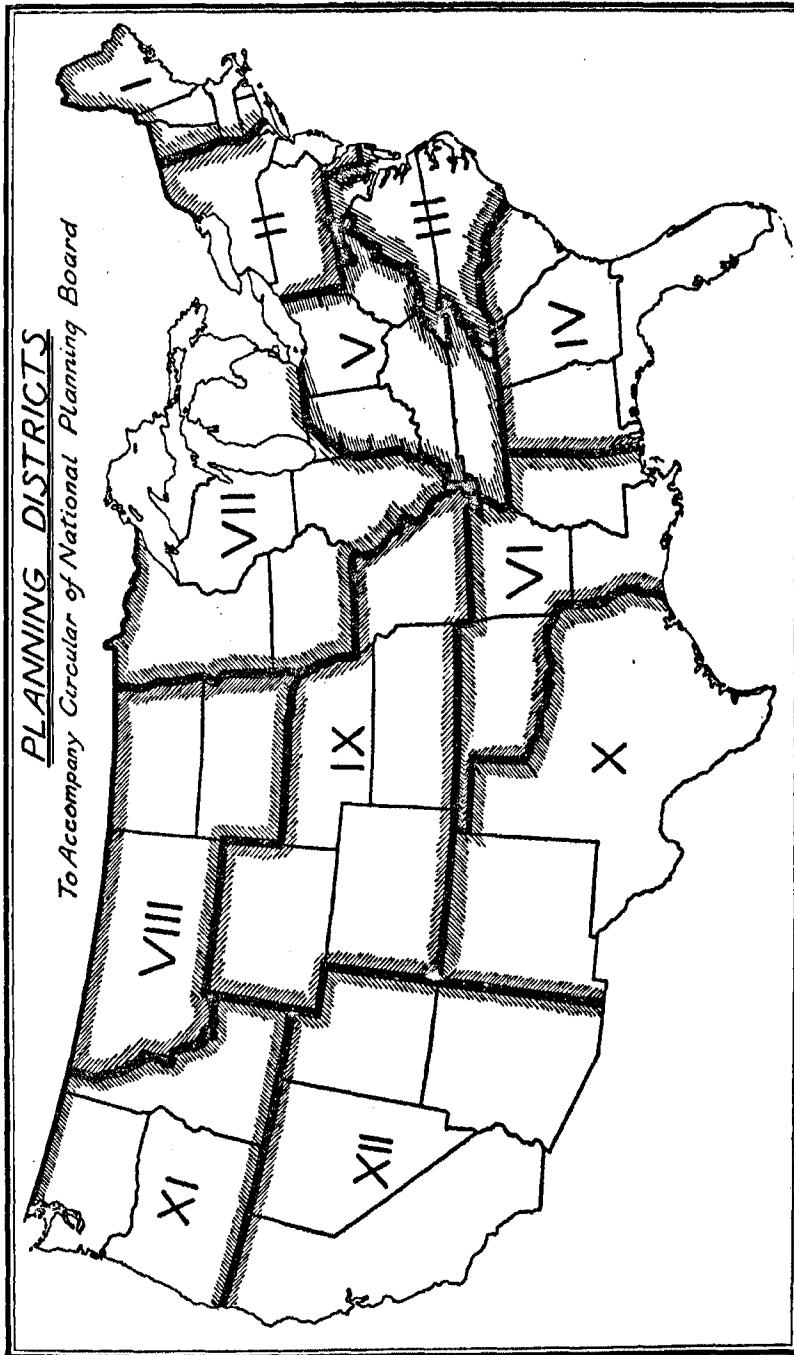
6. Statement of the Governor's willingness to appoint the planner, or the chairman of the State planning board, as the State representative on a regional or interstate planning committee, if such committee is organized.

In accordance with this understanding, planning consultants and associate consultants had been sent to 25 States up to June 30, and many more applications were pending in the Washington office. These consultants have been serving on a part-time basis to provide the boards with their experience in organizing planning programs. Some of the men appointed by Administrator Ickes for this work had previous experience in the city and regional planning field, while others have been drawn from engineering or from statistical work in connection with commercial organizations.

All of the consultants have been asked by the National Planning Board to prepare preliminary reports within a 6-month period covering at least such matters as land use, the integration of transportation methods, and a 10-year public works program for the State to which they were assigned. This requirement of a report to the National Planning Board will provide at least one element of uniformity in the work of the various State planning boards. It has been the policy, however, of the national agency to encourage experimentation and special studies of problems peculiar to the States so as to develop special needs and possible solutions in a variety of fields. State planning is still so new that no single road to success is obvious, and the State unit provides unusual opportunities for experimentation in new lines of planning work.

In addition to supplying help through assignment of consultants to the States, the National Planning Board has endeavored to help along the work through preparation and dissemination of a series of circular letters developing various problems and methods of attack. Legislation for establishment of continuing planning bodies has been suggested and contacts provided with useful sources of information.

As in the case of New Hampshire, many States have taken advantage of the oppor-



tunity provided through the cooperation of the Civil Works Administration and Emergency Relief Administration to secure drafting and stenographic help, and in some cases supervisory assistance in the organization of the work. A cordial relationship between the State planning boards and the State Emergency Relief Administration has been set up which may provide useful information and assistance to the relief organization and personnel for the work of the State planning boards. These evidences of Federal cooperation and assistance will not in any way affect the obligation or the responsibility of the States for the work of their own State planning boards, but they are proofs of the desire of the Federal Government to help in every reasonable way.

The programs of work adopted by State planning boards vary enormously, outside of the three fields of transportation, land use, and public works, which were especially indicated to the consultants assigned from Washington. In the arid West, it was natural that water resources would play a large part, while in New England the recreational possibilities of the area seem to be the principal interest of the State planning units. A number of States are making studies into the possibility of reorganizing the county governments by consolidating the jurisdictional units of the States. Similar studies of consolidation of rural school districts have been undertaken in other States. At least one State planning board has assumed responsibility for encouraging and assisting city and town planning projects, and the New Hampshire board has issued a special bulletin on this subject. A brief review of the work of the State planning boards to date shows their interest in such a variety of subjects as scenic and historical sites, pollution of streams, shore fisheries, electrical equipment in rural homes, mineral resources, submarginal land, etc.

Interstate Planning

The work of the State planning boards has naturally developed a number of topics involving interstate cooperation, and to meet this natural evolution of planning procedure the board has secured approval from Administrator Ickes for the establishment of a series of 12 plan-

ning districts, each with a district chairman. In two cases, these districts have been organized with regional planning commissions, consisting of representatives of the State planning boards in the area, and special studies are being conducted through these regional organizations.

The Pacific Northwest Regional Planning Commission, under the chairmanship of Marshall N. Dana, has achieved notable success in stirring the enthusiasm of large numbers of people in the Columbia River Basin for planning work. The chief problem facing the commission is the use of the power now being developed through the construction of the Grand Coulee and Bonneville Dams, but the commission has a very much wider program outlined for its immediate work. In New England, a similar New England Regional Planning Commission has been established with the cooperation of numerous private agencies led by the New England Council. This New England group is making a study of the Connecticut River Valley and of interstate parkways and freeways as a first step in coordination of various State planning projects.

State and interstate planning is a lusty infant but the work is only beginning. It is expected that the district chairmen and the State planning consultants appointed from Washington will be helpful in starting the work, but the critical test will come later when bills are pending in various legislatures for the establishment of continuing planning organizations with reasonable appropriations. The movement has grown rapidly and far beyond the expectations of the National Planning Board which launched it. The future of State planning will largely depend upon the usefulness and realism of the preliminary reports on their work which are expected in the next few months.

The National Planning Board has placed great emphasis on local self-government and local initiative with a minimum of centralized supervision, guidance, or leadership. In planning, it should be obvious that the communities affected must take the responsibility for the future. Nobody can tell them what to do if they do not desire the advice. In the long run they have got to live with it and pay for it, and it is most obvious that they must have a large share in formulating the plan.

COORDINATION OF FEDERAL PLANNING ACTIVITIES

With a constantly growing number of planning agencies in Washington, there has been an increasing need for a clearing house or service agency to bring together programs and projects of various divisions for discussion and better understanding. The National Planning Board has endeavored to provide facilities for this kind of work insofar as its limited personnel and time permitted.

One of the obvious conflicts of policy apparent last summer was the continuation of reclamation projects in the face of the crop restriction campaign of the Agricultural Adjustment Administration. In an effort to reconcile this conflict at least partially, the Board prepared the following statement (Sept. 7, 1933) on this problem:

The reclamation projects before the Public Works Administration involve an apparent—

Conflict of policies between

A. Reduction of farm acreage and restriction of crops under the Agricultural Adjustment Administration, and the

B. Development of additional farm acreage and increase in crops through irrigation of semi-arid lands under the Reclamation Service.

The policy of reduction of farm acreage is based on the theory that

(a) Existing crop land is more than sufficient to supply the needs of any population this country is likely to have, as well as to provide a surplus for export, and that

(b) Marginal and submarginal crop lands should be converted to other uses in order to avoid unnecessary hardships for people working those lands, and in order to remove these areas from a dragging competition with supermarginal lands.

This constitutes a change in policy due to approaching stabilization of population through restriction of immigration and a changed economic situation. If this policy is adhered to the submarginal arid and semi-arid areas of the west—including almost two-fifths of the whole country—will constitute the great problems.

The policy of reclamation has been developed over a 60-year period and is based on the theory that

(a) Settlement of the west or public-land States should be encouraged for farm use by construction of irrigation systems from a fund provided by all sales of public lands, oil leases and returns from irrigation projects, and that

(b) The rich chemical and mineral qualities of many arid areas which might be irrigated will provide highly productive crop land by assurance of regulated water supply.

These arguments set up the desirability of reasonably self-sustaining State or regional units as against the

welfare of the farmers of the United States as a whole; the cost of transporting foods to the mining and other occupational groups in the arid areas as against the cost of irrigation, etc.

A choice between these two policies is fundamentally a decision between a nationally organized economy as against a regional or State basis of economic organization

The reclamation projects now under consideration may, for convenience in discussion, be divided into three groups:

1. Projects for the completion, expansion, or modification of reclamation works already started or in use;

2. Projects in which reclamation is one of a number of purposes served, or where it is distinctly a byproduct; and

3. New projects primarily for reclamation with or without incidental value for flood control, power, etc.

(1) *Completion, expansion, and modification of works already started.* First priority for any funds allocated to reclamation projects naturally goes to projects where the Government is financially or morally committed by its own previous investment or by encouragement through assurances of water supply to settlers.

Experience has shown, however, that there is a continuing problem of indefinite expansion and new needs for water unless special safeguards are provided in each case. A project designed for a given crop on a given number of acres may be used for a crop requiring a greater amount of water, or encourage the settlement of a greater number of acres, than can be served without additional water supply. Without safeguards against further increase in demand beyond the water made available by the new construction, modification or expansion may be tantamount to placing a project in a class with new construction.

A second danger lies in a natural desire to complete projects already in use, even though the lands already made available in the neighborhood or region have not yet been fully taken up. There is no apparent stampede to farms which would warrant over-expansion of farming facilities.

The announced policy of the administration to withdraw three acres for every new acre of reclaimed land has not yet been implemented by any specific method for withdrawal of submarginal farm lands. Pending the development of a method for accomplishment of this policy, is it wise to proceed with reclamation projects?

(2) *Projects where reclamation is byproduct.* In these cases the problems involved in provision of new farm acreage should certainly not control the decision on the project, provided the reclamation aspects of the project are really incidental. It would be poor planning to fail to provide for a reclamation byproduct in construction of any project of this category.

(3) *New projects primarily for reclamation.* Pending decision on the basic question of land use policy, and

pending development of a method of withdrawing submarginal lands as already noted, safe policy would apparently indicate postponement of all new reclamation projects.

Land Planning Committee

Out of this statement and a series of meetings with representatives of the agencies concerned, a land planning committee was appointed at the suggestion of the board by the Secretary of the Interior and the Secretary of Agriculture. This committee consisted of three members each from the Interior and Agriculture Departments, as follows: Assistant Secretary Oscar L. Chapman, Interior Department; Dr. M. L. Wilson, director, Subsistence Homesteads Division, Interior Department; Mr. Arno B. Cammerer, director, National Park Service, Interior Department; Assistant Secretary Rexford G. Tugwell, Agriculture Department; Dr. Mordecai Ezekiel, Agriculture Department; Dr. L. C. Gray, Agriculture Department; together with the executive officer of the Board who acted as secretary. Later, Mr. Jacob Baker, of the Federal Emergency Relief Administration, was added to the group because of the interest of his office in the relief problems of people on submarginal lands.

The land-planning committee held six meetings during the year and contributed to the formulation of the program for withdrawal of submarginal land, for the prevention of homesteading on submarginal areas in the public domain, for the drafting of the grazing control bill, and for a reconciliation of a number of other conflicting policies between the two departments.

The activities of the committee led naturally into the establishment of a working relationship between the Surplus Relief Corporation, the Agricultural Adjustment Administration, and the Interior Department for the withdrawal of submarginal land, and when an organization was set up for that work, regular meetings were discontinued.

Transportation Committee

A second committee, on transportation coordination, was organized on August 21, 1933, to discuss coordination of conflicting policies of navigation and inland waterway development with the railroads, the possibility of the use of abandoned railroad branch lines as the right-of-way for new highways, the use of dams

as the foundation for highway crossings of the Mississippi, the necessity of drawbridges on new highways, and similar points of conflict or community of interest among different methods of transport. This committee opened the door to a great variety of problems which urgently need attention, but the staff and facilities of the Board were insufficient to permit any exhaustive pursuit of the interesting leads disclosed in the meetings of the committee.

Construction Committee

A third effort to provide coordination between planning agencies of the Federal Government was undertaken in December 1933, through lunch meetings and other informal conferences arranged by the staff of the Board among officials concerned with housing and construction. These meetings proved helpful in relation to the demolition campaign undertaken by the Civil Works Administration and in relation to the real property inventory and similar work undertaken by various departments. The same group was utilized by Hon. Frank C. Walker, of the National Emergency Council, in the study which led to the formulation and later passage of the housing bill, and the services of the National Planning Board as a coordinating office were no longer necessary.

Water Planning Committee

At the first meeting of the Board, a question was raised as to water studies and discussion centered upon the appointment of a committee which later developed as the Mississippi Valley committee of the Public Works Administration. The Board's connection with the work was continued through joint meetings with the committee. When the President appointed a committee on water flow in response to the Norris-Wilson resolution in February 1934 the Board was able to assist in the collection of material and supply of secretarial assistance through its executive officer who served as coordinating agent and secretary for the President's committee.

These efforts to provide a meeting place and clearing house for discussion of common problems have demonstrated the value of a continuing central agency which might supply secretarial services to bring together different groups and to prepare or follow up material for discussion.

During the course of these experiments, on October 23, 1933, the Board suggested putting this coordinating work on a more formal basis:

Recommendation

Numerous planning agencies are now at work in different parts of the Federal Government; but, to date, no central clearing house, information service, or coordinating secretariat has been provided except by the occasional contacts of a few individuals largely outside of their official work. If duplication and working at cross purposes is to be avoided, some better understanding of each other's problems is necessary, and such understanding can be provided without any hindrance to the free development and expression of different viewpoints.

In the opinion of the National Planning Board the time is opportune for the establishment of what would be in essence a clearing house of all planning agencies—budgetary, physical, economic, social, and administrative. Such an organization might preferably be com-

posed of representatives from the several departments, administrations, and independent offices, such as assistant secretaries, deputy administrators, bureau chiefs, and other specially qualified officials or assistants who are now charged with planning work. Through a series of coordinating committees within such a clearing house or central planning agency, the collection of data, coordination and discussion of projects and proposals, and development of recommendations to the appropriate authorities would be facilitated.

The organization or designation of such a clearing house or central planning agency would naturally require approval and endorsement by the executive council and, perhaps, by an Executive order of the President.

This recommendation of the Board was fully developed through the research authorized in November, and the resulting report of the Board comprises the following section of this statement.

RESEARCH PROGRAM

In November 1933 the Board presented a program of research as follows:

In accordance with your request on October 23 the National Planning Board has considered the steps necessary to the preparation of a program for a national plan.

The Problem

The need of the moment is the integration of many movements toward a common objective. The problem is to define the objectives and to develop methods of coordination which will direct the efforts of many groups without stifling initiative and new ideas. National objectives in a multitude of different fields and national, State, and local agencies of untold number in each field, make the problem of national planning a most complicated and daring undertaking. The best that any group or organization can hope to provide to meet this need is a continuing effort to analyze and interpret the broad trends and possibilities in the life of our Nation; and, somewhat after the manner of a general staff, consider critically the most important situations and indicate alternative possibilities, to the end that sound programs of action adapted to changing situations may be developed by those responsible for official decision and action.

Method

To attack so vast a problem as national planning, the first requisite is obviously some division of subjects under functional headings which can be grasped and considered with some comprehension of their interrelations. No two men or groups of men would probably suggest the same headings, and any division of the subject must be tentative and dependent on the development of research and changing needs. As a basis of discussion, therefore, and not in any sense as a recommendation, the following grouping of subjects is offered as suggestive of the problems involved:

A. Physical planning

1. Natural resources and the limitations on our use of them, covering minerals, fuels, water, topography and soils, climatology, and biological products.
2. Man's use of these resources and trends or difficulties encountered, influences of transportation, land uses, etc.
3. Methods of control or direction—the limits on practical objectives involving tenure, zoning, tax policy, rates, etc.
4. Objectives for primary uses of resources.

B. Sociological planning

1. Population distribution, trends, and movements.
2. Welfare, education, problems of health, old age, unemployment, adult education, leisure time and recreation, correction, and races.

C. Governmental planning

1. Budgetary methods and controls.

2. Reorganization of administration of local, metropolitan, State, and national units.
3. Methods of administration, etc.

D. Economic planning

Paying the cost and balancing production and consumption. Possibly divided under headings of Production, Distribution, and the Workers. Problems of banking, currency and credit, controls of overproduction, taxation, and labor figure in the production question; markets, price control, and fair competition illustrate the problems of distribution.

The National Planning Board has already suggested the organization of a series of coordinating committees among agencies of the Federal Government with a "clearing house" for planning activities. Two such committees, on land use and on transportation, have already met, and others are projected following the headings outlined above. Each of these committees will constantly need access to information and opinion either through advisory groups or research.

To ascertain what researches are now being carried on by public and private agencies, and what can best be done to weld these efforts together into a comprehensive scheme of planning, the National Planning Board respectfully recommends an investigation and report by a qualified expert with a research assistant and stenographic help. Such a report and necessary travel are estimated to cost on this basis approximately \$8,000.

Specific Program in Public Works

As the general program develops it may appear desirable to have special studies of special items, either in collaboration with outside researches which may be disclosed, or directly by the National Planning Board. At this time, the general field of public works planning seems to offer larger possibilities of planning accomplishment than any other, and accordingly the National Planning Board respectfully recommends the development of a program for continuous planning of public works as a specific example of these possibilities.

As a basis for this work the research now being conducted by Dr. Arthur D. Gayer and the experience of the Public Works Administration are available. Further work should be done in each of the fields of economic, physical, and administrative planning. For example: under economic planning consideration should be given to the problem of costs and how they can best be met, to the problem of timing, and to the reactions of changes in the scale of public works upon general business conditions. To secure a competent investigator and trained assistant in each of these fields, with stenographic and drafting help, to make a report about June 1, 1934, will require a fund estimated at \$27,000.

Summary

The National Planning Board respectfully recommends the allocation of \$35,000 for

- (1) Investigation into researches now going on or in prospect in the general field of national planning, and
- (2) Research and preparation of a report on the organization of continuous planning for public works. Respectfully submitted.

FREDERIC A. DELANO, *Chairman.*
 CHARLES E. MERRIAM.
 WESLEY C. MITCHELL.

This program was approved and financed by a special allotment of Public Works funds.

For the preparation of source material on "A Plan for Planning", the Board secured the assistance of Dr. Lewis L. Lorwin and Prof. A. Ford Hinrichs who have assembled data under the title "Planning in the United States Today".

For the corresponding work on the long-range planning of public works, a series of four research documents have been prepared as follows:

1. Criteria on Planning for Public Works, by Russell Van Nest Black.
2. Public Works in Prosperity and Depression, by Dr. Arthur D. Gayer.
3. Economics of Planned Public Works, by Dr. J. M. Clark.
4. Government Organization for Public Works Planning, by Dr. Fred W. Powell.

Copies of these research reports are filed in the office of the Board.

The report of the Board on A Plan for Planning was submitted informally to the President on June 24, 1934, and the members of the Board were then requested to undertake new responsibilities in connection with the preparation of a report for the President on Land and Water Resources of the Nation. On June 30, 1934, the President issued an Executive order establishing the National Resources Board to supersede the National Planning Board and to carry on its work.

Since the report of the National Resources Board will necessarily include recommendations concerning planning for public works and since the material on this subject previously prepared by the National Planning Board must be recast to fit the new requirements laid down by the President, the preliminary drafts on Long-Range Planning for Public Works have been turned over to the National Resources Board for further development in its report.

A PLAN FOR PLANNING

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FEDERAL EMERGENCY ADMINISTRATION OF PUBLIC WORKS
NATIONAL PLANNING BOARD, WASHINGTON

"ALGONAC", NEWBURGH, N.Y.,
June 24, 1934.

The PRESIDENT,
Hyde Park, Dutchess County, N.Y.

Sir: We have the honor to hand you, by authority of the Administrator of Public Works, a preliminary draft of Part I of the Report of the National Planning Board, on which we have been working for several months. This first part of our report covers the subject of "A Plan for Planning." Part II, not yet completed, deals with the "Long-Range Planning of Public Works", as a specific example of the scope and method

of handling a planning problem. We are now engaged in the drafting of this second section of the report, and hope to be able to place it in your hands before your departure for Hawaii.

Supporting material for both parts of this report has been and is being prepared by our research staff, and memoranda have been contributed by the National Academy of Sciences and by the Social Science Research Council.

Respectfully submitted.

FREDERIC A. DELANO, *Chairman.*
CHARLES E. MERRIAM.
WESLEY C. MITCHELL.

Section II

INTRODUCTION

In 1931, Governor Franklin D. Roosevelt, when addressing the New York State Agricultural Society on the subject of agricultural planning, declared that "In the long run, State and national planning is essential to the future prosperity, happiness, and existence of the American people." He made it clear that the planning needed is cooperative planning for the common good that does not force industry or citizens into a fixed pattern of conduct. As President of the United States, Mr. Roosevelt has on numerous occasions and particularly in his message to Congress of June 8, 1934, repeated and amplified this notable declaration.

The report of President Hoover's Research Committee on Recent Social Trends, published early in 1933, considered at great length the developments in the United States during the last quarter of a century, observed especially the uneven role of advance in our social growth, and concluded by emphasizing the dangers of a policy of drift in the face of confusion and distress.

"Unless there can be a more impressive integration of social skills and fusing of social purposes than is revealed by recent trends", said the committee, "there can be no assurance that the alternatives of force and violence with their accompaniments of violent revolution, dark periods of serious repression of libertarian and democratic forms, the proscription and loss of many useful elements in the present productive system, can be averted.

"Fully realizing its mission, the committee does not wish to assume an attitude of alarmist irresponsibility, but on the other hand it would be highly negligent to gloss over the stark and bitter realities of the social situation and to ignore the imminent perils in further advance of our heavy technical machinery over crumbling roads and shaking bridges."

In the course of its findings, the committee recognized the importance of economic and other types of planning, but admitted that we are still in the stage of making plans for planning.

It concluded its recommendations by suggesting the desirability of organizing an advisory planning board.

Since the publication of this report, events have moved rapidly and sharply in the dangerous direction of which the committee gave warning. In Germany and Austria the parliamentary and democratic balance of authority has been violently overthrown, and an entirely different system substituted. In the United States the financial crisis of 1933, with the closing of every bank in the land, with thirteen millions of unemployed, and with the general prostration of industry and agriculture, brought the Nation face to face with stern realities. Prompt and bold action to prevent complete collapse was necessary, and was taken by President Roosevelt and Congress.

The series of measures, national and local, commonly characterized as the New Deal, indicate, however, more vividly than ever before the importance of a deliberate study of our basic national policies as a whole and in their relations to one another.

In November 1933 the National Planning Board, appointed in the preceding July by the Federal Emergency Administrator of Public Works, asked and obtained from the special board of Public Works authority and financial support for a program approved by Administrator Ickes.

Under this charter, the National Planning Board has proceeded to consider:

- I. A general program for better planning.
- II. A specific long-time plan for managing public works; national, State, and local, in their relations to one another and with reference to the business cycle.

The first of these plans is presented concisely in the present report. It suggests a way of organizing the intelligence of the whole country for dealing with the grave problems of the present and for preventing the development of still graver difficulties in the future. It is an outgrowth not only of President Hoover's Research Committee on Social Trends and of President Roosevelt's call for national planning, but also of an American tradition that is as old as the Constitution and as wide-spread as business enterprise.

HISTORICAL DEVELOPMENT OF PLANNING IN THE UNITED STATES

From the beginning of our national life various forms of planning have been in evidence. The industrial situation confronting the founders of this Republic was one of wide-spread distress, insecurity, and depression of the most anxious type. They deliberately planned a way out. The Constitution itself was an economic-political plan on a grand scale, not only providing a democratic frame of government, but also setting up special plans for dealing with currency, tariffs, interstate commerce, and international relations. Justice was the first term in the preamble and liberty the last, but between them came the general welfare, common defense and domestic tranquillity. The Constitutional Convention itself was a large-scale planning board.

Alexander Hamilton's well-known Report on Manufactures presented in 1791 was an impressive consideration of national policy in industry and related fields of American interest. In broad terms Alexander Hamilton set out the national problems of economics and government and suggested specific lines of policy to be followed. The report on internal improvements drawn up by President Jefferson's Secretary of the Treasury, Albert Gallatin, was almost equally notable. Henry Clay developed later (1820) the famous "American system", in which tariff and internal improvements occupied a conspicuous place. It is clear that the encouragement of manufactures by a policy of protection began as a systematic planning procedure, though later it degenerated at times into a free-for-all scramble for favors.

The land policy of the United States was planned with similar deliberation. It began with the abolition of the system of primogeniture and entail, the basis of the British system of political and economic power. The grand plan of John Quincy Adams for the management of the national domain was not followed; but the later development of the American homestead policy (1862) was designed to give a homestead at a nominal cost to practically all prospective settlers.

Our public educational policy rested in large part upon the broad grants of public lands given—two sections per township—for school purposes, with additional amounts for land-grant colleges. All this was notable national planning as of that day and age, democratic in

purpose and method and highly successful in producing results. Those who prefer not to call this planning may, of course, apply some other term, but that will not change the spirit and temper of the work of the first great national planners who laid broad foundations for the republic of their dreams.

Down to the Civil War, no country in the world had made bolder and more successful experiments in the field of government and economics alike than the United States.

Following that war, planning centered for several decades in large scale private industries, such as had scarcely been known theretofore. Giant enterprises began to dominate whole areas of industry, and to operate them in increasingly unified and systematic fashion, although not always in the public interest. But national planning did not cease. It was resorted to whenever the public came to believe that unrestricted business enterprise failed at some point to promote the national welfare. Examples of government intervention designed to protect public interests are found in the establishment of the Interstate Commerce Commission in 1887, and in the passage of the Sherman Antitrust Act in 1890, the organization of the Federal Trade Commission, and a long series of national and State measures having the same general purpose.

A less controversial step toward national planning was the development of the conservation program designed for the protection of natural resources under the leadership of Theodore Roosevelt and Gifford Pinchot. This wide-ranging movement, based upon study of prevailing trends, constituted a striking example of intelligent and forward-looking national policy, designed to protect and promote our common interests through various types of controls preventive of wasteful exploitation of our basic resources. In addition to the plans of the United States Government, similar systems and arrangements were set up by several of the States in various fields.

A more dramatic development of national planning was the "economic mobilization" developed during the World War through the War Industries Board, the War Trade Board, the Shipping Board, the War Labor Board, the Food Administration, the Fuel Ad-

ministration, and the Railroad Administration, with their various subsidiaries. Coordination among the policies adopted by these huge and energetic organizations was effected informally by frequent luncheon meetings of their chief executives, who constituted what the newspapers of the day happily termed "The Little Cabinet." Under the stimulus of the war objective and national unity of purpose, far-reaching plans were made for the utilization of resources, for the ordering of industry, and for the focusing of the Nation's strength in military and naval pressure. Nor did plans for economic mobilization end with the war. The National Defense Act of 1921 is a plan for a national war emergency—a plan which covers the wide ranges of industrial life necessarily reorganized for war purposes.

The coordination of the Army and the Navy as they affect industrial processes is brought about through a joint board, consisting of the Assistant Secretaries of these Departments. In event of war, there is projected an Advisory Defense Council, composed of the Secretaries of War and Navy, the administrators of the proposed War Industries, War Trade, War Labor, Public Relations and Selective Service Administrations, and the chairman of the Price Control Committee.

Though the war-time controls were released promptly after the armistice, the speculative boom of 1919-20 and the severe though brief depression of 1920-21 brought home to everyone the fact that peace hath her defeats no less than war. The elaborate report on Waste in Industry, sponsored by the American Engineering Council in 1921, was a landmark in a movement toward better economic management, and this line was followed by important developments of planning in the Department of Commerce. By improving methods of management and extending markets, it was hoped to increase profits and thus enable business to give full employment and pay high wages, while turning out an ever larger volume of consumers' goods—a policy that was thought for a while to promise the gradual abolition of poverty. Trade associations began their rapid growth under the benevolent auspices of the United States Government. Attacks upon waste, demands for standardization, simplification, research in production efficiency, long-time plans for stabilization and equilibrium in industry, were pressed forward.

Another notable development was the reorganization of the budgetary procedure of the

United States Government through the Budget Bureau and the Director of the Budget—a reform long advocated and finally accomplished—under President Harding. While many of these powers were already in the hands of the President, the deliberate planning of ways and means for the exercise of his authority unquestionably exercised an important influence in the direction of systematic scrutiny and control over public expenditures.

The organization of the Federal Employment Stabilization Board through the efforts of Senator Wagner and President Hoover was an attempt to plan expenditures for public works over a period of years in relation to business cycles. The 6-year programs of public works collected by this board from many Government bureaus made it possible for the Public Works Administration in 1933 to put out a billion dollars of Federal construction within a few months far more promptly than they could bring a large volume of non-Federal undertakings to that stage.

A national land-use planning committee was organized by the Department of Agriculture, in 1931 to make a comprehensive study of this great problem. In March 1933 the Forest Service of the same department published A National Plan for American Forestry, the result of years of careful study.

In urban communities the growth of city planning was a conspicuous feature of the twentieth century in the United States. Systematic consideration of the physical plan of the city came to be commonly accepted, until over 700 city planning boards were set up. Most of these boards were nonofficial organizations launched by private effort, but the demonstration of their value has gradually been winning for them official recognition and support. City plans were supplemented by additional developments of zoning, housing, and recreation. In a few instances, as in Wisconsin and California, county planning began to emerge and take form, while in New York more elaborate State land planning developed under Governors Smith and Roosevelt.

Yet more recently there has been before Congress Senator La Follette's bill of 1931 for the creation of a national economic council consisting of 15 members. In the same year, the United States Chamber of Commerce Committee on Continuity of Business and Unemployment recommended the appointment of an advisory economic council of 3 to 5 members. Also in 1931, the American

Federation of Labor pointed clearly in the direction of national planning, but without indicating a particular mechanism for that purpose. Other individuals and associations have made recommendations for the creation of one form or another of national council to consider national programs and policies comprehensively.

The foregoing paragraphs make it clear that national planning is not an "untried experiment" in the United States. On the contrary, such planning has been going on for a century and a half in one form or another, with reference to government, to land, to industry, to science, to mineral resources, and to the broader aspects of social welfare in cities, counties, and States.

This emphasis upon planning by public agencies should not obscure the fact that, at least in modern times, business has been the stronghold of economic planning and the "center of diffusion" from which that practice has spread to activities organized in governmental units, on the one hand, and in family units on the other hand. Accounting provides an admirable method of ordering complicated activities insofar as the values can be expressed in dollars. Aided by this technique, the business man has become the world's most systematic and inveterate planner. His incentive is supposed to be pure self-interest, but it is self-interest enlightened by the teachings of experience. He learns to count costs, to look ahead, to provide against contingencies. As his opportunities have grown larger, his technique has improved and the scope of his planning has expanded. Dr. Frederick W. Taylor's pregnant scheme of "scientific management", enlarged by the work of Gantt, Emerson, and others, is becoming a widely inclusive art of "management engineering" that calls for continual reviews of current practice and adjustments to meet anticipated conditions. Many of the inventions of today, whether of mechanical devices, or of products, or of business methods, are "made to order" by the research departments of business enterprises. Upon market research, industrial research, and even upon "pure science", American corporations spend huge sums annually. Their financial and legal departments, also, are planning organizations in large measure. Trained specialists are in charge of buying, maintenance, production, and marketing, so that every detail of the business may be directed with skill. As a nation, indeed, we

put far more of our intelligence into business planning than into household or government planning. The harder the times the more business planning we do. The difficulty of meeting budget requirements and the necessity of paying high taxes are sharp spurs to efficiency.

In view of these patent facts, it is not surprising that many citizens believe that almost if not all of our economic planning should be left to business enterprises—the most skilful and the most interested exponents of the art. The public interest, it is argued, is safeguarded provided that free competition is maintained. But practical experience has demonstrated that, great as are its contributions to social welfare, business planning has certain inherent limitations that are making it more and more necessary to improve planning in household management on the one side and planning in Government activities on the other.

(1) Business planning can secure effective coordination of effort only within the limits of each independent business enterprise; that is, each group of business activities subject to a single financial control. It cannot effectively coordinate the activities of independent enterprises. "Coordination within an enterprise is the result of careful planning by experts; coordination among independent enterprises cannot be said to be planned at all—rather is it the unplanned result of natural selection in a struggle for business survival. Coordination within an enterprise has a definite aim—the making of profits; coordination among independent enterprises is limited by the conflicting aims of the several units. Coordination within an enterprise is maintained by a single authority possessed of power to carry its plans into effect; coordination among independent enterprises depends on many different authorities which have no power to enforce a common program, except so far as one can persuade or coerce others. As a result of these conditions, coordination within an enterprise is characterized by economy of effort, coordination among independent enterprises by waste."³

(2) The planning of business enterprises aims at making money. If the ultimate test of economic efficiency is that of satisfying the most important social needs in the most economical manner, then business planning must be warped by inequality in the distribution of income. Where a few have money

³ See Wesley C. Mitchell—*Business Cycles: The Problem and Its Setting*, National Bureau of Economic Research, New York, 1927, p. 172.

enough to gratify almost any whim and where many cannot buy things required to maintain their efficiency or to give proper training to their children, it can hardly be argued that the goods which pay best are the goods most needed.

(3) From the viewpoint of business itself, planning to make money is a precarious undertaking that often ends in heavy losses or financial ruin. To enlarge upon the hazards of business enterprise in the modern world is superfluous. However skilfully the internal affairs of a corporation are managed, the whole venture may be wrecked by circumstances beyond the control and even beyond the knowledge of the managers. As markets grow wider, investments heavier and financial inter-relationships more complicated, it becomes harder for the ablest management to anticipate the conditions which the next few years will bring forth. The movement toward business combinations is largely a business man's remedy for uncertainty—his effort to extend the number of factors which he can control. All business is hazardous and the wise business man is always trying to diminish the risks by combinations or otherwise. But combination by one group of enterprises increases the hazards for other enterprises. It is not surprising that with growing frequency business men have turned to Government for aid and demanded that it protect them against hazards which they cannot control, including the hazard of combinations among other business men. Many of the plans for legislation or administrative action to rectify or stabilize business conditions come from business men themselves. The extension of economic planning by the Government is becoming a more urgent business need as the scale and the complexity of business plans grow greater. Protests against "too much government in business" are no more familiar than demands from business that government assume burdens that private enterprises cannot carry.

The weakness of our American planning in the past has been the failure to bring the various plans and planners, public and private, into some form of concert with one another, to develop public interest planning in concert with planning in the private interest. The plans of business, the plans of labor, the plans of agriculture, the plans of science and tech-

nology, the plans of social welfare, the plans of government, have not heretofore been alined in such manner as to promote the general welfare in the highest degree attainable. Much of the unbalance, insecurity, and suffering which our country has experienced in the past might be avoided in future by a more perfect coordination of the knowledge which we already possess.

Conditions have developed which great masses of people will not tolerate and should not be expected to tolerate over any considerable period of time. Americans are not and should not be convinced that there is no remedy for these calamitous conditions, and experience shows that they will not resign themselves to helpless inaction. Not passive acceptance but violent explosion is the alternative if we fail to develop security and progress by rational and evolutionary methods. Whether a violent overturn takes the form of fascism or of communism, the effects upon the political and the economic order are sudden, drastic, often cruel and repressive, destructive of values which our Nation has long treasured and to which we still cling.

The doctrines of liberty, equality, democracy, never were and are not now to be regarded merely as legal phrases to be admired from afar. They have meaning only as expressed in the general welfare of the people and in an American standard of living. If our democracy cannot meet the challenge of general discontent and suffering, it must give way to some other system more promising in its prospects of providing security and contentment.

It is this grim situation that takes the problem of national planning out of the field of abstract speculation into the domain of hard and cruel reality. We cannot proceed as if nothing had happened in recent years, indifferent to the sweeping changes going on among us and elsewhere in the world. It is senseless to cry peace, peace, when there is no peace. The experience of our day shows that no system, political or economic, unless it faces frankly the grave realities of modern economic and governmental life and boldly takes the initiative in broad plans for a better day, can be protected against explosion that wrecks and twists while social discontent struggles to build some new structure promising more to the body and soul of those who feel themselves disinherited by the existing order of things.

PRESENT TYPES OF PLANNING IN THE UNITED STATES

A long series of planning agencies is already at work in the Federal service, and in State and city governments as well. In addition to the significant developments already noted, such as the Bureau of the Budget and the Federal Employment Stabilization Board, there have sprung up, especially within the last year, an array of other instrumentalities for systematic consideration of one area or another of Federal activity. The great financial crisis and the policies of the New Deal called for hasty improvisation of ways and means of action, and the inevitable consequence has been the rise of a number of unrelated planning agencies put together as speedily as possible in order to meet the urgency of the situation. The striking feature in Federal activity is not the absence of planning, but the number, variety, and profusion of plans and their lack of adequate coordination.

Some of these agencies follow departmental lines somewhat carefully; others follow such topical classifications as water, land, minerals, forests, power; others follow geographical and jurisdictional lines, such as Federal, State, local, and regional.

The detailed description of all these agencies, or even their charting, would be laborious and confusing, and could serve no other purpose than that of illustrating the importance of closer coordination in types of planning.³

There is a planning agency in the Department of Commerce with a business men's planning and advisory council. There is a planning and research division in the National Recovery Administration, with highly important potentialities, and there are several agencies groping toward planning for consumers. There are planning activities of great significance in the Department of Agriculture and the related Agricultural Adjustment Administration. There are planning agencies in the Public Works Administration, and in the Tennessee Valley Authority. There are highly organized planning activities in the combined War and Navy Departments. Less formal structures are found in the Treasury, in the State Department, in Labor and elsewhere.

In an effort to unify national policy there was organized in July 1933 the President's Execu-

tive Council, including the President of the United States, all Cabinet members, the Director of the Budget, administrators of emergency organizations, and several others—a total of 23 members. This council combines advisory, coordinating, and promotional functions.

Later came the National Emergency Council (Nov. 17, 1933), consisting of the Secretary of the Interior as Administrator of Public Works, the Administrator of the Federal Emergency Relief, the Administrator for Industrial Recovery, the Chairman of the Home Owners Loan Corporation, the Governor of the Farm Credit Administration, and a representative of the Consumers Council. This was later expanded to include the Attorney General, the Director of the Budget, the Chairman of the Federal Trade Commission, and the heads of several other emergency organizations. This organization has operated an informational service for the Federal Government especially with regard to recovery measures, and has taken a leading part in development of the housing program as a means of stimulating recovery.

Considering special aspects of our natural resources, there are numerous planning agencies. Thus, the planning of water use is under consideration by a number of governmental bodies. Water flow and use is being systematically and comprehensively studied by the Mississippi Valley Committee under the Public Works Administration, and similar inquiries are proposed with a view to including all of the major drainage basins in the United States. There was also the Special Committee on Water Flow with broad powers of inquiry (Apr. 1934). The Federal Power Commission also deals with various aspects of water use in relation to its special problems.

Land use involves a variety of problems with which some 20 bureaus and commissions are concerned and upon which they are engaged. Notably there is a joint Land Planning Committee organized by the Departments of Interior and Agriculture, a submarginal land committee under the Surplus Relief Corporation, and finally a land policy section in the Program Planning Division of the Agricultural Adjustment Administration.

³ See Digest of National Planning in the United States Today. (Separately printed.)

A mineral policy committee has recently been appointed under the chairmanship of the Secretary of the Interior, for the purpose of conducting a comprehensive study of mineral resources and preparing an appropriate national plan of dealing with them.

There is further a Federal Coordinator of Transportation with broad powers of inquiry and initiative in this wide-ranging field of activity.

The Central Statistical Board provides an agency to aid departments in planning the collection and analysis of data.

The Science Advisory Board advises the President and Federal agencies on the technical scientific problems arising in the operation of the Government.

In addition to these Federal agencies, some 40 State planning boards, organized since December 1, 1933, are looking forward into the future of their commonwealths, and preparing reports upon their preliminary surveys. These boards have vastly different problems, widely different types of organization, and an equally wide range of program and procedure. In the arid sections of the West it is natural that water resources and uses should play a large part, while in New England the recreational possibilities of the area loom large in State planning units. In all the States there is at least consideration of (1) the problem of land use, (2) integration of transportation facilities, and (3) a 10-year program of public works. In some instances the State program covers economic, governmental, and social problems on a wider scale, as for example the reorganization of local government, the status of education, the development of public-welfare agencies and policies in the broader sense of the term. All these States are converging on the task of reexamining the resources of the commonwealth in men and materials, and of forward-looking consideration of the advancement of living standards.

In the work of the State planning boards a number of topics, involving interstate cooperation has inevitably cropped up, and to meet such situations regional planning commissions have been developed in some cases, as the Pacific Northwest Regional Planning Commission and the New England Regional Planning Commission. Temporarily there have been set up under the Public Works Administration

12 planning districts with a district chairman as general coordinator for each area, using his good offices for the promotion of various forms of interstate cooperation.

The formation of city planning boards began a generation ago and is now well established in the United States. As remarked above, there are some 700 city planning agencies, some active and others relatively inactive, engaged in the task of developing plans for the improvement of the municipalities, chiefly in the field of public works. The activity of these boards now tends to develop in two directions, territorially to include the metropolitan region as well as the narrower city corporate, and intensively to include housing and recreational facilities for the community. The relationship of the planning of these metropolitan regions to the States of which they are parts, and in a larger sense to the Nation, constitutes one of the major questions of planning policy and organization.

County and rural planning is relatively undeveloped thus far, but will unquestionably be forced to the front in the near future, as such problems as land use and educational facilities become more urgent, and as subsistence homesteads and organizations such as the Tennessee Valley Authority become more familiar. The continued neglect of systematic planning for these areas containing so large a proportion of the population of the United States would prolong the uneven rates of growth from which we suffer.

It cannot be forgotten that alongside the plans of the several governments there are innumerable planning groups in public utilities, in large- and small-scale industries, in educational and research agencies scattered throughout the country.

Not only is there confusion because of the number and variety of planning agencies, but there is also at times actual conflict in policies which coordinated planning through a central agency might reconcile or obviate. The most commonly used example of inconsistent policy lies in the field of land-use planning, where the efforts of the Agricultural Adjustment Administration in restricting crop acreage were obviously at odds with the work of the Reclamation Service in bringing more land into use or improving the water supply and productive capacity of other acres. A similar inconsistency

is found in the expenditure of large sums for the purchase of submarginal lands to secure the withdrawal of areas from inappropriate agricultural use, while at the same time further homesteading is permitted on the public domain where it is well known that practically all lands capable of supporting a family have long since been taken up.

In the transportation field the uncoordinated expenditure of public funds for improvement of water- and highway-transportation facilities in competition with the railroads has already been recognized, and the office of Coordinator of Transportation has been set up to deal with the problem. However, the agencies concerned with different methods of transport have yet to be brought together both for planning transportation facilities and for regulation to secure the best use of each method.

Conflicts of policy may be noted in other connections. There is room for greater coordination between the price policies of the National Recovery Administration and the Agricultural Adjustment Administration; between the labor policy of the National Recovery Administration and the Labor Department; between the enforcement functions of the National Recovery Administration and the Federal Trade Commission; between the work of code authorities and related governmental agencies, as in the case of the lumber code and Forestry, public utilities and the Power Commission.

It is not to be supposed that a planning board could or should prevent all of such conflicts, but it might assist the President and the administration to avoid the more obvious inconsistencies inevitable during the first stage of any rapid change in policies.

Important as are these examples of governmental failure to organize effectively for planning, the relationship between governmental and other forms of planning such as the quasi-public or the private is also imperfect. In the machinery for supervision of industries by the Government, there might be found a means of bringing together the various planning programs during their formation stages, or the most important of them; but in practice this is not effectively done. Much remains to be achieved in bringing together a complete and rounded view of important planning programs actually in progress, and in avoiding the adoption of plans which are incompatible with each

other, by the construction of designs for more skillful adaptation of different programs to each other and to the national interest. Unless vigorous and intelligent action is taken there is grave danger of heavy loss from the lack of planning among the planners themselves.

First of all, beginning with the local jurisdictions, the plans of cities, counties, and States may well be brought together far more closely in a better form of relationship. Doubtless the State planning boards which have just come into being will do much to improve the situation at this point. Next, the plans of the several States have little relation to each other, even though their problems may often be found in common, as in the case of highways. The American Legislators Association and other groups of State officials are moving to remedy some of the difficulties at this point and the good offices of a National Planning Board should be available for use at any time. Further, the plans of the Federal Government and those of States and cities are developed independently of one another in large measure and without regard to any unity or consistency of program.

Daily in the operation of the Federal departments decisions are taken which have a direct effect upon the plans and activities of groups of States, cities, and local governments. Thus the Secretary of War, with his duty of administering the laws established by Congress for the protection of navigation on navigable streams, may have a decisive influence upon local bridge construction or port development in New York, Chicago, San Francisco, or the Colorado River Basin. If it is to be successful, the forest protection and development program of the National Government as administered by the Department of Agriculture requires integration with the needs and long-time development of areas confronted with unstable forest—products, industries, and tax delinquency, and regions in which soil erosion is serious. The effort to regularize employment through the timing of public works similarly requires cooperation of all units of government. Hence the forward-looking efforts of State and local authorities need at Washington some agency which will be responsible for making sure that the programs of the various Federal departments implement, and not impede, such constructive local leadership. This leadership,

indeed, which is in the best American tradition, places a direct obligation upon the National Government to develop a comparable procedure for making its own routine decisions fit into a consistent program which will supplement and not suppress regional and local initiative.

Under the sharp stress of the present emergency there has been some evidence of cooperation between these governments, as in relief and in public works, but this has not ordinarily been the case. Further, with notable exceptions, there is reason to believe that in the future, the relations between the Federal Government and the cities and the rural districts will be much closer than in the past, whether these relations are left to chance or given careful thought.

Finally, although the various planning agencies of the Federal Government itself are brought together through the President and

the Cabinet, in actual operation the mechanism of planning is not geared together as closely as is desirable.

Every Cabinet member is the head of a huge going concern for which he must plan and which he must responsibly administer. He is also constantly drawn into the discussion of urgent national problems upon which action is imminent. President, Cabinet members, and Congressmen are overworked and overburdened with a bewildering variety of political and administrative duties, and are confronted by an overwhelming mass of decisions which cannot be postponed. Furthermore, from time to time, indeed half of the time, no one party is in complete possession of the agencies of power essential to law making. Under such circumstances, it is inevitable that national policies are not always clearly related and at times offer startling contrasts with dangerous implications.

TYPES OF NATIONAL PLANNING IN OTHER COUNTRIES

Various forms of national planning have been undertaken in recent years, especially in the post-war period, under conditions that differ so widely from those of America as to detract gravely from the value of this foreign experience for our purposes, however lively an intellectual interest we may take in experiments of this sort. Conspicuous among these instances are the systematic efforts of Japan, Russia, Italy, and more recently of Germany.

One of the most notable developments of modern planning is that of Japan. Some 60 years ago under the guidance of a small group of men known as "the elder statesmen", this nation undertook the systematic stimulation of its industrial, agricultural, and cultural life, and carried through an astonishing reorganization of Japanese economic and social structure. The detail of this program cannot be discussed here, but, broadly speaking, the Government played a leading role in transforming the nation from feudalism to a more modern structure within a half century. In some instances the Japanese Government pioneered and established new industries, which it either retained for its own continued operation or more commonly turned over to private groups for further development. In other instances the Government helped to finance industries. It promoted economic development sometimes by direct use of Government credit, and sometimes by indirect credits. Subsidies were given to industries for a wide variety of purposes, and trade was expanded by a series of favorable commercial policies. The importance of this far reaching instance of planning on the part of the Japanese Government cannot safely be ignored by those interested in the growth of modern national and industrial structures.

Whereas the Japanese leaders assumed as a working theory that industries established by government would ultimately be taken over by private citizens, of quite a different order is the system developed by the Union of Soviet Socialist Republics, commonly known as Russia. In this case the governmental policy is directed toward basic changes in the whole political and economic order and in the cultural life and habits of the community, primarily intended to produce the classless society, to socialize the means of production, and to raise the standard

of living for the community. The Russian system involves comprehensive planning under the direction of a "dictatorship of the proletariat", supported by such force as may be deemed essential. It is not possible to deal here either with the details of the mechanism for planning under this regime, or the practical results of its operation, but merely to point in passing to this large-scale undertaking dealing with some 170 million people as one of the forms of current experimentation, expressing in this case the discontent of a people with a period of Czaristic repression and the desire of a community to raise the standards of material welfare for the mass of its people.

In Italy and in Germany the methods of the Fascists and of the Nazis represent likewise forms of wide-spread dissatisfaction with earlier types of political and economic order, and the demand for more effective organization of the national will and interest. In Italy this has taken the shape of a still imperfectly developed corporate state in which a series of industrial groupings figure largely, but with uncertainty down to this time as to the precise form of organization and policy of action which may emerge from this incomplete situation. In the economic sphere in Germany the greatest innovations have been in the field of agricultural and labor policy. The industrial planning is more nearly akin to that which had grown up before through cartel and Government intervention. The still more recent developments have not thus far taken such shape as to make them available for adequate comparison with the industrial trends in our own Nation. In both Germany and Italy, as also in Austria, the democratic mechanisms of government have been discarded, and material modifications in the economic order are anticipated with the growth of the new regime. They have in common the idea of the "totalitarian" state in which all private organizations and associations are subordinated to the sovereignty of the national governmental organization, but with economic implications which still remain to be unfolded.

In a dozen other countries another type of experiment has been the establishment in one form or another of an advisory economic council, as in France, in Great Britain, and formerly

in Germany. These councils are primarily representative in nature, containing in their membership persons from different groups who are brought together from time to time in an advisory capacity, with a view to reconciling differences of interest, integrating to some extent the policy of the nation, observing broad national trends, and suggesting the larger national possibilities. In the main it may be said that these councils have not functioned actively down to this time, but have exerted a useful influence in bringing together various interests and in inducing a general rather than a special point of view in the nation.

The Japanese, the Soviet, the Italian, and the German systems presuppose a type of governmental organization materially different from that of the United States. Respecting the right of each nation to determine its own system, we find our own experience and judgment unfavorable to allowing any elite to interpret the national interest and their own personal relation to it without organized and operating forms of popular responsibility and without free and uncontrolled choice within such a system. It is our experience that there are substantial and permanent values in organized and responsible machinery for consultation and deliberation, even if the machinery does not always operate smoothly. We prefer the maintenance of direct responsibility to the Nation on the part of governmental representatives. It is our experience that education, persuasion, popular participation in public affairs are more useful than violence in the determination of public policies. It is our judgment that the delegation of political power, the wide diffusion of voluntary organization and cooperation, make possible evolutionary methods instead of revolutionary in the necessary reorganization of social and economic forces. It is an old saying that "We count heads to save breaking them."

A dictatorship is not a social panacea but an indication that there is a demand for instant and energetic action, not feasible under the existing political arrangements. The important thing is not that one man becomes ruler, but the disturbance and distress out of which he comes and in which he continues to function. The individual dictator may be as muddled and confused as the many-headed legislative-executive authority at times becomes. What

guaranty is there that any mere man may not find difficulty in making up his mind, in reaching prompt decisions on lines of action? The wiser ones know that dictatorial systems show many lines of indirect approach to the mind and will of the ruler, zigzagging around him. The roads that reach him are fully as numerous and as devious and far more obscure than the lines of political influence in a representative system, but they are found—and used.

Our presidential-congressional form of government and our general understanding are fortunately flexible enough to meet crises within the prescribed limits of the fundamental law, whether in time of war or of peace. The executive authority with the approval of the Congress may act as swiftly in war or peace as the tension of the time demands. The making of such plans and programs as may be found necessary to meet the demands of social and economic crises does not require any modification of the broad lines of our governmental system. Our Constitution was designed to be and is broad enough to meet a wide variety of changing situations, economic, social, and political. Special provision was made for reasonable interpretation of the document by the courts and for amendment by the people when and if deemed necessary.

For more than a century our democracy has been based upon the principle that the gains of civilization are essentially mass gains and should be distributed through the community as rapidly and justly as possible, in accordance with ideals of social justice. We hold fast to the principle of the worth and dignity of the average man, and to the achievement of advance by continually raising the level of standards of living. But while our lines of national policy are directed toward this end and will continue to be so directed, we are committed to democratic procedure in this process, and to evolutionary rather than revolutionary methods of advance. It is clear that an undertaking such as that now in process among the Soviets, the Nazis, or the Fascists is not adapted either to the governmental organization of this country or to economic and technological conditions widely different from those found there.

We are not committed, however, to any iron-clad statement as to the program of the Government in social and economic relations.

Our development in this field has been experimental, evolutionary, and at times undoubtedly somewhat illogical. Our line of social control over business, agriculture, and labor has been a process of groping our way forward from point to point, with the democratic goal and direction in mind, as we dealt with land, with monopolies, with natural resources, with special privileges which threatened the common weal from time to time, with discoveries in technology and management. To those who think only in terms of one or another set of "isms", the American system appears socialistic or individualistic or confused and illogical, as the observer looks at one or another phase of our national life.

Our program, often misunderstood elsewhere, rests on a declared democratic basis and on our social democracy. The mobility of our population from one region or one occupation to another, or from one income group to another, produces a background in which conflicting

social interests find it difficult to congeal and solidify. For this reason the groupings of persons according to European class standards and doctrines have been very slow, and seem likely to remain subordinate to the practical problems of the occasion and the experimental method of dealing with them. This does not mean that America has no program or plan, but that our national policy develops upon lines widely different from those in other States with different social conditions. We shall proceed in the future as we have throughout our history, adapting our institutions as in the past to our resources, our desires, and our ideals of how men may live and prosper together, striking a new course where we must invent, or profiting by the success of others in devising means of meeting a specific problem. Fortunately a democracy does not need to borrow dictatorship to learn from lines of progress developed elsewhere.

WHAT IS INVOLVED IN PLANNING

Planning consists in the systematic, continuous, forward-looking application of the best intelligence available to programs of common affairs in the public field, as it does to private affairs in the domain of individual activity. In every well-directed home, in every business, in every labor or agricultural group, in every forward-looking organization, social planning goes on continuously, and in the world of government there is also opportunity for its exercise.

Several considerations are important in looking at plans for planning:

(1) The necessity and value of coordinating our national and local policies, instead of allowing them to drift apart, or pull against each other, with disastrous effect.

(2) The value of looking forward in national life, of organizing preventive policies as well as remedial, of preventing the fire rather than putting it out.

(3) The value of basing plans upon the most competent collection and analysis of the facts.

At the same time, it may be pointed out:

First. In any case, not all planning is or should be national planning. As stated above, there is local and State planning, and planning by quasi-public and private agencies and institutions all over the land. The city planning boards thus far chiefly concerned with physical plans and the State planning boards just beginning their work, to say nothing of scores of industrial and other organizations, will continue to develop their special points of view. The centralization of all planning in Washington is not contemplated, and even if possible would not be desirable, since planning is an attitude and practice that must command the confidence and cooperation of wide groups of people to ensure successful operation, must come from the bottom up as well as from the top down, from the circumference as well as from the center.

It may reasonably be anticipated that many of the most useful suggestions regarding types of planning will emerge from jurisdictions outside the Federal Government, and outside the governmental group altogether, from detached individuals and associations of individuals, industrial, scientific, or otherwise.

Planning, then, does not involve the preparation of a comprehensive blue print of human activity to be clamped down like a steel frame

on the soft flesh of the community, by the United States Government or by any government.

Second. Planning does not involve setting up a fixed and unchangeable system, but on the contrary contemplates readjustment and revision, as new situations and problems emerge. Planning is a continuous process, and necessitates the constant reexamination of trends, tendencies, policies, in order to adapt and adjust governmental policies with the least possible friction and loss. The national life is like a moving wave in which a new equilibrium must constantly be found as it sweeps forward. Even physical planning is subject to continuing revision as new factors such as the motor vehicle appear to supersede old ways, while planning, in the broader sense of the term, is likewise subject to change as new elements come in to disturb earlier calculations.

Stubborn adherence to an outworn plan is not intelligence but stupidity, whether in the life of individuals or of nations. Prudence would, of course, dictate that reasonable stability should not be endangered by capricious or arbitrary shift of plans, but would with equal force insist that policies must be promptly modified as emerging trends and new situations necessitate recasting.

Third. It is false and misleading to assert that all planning involves wholesale regimentation of private life. Sound planning on the contrary brings about a fresh release of opportunities rather than a narrowing of choice. Street planning and traffic regulation operate for freer use of the highways than unplanned streets and uncontrolled traffic. Laws regulating unfair trade practices release the energies of fair-minded men for other activities than that of guarding against fraud and trickery.

It cannot be forgotten that regimentation is not a theory but a brutal fact in many private industries now. The modern type of nation was set up in order to break down the old private or semi-private controls over roads, justice, taxation, and to establish public and national control over situations that became unendurable. In our day, an individual business man may be absolutely regimented by a ruthless monopoly, just as an individual worker may be helpless against terms dictated

by an employer. This constitutes private regimentation, often of an oppressive character, unless the community sense of social justice brings about governmental defense against tyrannical exercise of private power. Over and over again in the United States, as elsewhere, the community has been obliged to intervene to protect the weaker against the insolence and oppression of private citizens who took by the throat serfs, slaves, dependents, employees, crying "pay me what thou owest", in terms of injustice and outrage.

Indeed it may be found that some of those who cry "regimentation" when public planning is mentioned foresee interference with their own practices of private regimentation and exploitation of otherwise helpless persons under their private control. Those with special privileges to protect and preserve naturally object to any public planning that may dislodge them from a preferred position where they are able to exact tribute from their fellow men. This is by no means the only type of opposition to planning, but it is one to which attention must from time to time be directed, since it arises from a type of exploitation from which explosive reaction is most likely to result.

The truth is that it is not necessary or desirable that a central system of planning actually cover all lines of activity or forms of behavior. Such planning over-reaches itself. Even martial law tends to become civil; and over-centralized planning must soon begin to plan its own decentralization, for good management is local self-government under a centralized supervision. Thus wise planning provides for the encouragement of local and personal initiative, realizing that progress may as easily be smothered by over-centralization as by its opposite. Not all government can ever be central government, or all life public life. Experience shows that there must be wide ranges of affairs in which independent criticism, independent judgment, independent initiative is given opportunity for free growth and development in associations as in individuals. One of the recurring tasks of statesmanship is to cultivate and encourage decentralization. In the excited discussion over this subject, it is often forgotten by both sides that genuine planning really includes planning to preserve and even create noncontrolled areas of activity as well as planning for control. Planning is not

an end, but a means, a means for better use of what we have, a means for emancipation and release of millions of personalities now fettered, for the enrichment of human life in ways that will follow individual interest or even caprice.

Private initiative always presupposes the existence of a planned system of public order within which it may operate; a set of rules under which the game is to be played. If such rules do not exist or are not enforced, or are inadequate to meet the changing situation, new rules are demanded, new systems of control are insistently urged.

When men express sincere opposition to all governmental planning, it can only mean a grave misunderstanding of what planning really is, or an opposition to some special detail of planning that seems undesirable, rather than to the general principle.

Wise planning is based on control of certain strategic points in a working system—those points necessary to ensure order, justice, general welfare. It involves continuing reorganization of this system of control points as the functions and situations shift from time to time. The number of controls is not as important as their strategic relations to the operation of the society in which they work. At various times, the community has found it necessary to deal with landowners, with slavery, with the church, with the Army, with industrial or labor captains, with racial groups, adjusting our control points to meet special situations, and restricting privileges at one point while releasing forces and individuals at other points.

It is this shift in the form of planning, the change in strategic planning points, as social and economic conditions change that leads some to the erroneous conclusion that we have never planned before in America, when in point of fact our planning has been continuous and varied as conditions varied.

The essence of successful planning is to find these strategic points as new situations develop, without too great delay, and without seizing more points than are necessary for the purpose—or for longer time than is necessary for the purpose. Insight, sagacity, inventiveness, co-operative spirit, are far more important at this point than the club or the prison cell, or drastic attempts at regimentation.

A totally unplanned nation is as impossible and undesirable as a totally planned economy.

The choice is not between anarchy on the one hand and complete control over all aspects of private behavior on the other. A sounder way, between these extremes, is still open in the United States at least. We look for ways of organizing human association in the light of new conditions such as the world has not experienced before, suitable to the special problems and genius of the American people.

The noisy clash between competing slogans which substitute emotion for intelligent observation and reflection may obscure the fact that much of our present difficulty is due to the failure to adjust industry to the revolutionary changes caused by science and technology in production and indirectly in distribution. No one planned our present difficulties. They are here because we did not plan soon enough to absorb the gifts of science in industry and everyday life without too great waste and shock.

Some of these strategic planning points developed in the history of this nation have already been discussed. In more recent times, national attention has been directed toward land utilization and population, conservation of natural resources, flood control, regulation of public utilities, unfair trade practices, and still more recently to the banking and financial structure of the Nation, to industrial insecurity both on the part of worker and investor, to unemployment, to social insurance and welfare problems, to un-American living standards—these among a wide variety of emerging issues of national significance.

In the organization of planning undertakings, the cooperation of the natural and social sciences is of the highest importance, and in this connection attention is directed to two memoranda submitted by the organizations

representing these groups and appended to this report. The National Academy of Sciences, which was organized during the Civil War for the purpose of advising the United States Government on scientific problems, has at the request of the National Planning Board generously prepared for it a valuable document (section III) pointing out the bearings of various natural sciences upon different aspects of national planning. Likewise, the Social Science Research Council has prepared a useful statement (section III) showing the services which are being rendered the Government by social scientists, and indicating lines of further development in this direction.

It appears from these statements by the natural and the social scientists and from other evidence that the highest scientific talent of the Nation would be available for the purpose of systematic national planning, and that the Government could count upon the cordial and unremitting cooperation of impressive agencies of investigation and exploration already organized to render effective service. The guaranty of such assistance is of deep importance in considering the possibilities of planning. In the natural science field arise many of the inventions and technologies which while increasing our possibilities for weal, also make possible much woe if they are not fortunately set in the framework of the social and economic structure. The cooperation of scientists in this field should make possible a wiser and sounder adaptation of technology to economic and social advancement, while the cooperation of the social scientists with their research in the field of human behavior should correspondingly facilitate the making and perfecting of social inventions.

THE GOAL OF PLANNING

It may be asked, What is the objective of planning? The goal of our national planning is nowhere more clearly stated than in the preamble to the national Constitution, in which the purposes of our political association are set forth: Justice, domestic tranquillity, common defense, general welfare, and securing the blessings of liberty to ourselves and to our posterity.

This broad statement of national aims provides the general background in which national policies may be set.

American planning will be brought about within the general framework of the American Nation, the democratic system of government, and an evolutionary system of social and economic change.

Planning is not mechanical and organizational alone, but must rest within a set of general understandings, on values to which the Nation is devoted, and for which it is willing to sacrifice lesser values. The general understanding on which our democratic system rests is that the happiness and interests of the people are paramount and that special privilege and personal ambition are subordinate to the larger national and popular purpose.

Democracy assumes that the gains of civilization are essentially mass gains, and should be enjoyed by the whole people who created them, rather than by special classes or persons.

Our Government was set up for this purpose, and national planning should be directed toward this end. Ways and means of attaining these ends vary from time to time, but the general aim and purpose of our national endeavor is plain. Plans directed toward this end fall within the scope and spirit of the Constitution and of our American national goals.

Naturally, the notion of what justice is, or what the general welfare is, or what liberty is, varies under varying conditions, as our experience shows, but the general goal is clear and the main direction of effort plain enough.

The increasing yield of our soil and the expanding productivity of our industry make it possible to reach higher standards of living than ever before, provided we are able to develop the necessary social attitudes and arrangements to insure the just participation in the gifts of nature, science, and technology,

by the whole people. The justice which looms so large in the preamble to the Constitution does not consist in production alone, but in a way of life in which the masses of the community enjoy their share in the gains of our civilization. Liberty in any social system must be read in its necessary relation to the common welfare; for liberty which does not bring common welfare and social justice loses its very soul.

That statesmanlike national planning will bring us nearer the American goal our experience clearly shows in every range of our life, local, national, public, and private. Statesmanlike planning might prevent the vast losses caused by inattention, as in the case of soil erosion and flood and misuse of national resources. It might prevent the wastes arising from conflicting and clashing policies, as in the case of land reclamation and land retirement, the industrial wastes arising from lack of reasonable coordination, the still more tragic wastage of human material through inattention to the protection and security of productive labor. It might make possible the invention of new technological and managerial devices for increasing the productivity of mankind and social devices for insuring the just participation of our people in their products.

In moments of industrial insecurity and wide-spread and bitter distress, the possibility of a far finer and richer life for the mass of mankind than ever before may seem a mocking unreality. But the sober fact is that in America, with its abundance of natural resources, with its technological and managerial ability, with its energetic and capable blend of peoples, a new world is within our reach if we can organize and act to take possession of it. What stands between us and the realization of the hopes that gleamed before the eyes of our people from the earliest days are only our own attitudes and our social and political management.

There is every reason to believe that the stream of scientific invention will roll on still faster in the next generation, and if statesmanship and science can keep even pace, the new world may become a marvel of human achievement. It is not our capacity to produce that fails us, but our capacity to plan the wisest use of our wealth of resources in materials and

men. The gray, sober facts of science and technology, the cold engineering figures expressing our production possibilities, show what might be done if skepticism, confusion, and timidity do not paralyze us in the presence of the incredible richness of American opportunity.

Masters of unparalleled treasures of natural resources, endowed with matchless skills and techniques of management and research, nothing can stay the advance of America, unless it is the spirit of doubt and fear.

We do not stand at the broken end of a worn-out road, but look forward down a broad

way to another era of American opportunity. Among the nations of the world, America has stood and still stands for discovery, for pioneering across a great continent, for fearless experiment in directions where others had failed, for achievement in mechanism and management, for ready adaptation to new conditions and easy adjustment to new ways of life. When we are resigned to drifting and too weary to plan our own American destiny, then stronger hands and stouter hearts will take up the flag of progress and lead the way out of difficulties into attainment.

ORGANIZATION AND FUNCTIONS OF A PERMANENT PLANNING BOARD

In view of the facts set forth in the preceding sections of this report, the temporary planning board appointed by the Administrator of Public Works recommends that the Federal Government create a permanent National Planning Board, directly responsible to the country's Chief Executive. The function of the proposed board would not be to supplant the numerous planning agencies now active in various departments of the Federal Government or elsewhere, but to supplement their work, and to promote closer coordination among the plans they severally prepare for submission to the President and the Congress.

The outlines of the structure, activities, procedure, and relations of such a permanent National Planning Board are indicated in the following paragraphs:

1. *Organization*

It is recommended that a National Planning Board be set up consisting of not more than five members, appointed by the President of the United States, and, in addition, a rotating panel of consultants appointed by the board. Responsibility for board action would rest with the five members, and the panel would constitute an advisory group with a voice but not a vote in the findings and recommendations of the Board.

It is recommended that the term of the board members be made indefinite, as in the case of the present Civil Service Commission. A long term of office is no adequate protection against an unfriendly or indifferent Executive and Congress; and in any case a deadlock between the Board and the authorities would make the success of the Board very dubious. A board may be swept out of existence by Congress at any time, or it may be ignored by the Executive and the administration.

On the other hand, the indeterminate tenure need not lead to the removal of board members without some excellent reasons; for the arbitrary removal of men commanding the public confidence and respect would not tend to strengthen the Executive with the Nation.

Life tenure of office for such a board, even if it were possible to obtain it, would not be desirable, for it would tend to widen gaps between the Government and the board, or between the public and the board. In a

rapidly changing situation, such as is involved in modern planning, the fossilization of a board of this type would be disastrous.

Continuity in the personnel of such a board is useful as a means of preserving and utilizing the accumulating knowledge and experience of its members, and there is nothing to prevent the realization of such advantages in the proposed arrangement. On the other hand, it is indispensable that such a board of strategy command the confidence of the Chief Executive of the Nation, if it is to function in any other than a perfunctory manner. Even the most competent board, however well fortified in a statutory position, could accomplish little in the face of indifference or hostility on the part of the responsible governing officials.

The personnel of the board should bring together insight, experience, and judgment in the analysis and interpretation of national planning policies, skill in the invention of ways and means of utilizing the national resources in material and men, and social vision in the fusion of American interests, techniques, and ideals into sounder and more satisfactory national policies. The guaranty of the selection and the continuity of persons equal to such responsibilities must be found in the judgment of the President of the United States.

It is recommended that the compensation of the board be fixed at an amount consistent with the importance of the service rendered, and sufficient to make it possible to obtain the services of the high type of competence necessary for such a branch of public service. It is recommended that the panel of consultants be paid at a per diem of \$25, with a minimum annual retainer. It is important that these competent and carefully selected persons be interested in the planning service, so that national planning may be considered from many points of view, and that planning be made a cooperative undertaking in which ideas and suggestions flow freely into as well as out from the center.

Such a rotating panel may well include men or women from various groups able to contribute to national planning—as governmental bureaus, labor, agriculture, industry, the home, technical and scientific societies, and other groups directly concerned with the sound formulation of the lines of our national progress.

While not responsible for board conclusions and action, or for collective research, their advice and counsel would be of high value in the organization of inquiries, in the analysis and interpretation of data assembled, and in the interrelation of technical conclusions to national spirit and ideals.

It is recommended that there be a director appointed by the Board, in general charge of the staff, and a secretary of the Board; and that the further organization of sections and divisions of the work be left to the determination of the Board.

It is further recommended that the Board prepare and present to the President and Congress an annual report setting forth and summarizing the work of the board during the preceding year.

It would be necessary to have ample provision for the maintenance of a staff, equal to the performance of the heavy tasks imposed upon it. If national planning is really of substantial importance and value to the Nation, as we believe, it goes without saying that generous support of such an undertaking is indispensable. In general, the staff of such a board as is proposed would consist of:

(a) A permanent skeleton staff of men of undoubted competence with their assistants.

(b) Government personnel with special skills detailed from time to time for the work of the board.

(c) Experts and assistants brought in from time to time to deal with special problems as they arise. A free fund for this purpose should be available, but inevitably the amounts required would vary widely from one period to another, as different types of assistance were required.

In addition to this, the board should be in close touch with a great variety of agencies engaged in research pertinent to the problem of planning. Among these are the universities and research institutions, the occupational groups, business, labor, agriculture, the professions interested in special lines of inquiry, and the planning and research agencies of other governmental jurisdictions, State and local or regional.

A vast amount of material is available from these sources, and a skillful board with the requisite qualities of leadership and gift of cooperation would be able to utilize the research

and planning programs of other groups for national purposes.

2. Functions

The functions of the board would be:

(a) Informational and educational.

(b) Coordinating and advisory.

(c) Initiatory.

a. Informational. The board and its staff would serve as a clearing house for significant plans of many types developed in Federal, State, or local service—by public or private or quasi-public agencies. Appropriate powers of fact-finding and facilities for plan analysis would be granted to the board. At present no such national agency exists and there is often serious difficulty in obtaining the necessary data regarding important plans projected or in actual operation among 175,000 governmental bodies and many other quasi-public groups, industrial, research, or otherwise.

A mere card catalog of all projects would be of little value for this purpose, but an intelligent understanding of the main lines and types of planning research would be of high value, not only for those engaged in such tasks, but to governing officials charged with the final duty of formulating and administering policies.

One of the duties imposed upon the present National Planning Board was that of encouraging and stimulating interest in various forms of planning, State, local, and regional, and judging from the experience of the last year, this is a field of very lively and keen interest. Some forty State planning boards sprang into existence almost as if merely awaiting the suggestion. Regional planning agencies were likewise developed with great enthusiasm, while the work of city boards was rejuvenated, especially during the period of assistance afforded by the generosity of the Civil Works Administration.

It is clear that there is a wide range of necessary activity in the interchange of information and experience regarding planning systems, and in assisting groups anxious to undertake planning in the most effective manner.

b. Coordinating and advisory. The board would have the function of tendering its friendly offices as a coordinator of various Federal plans, and of Federal and State or local plans, or other types or plans where closer cooperation might seem desirable and feasible. For this purpose conferences and

consultations would be useful, involving analysis of conflicting or unrelated plans, and constructive efforts to bring into closer harmony broad plans of action not adequately organized with reference to each other.

The close coordination of United States policies and planning agencies with each other is of very great national importance, and it would be one of the functions of the board to direct attention from time to time, as occasion offered, to the implications of one national plan or policy for other plans and to the importance of considering Federal planning and policy as a whole.

Planning agencies have already been developed in a number of Cabinet and other Federal offices, notably in Commerce, Agriculture, and the National Recovery Administration among others, and it is to be anticipated that more will be set up. The establishment of such departmental or other planning divisions is, of course, desirable and will contribute greatly to the sound development of national planning. A national board and its staff would encourage and welcome such agencies where they are not now found, cooperate with those in active operation, endeavor to bring together lines of planning that seemed to run too far apart or even unwittingly at variance with each other, and in general use its good offices to bring about the best understanding among planners, and the highest and best use of all such research agencies for the common national welfare as seem in the domain of planning. In this field it may be observed in passing that the intelligence and vision of a board and its staff, the respect and confidence they enjoy among groups whose intimate cooperation is indispensable, will be far more effective than statutory powers or bristling governmental sanctions.

The coordination of State and regional plans with each other and with Federal plans would be of especial importance in view of the fact that there are now many State planning boards and city planning boards.

It is equally important that attention be directed to the important planning enterprises and studies under way in various quasi-public enterprises and institutions, and to the desirability of the more reasonable relationship of these different plans to each other.

It might well be the function of such a board to advise either on request or upon its own

initiative with reference to pending national policies, and their implications for the national program and to suggest, if possible, modifications better adapted to the direction and development of national policy.

The detachment of such a board from immediate political power and from administrative responsibility would make it possible to review the trend of national measures more carefully and more comprehensively than is possible by those with less leisure for inquiry and analysis, and more urgently pressed by insistent circumstances.

c. *Initiatory.* It would further be the function of the board to initiate independent lines of inquiry into various aspects of a national program, and to present the results of its work to the President with such findings and recommendations or alternative recommendations as may be indicated by comprehensive research and mature reflection; and for such use as the responsible governing agencies of the Nation might deem appropriate under all the circumstances. A discussion of some possible types of inquiry is found in earlier paragraphs of this report.

If successful, such efforts should make it possible to apprehend more clearly and promptly the emerging trends and problems of the Nation, and should contribute to the formulation of sound national policies adapted to the technological, economic, and social changes in the American life.

It cannot be too strongly emphasized that the function of such a board as proposed is not that of making final decisions upon broad questions of national policy—a responsibility which rests firmly upon the elected representatives of the people of the United States. Such a board would be useful in proportion as it was detached from immediate political power and responsibility, as a general staff gathering and analyzing facts, observing the interrelation and administration of broad policies, proposing from time to time alternative lines of national procedure, based upon thorough inquiry and mature consideration, constantly preparing and presenting to the authorities its impressions, findings, conclusions, and recommendations for such disposition as those entrusted with governmental responsibility may deem appropriate. How keenly such a board might observe what is happening, how wisely it might judge, how

intelligently it might invent, how shrewdly it might interpret the national interests and values—such considerations would in the long run determine its usefulness and permanence.

The role of a national planning board in American life might become of great importance and value in helping to find the difficult way toward the realization of that union of popular control in government and widespread diffusion of welfare and well being which has been the promise of American life, not yet attained but constantly the goal of undaunted American endeavor.

Such a board if composed of men gifted with the rare qualities necessary for such high enterprise, amply supported by indispensable staff and equipment, might well prove an important factor in the difficult period of transition through which we pass—a period in which there is reason to believe that change will be more rapid than ever before in human history, that social adjustment will be more urgent than ever before, but by the same logic, a period in which the possibilities of human advancement are greater than ever before.

A planning board might facilitate the interchange of experience and information regarding a wide variety of planning devices in many lines and on many levels; it might help to bring together planners and their plans, lest they drift apart or fall afoul of each other; it might reach out in pioneering spirit and explore new possibilities or suggest new devices by which America might advance more swiftly and surely.

Standing apart from political and administrative power and responsibility, but in close touch with the Chief Executive and under the control of the political powers that be, such a group of men would have large opportunity for rumination and reflection upon national trends, emerging problems and possibilities, and might well contribute to those in responsible control, facts, interpretations, and suggestions of far-reaching significance.

We must grant to those of a skeptical turn of mind that it is easy to yield too readily to eager anticipation. On the other hand, it is easy to underestimate the possibilities of the wise use of a general staff for our Government in peace as well as in war.

SCIENCE IN PLANNING

Contents

The following statements, prepared at the request of the National Planning Board, are submitted as supplemental data, but the Board assumes no responsibility for the views and opinions of the authors.

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Section III

THE ROLE OF SCIENCE IN NATIONAL PLANNING

National Academy of Sciences

Report prepared by the Academy's Standing Committee on Government Relations,
Dr. John Campbell Merriam, chairman, June 18, 1934

1. Definition of science and of national planning so stated as to make clear the point of view as to nature of the materials in science, extent to which these materials can be utilized by science, and the nature of planning activities in which scientific materials would presumably be used. Emphasize the idea that the scientist is not primarily a planner, but that since his materials are essential it is important that he participate in discussion of plans.

2. Contribution of science toward adjustment of a changing world in which human nature demands continuing variation of conditions and, if possible, continuing improvement.

3. Significance of the assumption that science has secured only a small part of the vast range of obtainable data relating to materials, activities, and conditions in the world of things natural and human. With normal intellectual development great advances of knowledge may be expected in practically every field of investigation. With the world changing under influence of advance in science, acquaintance with science and research should be intimate in any planning movement.

Science will have importance both in making adjustment to changes arising in ways other than through its own contribution, and by influence of what it accomplishes.

4. Insistence upon a program in which there is proper balance of fundamental research, interpretation of research, and relation of research contributions to engineering, industry, and all forms of human application. No phase may be neglected. It is necessary that application be made possible through such types of interpretation as give clear understanding of the situation.

Need for appreciation of fact that fundamental research itself may not be neglected,

otherwise the data required for further advances will not be available and knowledge will advance only by reorganization or reclassification of materials.

5. Relation of science to education, to broad development of understanding, and to the generation of stimulus for initiative. Recognition of the fact that, unless government is to shift to the hands of the few, it is important to have a public educated to recognition of those principles or attitudes of mind which make possible the advance of civilization through constructive effort.

6. Consideration of the role of science in special fields with particular reference to significance in national planning; recognition of fact that in planning the forward look requires consideration of fundamental factors which will become important:

- Mathematics
- Physics
- Astronomy
- Meteorology
- Chemistry
- Scientific engineering
- Biology
- Agriculture and land use
- Medicine
- Palaeontology
- Geology
- Geography
- Archaeology, with relation to history
- Historical sciences, development of human institutions examined by scientific methods
- Anthropology
- Psychology and human behavior

7. Consideration of balance for values of science in planning as discussed from point of view of activities representing industries, agriculture, finance, transportation, city planning, land use, State and Federal organization, education, enjoyment of life, spiritual values, and religion.

1. Definition of Science in Relation to Planning

In the following discussion "science" is assumed to represent materials obtained through investigation in the natural sciences; it represents also the attitude of mind or method of approach used in study of these fields. It may include such extension of these investigations as naturally reaches into consideration of the nature of human beings and of their activities.

Both point of view and convenience of classification make important the recognition of a grouping of activities under the head of social and humanistic studies as contrasted with those commonly grouped under natural sciences. There must be wide overlap and close interlock of these subjects, and it is important that there be recognition of need for unity in effort along all lines of investigation. At the same time it is desirable to keep in mind the requirement for specialized study in different fields if intensive work is to be done.

Viewing the problem of science in another way, we appreciate the fact that objectives of the student of natural science are quite different from those of the sociologist, of the student of economics, or of the student of government. The scientist is concerned with securing information relating to materials and the situations which obtain in the world about us, as also with reference to the nature and activities of human beings. This search involves not only definition of what we call facts, but must include the relations between these facts. In ultimate analysis it is essential that we know also the significance of the materials gathered with reference to human interests. In this last type of activity work of the scientist examining nature overlaps that of the student of social sciences, engineering, economics, and government. It is difficult to determine what properly belongs in each field, but greater difficulty for mankind would be encountered if there were no overlap or interlock among these subjects.

Responsibility for determination of what constitutes "national planning" is presumably not a part of the obligation involved in preparation of this statement regarding the role of science further than is implied in recognition of the idea that planning means a for-

ward look for the purpose of securing the most effective type of organization based upon obtainable knowledge. In the statement which follows it is assumed that the role of science concerns essentially the presentation of facts and the relations between facts arising out of science, all being so stated as to aid in consideration of any planned program.

2. Role of Science in Adjustment to Changing Conditions

In considering the type of forward look which may be represented by planning, science will naturally be considered as having a significant role by reason of the fact that through development of new materials and new knowledge it makes possible the adjustment to new types of situations. If we were known to be dealing with a static world in which the materials were available, and our knowledge regarding these materials and of man were approximately complete, it would be possible to formulate plans which, with slight variation, might operate almost indefinitely. By whatever means we use for viewing the history of the world, it is clear that we are dealing with almost continuously changing conditions to which adjustment must be made. With these modifications must also be taken into consideration the fact that human nature seems to demand continuing variation of conditions and, if possible, continuing improvement. In this varying program contributions of constructive thought arising from all fields of science have important part by giving opportunity on the one hand for adjustment to new situations and, in another direction, for continuing development in response to the desire for advance made possible by the vision of human intelligence.

In the history of civilization the urge for development of new interests and new activities has been satisfied in many ways. This has been done through certain aspects of the arts, philosophy, religion, new types of business organization, military activities—all have contributed to the human desire for change and what we call advance. The last century seems to have shown less marked advance in certain aspects of life important to man than occurred in the previous 2,000 years. But activities coming out of the growth of science have given

us means for new developments of transportation, geographic discovery, communication, and a multitude of other things, perhaps culminating in the automobile and the radio of the present day. A relatively large percentage of these recent advances has arisen from the activities of science carried to application by engineering. The extent to which these things have satisfied the human craving for change and growth it will remain for history to determine, but it would seem that for the immediate future the type of change in the new worlds of activity, and even of thought, made possible by science will have an important place in satisfying certain of the intellectual and spiritual interests of mankind.

3. Development of Science

Extent to which development of science may make further contribution to understanding of materials and conditions in the world of things, physical, biological, and human

One of the most important contributions of modern science and research is the indication that we are very far from having a complete knowledge of anything in the world of physical, biological, or human values. Within the physical universe alone very great advances have been made within the last generation in our knowledge of materials, forces, and conditions encountered on all sides in everyday life. In biology the degree of complication is still greater, and investigators generally hold the view that we are just beginning to understand fundamental life conditions and processes.

Although the realm of human values is at times assumed to represent a category within which the method of approach of science has relatively little importance, intensive study continues to uncover relationships in which factors developed by science are seen to have large significance. The enormous complication of human values has made the subject almost infinitely difficult. It is also true that those factors comprised in what is known as freedom of judgment introduce an element making the situation vastly difficult. Nevertheless, it is to be recognized that even within the field of human values increase of knowledge and its better interpretation tend continuously to introduce new features of the scientific type which must be taken into consideration in any planning program.

To those acquainted with the development of science there is little difficulty in accepting the suggestion that our knowledge of nature and man will increase greatly with the coming centuries. It is also to be expected that human constructive activity will bring about the creation of conditions and relationships which have not previously existed. If this suggestion be accepted, development of any planning program of national scope must take into consideration the significance of these new factors in bringing about readjustments. While it is not possible to predict the direction which such changes will take, or the specific fields in which discoveries, inventions, or new creative activities may express themselves, it would be unfortunate if these possibilities were neglected in a general planning program.

4. Need for Balanced Program of Research, Interpretation, and Application

Importance of the role which science should have in national planning depends in a measure upon the extent to which proper balance can be maintained among factors relating to origin, interpretation, and application of scientific knowledge. Upon the adequacy of guidance for growth of this knowledge and its use will depend the possibilities for securing new data needed for adjustment or for creative activity, as also the formulating of an adequate program through which scientific information may be interpreted and so placed as to make possible engineering or economic or social application. Up to the present time, in general, relation among these three phases of development of science has been allowed to proceed in accordance with interests of the agencies concerned. Exceptions to this procedure are found in the industries where research is developed for the specific purposes of application, and in some measure in educational institutions where interpretation of the contribution of science constitutes a primary function. Recent activities, especially in the field of adult education and through the public press, have tended to give relatively high value to the interpretation aspect of development in science.

Any long-range planning program of local, national, or international scope will naturally put definite stress upon advance of fundamental

research as a means of contributing toward improvement of the condition of mankind. So important is this idea that its consideration should be emphasized regardless of the specific means for carrying out such a program, whether by private institutions or through public support.

It is also important that in any program of planning consideration be given to the extent of interpretation or of educational effort devoted to making clear the significance of science and research.

It is essential also that a national planning program give attention to study of the actual application values deriving from research in its various forms. Organization of means by which results of science already available or arising through new discoveries could come into human use may mean an enormous contribution to betterment of conditions for life. Organized effort for such study may well arise through support of the Government, as well as naturally through all private institutions concerned with such activities.

As a part of the idea of maintenance of balance in development of science through research activities it is essential that attention be given to the manner of development and use of new materials, principles, conditions, or relations such as may be discovered by scientific effort. The present wide-spread interest in what has been looked upon as the disturbing influence of scientific discovery is an indication that attention should be given to control of the new instruments and ideas as they appear, whether this be in the field of the physical sciences or in the region of scientific discussion or economic and political ideas.

The law of survival of the fittest would ultimately care for new materials and new ideas. But our knowledge of evolutionary processes over the ages indicates clearly that intelligent grouping or cooperation or guidance, without the necessity of absolute restraint, may bring about relatively favorable conditions and in a shorter time than is possible through influence of the law of survival of the fittest or the fight for existence. It is a part of the responsibility of an intelligent people to consider values which it creates and their relation to other values. It is doubtful whether long-range planning activity can perform a more important service than that which may be contributed through

study of possible situations in this field. Further study of all programs relating to protection given by patents may aid in discussion of this question.

In connection with examination of this problem it is important to note that science is international in its scope. No planning program can be effective which neglects consideration of this situation. There are many fields of science such, for example, as geology, oceanography, and meteorology, in which international cooperation is essential for advance. Consideration of this situation is also important in the study of a balanced program for use of scientific knowledge in the most favorable ways.

5. Relation of Science to Education in a National Planning Program

Although relation of science to education will probably be stressed in consideration of activities in the field of the social sciences or education, it may be important to emphasize certain aspects of this relationship under the discussion of the role of science as such. Modern thought has tended toward development of the idea that science is one of the most important ways of expression for creative thought or activity. Actually science is more largely discoverer and interpreter, and only in part concerned with creative interests. Constructive or creative thought or activities may be shown more largely through the arts and engineering, and yet it is not possible to avoid recognition of the idea of creative work as connected with the development of scientific thought. Without pressing to a conclusion the question of relation of science to creative work, it is important to call attention to the fact that science stands specifically for search after facts and principles and for the necessity of judgments based upon realities considered by logical processes.

The idea of inquiry and research, dominant in the field of science, has extended itself with increasing emphasis into all subjects and interests represented in everyday life. Through its relation to present-day thought science has certainly exerted a very important influence concerning the need for facts and for recognition of realities as the basis for judgment. If this principle could be extended widely into

education, the influence would be very great. Especially important might it be in the effect upon citizenship as defined in the form of democratic government under which we live.

If in any program of national planning consideration is given to continuing development of the ideas upon which the present form of government rests, the scientific attitude toward knowledge and toward life should be emphasized as a part of the educational system.

6. The Role of Special Fields in Science as Related to National Planning

In considering the role of science with relation to a national plan, it is assumed that there is recognition of distinct difference between judgments in planning activities looking a considerable distance into the future as contrasted with decisions often made in business or governmental operations where it is not possible to secure complete data. It is assumed that the idea of planning involves consideration of those fundamental features which may have importance in the longer look ahead.

The judgment of science would be distinctly unfavorable to the basing of plans for the future upon materials imperfectly understood, or upon information which cannot be given adequate statement. At the same time it would be unwise to develop great projects on the basis of specific data merely because they have long been accepted, when there is evidence that wholly new points of view may be developed by research. Considering the subject of planning from this point of view, the role of various subjects in science has been examined in the light of developments which may be expected to take place.

Mathematics

Although the role of mathematics as related to planning does not need discussion, it is important to consider the state of development of this subject. The situation can best be defined by quotation from a memorandum by Arthur B. Coble, a member of the National Academy and of the committee to which study of this problem was referred. This statement reads as follows:

During the last half century pure mathematics in America has reached a position comparable to that in

any European country. This growth has been steady and well maintained. There is every reason to expect it to continue and no reason at present to stimulate it to increased activity. We now have the leadership to develop as large a number of well-trained mathematicians as the country is likely to need. Of these we may expect a reasonable proportion to become really expert in advancing the bounds of the pure science, and in satisfying the demands of other sciences.

As knowledge in any field of thought tends to become more exact, so also does it tend to seek expression in mathematical, or at least in statistical, terms. Thus we must expect to find an increasing use of mathematical terminology, of the mathematical formulation of ideas, and eventually of mathematical deduction. When this expectation is realized the necessity for broader and sounder training in mathematics in our schools and colleges will become urgent. There is particular need both for more expert instruction in, and for reevaluation of the content of, elementary mathematics.

In general it may be said that the progress of applied mathematics in America has not kept pace with that of pure mathematics. There is present need for a well-supported journal in this field to serve as a concentration point for a number of interests which at present are too scattered to become potent. Such a medium would facilitate the interaction between pure and applied mathematics and would stimulate the growth of an American school of applied mathematicians. Achievement in this field would seem to be a quite normal expression of American genius.

Every general scientific program should make provision for the support of well-ordered progress in pure and applied mathematical research and instruction. This is particularly necessary because the science itself has little popular appeal and must make its contribution to the general welfare through the medium of other sciences.

With the certainty of greatly increased use of mathematics in an infinite number of ways in every field of science, and especially in application of science through engineering and in the field of economics, there could be no greater contribution toward assurance of accuracy and toward constructive development in planning than would be found in guaranteeing the best development of mathematics and its application.

Physics and Chemistry

While physics and chemistry commonly occupy independent fields, these two phases of science may be considered together as representing broadly the physical basis of the world and of life. Advances have proceeded so rapidly in recent years that in many instances there has been almost complete reorganization of large divisions of these subjects within a decade. In a great variety of planning activities

both physics and chemistry represent an important part of the foundation upon which the program is built.

In the present emergency a large percentage of special activities developed are either physical or chemical, or illustrate both subjects. The great power projects involve not only engineering but new aspects of physical application. The production of synthetic ammonia and nitrates which may make this country independent of Chile for saltpetre is related to a great engineering project. Problems of land use, so far as they concern soils, involve chemistry and physics to an extent which we have only recently come to appreciate.

The number of industries which are largely founded upon chemical processes is so great that the list would cover many pages. The rate of change in these activities, not only in development of technique but in appreciation of the underlying principles, is so rapid that a student leaving college educated in the principles of the science up to the time of his graduation may find difficulty in proceeding with the practical application in an industrial laboratory. Development of such industries as that related to the production of rayon, or modern methods for production of high-grade paper pulp illustrate processes which have attained importance in the life of the people and show very rapid change from year to year.

Production of new materials by synthetic processes, such as camphor and synthetic ammonia, means a readjustment to the problem of production which requires careful handling in business and in international trade.

The contribution of chemistry as an aid to the agriculturist in soil fertilization, eradication of pests, and in connection with the biological study of the whole problem of crop production represents a new era in cultivation of crops.

The aid of chemistry in study of life processes, including the nature and method of operation of the constituents of living organisms, represents one of the greatest advances of modern times. So in other directions the contribution to the possibilities of medical treatment, either by introduction of substances into the intestinal tract, or by injection of substances such as insulin, or by isolation of important elements such as the vitamins, means enormous advance from conditions of the last century.

Perhaps the most important suggestion that can be made regarding the role of physics and chemistry in national planning is that it is no longer possible to take up any great project in the field of engineering, power, agriculture, food, or even the study of biology in its application to medicine and the normal processes in the human being, without calling into consultation leading experts in these fields.

In connection with discussion of these subjects it is important to emphasize again the fact that, with the rapid advance which has been made, and which may be predicted for the future, it is important to look into any great planning project through the eyes of those who are acquainted with the developments which are likely to produce great changes within years or decades.

Illustration of the type of change which may take place in a great program through application of both physics and chemistry is found in examination of the history of the oil industry in America for the past 25 years. We note on one hand the enormous change in the nature and use of the products from the oil fields through the advances of chemistry. On the other hand, one appreciates the significance of advance in location and recovery of oil through application of combined contributions from research in geology and physics.

While it is not always possible to predict the direction in which contribution of science may turn in the field of physics and chemistry, there may be no doubt that all planning operations in any way related to physics or chemistry should be examined from the point of view of those who are most fully acquainted with the fundamental aspects of these subjects, as they may touch great programs in the fields of engineering and economics.

Astronomy

The contributions of astronomy have had exceptional value from the earliest known periods of history. Heavenly bodies have furnished the chart and the means of guidance for travelers in space moving over the earth's surface, and have also given us milestones for the journey of mankind through time. In another direction the materials of astronomy have contributed in an extremely important manner to the deepening of thought, and have stimulated spiritual life through the ages.

The fact that interest of man in the heavenly bodies has tended to develop a shroud of mystery over everything that touches the outside world of space should not deceive us into assuming that elements of reality have been absent from human conceptions of the heavens and what they contain. There should be no doubt that the influence of astronomy, even in its more fundamental aspects, has been extremely important upon the development of human thought in many fields including even what we call the practical features of everyday life.

At the present time interest concerning what lies in the outside world of space tends, not less than in earlier ages, to develop appreciation of the vastness and orderliness of the universe.

From another point of view certain aspects of astronomical research are considered by some to have significance relative to practical planning problems as they touch the history and changes of climate on the earth. Should the investigations of certain astronomers and physicists make it clear that the earth's intake of energy from the sun varies to such an extent as to produce difference in climatic states, an extremely important contribution would be made.

While a national planning program may not concern itself specifically with problems in the field of astronomy, it is essential that in any forward-looking plan there be continuing consideration and intensive investigation on the greater questions of astronomical research. Such support may touch what we consider the essentials for maintenance and normal development of life. It would also concern those fields of thought which influence the intellectual and spiritual aspects of life which are, after all, the basic elements in human living.

Meteorology

Determination of nature and extent of changes in temperature, climate, and weather over the earth at varying latitudes and through time represents one of the most interesting possibilities related to a planning program. Developments of weather prediction in recent years have been among the most important contributions of science. Thus far forecasting has been limited to short periods. In various fields of science there is under consideration the possibility of longer range in prediction involving weeks, months, or years.

Advance in weather prediction has in part been based upon purely geographical changes observed in temperature, humidity, and other details of atmospheric condition. But out of the most fundamental aspects of science there has come, in considerable part through the work of Dr. V. Bjerknes, of Norway, the theoretical studies on circulation of water and air which have brought a new point of view regarding the conditions of our environment. They have also brought methods of application of these ideas which have largely revolutionized our understanding of weather changes. Developing out of theoretical studies in the field of mathematics, and then in mathematics and physics, and finally out of application of the results to discussion of physical conditions of the atmosphere, quiet, persistent, intellectual inquiry, and scientific vision have made a great contribution to understanding of our physical surroundings. There has been no more important addition to knowledge in the planning sense than what has grown out of these investigations and their application.

In any long-range planning program it is important that consideration be given to the practical aspects of the general problem of meteorology, and also to the further development of those theoretical, mathematical, physical, and in some measure geographical, conditions upon which further advances in knowledge will be based. It is also important that support be given to such well-founded studies as have bearing upon the larger program of long-range prediction. In study of these questions it is important again to recognize that progress can be made only on the basis of the most fundamental researches and through use of elements obtained from the whole world. Without international cooperation advance is almost impossible. Incidentally, the common interests of various countries in study of meteorological and oceanographical problems have brought about cooperation, the development of mutual interests, and international friendships.

Biology and Agriculture

In spite of the almost infinite complication of elements involved in life processes, modern developments in biology have equalled if not exceeded in importance those in physics, chemistry, astronomy, and mathematics. Recent advances made possible by the microscope, the

techniques of chemistry and physics, and the contribution of new theories or modes of interpretation such as that presented by the general law of evolution, have permitted us to look into a wholly new world of life. Relations of life phenomena to behavior like those represented in studies of endocrine glands, hormones, and other controlling or stimulating agents have furnished a new view of life processes.

Application of the fundamental principles derived from studies in structure, physiology, and genetics to problems of agriculture and medicine has brought practically a new agriculture, a new medicine, and a new approach to the study of normal processes of life.

In agriculture there is practically no phase of the entire field which does not now rest upon basic biological knowledge, or upon biology coupled with physics, chemistry, meteorology, or other fundamental scientific subjects. But it is probable that in this field application of results has not in all areas kept pace with discoveries. Materials accumulated have often remained merely as facts without application. The commendable efforts of Government and of private institutions to bring biological science into practical use have gone far to facilitate advance in use of scientific data. There can be no doubt that any future planning program must involve consideration of aspects of education which not only give us further development of biological science but may also bring better appreciation of its values in the affairs of everyday life. This means extension of education and also simplification of the materials which enter into the educational program.

At the moment there seems a tendency to assume that because research has been taken up in certain fields of agricultural application, and is recognized as important, therefore the problems are solved. As a matter of fact, in many instances we have hardly reached the stage at which inadequacies of our machinery have become apparent.

The results of agricultural overproduction have in some measure tended to lessen the pressure to place this and related subjects on the most satisfactory basis. Possibly the present situation teaches us the need for having considerable range in the types of control over the processes of agriculture. We realize now that this control should relate not merely to

quantity, but also to variation in kind and in quality of product, so that application of science to agriculture in the future may increase the opportunities and the requirement of personnel.

In the field of animal biology the problems have proved even more complicated and more difficult than in study of plant life. The element of behavior, resting as it does upon nervous organization, physiology, and intricate patterns of little-known relations, has opened a field of study so significant that we are hardly able as yet to appreciate its ultimate value. In last analysis application of results from these behavior studies to man himself may be looked upon as one of the goals. It has become clear that instead of knowing man fully, we are only beginning to understand his basic nature and his capacities.

With special reference to significance of these subjects of plant and animal biology in planning studies, it is important, as in other subjects, to emphasize particularly the fact that we only begin now to understand the fundamental elements of life processes. Study of the methods by which recent advances have been made leads one to accept the view that there is before us an enormous field of opportunity for advance in knowledge in nearly every subject under discussion. It is probably not too much to say that a vast bulk of knowledge to be obtained lies just beyond the field of the known, but may be secured in large part by careful development of methods of research now in use.

Biology and Land Use

Recent extensive and intensive studies on the general problem of land use have been intimately related to many aspects of biological research, but have involved also a wide variety of problems ranging through physics, chemistry, geology, meteorology, climatology, and even certain subjects having intimate relation to astronomical research. The biological aspect of land-use research involves the relations of animals and plants to their environment, which is in turn only a form of statement regarding processes of evolution through which existing situations have developed. We realize that variations of land types, and of the plant crops and animals which live upon them, can be understood only if we have acquaintance with the whole range of biological variation and

the story of geological evolution with relation to the life world.

From another point of view it is important to realize that the problem of land use requires for its solution on one side an intimate study of geological processes as they determine land forms and land structure. In another direction the nature and development of land use is dependent upon climatic and meteorological conditions. The geological phase of the land problem viewed as a question in planning must be interpreted to some extent in terms of fundamental geological phenomena such as those which control the forming of the Mississippi Delta, or such as are expressed in erosion processes complicating the problem of water storage behind the Boulder Dam.

The meteorological and climatic aspects of land use are again dependent upon the study of basic phenomena which require for their interpretation understanding of the almost infinitely difficult questions arising out of study of dynamics of the atmosphere, and the little understood basic factors which have to do with climatic changes. We have also still to learn whether climatic variation relates itself to influences arising outside the earth.

It is assumed that consideration of a national plan will ultimately find necessity for study of the land-use program in its broader phases. Much of what needs to be done concerns organization and administration, which will in part be guided by principles outside the field of the natural sciences. Among other factors it will be recognized that land use does not relate solely to the nature of the land and what grows on it, or the location according to latitude, or climate. It involves also practical human conditions concerning maintenance of life, and with them recognition of the desires, purposes, and ideals of the people involved.

So far as the role of science is concerned, it is important to note that the carrying out of any important land-use program will involve intensive research in many fields of science in which we recognize the need for much knowledge not yet available. It will also be necessary to bring about a correlation of the results from various widely separated research fields, such as those involving biological process, climatic change, ecological relations, and evolutionary history and adaptation of life forms. The problem presents an extremely interesting

challenge. But the fact that effort is made to organize the details in a program does not mean that the results will be available immediately. Among the great needs will be the planning of research of the most fundamental type in the fields involved, and the securing of cooperation between investigators in these critical regions of study.

Biology and Medicine

The spur of demand arising out of human suffering has through the ages held attention continuously upon the basic problems of medicine. The greatest advances in this field have come in recent centuries, and perhaps one should say within the last few decades. Beginning with bettered knowledge of the human body and its functioning presented in anatomy and physiology, modern science has brought to medicine a wealth of information from every field of science as represented through biology. While it is difficult to make comparisons, it may be that medicine stands today as the best organized and most effective of all disciplines resting upon science.

Among the great questions faced in study of a national plan one must recognize consideration of medical aid as among the most significant. The requirements should not be looked upon as wholly concerning curative measures. The tendency of modern medicine and science looks rather to preventive medicine. In a sense we shift from study of the pathological to requirements for maintenance of normal conditions.

No better statement of this problem can be made than is presented by Dr. William H. Howell, a distinguished physiologist and member of the National Academy, who has studied this problem as chairman of the division of medicine of the National Research Council and as chairman of the Research Council. Dr. Howell's statement follows:

The future developments of medicine, so far as they may be directed intelligently by foresight and deliberate planning, are more evident on the preventive than on the curative side. It is scarcely necessary to say that our knowledge of the cause and treatment of human diseases is far from being complete. The only rational hope that we can entertain of making this knowledge more satisfactory lies in the encouragement of further research. Anything that can be done to increase the facilities for medical research will unquestionably contribute to the advancement of medicine, yet everyone who is familiar with the subject is aware that greater progress is frequently made by indirect

rather than by direct methods of approach. In such matters definite planning for concrete ends may bring only negative results. Experience teaches us that the wise procedure is to make provision for the widest possible encouragement of fundamental research, under the belief that in this way no really significant and profitable line of development will be overlooked.

On the preventive side, however, especially in the great field of public health, we possess now much knowledge that is applicable to the relief of human suffering but which is not being used in the most effective way. In this field intelligent planning is feasible, and there is practical certainty that immense good will result as regards improvement in the health, vitality, and efficiency of the people, and in the reduction of the economic burden due to illness. The public health work that comes closest to the great bulk of our people is that of the county health units. These units safeguard the health of the inhabitants of our rural districts and small towns. Their activities take various forms, such as protection against the spread of infectious diseases, the medical, surgical, and obstetrical care of those who cannot afford the services of a private physician, the discovery and eradication of insanitary conditions, the diagnosis of physical and mental ailments and provision for their treatment, the dissemination of a knowledge of personal and public hygiene in the homes and especially in the school, the isolation and care of the tuberculous poor, and so on. In some of the more prosperous parts of the country these health units are well organized and well supported, but in many regions the population is too poor or too ill informed to make full use of this means of protection. They need both instruction and financial assistance. Some of the private foundations, and the Federal Public Health Service as well, have made systematic efforts from time to time to educate backward communities to a recognition of the necessity of establishing such local health units, but the field is so large and is so vitally important to the prosperity of the Nation as a whole that it would seem to be desirable for the Government to take cognizance of the opportunity and to develop in a large way plans for the adequate support of a Nation-wide system of county health units. As these units are now organized or may be organized they do not infringe upon the traditional rights of the private practitioner and do not involve the troublesome question of State medicine. This latter problem has been discussed in detail by the national committee on the cost of medical care. Its recommendations in regard to lines of future development go as far, perhaps, in this direction as is possible at present in view of the generally antagonistic attitude of the medical profession.

Attention should also be called to a valuable statement by Dr. Herbert M. Evans, a member of the National Academy, who has interested himself in this problem. A part of the statement from Dr. Evans' paper is represented in the following quotation:

What is not generally understood is that the distinction between health and disease is often not clearly

marked, but that one condition gradually "grades" into the other. The slight derangement of a physiochemical mechanism like that of sugar control in the body exists for a comparatively long time before inevitable disorder supervenes. The discovery of insulin may be stated to be the outstanding therapeutic achievement of our century, but the best possible sermon on the critical need for more biological research can be preached on the subject of insulin. Although 12 years have elapsed since this discovery, we do not yet know the chemical nature of insulin nor the mechanism of its marvelous control of carbohydrate metabolism. There seems little doubt but that our knowledge of the participation of many internal secretions in the bodily mechanism will be enormously extended by future research and, in particular, that these researches will confer upon us the power to improve normal life, that is, to render more effective enormous numbers of individuals not afflicted by outspoken diseases. It is an amazing thing that the medical research institutions of the world have paid relatively little attention to such studies, most of them being still concerned predominantly with bacteriology and still in the epoch of Pasteur and Koch.

The heights to which mankind may thus climb in control over its own destinies and capacities are certainly great even if at present only vaguely known. No conceivable "sinking fund" will create future dividends in human welfare comparable to a reasonably liberal provision for steadily continued scientific research.

In considering that forward look involved in a national planning program it will be important, as in discussion of the role of other sciences, to recognize the continuing need for intensive study of the most fundamental questions relating to biology as they may be required in medicine. It is essential also that any broad plan include the relation of medicine to the education of the people up to such a stage as will permit the highest use of data derived from medicine.

It is essential, further, that problems of medicine be considered in relation to public health administration, and that means be devised by which the contribution of science and of medicine as an art be fitted into an administrative program which will bring the benefits of the most advanced knowledge for aid in maintenance of health for the people as a whole.

Earth Sciences

Contribution of the earth sciences to scientific knowledge represents on the one hand all that we know regarding natural resources derived from the inorganic earth and, from another side, it furnishes the most funda-

mental and perhaps most significant aspect of historical science. From another angle of vision the earth sciences give us one of the most interesting illustrations of need for cooperative study representing the whole earth. From one country alone it is not possible to secure an adequate account of the history of the earth, or its structure.

Closely related to geology in the limited sense is the record of life seen in paleontology and extending upward into early human history as represented by archeology. From another point of view geography represents the distribution of features on the face of the earth. According to point of view, geography may be absorbed in part into geology, or some of its critical features may be included in the field of social and governmental problems.

The mineral resources of the earth have drawn attention of humankind from the dawn of history. The effort to develop the most favorable conditions for discovery and extraction of mineral products has in recent years attracted interest of geologists, paleontologists, geographers, physicists, chemists, and engineers. The purely commercial enterprise set up for profit may extend itself on the one hand into a paleontological study involving evolution of species of the horse or various types of mollusks, or in another direction it may concern itself with physical data regarding the innermost regions of the earth. Knowledge derived from these basic scientific studies has increased greatly our acquaintance with materials available within the earth, of the means by which they have been accumulated, and of the ways by which we may take up exploitation of such deposits.

Consideration of the problem of mineral resources has been discussed by Dr. C. K. Leith, a member of the National Academy and of the committee charged with the preparation of this report, and the following extract from Dr. Leith's memorandum presents an important point of view:

The problem of intelligent use of mineral resources is illustrative of the kind of contribution geologic science can make to national planning. A geologist studies the origin of mineral resources and their stratigraphic and geologic distribution. He knows the present and potential resource of each mineral for each country and for each locality. He knows better than anyone else their irregularity of distribution and the limited possibilities of correction of these irregularities by human

effort. To him it is a scientific reality that some countries and some localities have abundant supplies of essential minerals and that other less-favored parts of the world do not have them and cannot possibly develop them. He knows that mineral supplies in different parts of the world are complementary, that nations are interdependent in regard to them, that international movement of certain minerals is decreed by nature and not by human law, that as regards mineral resources there is no such thing as equality of economic opportunity among nations or equal capacity for self-determination. He knows what minerals are possessed in adequate quantity for national defense, what minerals are lacking, and where else they may be obtained. He knows the needs of conservation of the various minerals.

It seems too obvious for argument that all of these facts must be taken into account in framing an intelligent national policy for the use and conservation of mineral resources, and that such a policy should be one of the important components in broader national planning. Nevertheless this simple conclusion is not generally recognized by geologists, by the mineral industry, nor by the public. The problem is approached piecemeal from the standpoint of tariffs, treaties, taxes, codes, and many local State conservation laws. Geologic science has not only the opportunity, but the duty, to introduce the perspective it alone can supply, and to aid in national planning for the effective and conservational use of mineral resources.

One of the critical questions in geology at the present time concerns conservation or the highest use of mineral supplies available to mankind. This problem relates itself intimately to the whole field of synthetic chemistry and artificial production of new supplies, if and when, in future milleniums the quantity of most valuable minerals in the earth may diminish to the vanishing point.

Another aspect of geological science which will concern mankind critically in the future touches significance of studies on the forms of the land and characters of superficial earth strata in relation to questions concerning land use. Cooperation between the geologist, the climatologist, and the student of agriculture, is essential for maintenance of conditions most favorable for utilization of the earth's surface.

From the point of view of one concerned with a record of events, geology, paleontology, and archaeology present the most extensive and elaborate statement of history that we shall obtain in the universe. Significant as the element of time appears in the field of astronomy, it is from the geological record that we have the fullest evidence and, in a sense, the clearest reality of time, with a specific delineation of events in the order in which they have occurred.

Against this background there will be projected the various aspects of historical study as we approach the point at which historical science will take rank as one of the important phases of knowledge. Attention may be called to the fact that planning in the national or international sense, representing as it does a forward look, will have increasing justification from the evidence of historical science interpreted at the same time in the light of science and of human experience.

Striking illustration of influence exerted by fundamental research upon planning is furnished by the present status of protection against earthquake risk. The result coming out of long and intensive studies of geological structure, combined with investigation of earthquake vibrations through the medium of geology and physics, is giving us now for the first time an understanding of what actually takes place in movements of the earth's crust. We are today not only in a position to understand the geological structure, and the history of development of structures in much of the earth, but seismology has brought study of earth movement to a point at which we see the process in operation. Earth science has also furnished a satisfactory interpretation of the influence of geological movements upon man-made structures. While it is not possible to eliminate or to divert crustal movements, it is now feasible to determine the nature of activity to be expected in a given region. Through this information we have learned the nature of precautions which must be taken in building construction, and in the engineering sense have developed a program for construction which is adequate under most conditions.

In the sense of planning we begin now to see the extent of earthquake risk over wide areas. We appreciate also the nature of the precautions which must be taken, together with costs involved in guaranteeing a reasonable security. Up to the present time no general plan concerning handling of these risks has been prepared for this country. While the dangers might be extremely small in certain areas, there will ultimately be advantage in bringing together the data from all phases of science including seismology, geology, and related subjects in order to give some idea of the approximate risks encountered and to insist upon safeguards necessary for all structures

in public use. Such a plan worked out with care would ultimately have value for the whole of the United States.

Anthropology, Psychology, and Human Behavior

The elements of anthropology may be grouped under the headings of human biology, culture, and language. Psychology, representing interpretation of states of mind, along with human behavior considered both from the point of view of the individual and of the mass, brings scientific examination of man into the field covered by sociology and government. It is difficult to draw sharp lines among these various subjects. If one were sure that mind separates itself wholly from the physical foundation or background, classification would be relatively easy, although interpretation of existing phenomena might be relatively difficult.

If it should become possible to place the study of man, from the point of view of his physical background and his mental development, on such a basis that we could secure a clear view over structure, activities, and interests of human beings, the application of anthropology to national planning would have enormous significance.

At the moment, we are just beginning to understand the underlying phenomena of human life, and question frequently arises regarding extent to which data derived from the study of so-called primitive human types, or of human history broadly, can be applied to problems concerning planning of economic organization and other aspects of human interests and occupations.

It is doubtless true that as studies of sociology and government advance, and as anthropology, psychology, and human behavior proceed we shall find the overlap widening, and the mutual support of these subjects increasing in significance.

If the most important study of mankind is man, and if anthropology, psychology, and human behavior represent application of scientific methods to these investigations they should have great value in all aspects of planning in which human problems are significant. It is interesting to note that where the application of anthropology and psychology has been developed, as in the contacts with native peoples through colonial policy of England

and Holland, the relation has proved of real importance.

Within the field of planning programs of the United States at the moment, questions relative to present and future opportunities of the Indian or native American are perhaps to be handled up to a certain point in terms of anthropology, psychology, and archeology as they relate to development of the characteristics and culture of these peoples. Whether development in other types of peoples is on a plan so different from that of the native American that it may not be considered satisfactorily by the anthropologist, historian, and psychologist remains to be seen. It is interesting to note that in Mexico machinery set up for examination of problems relating to crime has included representation of the legal profession, of the profession of anthropology, and of medicine. It is believed that this arrangement has contributed toward solution of urgent questions.

Study of problems relating either to increase or limitation of population, or population migrations, involves fundamental anthropological concepts, and should in large measure be guided by scientific principles. The importance of such problems in any planning program will be very large. In the same way all types of questions which have to do with crime, or physical or mental deterioration, or the betterment of stock by use of scientific eugenics, will come within the field of science as it touches anthropology and psychology.

In any plan looking over the whole field of human activities for this country it will be important to give definite emphasis to aspects of psychology, anthropology, and cultural history which can furnish interpretation of conditions and states of mind of the people individually and in groups. There can be little doubt that emphasis upon common-sense or factual determination of anthropological conditions, and application of the data to planning problems in sociology and government, will, in the future, have vastly greater importance than has been recognized heretofore in use of these subjects. The extent to which government can, or should, control such activities is itself a planning problem. Up to the present time the research undertakings of universities and scientific institutions have been the main source

of knowledge in these fields. It may be wise to limit in some measure the control of such activities through governmental agencies. In the long run, it may appear that understanding cooperation through private agencies represents one important means of bringing the scientific study of man into effective touch with administrative and planning programs.

7. Consideration of Balance Between Science and Administration in National Planning

Assuming that the contribution of science toward materials and points of view may be large in any planning program, it is important to realize that much of the value of science depends upon intensity of concentration on specific subjects, while planning must be comprehensive and expressed in terms of administration. Administration in itself should be recognized as not merely organization. It is a program which must fit to the needs of human beings, and for which there should be satisfactory responses in human life. In a planning program arranged to utilize the values of science, consideration will naturally be given to means of organization, and there must be such interchange of ideas as will make it possible to utilize the maximum values in science to meet real human needs under an adequate human administration.

It must be recognized that neither government nor central organization of any type can exercise complete control over development of science and research. The initiative which makes discovery and invention possible arises out of individual interest, and this is an element not subject to complete control. It becomes necessary, therefore, to arrive at an understanding of means by which the constructive elements in science can grow to the highest degree out of individual interest, and at the same time leave possibility for utilization of such data in an administrative plan which will depend for its control in large measure upon recognition of mutual interests. If the government of this country maintains approximately its present form, the need for careful planning of such relationship as has been discussed will be increasingly important.

Without reference to governmental problems, the balance between scientific develop-

ment and planning activities must be considered with relation to all of the industries ranging from mechanical to agricultural, in studies of land use, transportation, finance, planning for organization of cities and States, and education. It is desirable also to emphasize the fact that such a balance is essential in development of the most favorable conditions for the enjoyment of life and even for growth in spiritual values. Too largely do we seem to accept the idea that for those features which represent the highest elements of life, carefully defined and guided thought for the morrow has relatively little significance.

The means by which balance can be defined as among the interests and contributions of science, the elements arising out of studies of social, economic, and governmental questions, and those features which have to do with the values of life cannot be determined through the thought of a moment only. These questions represent one of the most difficult of all problems in the advance of civilization. They involve on one hand the possibility of high development of specialized knowledge for the benefit of mankind and, on the other, advantages in organization of society for mutual benefit. The spread between the highest expression of these two types of interests is wide. There is, nevertheless, an intermediate

position which must be found in order to secure the benefits of both.

Documents Constituting Basic Materials for Report

In preparation of this report on the Role of Science in National Planning a considerable group of documents was assembled by members of the committee and by others invited to present special statements, and by still others who were invited by those who had been requested to prepare statements. After the general problem and the materials available had been examined by the chairman of the committee and the three members of the Academy whom the chairman had been authorized to call together, an outline of the report was prepared and a group of 30 documents was selected covering the general field of science. These 30 documents constituting the basic materials of the report were made available to the National Planning Board with the understanding that the individual documents as personal reports would be considered as confidential. The summary under the heading the Role of Science in National Planning was then brought together for use of the National Planning Board in the broad study of this problem.

THE AID WHICH THE SOCIAL SCIENCES HAVE RENDERED AND CAN
RENDER TO NATIONAL PLANNING, JUNE 1934

Memorandum prepared for the National Planning Board by a committee of the Social Science Research Council

Introduction

Early recognition by Government of need for authentic information

The history of the executive departments of the Federal Government of the United States supplies striking evidence that there has been a steadily increasing recognition of the fact that scientific research is essential to the proper formulation of national policies and to the evaluation of the effectiveness or otherwise of the policies after they are adopted. Since 1849, when the early executive departments, which were primarily administrative in their functions, were supplemented by the Department of the Interior, and especially since 1889, when the secretaryship of agriculture was established by law, the executive departments have devoted an ever increasing amount of energy to collecting and interpreting facts as the basis for intelligent governmental action. When, finally, the Departments of Commerce and Labor came into existence in the early years of this century and when Congress gave its approval to the organization of a large number of scientific bureaus within the various executive departments by making large appropriations for the pursuit of research, it was conclusively shown that the people of this country were convinced that legislative and executive policies cannot be wisely determined without a large fund of reliable information secured through strictly scientific inquiries.

Similar impressive evidence of the importance of science to the Nation is to be seen in the action of Congress in making grants of land and money for the support of institutions devoted to the study of the science of agriculture and the cultivation of the mechanic arts. The first grants of land for the establishment of such institutions, the so-called "land-grant colleges", were made at a time when the Nation's food supply was in jeopardy—in 1862.

At later dates Congress made large appropriations from the Federal Treasury for the support of agricultural experiment stations and for the development of a new branch of social science, namely, agricultural economics.

Industry and commerce make extensive use of authentic information

While the steps described in the foregoing paragraphs were being taken within the Federal Government and directly through its influence, the growth in complexity of civilization was stimulating the development, outside the Government, of agencies of scientific research as aids to industry and commerce. It has come to be recognized by all who are engaged in the practical pursuits of modern life that the only safe guides for the conduct of business are accurately determined and carefully interpreted facts. Such great organizations as the telephone company and leading retailing establishments base their plans for expansion on studies of population trends. The technological industries support laboratories of research and recognize them as highly profitable investments.

Recent development of research agencies

Recent years have witnessed also a vast expansion of what may be called pure research. In universities and independent research institutions the country has supported scientific workers who have carried on extensive inquiries without regard to any immediate practical applications. There have often resulted from the studies made by pure scientists innovations of major importance in the mechanic arts, in medicine, and in social organization. Even where practical results have not already appeared there is reason to expect that the accumulations of science will in the future prove to be even more valuable as guides to conduct than were the findings of less mature science in the past.

It was natural that the first contributions of science to the development of national policies should be in the fields covered by the sciences which deal with material realities. The so-called "natural sciences" matured earlier than did the social sciences. Physical facts are less complex than are human relations; and the phenomena of the material world yield to scientific analysis more readily than do the facts of social life.

It has come to be recognized, however, that all changes in the material equipment of the Nation have social implications of great importance. The construction of a new railroad is, first of all, an engineering achievement, but it results in the establishment of communities. Sometimes it has happened that the population in a given territory has increased beyond the capacity of that territory to support the number of people which transportation facilities have brought in. The construction of an irrigation dam has social consequences. Often mixed populations have been thrown together by sudden inrushes into a given area of people of wholly different antecedents, and, as a consequence, the establishment of orderly government has been rendered difficult.

The social effects of inventions have seldom been considered in advance. Cities which were planned for horses and carriages have been entirely, but often only clumsily, transformed by the mass production of the automobile. Such material changes as are being achieved in the Tennessee Valley are recognized as involving social readjustments of the first order of importance. That there is need for study of the social life of the people in the Tennessee Valley, of their occupational possibilities, and of the education necessary to prepare them for new conditions is fully recognized. No such recognition of the necessity of studying social and industrial conditions appeared at the time of the first great westward migration of American pioneers. The demand for fundamental inquiries into the conditions of social life has come only with the progress of civilization. This demand is in no small measure stimulated by the contributions which have already been made by researches in the fields of economics, political science, sociology, and education. That the future will intensify this demand is quite certain. That the social sciences will be

called on in increasing measure for contributions of facts and generalizations is evident from the intense interest which has of late been exhibited in economic and political problems. The employment or unemployment of people, provisions for old age, and questions of proper housing and feeding are all matters on which facts are now being eagerly sought as a basis for national and community action. The time has arrived when social problems will unquestionably require study of a far more intense and penetrating type than has ever been carried on in the past.

Science and policy

It is essential to a clear understanding of the role of social science in national planning that a sharp distinction be drawn between scientific fact-finding on the one hand and the determination and execution of policies on the other. Invaluable as knowledge is in planning, it does not determine whether one particular plan or another is to be chosen. When science contributes knowledge regarding explosives, it does not tell whether they are to be used for the destruction of human beings or for the production of mineral wealth. Not all knowledge, of course, presents such extreme alternatives of choice. The knowledge that regions of the South devastated by the hookworm could be reconstructed by the administering of thymol presented no difficulties about choice. There was unanimity in agreement on such a program. Choices are also helped by science when the volume of knowledge is large. As the fund of knowledge increases, arbitrary choices are less likely, and the range of choice is narrowed. For example, knowledge of the influence of foreign trade on national income and the standard of living may very well affect the decision as to the degree of nationalism to be planned.

Frequently formulation of policy is not followed by adoption. The Interstate Commerce Commission has collected a large body of facts relating to railroad consolidation. It has evolved an elaborate plan of rearrangement and has demonstrated that adoption of the plan would result in large savings. Nevertheless, nothing has happened. Facts and knowledge are not dynamic.

Another field in which science operates not at all or only indirectly is in the execution of

policies. The scientist should gather his facts and interpret them so far as it is possible without any of the emotional biases which inevitably arise when one develops the partisan attitude that is almost inevitable in action. In general, the scientist has done his duty when he has given the executive the available facts in any given situation and has offered advice based on research as to the probable outcome of the adoption of one or another policy. Many scientists have been distracted from their research work by being drawn into the duties of executives. This fact does not preclude altogether the association in a single individual of scientific study and executive action. It dictates, however, a clear-cut recognition of the distinction between scientific research and executive action. When a scientist becomes an executive, as he sometimes does, he should keep himself fully conscious of his dual functions—that of a fact-finder on the one hand and that of an active agent of society on the other.

The central ideas, then, of the possible contribution of social science to planning to be discussed in the following sections are the inevitable social effects of all change and the essential distinction between the ascertaining of reliable information, the determination of policy, and the execution of policy.

Social Implications of All Change

One of the most important reasons for emphasizing the findings of the social sciences at this juncture in the national history of the United States has been indicated briefly in the foregoing paragraphs. National plans when made must recognize human adjustments as their ultimate goal. Thus, the development of airplane routes affects railroad travel, the delivery of mail, the telegraph service, the isolation of distant places, national solidarity, warfare, and the balance of power among nations. The building of houses of new types affects the employment of women, divorce, the birth-rate, and the rearing of children. Automobile highways have resulted in part-time farming and have made commuters of mill-village workers. Canning factories influence woman suffrage. Electricity is tending to redistribute industry and to conserve home occupations. For these reasons, social planning

should always accompany physical planning. No physical planning should be undertaken without full examination of the social results that are likely to flow from it.

The synthesis of social and physical planning which is here described as necessary is especially important in view of the rapid pace at which present-day civilization is moving. In a slowly moving civilization it is comparatively easy to achieve the adjustments which are desirable in human life. In a rapidly moving civilization incoordinations are likely to arise because the different phases of national development move at different rates. It was pointed out in the volumes on *Recent Social Trends in the United States* that the material aspects of American culture have developed at a faster rate than have social adjustments. Production of commodities has outstripped provision for distribution of wealth. The establishment of a balance in national life requires clear understanding of the causes of present incoordinations.

Science and Policy: The Contribution of Knowledge

One important contribution which the social sciences can make to national planning is to rescue public policy from the vagueness and inexactness which have commonly characterized it in the past. Social programs have frequently been adopted and have been lauded by their advocates as highly successful when exact evidence with regard to their probable course and achievements has been entirely lacking. The social sciences can contribute exactness to planning both at the stage of initiation of plans and later in evaluating outcomes. One of the techniques most effective in contributing exactness to planning is the statistical technique, which has of late been highly perfected.

How essential exact statistical measurements and records are to planning is to be seen from the experiences of Russia and Italy, two countries in which the governments have not only done a great deal of national planning but have carried out their plans. These countries have recognized the need of statistics to such an extent that, although their per capita incomes are comparatively low and the costs of collection and analysis of statistics are high, their governments have developed extensive statistical

services as part of their national planning. The United States is perhaps better equipped than any other country in the world to make and interpret objective measurements.

In this country, as in Russia and Italy, the development of statistics has received great stimulation from crises. The stimulating occasions here were the World War and the great depression of the 1930's. Both periods were times calling for action and planning. In the former crisis, the War Industries Board and the War Labor Board came into existence and, with various other war-time organizations, forced a tremendous expansion of statistics. During the depression, the N.R.A., the A.A.A., and the F.E.R.A. have experienced an exceptional need for statistics. The Central Statistical Board was created to guide and coordinate the use of statistical techniques in the Government.

Not only are exact records necessary as a basis for governmental operations; they are also essential in evaluating the results of policies and plans. It has been found advantageous during recent months to associate with the governmental bureaus certain groups of social scientists who, operating outside the government, are devoting themselves to careful evaluations of the outcomes of the operations of the A.A.A. and the N.R.A. The cooperation of social scientists in this way guarantees to the Nation the double advantage of vigorous governmental action and impartial scientific evaluation of results.

The history of Government exhibits some brilliant illustrations of the contributions made by carefully collected information to legislation. For instance, most of the reorganizations of State tax systems have been preceded by scientific reports of State tax commissions. The Federal Reserve Banking System was created on the basis of the scientific work of economists. The excellent statistical work of the Department of Agriculture has been of invaluable aid in attempts to rescue and succor the great industry which is basic to our national economic life.

Science and Policy: The Adoption of Policy

The successful coordination of scientific fact-finding and adoption and execution of plans is peculiarly difficult in a country where popular

approval of plans is essential. It is comparatively easy to understand how a dictator can at once take advantage of suggestions derived from scientific research. In a democracy it is far more difficult to secure the acceptance of scientific results as the basis of legislation and administration.

There are two comments which are appropriate at this point. The first is that the popular mind of this Nation has been greatly stimulated by recent events. The crisis through which the world has been passing has served to attract widespread attention to economic questions and has made the average citizen aware far more than he has ever been in the past of the desirability of scientific study of all aspects of human life. In a number of centers plans of adult education have been organized which have had as their purpose the wide dissemination of information gathered by the social sciences. Opportunities thus afforded have been eagerly accepted by large numbers of persons. This fact indicates a general desire for knowledge on the part of people who up to this time have not made any study of the social sciences.

Whether a democratic method of determining public policies can be developed which will be more effective than the judgment of a dictator remains for the future to determine. At all events, there is every incentive to encourage the development of a widespread popular understanding of the principles which have been arrived at by the social sciences and to make this general understanding the basis of national planning.

The second comment of like import relates to the educational system of the country. The public schools of the United States have the unique characteristic among the schools of the great civilized nations of dealing very little with social and political problems. The older civilizations have utilized their schools for social and political propaganda. There is an opportunity for the educational system of this country to substitute objective scientific teaching for official propaganda. The time has come when the public schools of the United States should undertake more vigorously than they have ever done in the past preparation of future citizens for their duties by introducing

instruction of a definite and well-organized type relating to social problems. There is need of devotion of much expert thought to the expansion of the scope of social education. A better understanding of the nature and functions of government should be cultivated among young people. In like fashion, instruction relating to industrial processes, to family life, and to the fundamental institutions of society should be added to the present curriculum of public schools. In order to accomplish all that is essential in modifying the present practices of schools, the social sciences will have to be drawn upon heavily for the facts and principles that can legitimately be used for instructional purposes.

The effectiveness of an appeal to popular intelligence has been illustrated many times in this country. The plan for New York City and its environs constructed during the 1920's carried no compulsion, and there was no guarantee that it would be followed. Nevertheless, it was an excellent plan, and the extent to which it has been followed as a result of its educative influence among the people is far beyond what was anticipated at the time that it was made.

Science and Policy: The Execution of Policy

No doubt the difficulties of executing plans in a democracy increase in proportion to the magnitude of the plans. Probably experience will show that much effective planning can be organized without attempting to comprehend in a single sweeping program all the changes which need to be made in public policy. There is no reason to think that a plan for public employment agencies is too difficult to be operated successfully under popular government, nor a plan for rural library services. The great work of the world is done by breaking it down into workable tasks, and it seems clear that planning is no exception.

It may also be that the current emphasis on execution is misleading. There is need for plans that are not to be carried out immediately or within a definite, limited period of time. Such is the case of a city plan which is intended to direct the course of municipal improvements over a long period. Legislative enactments, which are permissive or even mandatory in setting up procedures of action,

may in many cases represent constructive plans which will be fully realized only in the remoter future. The conservation of the fuel resources of the country might be furthered by permitting fixing of prices of coal by regions or by prohibiting certain types of undercutting; thus the tendency would be inhibited to abandon permanently coal fields only partly mined because of competitive prices. The framework type of plans may be effective though calling for little administration. Administration is perhaps more pressing in the case of immediate plans than in the case of long-time plans.

While it is true that particular plans for special fields are more urgent in their administrative aspects than are more comprehensive plans, it should not be overlooked that even "piecemeal" plans are in need of comprehensive integration. The statesman of broad vision must concern himself even while he meets immediate issues with society of 25 years from now. He must consider what sort of a society will exist in the year 2000. He must always be thinking in terms of large-scale planning. He must interest himself in at least the general outlines of national development and must have in mind a framework into which the more detailed plans of the present will fit.

To the broader aspects of national planning the social sciences are in a very good position to contribute. Political, social, and economic theory has for generations dealt with the unification of the different divisions and aspects of culture, and out of the discussions of culture as a unit have come comprehensive social philosophies which aim to present a synthetic view of social life. These comprehensive philosophies are not plans, but they may be of use in making plans because of their emphasis on integration. The interrelations of the different parts of civilization, of social institutions, have been very fully explored by social scientists, much more so than by so-called "practical" men, men in the field of action. The nature of these interrelations was, for instance, the concern of the study of recent social trends.

It was pointed out in the Report on Social Trends that there are certain changes in modern times which produce such far-reaching effects that no planning in any particular sector of civilization should be made without some reference to these major social changes. For ex-

ample, a marked change in the rate of population growth affects an almost unbelievable number of social conditions. The change in the ratio of children to adults in the population of the United States has produced profound results in industrial employment. The development of communication and transportation since the beginning of the century has greatly affected community life. Easy transportation has resulted in consolidation of churches and a redistribution of schools, in a vast enlargement of trading areas, and in a revolution in rural methods of living.

There are those who think that social planning is impossible not so much because of the difficulties of executing plans as because of the disrupting influence which unpredictable inventions may have on plans. There is much truth to this point of view. On the other hand, it can be asserted with assurance that studies of social conditions should not be neglected merely because discoveries and inventions make adopted plans go awry. It is rather to be recognized that plans must not be laid out in too great detail and followed without deviation indefinitely. Plans must be redrafted from time to time because of constantly occurring changes, and these revisions must be guided by continually renewed and refined information.

Furthermore, it is to be recognized that changes resulting from inventions and discoveries are among the most important incentives for the formation of plans. Invention is the great precipitator of social changes, and, when inventions come in increasing numbers, as they have in recent times, social changes come with similarly increasing frequency. In a stationary society there is no need of new plans, for conditions are always the same. In a dynamic society change presents an opportunity as well as a necessity. If conditions are changing, social leaders have the opportunity to make the changes take the direction which promises to be most advantageous.

Institutional Resources of Social Science

The research agencies of social science which are prepared to contribute the facts essential to wise planning are numerous and strong. Four different types of organized agencies may be mentioned.

One of these types includes the institutions of higher education, the universities and colleges. Many academic institutions support extensive programs of instruction and research in the social sciences. There are 53 universities offering training for the doctor's degree in economics. A comparable number offer similar training in other fields. The larger universities have special organizations for research in the social sciences, commanding funds to aid in planning, promoting, organizing, and carrying on research projects. There are 80 such research organizations in American colleges and universities. These are in addition to the departments organized to give instruction in the various special social sciences. Cooperating in these research organizations are, of course, many professors and graduate students. While these investigators have their programs of research laid out in advance and some of the programs are only indirectly related to the future and to national planning, no doubt many of them could be redirected so as to contribute to national planning, especially if grants of funds were made for that purpose and if central leadership were focused on particular lines of inquiry.

Another type of organization is to be seen in the research institutes or bureaus, organized for the purpose of undertaking research and with few or no teaching duties. These are often independent of universities though there may be affiliations of varying degrees of closeness. Illustrations are the National Bureau of Economic Research, the Brookings Institution, the Russell Sage Foundation, and the Scripps Foundation for Popular Research. These institutes and bureaus have their general fields of research determined by their charters or organization, as, for instance, food resources, public administration, international relations, or education. Usually their charters are broad enough to make possible great variation in specific research assignments. These institutes and bureaus are well equipped for research, particularly of the analytic or correlation type. Their set-up is generally such that they are not equipped to collect large quantities of statistics from original sources. Since their purpose is to find out the truth, they are in no way dominated by any propaganda interests. These institutes and bureaus could, no doubt, be

turned to work on national plans insofar as the plans fall in their fields.

A third type of organization includes the statistical bureaus or departments of records of organizations the main purpose of which is to make a profit or to render some special service other than research. Thus, for instance, a publication organization may make researches on the equipment of homes, family-budget studies, or income tabulations of cities and counties in the interests of its advertising service. Or a family case work agency engaged in relief may collect data on sickness, delinquency, or unemployment. The analogue in the field of the physical sciences is the industrial laboratory financed by a business or industry, such as the General Electric Co. or the Bell Telephone Co. The development of this type of investigating or research bureau in the social field is at present limited as compared with the development of industrial laboratories. Also it is doubtful whether agencies of the type here under discussion could be made available to any great extent to do research in planning.

A fourth group of agencies are the governmental bureaus to which reference was made in an earlier paragraph, such as those found in the Department of Agriculture, the Department of Commerce, and the Department of Labor of the Federal Government. These bureaus have grown to be among the most important research agencies in the country. They have been particularly successful in the expensive and valuable work of collecting original data. Their aid to planning has already been demonstrated, as in the case of agriculture, mining, and commerce. These bureaus are, of course, fortunately situated to aid in national planning. It may be said that in most governmental bureaus the potentialities for social research could be more fully realized if larger sums were allocated to the scientific analysis of the original records, in the collecting of which the bureaus are now highly efficient. In other words, the Government would get more out of the data for the collection of which it pays if it extended the services of its bureaus beyond the collection and tabulation of statistics and provided more liberally for refined analyses.

Governmental research bureaus grew up in response to particular needs of special departments. Planning, however, can never be complete so long as it is departmentalized. Indeed,

the necessity of integration of the various statistical services of the Government is apparent. The Central Statistical Board, composed of selected research men in the service of the Federal Government, appointed by the President in 1933 in response to the recommendation of the joint committee on government and statistics of the American Statistical Association and the Social Science Research Council, is a central organization which has large potentialities for coordination of research and for contribution to planning.

In addition to the agencies enumerated in the preceding paragraphs there are numerous great national scientific societies, such as the American Statistical Association in the field of statistics and similar societies in the fields of history, sociology, law, education, political science, economics, farm economics, labor legislation, etc. These national scientific societies do not engage in research directly, but, through their annual meetings, at which research papers are read and research methods are discussed, they exercise indirectly large influence over research, especially with respect to the direction in which research is carried on.

Finally, mention should be made of the fact that there are three great national councils which contribute to research in the social sciences. The Council of Learned Societies, the American Council on Education, and the Social Science Research Council are important factors in the development of research and add by their activities to the body of scientific material available in any program of national planning.

The Council of Learned Societies has promoted historical and general social research.

The American Council on Education has recently sponsored an inquiry into the relation of Federal, State, and local governments to the conduct of public education. It has served as the organizing center for studies of materials of instruction and problems of educational administration. It represents the educational organizations of the country and is active in promoting research in its special field.

The Social Science Research Council, a committee of which prepared this memorandum is an organization engaged in planning research. It is true that its object has not been to make social plans, but rather to plan research in the social field. A decade of thought on planning

and of planning activities through its committees, distributed widely over the social sciences, has given it an experience, a background with regard to the idea of planning, that should be of value if it were called on to aid in national planning. Furthermore, the members of the Social Science Research Council, its staff, and the members of its committees are perhaps more familiar than the members of any other organization with the personnel in the social sciences, with the research interests of social scientists, and with the experience and capabilities of social science research workers in the

United States. The members of the council are familiar with the different bureaus of research. The council has been concerned chiefly with the determination of the groups and persons with whom special types of research should be placed. For this purpose it has set up committees, organized commissions, promoted research, and sponsored the development of various research agencies and interests. With its pivotal position among the social sciences, it could undoubtedly render valuable aid, if called on to do so, in the formidable task of national planning.

NATIONAL PLANNING
A DIGEST

THE FOLLOWING DIGEST OF A REPORT PREPARED AT THE REQUEST OF THE NATIONAL PLANNING BOARD,
IS SUBMITTED AS SUPPORTING DATA, BUT THE BOARD ASSUMES NO RESPONSIBILITY FOR THE VIEWS AND
OPINIONS OF THE AUTHORS

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SECTION IV

NATIONAL PLANNING

Digest of a Report to the National Resources Board

By Lewis L. Lorwin and A. F. Hinrichs

Foreword

In January 1934 the writers were asked by the National Planning Board—now the National Resources Board—to survey and report upon the experience of agencies engaged in national economic planning in the United States and foreign countries. Four other research projects dealt in detail with the specific field of public works. The object of these studies was to furnish a critical background for recommendations to be made by the National Planning Board to the President, as to the future set-up of the Board and its work.

The period, less than 6 months, within which the writers were to render a sufficiently complete report on national economic planning to serve informed action, made it desirable that the report should be one to the Planning Board rather than a more impersonal study by it. The report, which follows, is a digest of the salient facts, which may be found in more detail and with critical but controversial interpretation in the longer study. The full work is available in manuscript form in the office of the National Resources Board and may later be privately published.

The chapters in parts II and III are based on data as of July 1, 1934, and only here and there are the facts brought up to September 1, 1934. Many of the critical comments on the NRA, the AAA, and other agencies have been met in part by recent developments. But the general problems indicated in the digest with regard to the purposes and processes of planning in the United States and abroad, in the opinion of the writers still remain a challenge to the genuineness of our aims and to the ingenuity of our methods.

The writers have been generously helped by many others, without whose aid the task would have proved impossible. Those working in the various Government departments and emergency agencies who have cooperated are too numerous to mention by name, as are also those in foreign countries who in interviews and correspondence had earlier aided the writers. Alexander Gourvitch allowed the use of an unpublished manuscript on Costs and Returns in the Five-Year Plan. Friedrich Pollock, in charge of the Institute of Social Research, with headquarters in Geneva, Switzerland, and his associates prepared digests and analyses of recent economic and social legislation in Germany. Mention must also be made of the work of our assistant, M. H. Dunlap, who helped in canvassing the work of the different Federal agencies briefly described in chapter IV.

We define national planning in the broadest sense as large and coherent policy-making, deliberately implemented in such fashion as will make those policies effective. The phrase has been used popularly in many senses, almost all of which may be included under certain circumstances in the definition we have given. The conscious establishment of a general institutional

frame should certainly be designated as national planning, as in the elaboration of the American constitution, the attempted development of fascist states, and of the socialist state in the U.S.S.R.

The term is also commonly used to describe large national policies of a specific character elaborated within a given framework—on so comprehensive a scale as is the land and population policy of Italy, or more modestly in such items as national forest policy in the United States. Several such policies, national in scope as regards particular aspects of life, if separately conceived and not derived from consistent national objectives, may be limited by inherent contradictions. The development of foresight and planfulness at this level is highly desirable, if the alternative is short-sighted or more limited action; but if planning is confined to this level it is national planning of a different sort from that which we have defined. We should describe it as partial or limited economic planning.

Finally, in recent years the phrase has been used in connection with more detailed forms of programming and social management, as of the control figures of the Soviet Union, of the "fat plan" in Germany, of the plans of the AAA. Apparently this work is associated with the phrase "national planning," because people in all societies—however diverse their ideals—when visualizing the needs of the day and the future, see the requirement of larger degrees of governmental participation in the routine of economic life than was formerly regarded as desirable. They may thus fail to distinguish between the mechanism of control and the process of elaborating social objectives, planning.

The direction of routine in national planning as we have defined it, may be based on one or another technique of control. The latter may be exercised merely at strategic points—as, for example, through the credit mechanism, in which case we have what may be called the strategic type of planning. Or the direction of routine may be put into effect by detailed supervision of operations—as through quotas, price fixing, program setting, etc.—resulting in the operational type of planning. But whatever the type of control, this direction of routine is to be regarded as planning only if the procedure in separate fields derives common inspiration from planning on the highest plane of policy making. Otherwise it should be regarded as mere interventionism, whose characteristic it is that in "solving" one problem, new and perhaps more complex problems are created. Examples of this difficulty abound in the subsequent analysis of American and foreign experience. Indeed from these complexities, as the points of intervention become increasingly numerous, there has arisen a demand for decisions on points of national policy so broad in their implications that they are most suggestively described by the words "national planning."¹

¹ Cf., e. g., Wallace, Henry, *America Must Choose*.

Part I
THE AMERICAN BACKGROUND

Chapter I

APPROACHES TO PLANNING BEFORE 1917

Three centuries of history are witness to the predominant part played in the building of America by the uncoordinated efforts of individuals and families, by the spontaneous movements of masses of people and by the clashes of conflicting group and sectional interests. Nevertheless, planfulness has played a considerable role in the making of America. In the utilization of a virgin continent, the American people have often been forced to build new institutions where none existed and to choose between one or another set of large social policies. Side by side with activities tending to develop individualistic habits of thought were thus others which tended to make us think in terms of national plans. These earlier plans differ in degree and kind from various planning measures which are being discussed today, but they are significant as establishing the fact that national planning is not alien to American thought.

I. Landmarks prior to the Civil War

There was some planning even in the settlement of America. The trading corporations which promoted some of the colonies exemplified a form of corporate planning, industrial and commercial in character, modified by the religious and social ideals of the settlers themselves.¹

The making of the American Constitution is one of the supreme examples of political planning by a Nation. True, the Constitution was made by people some of whom had special economic interests at stake and who differed in their ideas on government and democracy.² Nevertheless, it remains a striking illustration of the method of building institutions consciously in contrast to the evolutionary process in which the English Constitution, for example, developed.

The first 2 or 3 decades of the American Republic were marked by much discussion as to the future of the country and by large schemes for giving it direction. Alexander Hamilton, in his Report on Manufactures submitted to Congress in 1791, outlined the possible development of the economic resources of the country under Government guidance and protection in such a way as to maintain a balance between agriculture and industry, and to build up a strong and economically independent state. For this purpose, he also advocated that the National Government lend its aid to the improvement of inland navigation "on a comprehensive plan." Hamiltonian concepts were further developed by John Quincy Adams and Henry

¹ For details, see Charles and Mary Beard, *The Rise of American Civilization*, vol. 1.

² For the manner in which bargaining and compromises were intermingled with conscious guidance and planning in the making and ratification of the Constitution, see Charles and Mary Beard, *The Rise of American Civilization*, vol. 1.

Clay who as early as 1820 began the advocacy of his famous "American System."

Thomas Jefferson, on the other hand, outlined projects of national development based on a democratic land policy. His Secretary of the Treasury, Albert Gallatin, elaborated in 1808 a plan of national education and of internal improvements which anticipated some of the land planning of today.³

American history between 1800 and 1861 was shaped by the interplay of Hamiltonian and Jeffersonian ideas, operating against a background of technical changes, mass migration, and rapid sectional growth. These uncontrolled forces not only overshadowed efforts toward planful development, but perverted many of the devices intended to promote national development. Thus the tariff, instead of becoming an agency of national development, was turned into a powerful instrument of local and group interest. Internal improvements were often misdirected and abused as a result of greed on the part of individuals, groups, and localities. Nevertheless, even under these conditions, the element of planning remained fruitful insofar as it found expression in rival systems of national policy, around which the struggle for the future of America centered.

II. Developments from the Civil War to the World War

It was after the Civil War that American economic life came to be dominated by the philosophy of *laissez faire* and by the doctrines of rugged individualism. But the economic and social evils of the period resulted in the development of new planning attitudes tending to emphasize especially public control and regulation. These developments may be examined under several headings: City Planning, Land Planning, Conservation, Scientific Management, Group Organization, Public Regulation, and Social Legislation. These several factors assumed noticeable dimensions between 1904 and 1914 when the effects of unregulated profit, the agonies of the panic of 1907, the growth of large corporate powers and the exposure of corruption in the management of large business aroused a social consciousness in the country and produced a widespread demand for a coordinated policy of national economic control.

Of the various movements mentioned, city planning was the earliest. It had its beginnings in the middle of the nineteenth century owing to the growth of our large cities with their ugly, unsanitary features. The movement was diverted from its original aims for a

³ See Henry Adams, *Life of Albert Gallatin*, pp. 350-352. Also Messages and Papers of the Presidents, edited by James D. Richardson, vol. 1, pp. 387-388.

while, but experienced a revival in 1909. From that year until 1917 (the end of the period under discussion) city planning grew in scope and content, elaborated its technics such as surveying, mapping, and zoning, and achieved its first legislative successes, such as the zoning ordinances of New York City.

Land planning was advanced by the Homestead Act of 1862 and by later legislation which made the Government the chief promoter of agricultural progress. The history of this legislation and its effects is told in another chapter.⁴

The conservation movement began toward the end of the third quarter of the nineteenth century as a result of the realization on the part of many that the resources of the country were not unlimited and that their possible extinction in the future was a serious problem. The movement received its first real impetus during the first decade of the twentieth century under the leadership of Theodore Roosevelt and Gifford Pinchot. Because of its interest in protecting our physical resources against waste and of protecting the public domain against destruction by private individuals, the conservation movement strongly emphasized the idea of national interests and national control.⁵

The reaction against haphazard and wasteful methods in industry found expression in scientific management which had its beginning in the early nineties but attracted attention only after 1910. The significance of scientific management was its demand for the substitution of research and scientific method for the rule of thumb, and of forethought for opportunism in industry.⁶

While these methods for handling resources and organizing work were being developed, new forms of collective action were coming into American life. During the period considered, America witnessed the rapid rise of trade unions, farmers' societies, employers'

associations, and similar groups which stressed the consideration of collective interests in the utilization and management of economic resources.

Partly as a result of the growth of these organizations, partly owing to the realization of the special character of public utilities, there developed the idea of public regulation. By a series of acts between 1903 and 1910, the Interstate Commerce Commission, established in 1886, was given powers of supervision and control over the railroads, while in a number of States public utility commissions were established for the regulation of local power and traction companies.

An even more radical departure from laissez faire was the growth between 1907-17 of labor and social legislation. Workmen's compensation laws, child labor laws, minimum wage laws for women and minors reflected a growing demand for a national policy with respect to living standards and social security.

Between 1910 and 1912, several efforts were made to combine these separate elements into a national program. Once again the future of America was being considered in large terms implying planful determination such as "Progressivism", "Socialism", and the "New Freedom." Between 1913 and 1916, President Woodrow Wilson put into effect a series of reforms which were conceived as interrelated parts of a program of reconstruction.

Summing up the developments of these 125 years, one may say that insofar as the subject here considered is concerned, they are important because they left us a fourfold heritage: First, to think in terms of an institutional framework which may be fashioned in accordance with prepared plans; second, a tendency to achieve results by compromise in which different lines and policies are more or less reconciled; third, a tendency to stress in theory the part played in economic life by individualism, while at the same time having recourse in practice to governmental aid and to collective action when necessary; and fourth, a continued and increasing degree of public regulation and social control applied to special areas of economic life.

⁴ See ch. VI.

⁵ See G. F. Tyrone in the *Encyclopedia of the Social Sciences*, vol. 4, pp. 227-228.

⁶ See ch. III.

Chapter III

THE GROWTH OF THE PLANNING IDEA 1922-32

The post-war decade opened on a strident note of "normalcy", which implied in the minds of most people a return to pre-war conditions. The period closed in the darkest days of depression with a demand for planning and control. It is the thesis of this chapter that quite without a full realization of what was occurring, important basic concepts of social planning were entering into the thought pattern of the community during the decade.

The period under consideration must be studied in two separate phases. We shall consider first the developments during 1922-29 that explain in large measure why planning made an appeal to various elements of the American people after the serious nature of the depression began to be realized in 1931-32. We shall then summarize the factors which helped to crystallize the planning idea during 1930-32.

I. First phase, 1922-29

Three developments must be noted during the years from 1922 to 1929 for their important bearings on the subject under discussion. First were the practices which grew out of the very expansion of industrial activities and which stimulated the idea of technical and company planning. Second were the experiences of the so-called "sick industries", which gave rise to thinking about planning by whole industries. And third was the growing consciousness of basic contradictions in the entire economic and social system which aroused interest in national economic and social planning.

A. Technical Planning.—One of the striking features of the industrial expansion of 1922-29 was the new emphasis on the application of scientific principles to industry—on standardization, simplification, and regularization. This movement received impetus from the report on Waste in Industry published by the American Engineering Societies in 1921, which placed the major responsibility for inefficiency in industry on management. It was further stimulated by the realization that in an economy of mass production, standardization was essential, and that such standardization was compatible with flexibility in management and individuality in production.

In accordance with these ideas, a considerable number of firms and corporations, after 1922, applied scientific management on an ever-widening scale in production, and made greater efforts to organize effectively the process of work as a whole. Research and laboratory investigations became one of the outstanding features of many of our larger business organizations.

Parallel with this evolution of the engineers' point of view went an increasing emphasis by economists and business men on stabilization and regularization of employment. These ideas found expression in the volumes

which resulted from President Harding's Conference on Unemployment held in 1921, and which were published in 1923-25. Though they had small immediate influence, these reports were important because they embodied the progressive business thinking of the day which emphasized the possibilities and opportunities of business leadership to reduce irregularities of employment to a minimum. Business men began to talk about 5- and 10-year plans for their establishments, not as radical innovations but as dictated by sound, business judgment.

In line with these policies, the larger business enterprises undertook to supply themselves with the information they required. They installed statistical and planning departments in their plants to guide them in the work of forward budgeting and programming. Interest was shown in technics for estimating market demand and seasonal fluctuations and in the art of business forecasting. Out of these various attitudes emerged the concept and practice of enterprise planning on a new and unprecedented scale.

B. Planning by Industry.—While the developments described above stimulated technical planning within separate enterprises, the condition of the "sick industries" suggested the idea of planning by industry. The "sick industries" were especially soft coal, oil, lumber, and cotton textiles. Agriculture was in a similar position. These industries had expanded during and immediately after the World War and found it difficult to readjust themselves to contracting markets. In these industries, individual efforts guided by the motive of profit were slow and costly, caused "over-production", which depressed prices, and wasted valuable assets of the Nation.

As a result, various suggestions and proposals were made for the reform of these industries between 1925 and 1929, which were the first definite expression of industrial planning in the United States. These proposals, however, identified planning with restriction of output and Government control.

C. National planning.—One of the high notes in the wide-spread optimism of 1922-29 was the refrain about the increasing stability of the American economic system as a whole. Present in this thinking was the belief that the vital element in this balance was the result of conscious policy. The idea was emphasized that continued prosperity could be maintained only on the basis of mass purchasing power. Another idea essential to this concept was the need for controlling credit for the purpose of price stabilization.

There were some, however, who even during these years emphasized the factors tending to upset the social balance. Perhaps the most elaborate and interesting statement was that recorded in the report on Recent Economic Changes published early in 1929 which stressed that we must learn to maintain our economic

balance by increasing our knowledge of the relations of the parts of the economic system each to the other and by developing an informed leadership.

D. Individualism and collective action.—While throughout the decade there was incessant emphasis on the essential individualism of our economy, the daily habits of business men were growing away from the ideal of *laissez faire*. The decade witnessed a great expansion of trade-association activity. The trade associations assumed a leading part in promoting standardization and collective action by industries on a voluntary basis. The trade associations also contributed considerably to the reforming of the idea of competition, its beneficence being regarded as dependent upon its fairness and moderation.

Significant also was the role which the Government was asked to assume by business men. Indeed the work of the Department of Commerce as a whole under the strong individualist, Mr. Herbert Hoover, was perhaps the most striking development of collectivism in governmental trends in relation to business. The Bureau of Foreign and Domestic Commerce sought opportunities for American industries abroad. The export of capital was deliberately fostered. In the domestic field, the Government collected data on which business judgments might be formed. The Government accountants helped trade associations introduce uniform accounting and costing practices in business.

The Government also took an active part in the effort to establish in practice a higher kind of competition and to temper competition by cooperation. This was the work of the Federal Trade Commission through its Trade Practice Conference Division. In the field of transportation, the Interstate Commerce Commission seriously concerned itself with plans for consolidation of the country's railroad system.

While all this work was only moderately successful, it promoted interest in the methods of cooperation between Government, industry, and management. It was thus an important factor in preparing the minds of large numbers of the American people for a change in regard to the value of competitive enterprise as compared with cooperation and Government control.

Though less important at the time, the developments which were taking place in the older and more traditional forms of planning must not be entirely overlooked. Between 1926 and 1930 there were extensive mergers of power companies and the idea of "superpower" was widely discussed. City and regional planning continued its development and became an accepted idea in municipal government. Land planning assumed a new importance. City and regional planning during this decade took a broader point of view, becoming more and more aware of the intricate connection between physical and social planning.

II. Second Phase, 1929-32

Such was the note already heard in America when during 1928-29 came the first intimations of the Five-Year Plan, and the western world began to be interested in the work and methods of the Gosplan in Moscow. The Russian experience was not embodied in any con-

crete way in American thinking, but it stimulated the idea that we need to develop an American plan out of our American background.

After prosperity persistently refused to come out from "around the corner", and after the hope of revival in the summer of 1931 was shattered, an increasing number of individuals and organizations began to preoccupy themselves with basic schemes for economic change. The most important of these ideas and proposals are briefly sketched here because of their influence on current thought.

One of the more radical trends of thought was that which declared that not only was *laissez-faire* dead, but that capitalism was at its end. The source of this trend was partly socialist, partly the system of ideas developed in this country by engineers such as Frederick W. Taylor and Henry L. Gantt and by economists such as Thorstein Veblen and his followers. During 1930-32 this trend of thought was given a new version by those who claimed that the productive forces of society were adequate to give everyone a much higher standard of living but that these forces could not operate under the price system. This trend of thought found its most spectacular expression among the supporters of technocracy who, though scornful of planning, contributed to it by their criticism of the competitive system.

Another line of thought had its roots in the widely current belief that our economic troubles were due to overproduction as a result of increased productivity and excess plant capacity. As pointed out above, these ideas derived much support from the so-called "sick industries." The two main remedies proposed by business were modifications of the antitrust laws and cooperation of business men through trade associations for the purpose of restricting output and regulating prices. A number of bills were introduced in Congress during 1930-31 to achieve these ends.

In popular discussion, especially in labor circles, overproduction and excess capacity were closely related with the idea of unprecedented technical progress which was causing technological unemployment. The labor group felt that this could be met only by a reduction of hours of work to spread work, create leisure for spending, etc. Essentially, however, labor viewed the main problem as that of restoring mass purchasing power. For such purposes, it was argued, the planning of economic activities was necessary in order to insure the proper division of the national dividend and to exercise control over the use of capital and credit.

Thus, while the idea of economic planning spread, it diverged more and more along several lines. It was possible to distinguish several types of planning: Business planning, socialist planning, and social-progressive planning. While all these types had certain elements in common, they differed widely with respect to objectives, policies, and efforts. Among the plans of the business type, the one that attracted the greatest attention was the so-called "Swope plan." A social-progressive plan was presented in a report on long-range planning prepared by a committee of the progressive conference held in the summer of 1931.

Another proposal which found wide acceptance during these years was that of advisory economic councils.

In December 1931 Senator Robert M. La Follette introduced a bill in the first session of the Seventy-second Congress "to establish a national economic council." A similar bill was introduced into the House of Representatives on February 13, 1932. Both bills called for a council of nine members appointed by the President, expert in finance, agriculture, labor, tariffs, transportation, and banking, who were to formulate proposals looking toward the solution of our economic problems and who were to act in an advisory capacity to Congress and the President.

Among the proposals advanced as a means of facilitating both recovery and long-range stabilization, planning of public works was the most widely approved.

III. Planning and the "New Deal"

The developments described above were significant in several ways. First, they brought to light certain specific techniques and methods in industrial administration, statistics, economic organization, and municipal government which made greater control and guidance in economic and social matters feasible. Second, attitudes of mind were developed which seemed

favorable to experimentation with new proposals. And third, there was a realization that recovery implied a certain reconstruction of institutions in accordance with new ideas and purposes.

One of the most comprehensive statements of these points of view was presented to the American people in the summer of 1932 by the President's Committee on Recent Social Trends. This committee made the following statement: "To maintain the balance of our economic mechanism is a challenge of all the imagination, scientific insight, and constructive ability which we and our children can muster. To deal with the central problem of balance or with any of its ramifications, economic planning is called for."¹

Though all these developments paved the way, it was Franklin D. Roosevelt's first historic achievement that he, in his campaign for the presidency, raised economic and social planning to the status of a recognized national policy. In the speeches delivered during his campaign, Mr. Roosevelt connected economic and social planning with his program of the "New Deal", and made the idea part of the current thought of the American people.

¹ Review of Findings, pp. xxxi.

Part II
PLANNING IN THE UNITED STATES TODAY

Chapter IV

GENERAL SURVEY OF PLANNING AGENCIES

In the preceding chapters, we have attempted to describe the planning idea in the setting of the American scene from the Colonial days to the advent of the Roosevelt administration. It was our conclusion that the development of broad, integrated policies which is an essential part of planning has been part of the American tradition. In the period since 1900 there has been an increasing amount of thought and action that has been collective in character and that has familiarized us in many fields with the practices of social control.

In the following chapters of parts II and III, we attempt a description of certain of the efforts in the United States and abroad that are regarded as examples of national economic planning. It was common a few years ago to speak of our experience in the World War as though that were the sum total of our contact with planning. The facts of the case are that it is literally impossible at present to make critical appraisal of the various attempts at planning in a single volume.

In chapter IV, we present a brief survey of the agencies of planning and the different types of planning in the United States. Each agency to be completely described would require a separate monograph, but even a brief description gives a picture of the large amount of forethought and technical competence with which various Government agencies are considering particular problems in developing our natural resources in the public interest.

In chapters V and VI, we describe the two outstanding agencies of the "New Deal", the NRA and the AAA, for obvious reasons. In chapters VII and VIII, we discuss two agencies of different types: the Tennessee Valley Authority because it is the most noteworthy example at the moment of regional planning; and the Central Statistical Board because it illustrates certain problems of the coordinative type of planning. Finally, we describe the war-time planning which has been developed in the office of the Assistant Secretary of War. The most serious omission from our discussion is a description of the process of planning monetary policy which the authors found it impossible to do completely in the time available under the arrangement made with the National Planning Board for the preparation of this report.

There is a multiplicity of planning agencies in the United States today, private, public, and semipublic in character. Private business organizations continue to carry on some of the planning activities described in preceding chapters, though they are being modified by the NRA and other agencies of the New Deal. A brief description of the most important public agencies, their activities and interrelations is given in this chapter.

I. Agencies for Geophysical Planning

A. Urban.—According to a survey made by the National Planning Board early in 1934, there were then 717 official and 22 unofficial city planning agencies. Almost all the cities in the United States with a population of 100,000 and over had official city planning commissions.

Most of these agencies are guided by the prevailing ideas of city planning concerning the physical organization and development of urban areas as units for the purpose of promoting a better community life. On the basis of surveys of the physical characteristics of an urban area, its industrial life and conditions, city planners, build up plans for the control of platting, zoning of buildings, traffic development, rapid-transit transportation, terminals, parks and recreation, civic centers, and for a financial program.

Urban planning has been extended to large metropolitan districts which are treated as physical and economic units for certain defined purposes. Such metropolitan planning is exemplified in the work of the Boston metropolitan district and of the regional plan of New York and its environs.

The limitations of urban and metropolitan planning lie especially in our system of land valuation, in our methods of taxation, and in the general conditions which shape municipal financing and policies. Other conditions which limit the work of city planning agencies are their precarious financial condition and their lack of recognized legal status.

B. State Boards.—State planning boards are recent in origin and owe their growth largely to the efforts of the National Planning Board (now the National Resources Board). On December 1, 1933, there were no official State planning boards in the United States. In July 1934, 41 States had created such boards appointed by the Governors.

The State planning boards consist of a varying number of members from 5 in Indiana to 22 in New York. They are appointed by the Governor of the State who usually designates the chairman. Some of the members are drawn from the official State departments while others are selected from the citizens of the State at large. A few of the boards have official legal status with a paid staff and a budget appropriation from State funds. Thirty-seven boards have had the aid of consultants or regional advisers appointed by the National Planning Board and paid out of the funds of the Public Works Administration.

The State planning boards are devoting their activities along various lines, making surveys, taking action to control streams and rivers in order to prevent floods and pollution, codifying city legislation on zoning

and town planning, studying problems of relief and of stranded populations, investigating the problem of power development, and considering the possibilities of greater coordination of State and Federal planning activities.

State planning has brought out the fact that local projects often cannot be carried out unless treated as part of larger schemes. This has resulted in the development of interstate boards such as the Pacific Northwest Regional Planning Board which includes the States of Montana, Idaho, and Oregon, and the New England Planning Commission. In the case of the former, the chief purpose of the combination is to coordinate the activities in connection with public works in the Columbia River Basin. The New England Commission is concerned mainly with the coordination of highway and parkway plans in the several States of the region and with general plans for the development of the Connecticut and Merrimack River Valleys.

C. Federal Agencies.—There are about 200 bureaus in the various departments of the Federal Government. Since March 4, 1933, over 40 emergency organizations have been established either as adjuncts to existing departments or on an independent basis. Most of these bureaus and commissions carry on administrative activities of a routine character, but some of them take a direct part in the making of national policies and may be considered as planning agencies in a more specific sense of the word. Most of these agencies are concerned with geophysical planning for the conservation and effective utilization of natural resources. The Federal Government has long recognized its responsibilities and opportunities in this field. The various agencies engaged in one or another feature of this work are classified here on the basis of the particular problems in which they deal.

Forest Policy.—For more than a generation the concept of forest protection, of sustained yield forest management, of permanent forest industries, and stable forest communities has been steadily growing in the United States. The Forest Service of the Department of Agriculture has taken a leading part in developing this idea. The Federal bureaus and other agencies which have a part in shaping forest policy are briefly described in this section.

In March 1933, the Forest Service published A National Plan for American Forestry which represents the most complete outline of forest policy achieved in the United States. The objective of the plan, in the words of the report, is "to insure all of the economic and social benefits which should be derived from productive forests by fully utilizing the forest land, and by making all of its timber and other products, its watershed, recreational and other services available in quantities adequate to meet national requirements."²

To carry out these objectives, legislation is to be sought to make possible the purchase of stumpage, the addition of more acreage to public domain, an extensive research program, cooperation with State agencies in forest planning, and conservation of wildlife, fish, and

game. The forestry plan is conceived as a long-range program covering a period of 10 to 20 years.

I. Agencies Concerned with Planning of Forest and Timber Resources

Department	Bureau	Brief description of functions
Agriculture	1. Forest Service.	1. Administration, protection, improvement, reforestation, and extension of national forests. Major division of the work is direct and complete correlated management of timber- and forage-producing land through distant rangers. Research in forest management, watershed protection, forest ranges, forest products, forest economics, taxation and insurance, and forest survey and inventory. Cooperates with 37 States and 1 territory in the protection of State and privately owned land from fire, etc.
	2. Agricultural Engineering.	2. Control of soil erosion, utilization of water in irrigation, drainage of farm lands, development of farm lands, storage and transportation of farm products, corn-borer control machinery, fertilizer distributing machinery, sugar-beet production machinery, cotton-production machinery, etc., miscellaneous research, advice, and assistance.
	3. Biological Survey.	3. Maintenance of mammal and bird reservations, food habits of birds and animals, control of predatory animals and injurious rodents, production of fur-bearing animals, biological investigations, enforcement of Migratory Bird Treaty provisions (with Canada).
Interior	1. National Park Service.	1. Administration, development maintenance, improvement, and perfection of national parks and monuments, under the Department of the Interior. Cooperates with similar State and local agencies, and educates the public to the enjoyment of park facilities. (See also under Land use planning.)
	2. Soil Erosion Service.	2. To put through soil-erosion controlled projects on large and representative watershed of 100,000 to 200,000 acres, in the major regions of the United States working in cooperation with farmers. One project in Navajo Indian Reservation involves 15,000 acres. Some land will be withdrawn from crop use and will be turned into pastures and forest lands, other land to game preserves. (The farmer would have right to rent hunting privileges.)
	3. Geological Survey. (See under Land use planning.)	3. Classification of public lands and the examination of geological structure, mineral and water resources and products of national domain. Publication of topographic and geological surveys, enforcement of mineral-leasing laws.
Semi-public agency.	1. Lumber Code Authority.	1. Article X of the lumber code stipulated that a conference be held by the industry with the Secretary of Agriculture in order to decide upon policies looking to the conservation and sustained production of forest resources. As a result of this conference, Forest Conservation Code (Schedule C), was approved Mar. 21, 1934, and added to the master code. This provides that each division and subdivision of the code authority shall set up a close-working agreement with each State and Federal organization having responsibility for the enforcement of the State and Federal laws in a given area. By Apr. 15, 1934, every division and subdivision was required to submit a set of rules of forest practice covering all operations

² A National Plan for American Forestry, the report of the Forest Service of the Department of Agriculture, 1933, vol. I, p. v.

I. Agencies Concerned with Planning of Forest and Timber Resources—Continued

Department	Bureau	Brief description of functions
Semipublic agency.	1. Lumber Code authority.	essential to the conservation and sustained production of forest resources. Such rules as were approved took effect June 1, 1934, and are being enforced by the code authority in cooperation with the appropriate governmental agencies.

Water flow.—Five Government departments are concerned at the present time with the study of problems of water flow and in working out a program for its control. A special committee on water flow was appointed by the President in April 1934, to make a survey of the problem within 6 weeks time. At present, the National Resources Board is commissioned to make a report on the most effective use of water resources. The several agencies concerned with the problem are shown in the following tabulation.

II. Agencies Concerned with Planning and Utilization of Water Resources

Department	Bureau	Brief description of functions
Agriculture...	1. Forest Service. (See Land use planning.)	1. Administers national forests and does fire-prevention work, studies relation of forestry to industry, advises public and private authorities re best methods. Regulation of livestock grazing and protected watersheds. Supervision of CCC, CWA, and ECW work in national forests.
	2. Agricultural Engineering. (See Land use.)	2. Investigations of farm irrigation, farm drainage, and soil-erosion control, farm machinery, farm buildings, and other rural engineering problems.
Commerce.....	1. Coast and Geodetic Survey.	1. Survey of the coasts of the United States and possessions, and of rivers to the head of tidewater. Surveys include base measurements, hydrography, and topography, tidal and current observation, magnetic observation and researches, seismological investigations, gravity measurements, etc. Results of surveys and investigations are published in the form of navigational charts, annual tide tables, charts showing currents and magnetic declination. Also the compilation and publishing of civil airways maps.
Interior.....	1. General Land Office.	1. Survey, management, and disposition of public lands and national forests, adjudication of conflicting claims thereto, granting of rights-of-way, easements, and issuance of land patents.
	2. Soil-erosion Service (under Interior, but financed by \$10,000,000 PWA funds).	2. To put through soil-erosion controlled projects on large and representative watersheds of 100,000 to 200,000 acres in the major regions of the United States, working in cooperation with farmers. Primarily the plan is to save the remaining areas of good land and to withdraw violently-erosive land, rather than reclaim worn-out land. Withdrawn land will be used for pastures, forests, and game preserves. This is first attempt in United States history to put through large scale comprehensive erosion- and flood-control projects, and the method is a combination of engineering, forestry, and cropping.

II. Agencies Concerned with Planning and Utilization of Water Resources—Continued

Department	Bureau	Brief description of functions
Interior.....	3. Water Resource Branch (U. S. Geological Survey).	3. Gaging of streams and determining the water supply of the United States, investigation of underground currents and artesian wells, advises and cooperates with States and counties re best methods; operates 2,800 Federal and State cooperative gaging stations; studies potential power supply from water resources; cooperates with municipalities re water needs, etc.; investigates relation of water supply to irrigation, navigation, flood-control, etc.
Navy.....	1. Hydrographic Office (Bureau of Navigation).	1. Topographic and hydrographic surveys in foreign waters and on high seas; collection and dissemination of hydrographic navigational information data; printing of private charts for naval use, and other charts for general navigational use; radio broadcasts and sailing directions, etc., for all ships in the United States. Maintains contact with foreign hydrographic offices. Prepares special charts for the use of aviators, does research work in oceanography in cooperation with National Academy of Sciences.
War.....	1. Board of Engineers for Rivers and Harbors.	1. A permanent body created by act of June 13, 1902. To it are referred all surveys and projects relating to river and harbor improvements, for report and recommendations to either Congress or the Chief of Engineers, United States Army, on all engineering, commercial, economic, and navigation questions involved. Extending even to purely local plans for terminal improvements, etc. Helps to promote water transportation by investigation and publication of its findings.
	2. Mississippi River Commission.	2. Set up by act of Congress to review and report on all surveys in the Mississippi Valley (H. Doc. 308) in addition to its own survey work on the Mississippi and its tributaries. Commission is composed of 4 civilians (3 must be engineers) named by the President, and 3 Army engineers.
	3. California Debris Commission.	3. Jurisdiction extends over the drainage area of the Sacramento and San Joaquin Rivers. Duties are: (1) To regulate hydraulic mining in such a way as to permit resumption and continuance under restrictions as to prevent the resulting debris from being carried into navigable waters or otherwise causing damage. (2) To study and report upon general hydraulic and hydraulic-mining conditions and matters affecting or affected by them and to make surveys, maps and adopt plans for the purpose of improving the navigability, deepening the channel, and protecting the banks of the river and affording relief from flood damages (act of Congress approved Mar. 1, 1933, as amended by act of Feb. 27, 1937).
	4. Northern and Northwestern Lakes Survey.	4. Ascertainment and charting of depths in all significant regions of the Great Lakes to a plane 30 feet below the corresponding datum in the channels of the connecting river; completion of triangulation and precise leveling needed to control the areas under survey; river-discharge measurements; investigations of lake levels; magnetic surveys in and near main vessel courses; and prompt examination of areas

II. Agencies Concerned with Planning and Utilization of Water Resources—Continued

Department	Bureau	Brief description of functions
War.....	4. Northern and Northwest-ern Lakes.	where obstructions to navigation have been reported. Later acts of Congress extended the survey to include the lakes and other natural navigable waters of the New York State canals (1911); to Lake Champlain (1913); and to the boundary waters between the Lake of the Woods and Lake Superior (1914). This work is conducted by the U. S. Lake Survey office, Detroit, Mich.
Independent commissions.	1. Federal Power Commission.	1. General administrative control over all power sites on the navigable waters and on the public lands and reservations of the United States, and over the location, design, construction, maintenance, and operations of power projects upon such sites, and the determination whether a project is best adapted to a comprehensive development of the water resources of the region, for power, irrigation, navigation, flood control, etc.
	2. Tennessee Valley Authority.	2. Social and economic development of Tennessee River Basin, with power to build dams, power houses, and transmission lines, to buy and sell real estate, exercise right of eminent domain, build cities, produce and sell electric power, manufacture and sale of fertilizer, and the duty of manufacturing explosives for the Government at cost.
	3. Technical subcommittee on water flow.	3. Created by the President, in February 1934, with Secretary Lohas chairman. The work was divided among 6 geographic committees each of which was composed of representatives of Department of Interior, Agriculture, and War. Purpose: To study water resources, including drainage and irrigation problems, and report thereon within 6 weeks.
	4. National Resources Board.	4. Created July 1, 1934, by Executive order and is charged with the preparation of "a program and plan of procedure, to be submitted to the President, dealing with all aspects of the problem of development and use of land, water, and other national resources, in their physical, social, governmental, and economic aspects", according to a White House statement. Personnel of the Board includes the Secretary of Interior as chairman; the Secretary of War, the Secretary of Agriculture, the Secretary of Commerce, the Secretary of Labor, the Administrator of Emergency Relief, and Mr. F. A. Delano, Mr. Charles E. Merriam, and Mr. Wesley C. Mitchell. The Executive order also constituted Messrs. Delano, Merriam, and Mitchell the advisory committee to the Board.
	5. Mississippi Valley Committee.	5. Mississippi Valley Committee: An application of planning on a regional basis for the most effective use of natural resources is presented by the Mississippi Valley Committee, authorized by President Roosevelt late in 1933 under the Public Works Administration. The committee has a dual mandate: First, to review all water projects for immediate execution in the Mississippi Valley at 100 per cent Federal expense under the PWA; second, to draft a plan covering water problems common to the States drained by the river system extending from the Gulf of Mexico to the Canadian

II. Agencies Concerned with Planning and Utilization of Water Resources—Continued

Department	Bureau	Brief description of functions
Independent commissions.	5. Mississippi Valley Committee.	border which cover 41 per cent of the area of the country. The Mississippi Valley Committee operates primarily as a planning and recommending agency. It engages but little in original research; rather it gathers together, correlates, and interprets existing data. Its approach to its various problems is one of integration. For instance, it considers water problems on an interstate basis. Levee projects in Mississippi are considered coincidentally with reservoir projects in Ohio. A reservoir project in the Ozarks is evaluated for use not only for power, but for flood control, water supply, recreation, and game conservation. The committee is interested in developing a long-range program covering periods from 20 to 40 years. In July 1934 the Mississippi Valley Committee was incorporated as the water resources section of the National Resources Board and was given the mandate to prepare a national inventory of the water resources of the entire country.

Land Use.—Some 20 Government bureaus and committees described on pages 77-79, are engaged in work centering around the proper use of our land resources. Attempts to develop a comprehensive land-use program were made under President Hoover. The National Land Use Planning Committee, set up in 1931 for that purpose, was dissolved on December 1, 1933, and its work was taken over by the Land Planning Committee of the National Planning Board, set up on an interdepartmental basis. This committee was to deal with problems of reclamation, withdrawal of submarginal land, homesteading of the public domain, and so on. In April 1934, a land policy section was organized in the Program Planning Division of the Agricultural Adjustment Administration, which is described in another chapter.

There has been confusion in the work of these various bureaus. They have been guided by divergent ideas and conflicting policies and have been hampered by a lack of coordination in their efforts. The National Resources Board is empowered to report a general plan for the use of land resources to bring unity into our land policies.

III. Agencies Concerned with Land-Use Planning

Department	Bureau	Description of functions
Agriculture...	1. Chemistry and Soils.	1. (a) <i>Chemical and technological research.</i> —Analysis of foods, feeds, and drugs; new processes for utilization of farm products. (b) <i>Soil investigations.</i> —Classification and mapping of United States characteristics of best soil, etc. (c) <i>Fertilizer investigations.</i> —Study of resources and new methods of producing fertilizers.

III. Agencies Concerned with Land-Use Planning— Continued

Department	Bureau	Description of functions
Agriculture.....	2. Agricultural Economics.	2. Conducts studies of production and marketing, farm organization and financial relations, farm labor, land economics, and rural problems. Disseminates current information re marketing and distribution of farm products; publishes agricultural statistics, market-inspection services in principal areas; helps enforce and administrate various acts of Congress.
	3. Agricultural Engineering.	3. Investigations of farm irrigation, farm drainage, and soil-erosion control, farm machinery, farm buildings, and other rural engineering problems.
	4. Forest Service	4. Administers national forests, does fire-prevention work, studies relation of forestry to industry, advises public and private authorities re best methods. Regulation of livestock grazing, protected watersheds. Supervision of CCC, CWA, and EOW work in national forests.
	5. Home Economics.	5. Studies problems of the home, food and institutions, economics, textiles, and clothing, and housing and equipment. Field contact is through extension service and State colleges.
	6. Planning Division of the AAA.	6. (a) <i>Production planning</i> .—Statistical studies of acreage in use and acreage withdrawn from use and effect on total production. (b) <i>Replacement-crops section</i> .—Studies re new uses of land withdrawn from former uses. (c) <i>Import and export section</i> .—Increase of exports and improvement of methods. Shipping of surpluses for noncompeting foreign produce. (d) <i>Land-policy section</i> .—To determine the total area of land needed for production of the various agricultural commodities and forest products in the United States; to work with other agencies in designating areas which need to be withdrawn from agricultural production and areas which should be restricted to extensive use, and in determining utilization of areas withdrawn from farming; in general to coordinate the program of the AAA with the Government land-utilization program. The section also plans and develops specific submarginal land acquisition projects for the Federal Surplus Relief Corporation under the \$25,000,000 fund allotted that agency by the PWA.
	7. Production Division of the AAA.	7. Maintain balance between production and demand, provides such marketing conditions as will restore 1909-14 purchasing value of products—but no higher. Processing taxes on account of basic commodities furnish the funds for paying those who decreased their output. Marketing agreements with distributors and manufacturers of agricultural goods to protect producers and improve distribution.
	Interior.....	1. General Land Office.
2. Reclamation.		2. Investigation, construction, and management of all irrigation developments in arid States.
3. National Park Service.		3. Administers national parks, monuments, military parks, cemeteries, battlefields, memorials, and public parks and buildings within and outside the District of Columbia. Preserves old and creates new units.

III. Agencies Concerned with Land-Use Planning— Continued

Department	Bureau	Description of functions	
Interior.....	4. Geological Survey.	4. Classification of public lands and the examination of geologic structures, mineral and water resources, and products of national domain. Publication of topographic and geologic surveys. Enforcement of mineral leasing laws.	
	5. Soil Erosion Service.	5. Special fund for setting up experimental groups in various parts of the country. Each area is used for testing different methods of preventing erosion. Publication of results and its distribution to land owners and public authorities.	
	6. Subsistence Homesteads Division of PWA.	6. Placement of industrial workers on small plots of land sufficient to furnish most vegetables, etc., needed by family of tenant. Removal of surplus population of cities. Stabilization of stranded industrial and mining groups. Purchase and supervision of land required.	
	Independent commissions.	1. National Resources Board.	1. See page 77.
		2. Tennessee Valley Authority.	2. Social and economic development of Tennessee River Basin. Has power to build dams, power houses, and transmission lines; to buy and sell real estate; exercise right of eminent domain; and construct towns. Flood control. Produce and sell electric power. Manufacture and sale of fertilizers. Manufacture of explosives for Government at cost.
		3. Office of Emergency Conservation work.	3. Supervises field work executed by the War, Agriculture, Interior, and Labor Departments on "useful public works." O. K.'s all expenditures. Procurement of personnel and equipment.
4. Migratory Bird Conservation Commission.		4. A joint committee of Cabinet officers and Congressmen for the protection of migratory birds. Oversees work of the Biological Survey of Department of Agriculture which administers the act of Feb. 18, 1906, and which gives effect to Migratory Bird Treaty between United States and Great Britain (acting for Canada).	
5. National Forest Reservation Commission.	5. Headed by the Secretary of War. Commission is authorized to purchase such forested out-overs or denuded lands within the watersheds of navigable streams as is necessary to the regulation of stream flow or for the production of timber.		
6. Board of Surveys and Maps.	6. Coordination of all map-making and surveying activities of the Government. Central Information Office in the United States Geological Survey collects and disseminates information on these coordinated activities. Settles interdepartmental disputes, makes general recommendations to the President, invites advice and assistance from map-using public.		
Interdepartmental.	1. Land Planning Committee of National Planning Board (Departments of Agriculture and Interior).	1. To study proposals and relationships among projects involving land use, such as forests, parks, Indian reservations, public lands, reclamation, restriction of crops, subsistence homesteads, etc., with a view to making recommendations to the appropriate authorities. Assembles data, suggests methods of execution, and prepares necessary legislation.	
	2. Technical subcommittees on water flow.	2. Created by the President in February 1934, with Secretary Ickes as chairman. The body was divided into 6 geographic sections, each of which is composed of representatives of Department of Interior, Agriculture, and War. Purpose: To study water resources, including drainage and irrigation problems, and to report within 6 weeks' time.	

III. Agencies Concerned with Land-Use Planning— Continued

Department	Bureau	Description of function
Interdepartmental.	3. Submarginal Land Committee.	3. Originally composed of Messrs. Tugwell and Ezekiel from Agriculture, Wirth and Parrott from Interior, and Mr. Baker from FERA as chairman. General function was to pass upon land projects and advise Administrator Hopkins as to feasibility. Due to an objection from the Comptroller General's Office, PWA transferred the \$25,000,000 from the Surplus Relief Corporation to the regular FERA funds. FERA now pays directly for land projects submitted by the various bureaus which can qualify as relief projects. Funds are allotted by States, however, as are other relief expenditures.

Mineral Resources.—In the field of mineral resources planning may be dated from the development of the conservation movement. During war, the planning of resources by the United States Fuel Administration was one of the striking examples of a highly developed system of control over prices, wages, distribution, and consumer priorities. After the war, there was a shift back to "normalcy", but in 1924, the Federal Oil Conservation Board, consisting of the Secretaries of the Interior, Commerce, War, and Navy was set up which did much to point out the wastes of unregulated competition.

With the passage of the National Industrial Recovery Act, the Federal administration found itself with the responsibility of planning for the mineral industries on a large scale as a guide to decisions which have to be made under the oil and coal codes. This work was undertaken by the Petroleum Administration Board and by the Division of Planning and Research of the NRA. Parallel work for other minerals is developing in the NRA, though on an elementary scale.

It has been clear, for some time, that these individual planning units dealing with separate industries cannot go far enough; for example, decisions as to fuel oil prices under the oil code greatly affect coal prices which are being reviewed by another agency under the coal code. A proposal was made to organize a fuel energy board, but did not materialize. On April 7, 1934, the President appointed a committee on mineral policy. This committee includes the Secretary of the Interior as chairman, one vice chairman and one representative each from the NRA, the State Department, the mineral unit of the War Department, the Export-Import Bank, the Bureau of Foreign and Domestic Commerce, the Geological Survey, and the Bureau of Mines. The purpose of this committee is to consider such questions as the estimating of future consumption, the curtailment of production, the coordination of emergency appropriations, the relationships between Federal and State control, and the effect of mineral tariffs. The committee has now been designated by the National Resources Board as one of its technical sections to develop a general mineral policy.

IV. Agencies Concerned with Planning, Conservation, and Utilization of Mineral Resources

Department	Bureau	Brief description of functions
Interior.....	1. Bureau of Mines.	1. Investigates methods of mining, encouraging use of those which best protect the miners; the treatment of ores and other minerals, the use of explosives and electricity, the prevention of accidents and of waste. Has charge of tests and analyses of ores, coals, lignites, and other mineral fuel substances; the collection and publication of statistics on minerals and metals. Controls production of helium; in case of war, issues all licenses covering manufacture of possession of explosives and ingredients.
	2. Geological Survey.	2. The classification of public lands and the examination of geologic structure, mineral and water resources, and products of national domain. Publication of topographic and geological surveys. Enforcement of mineral leasing laws.
	3. Petroleum Control Administration.	3. Set up by the President under authority of NRA to administer the petroleum code in conjunction with the Planning and Coordinating Committee, representing the petroleum industry and the NRA. Empowered to make estimates of petroleum requirements, and such recommendations, allocations, and inventories as are required; also to require statistics and other reports from the industry.
Independent commissions.	1. Federal Oil Conservation Board.	1. Consists of Secretaries of Interior (chairman), War, Navy, and Commerce. Investigates ways and means of safeguarding the national security through conservation of our oil, the probable future shortage in fuel, lubricating oil, and gasoline. Cooperates with State authorities in conservation and production problems. In 1890 began the first system of national planning in the oil industry—a system of periodic forecasts of demand and recommendation of production to meet it. To this end it has brought about interstate cooperation on a permanent basis. Technical and other scientific agencies of the Government cooperate freely with it.
	2. Mineral Policy.	2. Appointed by the President on Apr. 7, 1934, to make a report on national mineral policies. To this end the committee, in cooperation with the Geological Survey and the Bureau of Mines, is making special studies of available mineral reserves in the United States, as well as a survey of plant, smelting, and concentrating capacity. Shortly after the creation of the National Resources Board this committee was designated to function as its mineral section though it will retain its identity.
	3. National Resources.	See p. 77.

Transportation.—As a result of 125 years of haphazard growth, we now have a highly complex series of transportation facilities described on pages 82-83 which are uncoordinated in relation to the economic needs of the country and which work at cross purposes. Also instead of a unified system of regulation designed to promote a common objective, we have a series of

policies carried out by a variety of Government agencies.

Some attempts at partial planning in connection with the railroad system of the country were made after the World War. But the first real step in that direction was taken on June 16, 1933, with the passage of the Emergency Railroad Transportation Act which set up the office of Federal Coordinator of Transportation. In broad outline, the task of the Coordinator is to work out plans to coordinate the activities of the railroads of the country in such a way as to eliminate wastes and preventable expense and to improve transportation conditions by promoting the joint use of shops, terminals, and other facilities.

It is generally recognized that an effective national transportation policy calls for unified treatment and regulation of all means of transportation under Federal control. The agency for such purpose has not yet been created.

V. Agencies Concerned with Regulation and Development of Transportation

Department	Bureau	Brief description of functions
Agriculture...	1. Public Roads.	1. Deals with all highway functions of the Department. Administers the appropriations for Federal aid to the States for road construction and for forest roads. Conducts research into highway design, construction, and economics. Supervises the construction of national-park roads for the National Park Service of Interior Department.
Commerce.....	1. Navigation and Steamboat Inspection.	1. Navigation unit superintends all commercial marine, and merchant seamen of the United States, in certain directions, administers the load line law, decides all questions relating to issue of registers, enrollment, and licenses of vessels; prepares annually a list of United States vessels; enforces navigation and steamboat inspection laws by means of penalties, fines, and forfeitures. Collects navigation fees, tonnage taxes, etc. Steamboat inspection unit inspects and licenses vessels and officers, and enforces laws pertaining to safety requirements.
	2. Lighthouses.	2. Establishment and maintenance of aids to navigation on the sea and lake coasts of United States, on certain rivers, and on coasts of all United States Territories, except Philippine Islands and Panama. Publishes notices and information relative to navigation.
	3. U. S. Shipping Board Bureau.	3. Functions of old Board transferred to Department of Commerce, June 10, 1933, purpose is to encourage, develop, and create a naval auxiliary and merchant marine for the needs of United States commerce. Regulatory powers over rates, fares, and charges and practices of common carriers in foreign or interstate trade, also over wharves, dock warehouse, and other facilities. Can exempt certain combinations from antitrust laws. Controls conditions of sale of vessels to foreigners and to United States citizens. Loans to private operators.
	4. Aeronautics Branch.	4. Carries out the provisions of the Air Commerce Act of 1926 for comprehensive promotion and regulation of civil aeronautics. Establishment and maintenance of civil airways and their equipment, air traffic rules, inspection and licensing of civil aircraft and

V. Agencies Concerned with Regulation and Development of Transportation—Continued

Department	Bureau	Brief description of functions
Commerce.....	4. Aeronautics Branch.	airmen, collection and dissemination of pertinent information, charts and maps, scientific research looking to improvements.
	5. The Transportation Division (Branch of Foreign and Domestic Commerce.)	5. The Transportation Division compiles and furnishes to shippers information on freight rates, services, and facilities, both rail and ocean, which will enable them to route shipments economically and to quote c.i.f. prices. The division is prepared to give advice on how to pack shipments for foreign markets. It gathers and distributes data on facilities, regulations, and charges in the ports of the world. This division also deals with telephones, telegraph, cable, radio, and postal communication and is interested in all matters tending to protect and increase American facilities for world communication.
Interior.....	1. Alaska Railroad.	1. Authorized to construct, operate, or lease railroads connecting with harbors, irrigable waters, and coal fields, etc.; also, to construct, maintain, and operate telegraph and telephone lines and to make reservations of public lands necessary for the purposes of the railroad.
	2. Alaska Road Commission.	2. In 1932 duties were transferred from the jurisdiction of Secretary of War to the Secretary of Interior. Charged by law with the construction, repair, and maintenance of roads, tramways, ferries, bridges, and trails.
Navy.....	1. Navigation ..	1. <i>Extra-Naval functions.</i> —(a) <i>Naval Observatory.</i> —Broadcasts time signals 6 times daily, for the use of navigator, surveyors, engineers, and scientific workers. Maintains continuous astronomical observations, publishes and disseminates the results. (b) <i>Hydrographic Office.</i> —Topographic and hydrographic surveys in foreign waters and on high seas and their dissemination. Preparation and issue of sailing directions for the Navy and the general public. Maintains relations with foreign hydrographic offices. Research work in oceanography, in cooperation with National Academy of Sciences.
War.....	1. Board of Engineers for Rivers and Harbors.	1. A permanent body created by act of June 13, 1902. To it are referred all surveys and projects relating to river and harbor improvements for report and recommendations to either Congress or the Chief of Engineers, United States Army, on all engineering, commercial, economic, and navigation questions involved. Extending even to purely local plans for terminal improvements, etc. Helps to promote water transportation by investigations and publication of its findings.
	2. Mississippi River Commission.	2. Set up by act of Congress to review and report on all surveys in the Mississippi Valley (H. Doc. 308) in addition to its own survey work on the Mississippi and its tributaries. Commission is composed of 4 civilians (2 must be engineers) named by the President and 3 Army Engineers.
Independent commissions.	1. Interstate Commerce Commission.	1. Power to regulate telegraph, telephone, and cable companies, as well as common carriers engaged in interstate or foreign traffic, including railroads, express companies, bridges, ferries, bus lines and vessels, etc. It has power to prohibit unjust rates, and discrimination as between shippers in any form. Can authorize mergers, new services, and general trade practices, after public hearings. Protection of labor.

V. Agencies Concerned with Regulation and Development of Transportation—Continued

Department	Bureau	Brief description of functions
Independent commissions.	2. National Advisory Committee for Aeronautics.	2. Coordinate the research needs of aviation, civil and military. Prevent duplication in the field of aeronautical research. Research on fundamental principles under one central Government laboratory, including (a) confidential researches for the Army and Navy; (b) fundamental researches to increase safety and economy of aircraft, military and civil; (c) advise War, Navy and Commerce Departments and the aviation industry as to latest research information; (d) consider merits of aeronautical inventions submitted to any Government agency; (e) or any special problem submitted to it.
	3. Inland Waterways Commission.	3. Development of national inland waterway transportation, supervises maintenance of Government barge lines, investigates best types of floating and terminal equipment, studies tariff and interchanged arrangements between rail and water carriers and all of the matters tending to promote inland waterway traffic.
	4. Federal Coordinator of Transportation.	4. Coordination of all railroads divided into 3 regions and done by means of 3 sections, east, west, and south. Duties are to avoid wastes, unnecessary duplication of services and facilities and to control allowances; to promote financial reorganization, and to make immediate study of all means of improving conditions. Protection of labor.
	5. Aeronautical Board.	5. Advises the War and Navy Departments on all Administrative and operative problems in aviation. Promotes coordination of the two services and prevents unnecessary duplications.
	6. U.S. Railroad Administration.	6. Power to adjust, settle, and liquidate all questions, including compensation, arising out of war incident to the Government's control of railroads (during the war). Has power to require that all necessary reports and data be furnished to it for inspection.
	7. The Panama Canal and Railroad Corporations.	7. An independent agency but the Secretary of War represents the President on administrative problems. Complete technical, social, and economic control and operation of the Canal Zone, including the operation and maintenance of a railroad, canal, and miscellaneous other property.

Surveys and Maps.—The importance of surveys and maps for geophysical planning is obvious. Coordination in this field has been carried on for many years by the Federal Board for Surveys and Maps, organized in December 1919. The National Planning Board was instrumental in organizing a special Committee on Standard Symbols, Scales, and Terminology for Planning Use. Also an interdepartmental committee on aerial maps has been formed to develop the most economical methods of aerial mapping which is becoming of great importance.

II. Federal Agencies for Socio-Economic Planning

Geophysical planning both underlies and merges into socio-economic planning. Until recently most of our Government planning was in connection with physical and natural resources, but since March 1933, we have created a bewildering array of new agencies to deal with

the planning of economic and social policies. The Federal agencies for socio-economic planning overlap in structure and functions. We shall arrange them partly in the order of their relation to the major sections of economic life and to the major groups of the population and partly on the basis of the problems with which they deal.

Agriculture.—In the case of agriculture the close interrelation of geophysical and socio-economic factors is clear.³ The subject is treated in chapter VI.

Business.—The efforts of the Department of Commerce to aid industry and business in forward planning was described in a preceding chapter. A more definite step to connect the work of the Commerce Department with business planning was taken in June 1933 with the organization of the Business Men's Advisory and Planning Council. The latter is a voluntary conference and research group which has the twofold purpose—to assist the Secretary of Commerce in making necessary changes in the practices and policies of his Department, and to plan for industry and commerce.

The Council is composed of about 60 members. It has an executive committee which considers general policies and 15 committees of which 7 are concerned with major economic problems. The important committees are those on the decentralization of industry, on industrial relations, on statistical reporting, on unfair trade practices, and on plan study.

The Business Men's Advisory and Planning Council is closely related to the NRA by virtue of the fact that from its membership are chosen in rotation the members of the Industrial Advisory Board of the NRA. The Council so far has not been very active. Only a few of the committees have given time to their assigned tasks. But the Council is important as an agency of large business elements for influencing the NRA and Government policy generally.

Of the other agencies set up since March 1933, at least four are concerned with a reorganization of the business system. These are the National Recovery Administration, the Petroleum Administration Board, the Emergency Administration of Public Works, and the Emergency Housing Corporation.

Labor.—Since March 1933 a new governmental policy toward labor has been in the making. It is aimed toward providing greater security of employment and income to the American wage-earner by means of legally fixed minimum wages, maximum hours, a system of social insurance, and the organization of the labor market through employment exchanges. It also contemplates the development of collective bargaining through a system of labor relations boards. These policies are to be shaped and carried out by the Department of Labor, the NRA, the Employment Service, the several labor boards heading up in the National Labor Relations Board. The work of coordinating these agencies under the leadership of the Department of

³ The most important agencies dealing with agricultural planning are the Department of Agriculture, the Agricultural Adjustment Administration, the Farm Credit Administration, the Federal Farm Mortgage Corporation, the Commodity Credit Corporation, the Federal Emergency Relief Corporation, the Surplus Relief Corporation, the Export-Import Bank of Washington, D.C., the Federal Subsistence Homestead Corporation, the Tennessee Valley Authority, and the Electric Farm and Home Authority.

Labor and on the basis of clearly defined principles is one of the big problems in America today.⁴

The consumer.—Since March 1933 two bodies have been created to consider policies from the consumer point of view; namely, the Consumers' Advisory Board of the NRA and the Consumers' Council of the AAA. Planning for the consumer involves two major tasks: One is to supply information on the basis of which rational consumption ideas may be developed; the second is to aid the consumer in making the most effective use of his purchasing power. For carrying out the first purpose, special budget studies are needed. For the performance of the second task, the establishment of a consumers standards board has been proposed to develop specifications for the standardization of various groups of consumers' goods. So far little has been done in either direction.

Finance.—In addition to the agencies described above which in effect are concerned with problems of special groups, there are those which deal with the general framework of our economic society. Such are the agencies concerned with money, banking and credit institutions, with taxation and public finance, and with international commercial policy.

Since March 1933, the network of Federal agencies shaping financial and credit policies has been greatly extended. In addition to the Treasury and the Federal Reserve Board, there are the new agencies which include the Reconstruction Finance Corporation, organized in 1932 but expanded in 1933, the Farm Credit Administration, the Federal Home Loan Bank Board, the Federal Deposit Insurance Corporation, the Federal Savings and Loan Associations, the division of the Federal Trade Commission which administers the Securities Act, the Securities Exchange Regulation Board, and several others. These agencies are far from pursuing a common policy as yet.

There has been for sometime a realization of the need of Federal and State cooperation in reforming the tax system in such a way as to harmonize local, State, and Federal interests. This problem is now being considered by the Treasury Department, which has inaugurated a special study for the purpose. There are also several nongovernmental commissions studying the problem such as the commission appointed by the American Legislators' Association and by the National Tax Association.

Foreign Trade.—On pages 84-85 are listed the main agencies which have been concerned with foreign trade and foreign commercial policy. The general decline in world trade which has affected the United States with unusual severity has caused the Roosevelt administration to adopt a new policy of lower tariffs by means of reciprocity treaties and unconditional most-favored national treatment, policies embodied in the Reciprocal Tariff Act of June 12, 1934. Under this act coordination of policy will be the task of special committees in which the following agencies participate: Departments of State, Treasury, Agriculture, and

⁴ The FERA is not directly concerned with establishing labor policy, but its work in connection with relief raises many questions of labor policy. The level of CWA wages and of relief affects wage rates. The ruling that a striker is eligible for relief may affect the outcome of industrial disputes. Much thought has been given here to the social security program. Coordination of this work with that of the Department of Labor is vital to the development of a labor policy.

Commerce, the Tariff Commission, the National Recovery Administration, and the Special Adviser on Foreign Trade. The committees are:

The Executive Committee on Commercial Policy (ECCP) which has been in existence since November 1933. It is to be the policy-forming group. The 7 Government agencies which comprise it send a total of 12 men to its meetings, which are held about once weekly. The chairman is an Assistant Secretary of State.

The Interdepartmental Committee on Foreign Trade Agreements (ICFTA) is to carry out the policies of the ECCP in the field of preparing and negotiating trade agreements. It is composed of representatives of the same seven agencies. The ECCP has designated as chairman the head of the new Tariff Division of the Department of State.

Under this Committee there will be a series of committees for the individual countries with which negotiations are contemplated or in progress. Their function will be to explore minutely the actual possibilities for successful reciprocal bargaining, and to report thereon to the ICFTA.

Committee for Reciprocity Information (CRI) will hold hearings on each trade agreement which is being negotiated. All three committees will be aided by the—

Committee on Foreign Trade Statistics which has been set up under the Central Statistical Board to correlate available foreign trade statistics and to improve and extend them.

It is expected that the interdepartmental character of the new mechanism will secure greater coordination in foreign trade policy than was formerly the case. But it remains to be seen to what extent such interdepartmental cooperation will succeed, in view of the fact that departmental prestige is often a divisive force.

Agencies Concerned with Foreign Trade

Function	Agency
1. Determining policy....	The President and the Congress decided as to policy.
2. Making the tariff.....	In this function, also, the President and the Congress have been dominant, but they have been assisted by various executive agencies, particularly the Tariff Commission, set up by an act of 1916.
3. Negotiating commercial treaties.	These treaties are negotiated by the Department of State, and approved by the Senate in the usual way.
4. Supplying information and other aids.	Four agencies have played an important part in supplying information concerning foreign trade, each for a particular purpose. <ol style="list-style-type: none"> (1) The Department of State's consular officers make regular reports on business conditions in the areas where they are stationed, and suggest particularly the best local business opportunities for Americans. Also they answer direct queries as to specific commercial conditions. (2) The Department of Commerce, through its Bureau of Foreign and Domestic Commerce, renders 2 services. First, the Bureau publishes monthly and annually reports on our foreign trade. Second, its Foreign Commerce Service, established in 1926, has assigned to various consulates a number of commercial attaches, who cooperate in rendering assistance to American commercial men. (3) The Department of Agriculture renders similar services for American farmers and exporters of farm products. (4) The Tariff Commission is primarily the expert commission of the President and Congress on tariff matters. Its investigations often require the sending of agents abroad.

Agencies Concerned with Foreign Trade—Continued

Function	Agency
5. Giving financial aid.	The merchant marine is the one element in our foreign trade which has received direct financial aid. Through the Post Office Department, mail subsidies are given; and the Shipping Board has aided by means of low-interest loans for new construction.
6. Enforcing the law.	The Treasury Department administers the tariff laws. The Federal Trade Commission investigates alleged internal obstacles to foreign trade, and makes certain that the export combinations, organized under the Webb-Pomerene Act of 1918, do not violate our antitrust laws.

Social Welfare.—A number of the newly created agencies are engaged in elaborating long-range plans of social welfare which may have important effects on economic and social structure. Space and time do not permit us to describe, even briefly, the work which is sponsored by the Federal Emergency Relief Administration and the Subsistence Homesteads Corporation in cooperation with various Government bureaus. The idea guiding this work is the rehabilitation of groups of the population which have been driven into an economic impasse as a result of long-time changes in industry and social structure. By rehabilitating those so-called "stranded populations" which are the source not only of unemployment, but of unemployability, it is hoped to contribute to the building up of a new social balance in general. The policy advocated is along lines of industrial decentralization, urban-rural community development, new educational opportunities and an extension of social guidance to the dislocated elements of the population.

III. Federal coordinating agencies

At least six agencies have for their purpose the coordination of one or another group of Government activities described above. These agencies are the Central Statistical Board, the Science Advisory Board, the National Resources Board, the Bureau of the Budget, the National Emergency Council, and the President's Executive Council.

The Central Statistical Board was created by Executive order dated July 27, 1933. How the Board is organized, how it operates, and what it has so far accomplished is discussed in chapter VII.

The Science Advisory Board was created by Executive order on July 31, 1933. It acts through the machinery and under the jurisdiction of the National Academy of Sciences and the National Research Council. Its purpose is to advise the Government in such matters where it is necessary to combine scientific, economic, and social viewpoints in the treatment of special technical problems. It suggested the establishment of the Committee on Mineral Policy.

The National Resources Board is an outgrowth of the National Planning Board which had been set up in July 1933 under the PWA with the specific mandate to serve as coordinating agency in relation to public works. It had promoted and stimulated State, regional and local planning activities. It undertook two major research problems: One for the purpose of preparing a long-range program of public works, and another, a report on the meaning of and possibilities

of national planning which could serve as a basis for the establishment of a permanent national planning agency. It was as a result of its report to the President on the subject of planning that a reorganization was made bringing the present National Resources Board into existence.

The National Resources Board consists of the Secretary of the Interior as chairman, Secretaries of War, Agriculture, Commerce, Labor, and the Federal Emergency Relief Administrator and the three former members of the National Planning Board. The three former members of the National Planning Board form also an advisory committee to the Board. At the same time a technical committee has been set up with six sections: (a) Land section, (b) water section, (c) industrial section to study plant capacity and opportunities for employment, (d) power section, (e) transportation section, and (f) mineral section. Each of these sections has a chairman, a director, and a planning committee. The water and land sections are expected to submit reports to the President by the end of this year on plans for the utilization of land and water resources. The National Resources Board is continuing the work of assisting State planning boards and other regional agencies set up by the National Planning Board.

The Bureau of the Budget has as its primary function to act as the agency through which the President may discharge the duty imposed upon him by the act of June 10, 1921; namely, of formulating and submitting to Congress a budget and of making recommendation to that body by means of which the organization and operation of the administrative services may be made more economical and efficient. In performing this task, the Bureau can and does pass judgment upon the relative importance of different agencies and upon the funds to be allotted for such work.

By virtue of the Executive order of June 10, 1933, the Bureau is now authorized also to make, waive, and modify apportionments of the various departmental appropriations already made by Congress. In the process of paring down estimates the important bureau and office heads may be called in to explain the work of their offices and the reasons for their requests.

From a review of the debates in Congress at the time, as well as from the wording of the act itself, it is apparent that the framers of the legislation expected the Bureau of the Budget to enter the field of coordination in substantive fields of government. The Budget Bureau, however, has never been implemented to exercise this function to any marked degree.

The National Emergency Council.—The National Emergency Council was created by Executive order on November 17, 1933, "for the purposes of consolidating, coordinating, and making more efficient and productive the emergency activities of the Federal Government. * * *".⁵ The function of the Emergency Council is to supervise and report on the field activities of all governmental agencies—State directors in all the States make reports to Washington and serve as loca

⁵ The members are: The Secretaries of the Interior, Agriculture, Commerce, and Labor; the Attorney General; the Director of the Budget; the Chairman of Federal Trade Commission; the Administrators of the Agricultural Adjustment Act, the FERA and the NRA; the Chairman of the Home Owners' Loan Corporation; the Governor of the Farm Credit Administration; and the Chairman of the Consumers Advisory Board of the NRA.

clearing houses for Government information. The director in each State is the field representative of the National Recovery Administration, and assists in the adjudication of complaints of code violations and in carrying out enforcement measures. About 200 consumers' councils are being organized in the larger cities by the Emergency Council to serve as public forums to hear complaints from consumers.

The Emergency Council in Washington holds meetings every 2 weeks, alternating with meetings of the Executive Council. A digest of all reports from the 48 State directors is presented. The meetings of the Council have also been devoted to hearing and discussing reports on current economic developments and on specific "plans." The Emergency Council was instrumental in the promotion of the Housing Act passed by Congress in June 1934.

The President's Executive Council.—The Executive Council was created by Executive order dated July 11, 1933, "in order to provide for the orderly presentation of business and to coordinate inter-agency problems of organization and work of the new governmental agencies." It is composed of the following:

The President of the United States.
 The Secretary of State.
 The Secretary of the Treasury.
 The Secretary of War.
 The Attorney General.
 The Postmaster General.
 The Secretary of the Navy.
 The Secretary of the Interior.
 The Secretary of Agriculture.
 The Secretary of Commerce.
 The Secretary of Labor.
 The Director of the Budget.
 The Administrator for Industrial Recovery.
 The Administrator of Agricultural Adjustment.
 The Administrator of Federal Emergency Relief.
 The Federal Coordinator of Transportation.
 The Governor of the Farm Credit Administration.
 The Chairman of the Board of the Reconstruction Finance Corporation.
 The Chairman of the Home Owners' Loan Corporation.
 The Chairman of the Board of the Tennessee Valley Authority.
 The Director of Emergency Conservation Work.
 The Secretary to the President.
 The Hon. L. W. Robert, Jr., Assistant Secretary of the Treasury.
 The Executive Secretary.

The procedure of the Executive Council is much like that of the Emergency Council. Meetings are held every 2 weeks, alternating with those held by the Emergency Council. The President presides, or is represented by the Executive Secretary.

In practice, the dividing line between the work of the Emergency Council and that of the Executive Council is often impossible to distinguish. The same director serves each organization; the same headquarters are used; and most of the members of one Council are also members of the other. The principal distinction is that the Emergency Council is primarily concerned with emergency agencies, whereas the Executive Council is chiefly concerned, as its name indicates, with general

administrative problems of the regular executive departments.

The Executive Council is served by an economist and a staff under his direction who make biweekly reports on economic conditions and trends and supply economic data for the formulation of general policies.

IV. The problem of coordination

The foregoing survey of planning agencies, local, State, and Federal, is far from complete, but it indicates the vast amount of research and planning which is being carried on at the present time in this country. There is a groping toward the formulation of long-range policies and programs for the most effective use of our natural resources and for a readjustment of our economic and social organization.

The survey also shows that many of these planning activities are scattered and lack cohesion either in relation to a definite system of national aims or in relation to performance. Different agencies undertake to study and solve the same problems without adequate effort at cooperation in obtaining data or in using available techniques or in formulating policy.

There is obvious need for coordination of these activities. None of the coordinating agencies described has either the powers or the resources for surveying the national scene as a whole and for discerning how it is shifting and what are the forces which may be harnessed to give it direction. In general, the problem of coordination is discussed in rather simple terms. It is assumed that all that is necessary is to bring together a committee of men from the different bureaus or agencies and to assign them "the task of coordination." As a matter of fact, we have here one of the most complex and difficult problems both of policy making and of administration. The problem is four-fold: What is needed is first, an effort to organize and to obtain agreement on objectives and methods. Second, to organize the process of coordination itself. This implies a series of intermediate points at which ideas, policies, procedures, and activities must be brought together into a working relationship. Third, the process of coordination must go along with the making of decisions. It is a mistake to think of coordination only as a process of adjusting policies already made. After a policy has once been formed, it is difficult to change it, and to adjust it to other policies. Shaping and adjusting should be considered in the early stages when flexibility is greater and before commitments are made by the very people who are afterwards to do the coordinating.

Fourth, coordination is also in large measure a problem of personnel and psychology. It is hardly enough for the purpose of coordination to bring together a committee of representatives of specialized work. True, such persons are able to supply the specific information as well as the general ideas necessary to work out a common program. But they are usually too busy or too absorbed in their own problems to give adequate attention to those involved in coordination. What is necessary is to make the work of coordination a full-time task of specially qualified persons, as is done in connection with planning for war described in chapter IX.

Chapter V

THE NRA AND INDUSTRIAL PLANNING

In attempting to describe the National Recovery Administration (NRA), it is essential to keep in mind that the National Industrial Recovery Act (NIRA) is part of a general program which has found expression in a large number of legislative measures and which is popularly described as the "New Deal."

I. Place of the NRA in the "New Deal"

In scope and character, the economic and social legislation passed in the United States in the 15 months following President Roosevelt's inauguration is unique in American history.¹ First in order of importance is the National Industrial Recovery Act, with which we are concerned in this chapter. An important part of this act is title II, which created the Public Works Administration for the purpose of carrying out a program of planned public works on a scale large enough to relieve distress and to stimulate business activity through Government expenditures.

What the NRA and the PWA were intended to do for business and industry, the Agricultural Adjustment Act and other farm measures were meant to do for agriculture.² The monetary policies of the Administration were supplementary to the other acts, having as their objective the raising of the internal level of prices and the lightening of the debt burden on the debtor classes of the population.

The laws on banking and on the control of securities were intended to protect the American people against

¹ The main acts passed are as follows:

1. Affecting agriculture: The Agricultural Adjustment Act, Farm Relief and Inflation Act of May 12, 1933; Farm Credit Act of June 16, 1933; Farm Mortgage Act of Jan. 31, 1934; Farm Relief Act of Apr. 7, 1934; Cotton Control Act of Apr. 21, 1934.
2. Affecting banking: The Emergency Relief Act of Mar. 9, 1933; Banking Act of June 16, 1933.
3. Affecting currency: The Gold Repeal Joint Resolution of June 5, 1933; Gold Reserve Act of Jan. 30, 1934; Silver Purchase Act of 1934.
4. Affecting investments: The Securities Act of May 27, 1933; Securities Exchange Act of June 6, 1934.
5. Affecting communications: The Communications Act of 1934.
6. Affecting employment: The National Employment System Act of June 6, 1933.
7. Affecting home ownership: The Home Owners Refinancing Act of June 13, 1933; Home Owners Loan Act of Apr. 27, 1934; National Housing Act of 1934.
8. Affecting power development: The Tennessee Valley Authority Act of May 18, 1933.
9. Affecting transportation: The Emergency Railroad Transportation Act of June 16, 1933; Railroad Retirement (Pension) Act of 1934.
10. Affecting industrial recovery: The National Industrial Recovery Act of June 16, 1933.
11. Affecting unemployment relief: The Emergency Relief Act of May 12, 1933; Reforestation Relief Act of Mar. 31, 1933.
12. Affecting commercial policy: Reciprocal Tariff Act of June 12, 1934; Bankruptcy Act of May 1934.
13. Affecting war debts: The Debt Default Act of Apr. 13, 1934.

In addition, there have been a number of Executive orders establishing the National Labor Relations Board, the Power Policy Board, the National Resources Board, and others, which have had the same general purposes as the congressional legislation.

² For discussion see ch. VI.

losses of their life accumulations and against the improper use of their savings in the capital market. Most of the other acts were to extend one or another form of relief to the various groups of the people in distress and to help them maintain their equities in their homes or other properties.

In brief, the legislation of 1933-34 has had three major aims: first, to provide relief to those in distress largely by means of Federal financing; second, to accelerate industrial recovery; and, third, to inaugurate a series of new governmental agencies for the purpose of guiding the reorganization of our economic structure. Viewed as a whole, this legislation may be regarded as part of that national plan which Mr. Roosevelt promised the American people when a candidate for the Presidency. In this chapter and in that on agriculture we do not attempt an appraisal of this national plan, but of each administration as an agency for partial planning.

II. Theory of the NRA

The NRA, like the "New Deal", in general, is pragmatic in purpose and method. It assumes that we can control the transition from the trough to the revival phase of a depression by increasing hourly and weekly rates of pay and by controlling prices. Another idea on which the NRA is based is that depressions are due to underconsumption and lack of balance between savings and spending, and that in order to establish a more stable economic system, a distribution of the national income must be brought about which would give a larger share to the recipients of wages and salaries. A third idea of the NRA is that excessive competition is an evil and that economic recovery and stability depend upon "fair competition."

In its broader aspects, the NRA is guided by the concept of social control which would yet preserve the values of individual initiative. Its principles are a minimum living wage, industrial self-government, and cooperative action between the Government, management, and labor to maintain a stable prosperity. The purpose is to steer clear both of excessive competition and of socialism and to modify the profit system in a humanitarian sense. This must be done gradually, and no flat, arbitrary, and broad changes are to be imposed upon industry.

In these ideas there is a duality of emphasis on recovery and reconstruction which accounts for the fact that from the outset the NRA has been concerned partly with one and partly with the other as an end in itself.

III. The structure of coded industry

A discussion of the NRA presupposes a clear picture of mechanism and methods. There are today about 475 codes comprising practically every major industry

and many of almost no importance and involving the fortunes of some 20 million wage earners.

Typically a code of fair competition consists of two main sets of provisions; those covering labor matters and those affecting trade practices. No uniformity prevails with regard to the details of these provisions. In general as regards labor, the codes prescribe maximum hours and minimum wages, prohibit child labor, and establish other minimum standards of employment. These provisions are an attempt to regulate competition with respect to labor costs. Each code also contains the provisions of section 7a, guaranteeing the workers the right to organize and to bargain collectively.

The provisions listing unfair trade practices vary greatly. Some codes contain only a few simple practices, forbidding false advertising or improper grading of products. Other codes cover many more practices and contain price control devices of one sort or another. A few codes permit price fixing, either outright or indirectly through the limitation of machine hours, productive capacity, and other measures.

Each code is administered by a code authority which is a semipublic agency. The authority ordinarily consists of a specified number of members of the industry plus a specified number of Government representatives without vote. The Government representatives are assigned labor and consumer advisers. Generally, the members of the code authority are business men engaged in the industry or connected with the trade association which is active in the industry. In some codes the executive committee or the board of directors of the trade association constitutes the code authority.

IV. The balance of economic interests

The NRA has been struggling with the problem of developing a consistent plan of organization for industrial self-government. The problem is threefold: first it is necessary to establish links between the code authority and local members of the industry; second, it is necessary to define the relations of the trade association to the code authority; and third, a method for adjusting the conflicting interests of the different groups within an industry through proper representation on code authorities is still to be found.

Under present arrangements, it is difficult for the individual employer to become properly integrated into the code system of his industry. Only about 50 percent of employers are members of trade associations, and the proportion varies from industry to industry. A considerable number of employers in many industries feel that their interests are not and cannot be fully represented under the present situation. In general, the relation of the trade association to the code authority is still to be defined.

Labor and consumer groups have but small representation on code authorities. Altogether, some 20 codes provide for labor representation either by trade unions or otherwise. Thirteen of these are in the clothing and sewing trades. The code authorities in the basic industries are composed entirely of the business elements. Consumers are represented only indirectly

through the Government members. As a substitute for direct representation, labor and consumers can make themselves heard through the labor and consumers' advisors assigned to the Government members of the code authorities. They also are presumed to be able to voice their interests through the Labor Advisory Board and the Consumers' Advisory Board of the NRA.

Industrial self-government under the NRA thus means essentially the regulation of competition by business men with veto power in the hands of the Government. It does not represent a balance of all economic interests through representative bodies. This is largely due to the opposition which employers have to sharing managerial control with labor and to the weakness of consumers' organizations in the United States. The position of the business men in the codified industry has also been strengthened as a result of the way in which codes were formulated,³ by the great pressure for speed, by the outlook of deputy administrators, and by the tone given to the NRA by the Administrator himself. The result is that many codes have emerged with many of the features of monopolistic cartels.

V. The record of recovery

As already pointed out, the NRA in common with other agencies of the New Deal has had two objectives: Immediate recovery, and ultimate reconstruction of our economic system to insure greater stability and more even-handed justice. In its first year the NRA may be credited with certain limited achievements contributing toward recovery. To the extent to which the NRA has controlled maximum hours it has forced an increase in the capacity of business to employ more men. In general, the boom in the production of stocks of consumers' goods last year led in those industries to a lengthening of the work week. The codes for industries which had enjoyed recovery usually specified fewer hours than had been worked in July 1933.⁴ On the other hand, the most severely depressed heavy industries had already been rationing work among their employees. For such industries the length of the work week had not changed materially between July 1933 and April 1934. In some of these industries, in fact, there was a substantial increase in hours between April 1933, when they were at low ebb, and April 1934. But considering manufacturing as a whole, if the workers had been employed as many hours per week in April 1934 as they were in July 1933, 15 percent fewer people would have been employed. The work week policy of the NRA would thus seem reasonably to have forced approximately a million people into employment.

The reduction in the work week to effect recovery would have to be connected with larger incomes. The average minimum rates fixed in the codes are 30-35 cents an hour and between \$12 and \$14 per week. Insofar as these minimum standards are concerned, the

³ See the ABC of the NRA, Brookings Institution, 1934.

⁴ For instance, from April 1933 to July 1933 the average hours per week in the cotton mills increased from 44.8 to 46.1. Under the code, hours were cut to 35.5 in August 1933 and to 35.6 in April 1934.

provisions of the codes have elevated the wages of the most common, unskilled labor. This lifting of minimum rates probably influenced the increase in average hourly earnings between March 1933 and March 1934. Another contributing factor was undoubtedly the general business expansion which has as a normal consequence improved pay standards.

Did the NRA contribute to recovery and, if so, how much? The question cannot be answered conclusively. In favor of the NRA, it is pointed out that manufacturing employment rose from 59 percent of the 1923-25 average in March 1933 to 82 percent in April 1934, that pay rolls rose from 37 to 67, the adjusted index of industrial production of the Federal Reserve Board from 59 to 86, and the United States Bureau of Labor Statistics wholesale price index (base 1926) from 60 to 73. Even if the 27-percent increase in per capita earnings and the 75-percent rise in total industrial pay rolls is deflated by as much as 20 percent (the rise in food costs) there is a great net gain over March 1933, despite the fact that there are still 9,000,000 or 10,000,000 unemployed. These gains were presumably due in considerable measure to the minimum wage rate provisions of the codes.

On the other hand, critics of the NRA argue that these changes were due to a combination of many influences such as the substantial sums poured into the income stream by the PWA, CWA, and FERA; the increases in farm incomes due to the AAA; and general forces of business revival which were making themselves felt in many countries. Corroborating evidence for this review is found in the fact that employment rose from 59 in March 1933 to 80 in September 1933, not because of the beneficence of the NRA, but as a speculative movement to anticipate higher costs and prices. It is also claimed that the price policy of the NRA and the practices of the code authority restricting production in order to enhance prices and profits unavoidably slowed up business activity and output.

VI. The range of planning

The NRA as a single institution cannot be regarded as engaged in national economic planning. Its scope, though wide, is limited largely to industry and trade, and it therefore must be studied only as an agency for industrial planning. The problem involves a number of major questions. In what way is the NRA to be regarded as a planning organization? What are its objectives? What are the methods for attaining them? What light does the experience of the NRA throw upon the problem of industrial and economic planning? The treatment must necessarily be brief and incomplete. Materials for a definitive study are neither systematized nor readily available.

One of the basic problems of the NRA is that of wages as a factor in fair competition. But the NRA has made little progress so far in settling the difficult problems of wage differentials between industries and sections. The total wage structure of the country remains in the same chaotic condition as it had been before the NRA came into existence.

A discussion of wages is unreal unless related to prices. The problem of price policy has been at the

heart of the NRA during the past year. The main interest of the business groups is in the provisions of the codes which promote price control including price fixing. For a time the NRA was sympathetic to these devices. They were criticized and resisted in vain by the Consumers' Advisory Board.

Within the last few months the price policies of the NRA were subjected to violent attacks as fostering monopoly. Under the burden of criticism the NRA tried to retrace its steps in some respects. The first major change was when the NRA declared it would not lend governmental authority to the enforcement of price-control provisions in the so-called "service industries" such as cleaning and dyeing establishments and barber shops. One of the main reasons for this was that of expediency. These industries carried on in small establishments required a great deal of energy, if the code provisions were to be enforced.

The next step which was more important was the announcement of the NRA that price-control devices would be excluded from all codes to be approved in the future. This was regarded as a complete reversal of NRA policy, but it was soon made clear that this was not to be retroactive and that codes previously approved were to remain unchanged. As the new codes were for small industries, the announcement proved to be of little importance. Thus, no real steps toward a planned price policy were taken. Neither has the NRA developed a procedure for regulating interindustry prices. There is also little consideration of prices as related to purchasing power or of the interrelation between wages, prices, and returns to capital.

As regards long-range objectives, it is difficult to find any semblance of planning in the NRA. This is not to say that there may not be planning of an interesting variety under the NRA in the future, but merely that none has so far occurred. In fact, the NRA has set up new difficulties in the path of industrial planning. To begin with, the process of code-making for the purpose of recovery was so directed as to impede rather than advance the planful reconstruction of industry. The codes were set up hastily on the assumption that a bad code was better than none at all. There was thus much guesswork and a lot of bargaining in their making. As a result, the NRA has brought about a rift in the interrelations of industries. Each industry is supposed to contrive a solution for its own problems and the 475 codes in existence are a complex and confusing system. Only a weak beginning has been made in studying as a whole the problem of competitive industries such as rayon and cotton, or of supplementary industries such as automobile tires, gasoline, and accessories. There are but few provisions in the codes for bringing together producers of raw materials, manufacturers who use them and wholesalers and retailers who bring the product to the ultimate consumer. Neither is there unity in statistical reporting.

Second, from the very beginning the controlling groups in the NRA and on code authorities were not friendly to the idea of economic planning. It carried the possibility of increasing governmental interference in industry to which they were opposed. The Division of Research and Planning was relegated to a routine status and had a minimum influence on policy. Plan-

ning was also hindered by the personalities called to administer the NRA.

Though there has not been planning by industry, a small beginning has been made in the planning of industries. A number of codes have provided for the establishment of planning committees under one name or another. The NRA has issued instructions to the code authorities to regard the planning of the development of their industries as their main job. In general the code authorities have been so preoccupied with the enforcement of price and labor provisions that they have not had time for making larger plans. As a matter of fact, not over a fourth of the code authorities have been well enough organized to function effectively.

VII. Social conflict and progress

The NRA has thus still to find the path for its own progress. Its problem of organization remains unsettled. The emphasis of the NRA is on united action and cooperation, but its methods and structure are based on devices for reconciling divergent interests.

It still has to find an answer to the question whether the Government is merely to umpire the manifold conflict of interests or whether there is a national interest which can be defined as something above that. The NRA still has to work out technics for preventing monopolistic practices and for reconciling stability with the development of new markets at low prices.

The NRA has also still to discover the method for bringing about united action of labor and management. So far, it has had neither an easy time nor marked success in this respect. Under section 7(a) a steady and rising current of labor unrest has been running which has hampered the work of the NRA and which has accentuated conflict in American industry. Last but not least, it still remains to be seen whether the NRA can work out an intermediate solution between free competitive practices and price fixing by industry or by Government, and whether it can reconcile the business man's desire to stabilize profitable prices and to balance supply and demand by restricting output and the people's need for a rising standard of living.

Chapter VI

PLANNING FOR AGRICULTURE

I. The problem

For over a century, our agricultural policy was guided by democratic and expansionist ideas characteristic of pioneer countries. Wage earners and immigrants were encouraged to take up land. Farmers were taught scientific methods of farming. It was taken for granted that the more land a farmer cultivated and the larger his crops the better it would be for him individually and for the country as a whole, since our agricultural surplus paid most of our obligations abroad.

During the World War, the effects of this policy reached their climax. The area under cultivation expanded rapidly and the exports of American farm products reached their maximum. The stimulation of war prices, of land-settlement schemes, and of reclamation projects brought large areas of land under cultivation which soon became marginal and submarginal.

The deflation of 1920-21 ushered in a decade of developments which reversed the outlook of American agriculture. Domestic and foreign markets contracted, while the technical efficiency of agriculture increased, thus creating agricultural surpluses which could be sold profitably neither abroad nor at home.

The result was a farm problem which, except for short intervals between 1923 and 1928, became steadily aggravated. Its essence was a lack of balance in capital structure and in the relation of production to market demand. By March 1933, the situation had become critical. American farmers were clamoring for immediate relief from the accumulated burdens of indebtedness, overdue taxes, and increasing foreclosures.

Between 1922 and 1932, national conferences were held to discuss the farm problem and to prepare a program of action. Congress passed a series of laws to aid the farmer, culminating in the Agricultural Marketing Act of June 29, 1929. The Department of Agriculture developed new services to help the farmer in his production and marketing. There was a reorientation in the trends of thought on agricultural problems during this period in the direction of greater reliance on the domestic market, of reducing acreage by eliminating submarginal lands, and of land-use planning. The conviction grew that price stabilization was impossible without some control of production and that a concerted attack upon the various aspects of the problem must be attempted. This paved the way for President Roosevelt's program.

As a result of these developments, we have in the Department of Agriculture an interesting illustration of planning for immediate recovery and for more distant objectives. We shall treat here briefly first some selected aspects of the recovery program, and second, the steps toward long-range planning for more permanent readjustments.

II. The emergency program

The agricultural recovery program has four major aims: first, to restore the parity exchange value of farm products for industrial goods to the average of 1909-14; second, to give the farmer credit at reasonable rates; third, to take off the market some of the accumulated surpluses; and fourth, to seek new markets for agricultural products at home and abroad. In these four ways, it is hoped to raise the farmer's income and to increase immediately his purchasing power.

These aims are sought through a series of supplementary organizations such as the Agricultural Adjustment Administration, the Farm Credit Administration, the Federal Surplus Relief Corporation, and others. The Agricultural Adjustment Administration with which we are concerned here has as its main purpose the restoration of the parity of 1909-14 between the prices of agricultural products and those of industrial commodities. The Agricultural Adjustment Act covers seven basic commodities to which it was to be applied: cotton, wheat, corn, hogs, tobacco, rice, and dairy products. We shall summarize here the main facts concerning three commodities only: wheat, cotton, and dairy products.

A. Organization and methods.—The organization of the AAA has a unity and a compactness which are in contrast with the loose structure of the NRA. At the head of the organization is the Secretary of Agriculture. Actual direction is in the hands of an administrator and of three assistant administrators. There is also a legal counsel, a financial director, and a comptroller. The central organization in Washington consists of six major divisions: Program Planning, Information and Publicity, Commodities Control and Marketing, Legal, Financial Budgeting, and Comptroller's Office. In addition there is a Consumers' Counsel to protect the interests of the consumers.

At the other end of the organization are the county associations of farmers who enter into contracts with the AAA either to reduce acreage or to cooperate in other phases of the program. Some 2,200 counties are involved in this work.

Four methods are used by the AAA for the attainment of its aims. First is the making of contracts with individual farmers to reduce acreage. The farmer who makes such a contract receives a benefit adjustment payment which is paid from processing taxes levied on the manufacturers engaged in the first domestic processing of the agricultural commodity. Second is the signing of marketing agreements with associations of processors, producers, and distributors of farm goods for the purpose of regulating trade practices and controlling prices. Third is the making of codes of fair competition, except for labor provisions, for industries and

trades engaged in the handling, processing, and storing of certain agricultural commodities. Fourth is the issuing of licenses to processors, producers, and distributors largely as a means to enforce marketing agreements. Combinations and modifications of these methods have also been used.

B. *The wheat program.*—The wheat program of the AAA proposed to wheat producers to reduce their acreage in 1934 up to 15 percent of the average acreage planted during 1930-32. Each farmer who agreed to reduce his acreage was allowed a benefit adjustment payment fixed at 28 cents per bushel for 1933-34 on that portion of his crop which went into domestic human consumption. Allotments for each wheat-producing State and county were made by the Department of Agriculture. Individual allotments were made by the county wheat production association. Each farmer's domestic allotment was computed as equal to his share of the total portion of the national wheat crop used in domestic consumption, and his share of this consumption was calculated as equal to the proportion which his average production during 1930-32 was to the total national production during the same period.

About 575,000 wheat farmers had signed contracts with the AAA by July 1934, about half of those eligible. The acreage held by the contracting farmers was 77 percent of the total acreage planted during 1930-32, and the total reduction contracted for amounted to 11.5 percent of the wheat acreage planted during that period. The benefits to farmers for 1933-34 were paid out of processing taxes levied on millers of wheat which were fixed at 30 cents a bushel. The taxes for 1933-34 were estimated at \$108,000,000. The total benefits paid to wheat growers in 37 States up to June 30, 1934, was \$68,965,433. About \$30,000,000 more were to be paid as a second installment in July 1934.¹

In carrying out the wheat program, many administrative difficulties had to be met. The AAA gave varying instructions which the local associations could not follow; there were attempts to make exaggerated claims for individual allotments. However, the chief difficulty was the uneven effect of the program on different groups of farmers. There is evidence that the benefits went largely to strengthen the well-to-do elements of the farming population, and did not help the poorer farmers.

The wheat program has certainly been successful in granting an immediate increase in farmer dollar income. The gross income from the sale of wheat in 1933-34 is estimated at \$281,000,000. If benefit payments are added to this, wheat farmers will have received \$376,000,000 as against an estimated income of \$169,000,000 in 1932-33. The average price of wheat received by farmers, which had been about 39 cents a bushel in the 2 preceding years, was 74.1 cents during that part of 1933-34 when four-fifths of the crop was sold.² The question may be raised, but cannot be answered, as to what part of this price change reflects the policies of the AAA and what part is due to monetary manipulations.

¹ Press Release of A.A.A., July 23, 1934.

² Agricultural Adjustment, Department of Agriculture, pp. 53-54.

The parity price for wheat has not been attained on the market but only by adding a subsidy benefit. Industrial prices, partly under the influence of the NRA, have risen to offset largely the increased wheat price.³ The reduction of stocks has been largely the result of an "act of God"—the drought of 1934. This has blocked a demonstration of the short-run effects of the AAA policy with regard to wheat.

C. *The cotton program.*—The Agricultural Adjustment Administration set out to eliminate in 1933-34 up to 30 percent of the planted cotton acreage. The individual farmer who agreed to reduce his acreage was offered a cash payment or some cash and an option to buy Government-owned cotton at 6 cents a pound. Later the AAA also loaned cotton planters 10 cents per pound at 4 percent interest on their unsold cotton.

Over 1,026,000 cotton farmers took part in the program and took out of production 10,400,000 acres in 1933-34 out of a total acreage of 40,929,000. Had the lands retired been of average quality, had no additional fertilizer been applied, and had growing conditions been normal, the crop would have been reduced by 4,400,000 bales. An opposite development with respect to each of these conditions contributed to bring about a crop of 13,177,000 bales in 1933, as against an average of 14,666,000 bales during 1928-32.

Despite the fact that the expected reduction was not achieved, it is estimated that the farmers received \$682,000,000 for the 1933 crops as compared with \$484,000,000 for cotton and seed in 1932. In addition the Government paid \$112,000,000⁴ in rental benefits, and options on cotton increased \$50,000,000 in value. The gross income was, therefore, \$844,000,000. The payment of benefits was made out of a tax of 4.2 cents per pound by the manufacturers of cotton goods.

The 1933 campaign got under way so late that it was necessary to plow up land which had already been planted to cotton. In 1934 the contracts diverted land from cotton. A further decrease of acreage occurred, the Secretary of Agriculture renting 14,500,000 acres of cotton land on contracts approved by July 1, 1934, and perhaps another 500,000 on contracts awaiting approval. Only 4,000,000 of the 28,024,000 acres under cultivation on July 1, 1934, were not covered by contracts. Farmers choosing benefit payments and other Government inducements, rather than the unlimited exploitation of their land, have given up about 38 percent of their land on lease.⁵

To strengthen control the Bankhead Act was passed. The act provides for the tax-free ginning of 10,460,251 bales of 478-pound net weight. Cotton delivered above

³ The parity price in June 1934 was 107.8 cents per bushel of wheat, which represents the average June price of 1910-14, 89 cents, adjusted to the rise in the cost of the goods which the farmer buys. The base price is fixed by historical records; the adjustment changes with the price of goods. The average price for wheat received by farmers in June 1934 was 78.9 cents. The difference between the parity price and the price received by farmers was substantially what it was when the tax was first announced a year ago, though the price received by farmers had risen 30 cents. See the Agricultural Situation, July 1, 1934, vol. 18, no. 7, p. 13; and AAA Press Release, July 9, 1934, p. 3.

⁴ Up to June 30, 1934, cotton producers in 13 States had received \$139,625,359. AAA Press Release, July 23, 1934.

⁵ AAA News Digest, July 14, 1934, p. 3.

this amount must pay a tax of at least 5 cents a pound, or 50 percent of the average central market price, whichever is the higher. Excess cotton may be stored on the farm without paying the tax, after the farmer has sworn out an affidavit as to the amount so stored.

In 1934 cotton farmers are expected to receive rental payments of \$100,000,000. In addition, there will be a parity payment totalling \$25,000,000 on the part of the supply estimated to be going into domestic consumption. The costs of the 1934 program will be borne through the proceeds of a processing tax of 4.2 cents per pound imposed on all cotton entering domestic consumption at the point of primary processing.

It remains to be seen whether ultimately such fact is not more likely to be borne by the consumer than is to come from manufacturing profits. Also, owing to the economic and social conditions of the cotton growing industry, the cotton program of the AAA has aggravated the condition of the share-cropper. The benefits offered by the Government induced many owners to raise their own cotton which has affected adversely the opportunity of tenant farmers for employment. It is claimed that many tenant farmers and share-croppers, especially colored, have been forced into the ranks of casual laborers as a result.

D. Milk Agreements.—The AAA has used marketing agreements partly to reduce output; partly to raise prices for producers; partly to promote orderly marketing, and in part to promote sales of surplus crops. Of the 35 marketing agreements made before February 1, 1934, 15 were with local milk associations. These were made chiefly to increase prices to dairy farmers, to improve trade practices, and to allocate markets.

These agreements were a source of considerable trouble to the AAA from the very beginning. The difficulty was in getting the different types of competing distributors, such as large companies and retail firms, independent producers and distributors, chain stores, etc., to agree on prices to be paid to milk producers and on prices to be charged to consumers. The AAA found itself incapable of getting both a good price to producers and a fair price to consumers since the producers and distributors often worked hand in hand against it, and since the industry as a whole was opposed to production control and to processing taxes.

After 8 months of disheartening experience the AAA adopted a new policy under which it fixes only prices of milk to producers. Prices to consumers are fixed only when there is danger either of cutthroat competition or of monopoly.

E. General Results.—The various measures since March 1933 brought the farmers considerable relief in 1933-34 through the payment of adjustment benefits, loans, and otherwise. But in its major aspects, the agricultural recovery program has been successful only in part. The main object of the act—the attainment and reestablishment of the prewar price parity between agriculture and industry—was not achieved. Though the Consumers' Counsel performed his task vigorously, it is conceded that on the whole, the AAA has been unable to protect the consumer against increasing prices. And as already indicated, the program has had uneven

effects on different groups of farmers, aggravating the adverse condition of some.

III. Long-range planning

The present administration has stated on various occasions why it thinks the present emergency program inadequate for long-run needs. The withdrawal of land at present proceeds without due regard for efficiency, for correct farm management, for proper interrelations between farms and regions, or for proper effects on different groups of farmers. The Department of Agriculture thus looks to something more comprehensive; namely, a national plan for the future of American agriculture, in order to provide a higher standard of living for all the people by using our land efficiently, by maintaining agriculture in balance to population growth, and by adjusting agricultural output to the changes in world economy.

The procedures for evolving such a plan are the determination of the volume of production necessary to maintain our population at an adequate level of consumption and to provide the probable export surplus. For this purpose an analysis of consumption trends is being made and resources are being studied on a regional basis. The Department of Agriculture is also stressing the need for a decision by the American people as to the degree to which our economy should be made selfsufficient, the extent to which industry is to be decentralized, and the ways in which the profit motive is to be regulated. Until decisions are made on these larger issues, the Department of Agriculture sees no possibility for coherent agricultural planning and is therefore advocating a provisional middle course.

The work most directly related to long-range planning in the Department of Agriculture is the research activity of some of its bureaus and divisions. The Bureau of Home Economics is concerned with establishing the basis for estimating the food requirements of the American people. The Bureau has set up four diet levels; (1) a restricted diet for emergency use; (2) a presumably adequate diet at minimum cost; (3) a more fully adequate diet at greater cost, and (4) a liberal diet. The studies of the Bureau of Home Economics indicate that the majority of families in the United States between 1922 and 1929 spent for food about as much as they would have had to pay for the minimum or moderate cost diets. Most families, however, were not getting as much nutritive content because of their food selection habits. The problem of satisfactory diets is not only one of purchasing power, but also of education and supply of agricultural products. Since our resources of land and labor are such that we can produce food enough for an adequate diet, the Bureau of Home Economics concludes that our problem is that of deciding what diet the people should have and adjusting our agricultural production accordingly.

Another major line of study of future requirements in agriculture are the researches of the Division of Land Economics into population trends and factors determining the production yield per acre.

These various studies are being coordinated now by the Program Planning Division of the AAA. This Division approaches the problem of agricultural planning from the consumer point of view. It takes the four diets elaborated by the Bureau of Home Economics as a starting point. It further uses the various estimates of the Division of Land Economics as to the number of acres needed per capita at different diet levels. On this basis, it is estimating the land needed for agricultural production allowing for various amounts which it may be necessary to export. The Division is also studying the problem of optimal distribution of agricultural production by regions.

IV. Problems

The emergency agricultural recovery program has been seriously affected by the drought of 1934. What has been brought home to us is the extreme danger of basing a program on curtailment of output. The line between plenty and scarcity is too thin, and in any case in regard to most agricultural products the American people are still below an adequate diet level.

It is also obvious that before long an attempt to carry out the present short-run program will create large problems. For instance, the program of eliminating acreage from production means a displacement of

farmers from their present occupations, and the question of the capacity of industry to absorb such farmers is inevitably raised.

The Department of Agriculture is aware of these complications. It is in fact the most forward-looking agency in the Federal Government today, insofar as planning its program is concerned.

Nevertheless, one must point out some of the limitations under which long-range planning is studied in the Department. Little consideration is given to the questions of the best forms of farm ownership, of the relations of different groups in agriculture such as tenants, laborers, small owners, and corporate bodies, and to the effects of social institutions on agricultural planning. Neither is the Department giving full recognition to the question whether it is economical to put men back on the land on small holdings in order to give them subsistence employment, and whether a decent standard of living can be achieved on such a basis, or whether subsistence farms are going to become the dumping ground of the economic wastage of the country. Above all, little if any thought is given to the agricultural worker. These and other problems call for a greater coordination of short-run and long-range objectives than the Department of Agriculture has so far been able to achieve.

Chapter VII

TENNESSEE VALLEY AUTHORITY

The nature of the development of the Tennessee Valley Authority will depend in marked degree upon the desires of the American people. Its mission on the one hand consists of certain very specific tasks, for which preparation has been made by years of public discussion, such as the construction and operation of hydroelectric stations, rural electrification, the production of cheap fertilizers and the prevention of soil erosion. On the other hand, the chairman, Arthur E. Morgan, emphasizes the more nebulous task of "social planning for the future." No definition of this task has been attempted. In the first year of operation it has manifested itself chiefly in the spirit in which the work has been done.

One of the most interesting problems of the TVA will be the struggle between the generalized and the specific approach. Today there is a substantial gap between the two. The daily tasks of the three directors tend to foster an interest in the narrower and more specific problems. Indeed the chairman has made this into a philosophy: "If we handle emergency problems that come to us [in the spirit of interest for social well-being] we will have the beginnings of the best way of planning. * * * There will gradually emerge through all these [careful and farsighted treatments of specific problems] the texture of the fabric and design in the unity and harmony of a great plan." Political expediency also favors this approach. Dr. Morgan has said: "Every step of economic planning will be contested by those who are interested in things as they are." The performance of the TVA is limited to what the people of the United States and of the valley will tolerate. So far the public mind has been little prepared for a broad experiment in social reconstruction.

As has been said, there has been extensive preparation of the public mind for certain specific tasks and virtually none for a general attack on social planning. The TVA is rooted in Wilson Dam and two plants for the fixation of nitrogen, projected as part of the World War program. Since their completion the issue of Government operation versus private operation has been continuously before the American people. Bills sponsored by Senator Norris providing for public operation were passed in 1928 and 1931 but vetoed. The public interest was in cheap power and cheap fertilizer. But President Roosevelt incidentally introduced a wider concept, that eventually foliated in the act of May 18, 1933, clothing the TVA with power to make studies and plans not only "to aid further the proper use, conservation, and development of the natural resources" but also "to provide for the general welfare of the citizens of said areas", "all for the general purpose of fostering an orderly and proper physical, economic, and social development of said

areas." It is certain that this does not express any well-developed popular movement built up across the years. This fact has had a powerful effect in shaping the operating program of the TVA.

The organization of the TVA with its three directors bears on this problem. In effect the field of management has been divided among three, two of the directors being assigned certain specific tasks, such as dam-building and the development of fertilizers, and certain vague functions, such as "social and economic organization and planning" and the "planning of rural life." The nature of the duties of the third director, plus the fact that he has before him the example of the Ontario Hydroelectric Commission, may be presumed to influence him to conceive the function of the TVA mainly as the successful operation of a public utility system. The question is how to secure unity and a continuing concern in generalized and less immediate problems.

There is a broad technical integration of the specific tasks assigned to TVA, which have raised fundamental issues of social policy and have involved planning on a scale unusual in the United States. To begin with the effort to set up a well-managed, low-cost, self-supporting system of power production necessitates the integrated development of the Tennessee River. The prevention of soil erosion is necessary to prevent the dams from silting up within a century. But erosion is a problem in its own right. To prevent it, a program of afforestation and public works must be undertaken, and large areas must be turned from plow crops to grass. This cannot be done without experimental work in the development of phosphate fertilizers. To further this transformation and to develop the agricultural potential of the region, provision has been made for encouraging the cooperative movement. To find a market for the potential power has involved lowering the selling price of power for domestic use and the lowering of the price of electric appliances through the Electric Home and Farm Authority.

The work of the TVA has dealt with large social issues, some of which involve substantial modifications of the existing institutional structure of the country. Most fundamental of all is the decision of Congress to establish public ownership and operation of hydroelectric works in the valley; the demonstration of economy and social service in this field of enterprise by the TVA may foreshadow a broad change from private to public operation of utilities in the United States. The elimination of private enterprise by the TVA and the extension of rural electrification carries with it a reconsideration of the criterion of profitability. There is a difficult decision, involving social policy, that must be made with regard to the purchase price

of privately owned distributing systems. In connection with a program to prevent soil erosion it is deemed necessary to redefine property rights. These and other examples may be cited as large social changes implicit in the execution of the technical tasks assigned to the TVA.

The vision of the directors of the TVA has led to modifications of the usual social procedures even beyond these necessary changes. In executing their specific mandates, opportunity has been afforded to approach incidentally the problem of workers' housing, of adult education for TVA workers, and of municipal and county government, for example. The directors have a vital concern to establish a new kind of balance between agriculture and industry.

The social planning of the TVA visualizes the maintenance of the general outlines of the existing institutional structure of the country. The attempt to conform in general to normal business practices imposes distinct limitations as regards the selection of objectives and even as regards the pursuit of immediate objectives. The housing and power programs illustrate the second point. In each case there is an attempt to extend better or more service to the population of the valley, and in each case there has been such an extension through lowering costs. It remains to be seen whether the TVA can attack the fundamental poverty of the mass of people in the region who find even the cheapest current, appliances, and good housing beyond their means.

Chapter VIII

THE CENTRAL STATISTICAL BOARD

The Central Statistical Board has greater social significance than is indicated by the size of its personnel and the technical nature of its problems. It was created by Executive Order 6225 on July 27, 1933, "to formulate standards for and to effect coordination of the statistical services of the Federal Government incident to the purposes of the National Industrial Recovery Act." For reasons which shed considerable light on the problems of economic planning, it was blocked in dealing with code statistics. Its principal task has become that of eliminating duplication of effort and filling informational gaps in the work of the separate statistical services of the Federal Government.

A Committee on Government Statistics and Information Services had been created in June 1933, as a semi-official body to advise in connection with interdepartmental problems related to the statistical work of the Department of Labor. It recommended¹ within a month the creation of a Central Statistical Board.

The Central Statistical Board consists of representatives of the Secretaries of the Interior, Agriculture, Commerce, and Labor, the Administrator of NRA and the Governor of the Federal Reserve Board. In addition to these men others have been appointed, the total of the Board having increased from 11 to 17 members. The Board has operated through special committees consisting of Board members and non-Board members, and through a small secretariat which carries an increasing responsibility.

Executive Order 6700 of May 4, 1934, specifically sanctions the study by the CSB of individual agencies with their consent. It is thus possible to bring to bear the most competent statistical judgment in the Government to improve the technical quality of the work done in the separate services.

The Board² has brought excellent technical judgment to bear on new studies proposed, suggesting improvements in technique and curtailment where the proposed study was too ambitious or costly.³ The Board has a uniquely qualified personnel for such advice.

The Board has also assisted in the organization of the statistical services. On two occasions it intervened to protect established services against budget reductions that would have eliminated needed series of data. To the Board is due credit for the continuation of employment reports to the United States Bureau of Labor Statistics. The Board has aided in establishing

¹ CGSIS: *Statistical Services of the Federal Government in Relation to the Recovery Program*, pp. 26-33.

² Cf. Central Statistical Board, *Interim Report*, Feb. 12, 1934, pp. 3-4. There has been cooperation with many of the boards and divisions of NRA proper, but a dispute as to the Board's jurisdiction in the matter of code statistics blocked effective work there.

³ In view of the criticism to which Government intervention in the collection of industrial statistics has been subjected, it is important to note that it was largely due to the intervention of the CSB that, for example, the President's Reemployment Agreement questionnaire in the fall of 1933 was reduced to manageable proportions.

new statistical services where needed, as in PWA. Its most significant task may well prove to be a study now being made of the organization, personnel, and procedures of the Bureau of the Census.

The Board has made special studies of particular types of data. It has made recommendations for the elimination of duplication in handling mineral statistics. It has comprehensively reviewed the deficiencies in construction and retail price statistics.

The anticipated statistical requirements of the NIRA furnished the immediate incentive for establishing the CSB cited above. The director of the Planning and Research Division of the NRA had appointed an advisory Statistical Policy Committee early in July 1933 with a membership drawn from various Government departments. The President's order formally conveyed to the CSB the function of statistical planning. This included the right to review all schedules and plans for the tabulation and classification of data relevant to the NIRA by Federal agencies. In July 1933 there was a general presumption that the collection of code statistics would be a Federal function.⁴ In practice the task was given to code authorities. General Johnson ruled that they were not Federal agencies in the sense of the Executive order of 1933. The Board's primary duty, that of reviewing and coordinating NRA statistics, therefore could not be fulfilled. The main change wrought by the President's order of May 1934 was to specify that the Board shall concern itself with the work of "other public or private agencies", as well as of Federal bureaus, engaged in collecting data relevant to NIRA. This restored the authority the Board was at first assumed to have.

During the first year of the Board's existence great confusion has existed with reference to code statistics. Two problems arose at once: who shall collect the data; and what information shall be collected. During the first 6 months these questions were so inadequately answered that NRA, instead of producing a wealth of new information to be coordinated, actually threatened to undermine the continuity and comparability of such data as we did possess. The Board therefore faced a third problem, that of maintaining existing services. This last question involved particularly the Bureau of Labor Statistics. At first the Department of Labor and the CSB fought for the principle that at least labor statistics under the codes should be administered by the Government. At the time they failed to overcome opposition within the NRA, but in the late fall General Johnson agreed to write asking each firm that had discontinued reporting to the Bureau of Labor Statistics to resume. In March 1934 the Administrator terminated the long controversy by

⁴ See reports of CGSIS, statement of the Director of the Division of Planning and Research of NRA, the resolutions of the Central Statistical Board, and the recommendation of the Special Industrial Recovery Board.

designating the Bureau of Labor Statistics as the agency to which employment, man-hour, and pay-roll data must be reported.

The difficulty which the Board has encountered in defining its status with reference to the NRA arose in connection with the general question as to what part the Government should play in the collection of industrial statistics. The Board has consistently maintained that reports must be planned as a whole and not piecemeal, in order to insure uniformity of classification and sampling, and comparability between various types of data. This of necessity introduces the Government at least as a coordinator, as CSB thought had been done by the President's order; it also furnishes strong arguments for the Government collection of data or for specification by it of the data to be collected.⁶ Opposition to Government collection or supervision of statistics was too strong to be overcome in 1933-34.

Underlying the discussions of code statistics, was a more fundamental and unresolved problem. It was impossible to decide what data should be collected, what degree of comparability was required from industry to industry, or even who should collect or coordinate the work, until there was a definition of the purpose for which the collection of data was undertaken. From the beginning the CGSIS and the CSB had distinguished between data needed for code

⁶ Typical of the arguments are the statements that trade associations cannot assure continuity, both because they are themselves mortal and because their membership changes; since few associations cover an entire industry; and that certain types of data, such as supplies of raw materials, are necessary to a view of the whole economy, but not directly needed by those who are forced to report.

enforcement and for policy making. It was only with reference to data needed in the public interest for policy making that they urged Government collection, supervision, or minimal uniform standards. Business has been interested in code enforcement and not in public policy. Its stand on statistics expressed this interest.

During this period both the CSB and the Planning and Research Division of the NRA, between whom there was cooperation, had some influence on code statistics. The discussions led to the clarification of thinking on the subject and have established a standard for reports that will exert a continuing influence. Some code authorities have come to the CSB for advice. Others have also approached the Division of Planning and Research, which agency until December 1933 and now again since July 1934, assumed initiative in approaching code authorities. But by and large the Government contributed extremely little to the development of code statistics and even less to their coordination during the first year of the NRA and the CSB.

The developments since March 1934 point to a larger participation of the CSB in code statistics. Labor statistics have been improved by General Johnson's order in that month. The President's order of May gives the CSB direct access to the code authorities, which had been refused. In July 1934 the Division of Planning and Research in the NRA again undertook to assemble the forms used and the compilation of the code authorities, and took the initiative in developing code statistics.

Chapter IX

PLANNING IN THE OFFICE OF THE ASSISTANT SECRETARY OF WAR

The most extensive national planning in the United States is that which has been developed in the office of the Assistant Secretary of War since 1921. Recently established emergency agencies are developing programs with greater operating detail; but even in the period since March 1933 there has not been as unified a program as that which is being developed for the contingency of war.

The contrast between the two types of work is to be explained in terms of their objectives. The planning which we have been describing so far inevitably raises questions of social relationships, with reference to which there is no universally accepted ideal. The war-time planning of the economic process completely disregards social structure, except as it affects morale, and has a single objective; the technical utilization of national resources to achieve a military victory.

The World War demonstrated that for modern warfare the productive energies of a country must be massed and centrally directed, that waste arises when no plans exist to this end at the outbreak of war, and that uncoordinated military buying for undetermined needs is a most disruptive force. The National Defense Act of 1921 created the office of the Assistant Secretary of War to deal with these problems. The Current Procurement Branch of this office is charged with integrating the current purchasing of the separate supply arms and services. The Army Industrial College is training men, assigned from the Army and Navy who deal with procurement and with planning for war-time needs. It is thus creating a plain minded personnel in both branches of the service. We shall confine our attention to the work of the third branch of the office known as the Planning Branch.

In developing plans for a time of war it is necessary to coordinate the work of the Army and Navy. The procedure developed is to bring together directly the man whose work must be coordinated at various levels. At the top is the Joint Board which brings together the high commands for a coordination of broad plans and policies. At the next level, reporting to the Joint Board, though independent of it, is the Army and Navy Munitions Board consisting of the assistant secretaries responsible for procurement planning; its functions, but not its responsibility, are delegated to an executive committee of the four officers in active charge of procurement planning alone. Each year this executive committee must review the National Industrial Mobilization Plan and must submit its findings and suggestions to the Army and Navy Munitions Board. Subcommittees are set up under the executive committee for each of the divisions of procurement planning, such as price control, labor or specific raw materials, again consisting of the officers in each service directly concerned with the problems involved. The effectiveness of the work is greatly

enhanced by direct official contact, rather than by passing recommendations up to overburdened secretaries whose duties are so multifarious that they cannot grasp the details involved.

The character of the work of procurement planning derives from the singleness and limited character of the objective; from the fact that planning starts with measurements of the consumption needs of the Army and Navy; and from the fact that in time of war, it is believed, there will be popular support for necessary sacrifices and will be no demand for social reorganization. The work of the office is not intended to furnish a blueprint for the detailed conduct of economic life during a war. It is desired to furnish an approximate measurement of military requirements in the event of war, to assure this supply, and to develop plans for the institutional structure (the form of organization and the basic principles) necessary to the general direction of the economy.

The technique of planning for the supply of particular commodities is more significant than are the actual plans. A war must be planned for in particular rather than in the abstract. The specific procurement plans are therefore approximations which will serve as a basis for operation until they are revised after a declaration of war; but the technique used now should also be applicable then.

The first stage in the planning of procurement is that of laying down directives. The basic decisions are political; the declaration of war; the assumption of popular support; and the passage of a draft law. The War Department presupposes that such policies may be promulgated and proceeds to draw plans which are inoperative unless war is declared. The next group of directives is drafted by technicians in the General Staff or the supply services; a general mobilization plan, that outlines the number of men to be mustered, and the rate at which they will be inducted into the service and transferred to the theater of operations; a table of basic allowances that specifies the amount of the equipment to be issued to each unit of the Army, and the average rate of replacement in the zone of the interior and in the theater of operations; and finally the specifications for each type of equipment.

Given these directives, it is then possible to decentralize the work of planning for the procurement of specific items to the separate arms and services. They first compute the amount of each item which must be purchased month by month, including lags for transportation. The task is large, but in no sense superhuman nor so laborious as to make changes impossible. Through field officers each service then surveys the manufacturing facilities for the production of particular items. On the basis of these reports the central Planning Branch of the office of the Assistant Secretary

of War allocates plants to particular services to prevent competitive demands on and the overloading of individual establishments. Where a large plant must be assigned to several services, the office continues its interest in the amount of the load assigned by each service and works out problems of priority. Where a plant is assigned to a single service, the problem of load and priority is its responsibility, within the general limitation that it use no more than half the capacity of the plant. Plants allocated are surveyed in greater detail and tentative contracts are made for a schedule of production. The interests of the Washington office of the supply service is merely in the adequacy of the regional distribution of the load.

The requirements of the manufacturers to produce the scheduled amounts are less comprehensively studied. Bills of materials are prepared for those raw materials that it will be most difficult to procure in time of war. The amount of such materials required is compiled from the purchase programs of the separate services, is compared with amounts used during the World War and adjusted to allow for necessary civil use estimated from the amount and character of peacetime consumption. For these materials commodity plans are then prepared. As regards items not produced in times of peace more detailed factory plans are prepared; but in general the demand for labor, power, transportation, etc., is not measured.

The second type of planning is more general in character. From a critical study of war experience, modified to allow for institutional and technical changes, an attempt is made to prepare a scheme of organization and a body of principles to exercise economic controls during a war. These are embodied in drafts of needed legislation and executive orders: This constitutes the bulk of the work of most of the officers assigned to the Planning Branch.

Several general principles control this work. It is assumed that control in time of war will be exercised by men drawn from civilian ranks. It is further attempted to introduce no radical changes in normal

economic relationships which will encounter such opposition as to destroy public morale.

The structure contemplated approximates that of the last war. The Council of National Defense will be unnecessary, because its work is being done in the office of the Assistant Secretary at this time. The informal "Industrial Cabinet" will be formalized into an Advisory Defense Council consisting of the Secretaries of War and Navy and of the heads of the war emergency agencies. The War Industries Administration is to rest on legal sanction. Under broad powers it will supervise the execution of priorities and price policies, the development of new facilities, the conversion of old ones to new uses. In the first instance, at least, no separate Food and Fuel Administrations will be created. Separate agencies will be created for technical or political reasons: a War Trade Board, because its problems are not merely economic but involve foreign relations and strategic plans for the war; a War Labor Administration to prevent excessive migrations of labor and unethical competition for labor, because a consideration of the human elements involved in developing a new attitude toward labor problems makes a separate agency desirable; a Price Control Committee, because it should function as a quasi-judicial body with no duties of enforcement.

The sanction of public opinion is recognized as necessary to the success of all these plans. Hence, an Administrator of Public Relations will be appointed to coordinate publicity, to furnish full, frank, and judicious statements concerning the war program, to combat disaffection and enemy propaganda, to establish rules and regulations for censorship, and to supervise a voluntary censorship of the press.

It is suggestive that military authorities and their industrial advisors regard such an institutional set-up as has been described as necessary to the full exploitation of our economic potential in time of war, as consistent with the public temper and as within the capacity of management.

Part III

PLANNING IN FOREIGN COUNTRIES

Chapter X

ECONOMIC COUNCILS

Economic and social planning is a world idea. During the past few years it has been a topic of interest and a stimulus to action in parts of the world as widely separated as Russia and New Zealand, Japan and Peru, Germany and Mexico.

The planning movement outside the United States has so far run in three main channels. First, it has been applied in a comprehensive way for the purpose of building a socialist society. That is illustrated in the Union of Socialist Soviet Republics. Second, it has been combined with doctrines of extreme nationalism in efforts to reshape the national economies of separate countries on the basis of the presumed solidarity of all groups and classes of the people. This is exemplified by Fascism in Italy, National Socialism in Germany, and the Neo-nationalism of Japan. And third, it has been used in a limited way in many countries in an effort to think through problems of national policy and reconstruction. This limited and advisory planning is represented by the economic councils of France, Great Britain, and other countries.

We shall examine in this part of our study the main processes and problems involved in each of the three developments of planning. In chapters XI to XIV we examine fascist and nationalist planning. In chapter XV, we analyze the nature and issues of integral planning for socialism in the Soviet Union. In the present chapter we treat the general features of economic councils.

I. The European background

From the early days of the nineteenth century capitalistic individualism and the doctrines of *laissez faire* in Europe were challenged from points of view which contained the roots of present-day thinking. Discontent with the inequalities and periodic breakdowns of capitalistic economy, sympathy with the masses of the people, the urge toward democracy, and the growth of national consciousness combined in varying degrees to produce the three main currents of thought—socialist, social-reformist, and nationalistic—which fed the movements toward new economic and social forms.

The idea of economic councils may also be traced in part to the influence of a miscellaneous group of political writers who proceeded from an analysis of the defects in the theory and practice of political democracy to the advocacy of functional economic representation and of economic parliaments. In France and Italy, this school of political writers attacked the low state of parliaments everywhere, their uninformed methods of procedure, their subservience to powerful economic groups, their corruption, and their incoher-

ence due to the artificial character of geographic representation upon which they were based. In contrast, these writers stressed the naturalness, cohesion, and responsibility of economic and social groups, and advocated the reorganization of the political state on an economic and regional basis.¹ In England, a similar movement of ideas proceeded from a criticism of political action and of the doctrine of sovereignty inspired in varying degrees by Fabianism, Syndicalism, and Catholicism.² In Germany, a number of writers, of whom Schaffle is perhaps the best known, based their schemes for vocational representation on the theory of society as a living organic unity and on the presumed superiority of an organic state made up of well-defined economic groups over the mechanical state based on universal suffrage.³

The step to a more specific concept of national economic councils was made in Europe in 1918-19. It was closely related to the general social upheaval of post-war "reconstruction" and was inspired in part by the desire to find new forms of democratic government. The first councils were established in Germany and Russia. But similar movements were developing in France, Italy, Great Britain, and elsewhere. The French Confederation of Labor advocated the organization of a national economic council to carry through a systematic reconstruction of economic life. In Italy, Socialists and members of the Catholic party introduced bills in Parliament for planful social reform. And all Europe was stirred by the challenge of the Russian Revolution with its new institutions, among which the Supreme Council of National Economy took a leading place.

Between 1924 and 1928 economic councils were organized in France and several other countries. The main impulse was economic—to find a more effective way of integrating national economic policy. Since 1929, the councils that have been projected or formed have been shaped by the idea that they could help to solve the problems of economic stability and evolve plans for national development.

II. Functions and types

In their widest scope, economic councils are an attempt to deal with two basic problems of modern economic and social life. First is the problem of the relation between group organizations and the state.

¹ See Leon Duguit, *Le Droit Social*, 1906. See also Lewis L. Lorwin, *Advisory Economy Councils*, Brookings Institution, 1931.

² See Graham Wallas, *Human Nature and Politics*, 1908; and *The Great Society*, 1914. For a summary of these developments, see Lewis Rockow, *Contemporary Political Thought in England*, New York, 1925.

³ See H. Finer, *Representative Government and a Parliament of Industry*, 1923.

In the democratic state this problem arises out of the conflict of special group interests which impede the functioning of parliamentary and representative government. In the new "totalitarian" states the problem reappears in the need for organizing group and class functions into an "organic" unity. The second problem is that of harnessing expert economic knowledge in the service of governments. This problem is becoming increasingly important with the growing complexity of economic life in all countries and with the increasing importance of government participation in it.

The belief that economic councils can meet these problems successfully is based in part on their method of organization, in part on their method of operation. The essential feature in the organization of economic councils is the frank and full recognition of the economic group as the basic unit of the social organism. The significant feature in the functioning of economic councils is reliance on systematic and continuous research and the effort to view economic and social problems in their interrelations as part of a unified national economy.

In view of the differences in time of origin and in general background, the economic councils which are found today in over 20 countries⁴ vary greatly, in form, legal status, methods, and functions.

In some countries they are provided for in the constitution; in others they exist either on the basis of a statute or of an executive decree. Some of them are attached to the prime minister's office as in France and Great Britain, others are independent bodies in the political and legal system of the country. Differences in size, composition, and methods of selection are considerable. In some countries the members are elected by trade associations designated for the purpose by the government. In other countries, they are nominated by the government from a list proposed by trade associations or appointed directly by the government. In a few countries, there are ex-officio members from the government or the civil service.

On the basis of functions and method of composition, advisory economic councils may be divided into three main types:

The representative advisory type includes councils such as those of France and Czechoslovakia, which are composed of representatives of the different economic groups of the country and whose function is primarily that of advising the legislature and the government on economic and social matters.

The appointed technical type includes committees and councils which are composed either entirely of govern-

ment officials, or partly of private persons and partly of government officials, and which are attached to the government or to one of its departments for purposes of consultation and technical information. Perhaps the most interesting example of this type is the Economic Advisory Council of Great Britain.

The appointed advisory planning type includes councils or boards which are appointed by the government for advisory purposes only, but which are specifically charged with the function of surveying national life as a whole and considering general plans of national development.

Advisory economic councils may be regarded as instrumentalities for stimulating a coordinated view of national life and for developing mental attitudes favorable to the principle of national planning. They cannot carry out major economic plans for stabilizing industry or prices or for preventing depressions without being transformed into legislative chambers or regulative bodies and without becoming more than what they are meant to be—agencies advising governments on economic policy.

The capacity of advisory economic councils to attain the purposes for which they are best suited depends upon the powers given them, their position in the political system, and their method of organization. In relation to powers, what is of special importance is that advisory councils should have the right to obtain all information necessary for their purpose whether from other government agencies or private sources.

Should the council act in an advisory capacity to the executive branch of the government, or to the legislative branch, or to both? The answer which is suggested both by logic and experience is "both." This seems more consistent with the very nature of advisory councils as aids to democratic government.

Experience points to the conclusion that it is better to have councils composed of a small number of individuals selected on a basis of merit and only indirectly representing economic groups. Practically this means to abandon the representative advisory type of council in favor of the appointed type. There is the possibility of combining the two types by means of an appointed economic board supplemented by larger panels of representatives of various economic groups. A highly trained staff is essential for the continuity of research, the formulation of long range problems, and the development of new techniques.

Advisory economic councils are a phase of the post-war movement toward the integration of national economies. Their development has proceeded in harmony with national needs, and their method of operation in an attempt to promote national solidarity for economic ends. They have, however, possibilities for developing international cooperation in economic research.

⁴ The countries are: Austria, Belgium, Czechoslovakia, England, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Latvia, Luxembourg, Poland, Portugal, Rumania, Spain, Turkey, Yugoslavia, Bulgaria, Sweden, Switzerland, China, Japan, Argentina, Chile, Colombia, Mexico, Peru.

Chapter XI

ITALIAN POLICY AND LAND PROGRAM

Since 1870 there has been a land reclamation program on the statute books of Italy. It has been one of the outstanding achievements of the present Government to vitalize this program, introducing a new energy and tempo, and bringing new vision to bear as regards scope, technic, and the social significance of the work. The land program that has been launched embraces one-third of the area of the country. Malarial swamps are giving way to modern agricultural developments. Eroded hillsides are being reforested and protected. Facilities for a new type of life are being provided in the villages.

To the national planner the work is of great importance because Mussolini has made land reclamation a mere extension of his conception of what Italy should be. His slogan has been "redeem the land, and with the land the men, and with the men the race." The underlying objectives are to strengthen the small peasant proprietors, whom Il Duce believes to be morally and physically superior to industrial workers; to furnish a means of dealing with the surplus landless agricultural population of the north, which is a standing menace to the stability of any government of Italy; and to increase the population by about 10,000,000 people as a demonstration of racial vitality, as a means of providing a domestic market for Italian manufactures, and to increase the military strength of the State. From these objectives are derived a number of related policies; measures designed to increase population; the reclamation of land to care for the added numbers; provisions for the migration of workers to the new land resources; a rural road program to facilitate domestic trade; and a program to reconstruct rural life to stop the drift from country to city.

The population program has been the least successful. Achievement has been registered in those matters in which the State has direct control. Such is for example the reduction of emigration and the continued lowering of the deathrate. But measures designed to influence the birthrate have not succeeded. The marriage rate, despite a tax on bachelors, shows the same characteristics as in pre-war days. The birthrate has continued to drop, despite active propaganda for large families, bonuses for extraordinarily large families, tax exemption for families of 10 or more dependent children and the vigorous enforcement of laws against the dissemination of contraceptive information and devices.

The Commissariat for Migration and Internal Colonization is engaged in moving families from the north of Italy to reclaimed lands on the west coast, in the south and on the islands. To date only a few thousands have been placed, but this work is expected to assume importance as reclamation projects are finished. So far the most important task has been to place workers from the overcrowded areas in other parts of the country with a minimum of hardship and

a maximum of certainty. The Commissariat has moved more than 300,000 workers a year, a few of them permanently but most of them for seasonal agricultural work.

The land policy has gained international fame because of its technically excellent character. To be understood in its full significance it must be seen as a development of one of the coordinate group of underlying objectives; but because American work in land reclamation and flood control has been so inadequately coordinated, we may well study the land work of Italy apart from its national setting.

The original program of 1870 proposed the drainage or irrigation of 4,500 square miles. About two-fifths of this work was finished by 1929. Expenditures made in the first 7 years of the Fascist administration almost equalled those made in the first 52 years of the program. Though this indicates the great increase in the tempo of the work, Mussolini in 1928 announced that within 14 years the remaining 2,700 square miles were to be reclaimed and another 5,000 were to be improved. The elaboration of the program was delegated to an agency in the Ministry of Agriculture and Forests, *Bonifica Integrale*. It proceeded to a survey of the lands of Italy with a view to developing an integrated program for reclamation in the lowlands together with necessary work in the uplands, for conservation work in the mountains, and for the improvement of agricultural land. By the middle of 1931 plans had been completed for 12,400 square miles of drainage, irrigation and related flood control work; for 33,800 square miles of "mountain regulation"; and for the improvement of another 10,800 square miles. The period of 14 years was retained for the total program; but for some classes of work, such as irrigation in northern and central Italy which had been most vigorously developed under the earlier program and such as upland flood control that was prerequisite to reclamation in the lowlands, the period was shortened to 8 years. In 1929, budgetary provisions were made for \$590,000,000, to be spent in 14 years; the entire program will involve a State expenditure of approximately a billion dollars. It was expected that the scale of operations would increase in each of the first 5 years, but the world depression forced some curtailment after the first year.

The data are not available to give a single measure of the physical progress which observation indicates has been made. By July 1, 1932, work had been started on four-fifths of the area scheduled for reclamation and on three-fifths of the area embraced in mountain projects. Concessions made chiefly in 1931-32 had been let for about half the area embraced in improvement plans. As a result of the scale of operations, almost none of these projects had been completed, though portions of many of them had ripened into their final use. The completion of 15 model

villages and of more than 5,100 houses by 1932, the planting of 23,000 acres with seedling trees in 1932—such measures give evidence of progress but little guide as to how closely the timing of the total program is being observed. Appropriations and expenditures are slightly less than had been anticipated, indicating presumably some lag behind the program.

The latest decree (no. 215 of Feb. 13, 1933) codifies earlier laws and establishes certain functional classifications to describe the types of work and to allow the application of differential benefits. The basic classification now considers the social and economic importance of the work, rather than the character of the terrain. Reclamation projects are those covering broad areas to be developed under a general plan of coordinated projects and activities. Land improvements are those works which may be carried out to the advantage of one or more tracts of land independently of any such plan. Reclamation projects are further classified on the basis of the public good; those which can be used for colonization receive a larger subvention than those which will benefit the existing local population. An analogous distinction is made between different types of work on the basis of the burden of the cost of improvement: mountain work undertaken for soil stabilization is paid for entirely by the State; for drainage and irrigation the State bears three-quarters to nine-tenths of the cost; for improvements to land or buildings that are called for in the plan the State may bear up to two-fifths of the cost.

Grants for land improvements in areas outside of general reclamation plans appear to be partly for educational purposes in backward areas. The provisions for the share of the State are permissive and flexible.

To carry reclamation plans into effect a machinery has been devised to combine State activity and private initiative. The Ministry of Agriculture is responsible for classifying the land of Italy. For those areas designated for reclamation a plan must be prepared either by the owners or by the Government. The responsibility of approval rests with the Government. It is desired that the execution of the plan shall be undertaken by an association of the owners of the land involved. In 1931-32 more than 90 percent of the expenditures for drainage projects were made by such associations; in the mountains State execution of the plan appears to be the rule.

These associations are under rigid control by the State. The concession may not be transferred; sub-contracts may be vetoed by the ministry. The ministry is informed of all transactions and may exert its influence through a representative meeting with the directors of the association. Finally the ministry may remove the officers of any association.

In financing these works the association meets the expenses in the first instance. It is reimbursed by the State and the owners for their respective shares of the total costs. The consortium may finance the amounts due to it from the owners by borrowing up to 60 percent of the final value of the improved property less mortgages. This loan is retired from the proceeds of assessments levied on the owners for the expenses of executing the work and for the subsequent upkeep and management of the property. The assessment is levied by the association and enjoys the same status as a tax levy. Credit machinery has also been provided to cover the State's contribution which is made in obligations maturing serially across 30 years. In general all credit institutions are authorized to lend to associations, discounting the annual payments to be made by the State and by the owners. The associations may also sell bonds to be amortized in 50 years. A market for the bonds is provided by permitting their purchase by savings banks and national insurance offices.

Technically the distinctive feature of this work is that plans are developed as units by watersheds. The same attention is given to minimizing the flood danger by regulatory works in the uplands as is given to controlling floods and drainage in the plains.

Socially the distinctive feature is the manner in which a new type of rural life is being built in these reclaimed areas. The houses provided are adequate, in contrast to the one-room dwelling occupied by many of these families, in the north. The communal facilities compare favorably with the best that can be found in Europe: school, hospital, creche and maternity clinic, gymnasium and clubhouse for the children's organizations, worker's recreational center, Fascist militia headquarters, and playing fields. This display of social facilities in addition to church, townhall, and stores offers the physical facilities that are needed to build the new living in the Italian countryside that is implied in Mussolini's slogan to redeem the men and the nation through the land.

Chapter XII

ITALIAN CORPORATIVE POLICY

The history of general economic and social development in Italy in the last 12 years contrasts strongly as regards the character of the planning with that described for land and population. There is no corresponding "plan" for industry, commerce, finance, or even for agricultural production. What is sometimes referred to as planning in these fields are merely the extensive acts of intervention by the State in economic life to accomplish specific and more or less limited objectives. The interrelationships of different phases of economic life have never been visualized as a whole.

There is, however, a double drive that sheds light on national planning. Fascism has for its ideal social unity. At no time have the leaders charted the full institutional set-up that would express unity. They have moved forward as opportunity afforded and as circumstances dictated. But even this vague and indefinable ideal has operated as a sufficiently consistent driving force so that in retrospect the institutional development appears to have been planful. The second drive is toward an actual planning of economic interrelationships that arises from the compulsion of economic life itself, as the State broadens the scope of its intervention.

In the institutional evolution of Italy syndicalism, corporatism, and interventionism are interwoven. They should be distinguished, however, because it has been to some extent a misnomer to refer to Italy as a "corporative state". Syndicalism is concerned primarily with the relations of employees and workers. The labor contract is the center of interest. Prior to 1934 few corporations had been organized; the corporation existed as an idea rather than an organization. But it is conceived of as representing the sum total of all interests in a given branch of production and would concern itself with the relations of branches of production to one another. Interventionism we use to describe the direct interjection of the will of the State at isolated points in the national economy.

The first interest of the Fascists, impelled by their ideal of unity, was to establish order in the economic system by abolishing open conflict between employers and workers. At least so far as is indicated by their initial declarations and actions, it would appear that they even believed that this would give an orderly economy. This point of attack was dictated by the conditions prevailing in Italy in the years following the war. As the existing labor unions were class-conscious the first efforts were directed to their destruction, which was almost complete by 1925. Paralleling this was the development of fascist unions to a point where they were strong enough, in comparison with the other unions, to make it safe for employers to deal with them. During this period strikes were discountenanced, except where they were necessary as a sign of the interest of the Fascists in labor. Though the labor law

of 1926¹ was described by Mussolini as the "most revolutionary" step taken by the Fascist Government, it was essentially a codification of the existing situation. Strikes and lockouts were prohibited. Only syndicates of workers approved by the Government could represent labor in official negotiations; such associations might make contracts binding on all persons in the category, even though the association had a membership of only 10 percent of those affected. Provision was made for the drafting and enforcement of collective contracts. The ministry of corporations was charged with building up a syndical organization in which for every association of workers there was a corresponding association of employers. The Government held the balance of power in negotiations, as well as controlling the syndicates through their officers. The ministry also supervised the elaboration of labor contracts. These tasks consumed all of its energies until 1929, though provision had also been made in the law for the organization of corporations.

The concept of the corporation, which was not clearly distinguishable from that of the syndicate in the earliest days of fascism, was elaborated in the law of 1930.² It is significant that this law should have been proposed in the only brief period of comparative prosperity in Italy since 1926 and that it was urged especially by labor. Employers have feared the development of corporations would subject them to the control of labor. The corporation, is, however, a logical extension of the fascist ideal of unity. Mussolini, in describing the law, said its most significant provision is that which charges the National Council of Corporations with "regulating the collective economic relationship between the various categories of production." Another period of deflation was upon Italy almost before the law was published. The national council has assumed many of the debating functions of parliament on matters of economic legislation. Seven sections with membership drawn from the various syndical confederations have been recognized as corporations for industry, agriculture, etc. Writing 3 years later, a supporter of the regime still describes the system in terms of its "potentialities".³

The depression has strengthened the idea of corporatism because of the increased demand for Government intervention and because the Government became dominant in the field of finance. The power of the Banca Commerciale Italiana passed to the Government in 1931. The dependence of business interests on the Istituto Mobiliare Italiano and on the Institute for Industrial Reorganization (January 1933) has destroyed much of the power formerly enjoyed by capital. On the other hand the greater and greater intervention

¹ Law 563 of Apr. 3, 1926, and Royal Decree 1130 of July 1, 1926.

² Law 206 of Mar. 20, 1930, and Royal Decree 008 of May 12, 1930.

³ Fausto Pitagiani, *The Corporative State*.

of the Government necessitated a broader view of the total economy. In June 1932 the Government received power ⁴ to compel the formation of cartels. In 1933 it was authorized ⁵ to place the building of new industrial establishments under Government control. Despite the emphatic declaration that fascism adheres to individual initiative, such measures call "for widening the powers of the bodies made responsible for the control of production and also the necessity for a clear definition and determination of the ends in view."⁶

In the fall of 1933 at the meeting of the General Assembly of the National Council of Corporations, Mussolini returned to the attack for an actual corporate organization. The speech dwelt at length upon the

⁴ Law 834, June 16, 1932.

⁵ Law 141 of Jan. 12, 1933.

⁶ Fausto Pitigliani, *op. cit.* pp. 97-98.

process by means of which the assembly might replace parliament. There has also in recent months been further development in the field of corporations. Immediately the announced purpose seems to have miscarried. The statement made in the fall that the masses should be given an opportunity to view "the instruments through which these masses are raising their standard of living" was followed in April 1934 by a second deflation of wages and prices.

The totalitarian State absorbs within itself the conflicts of liberal societies. The play of these forces has given a zigzag course to the development of Fascist policy. But the strength of the underlying objective must also be recognized in its constant recurrence. So far it has not been strong enough to break through the opposition to a totalitarian view of the economy.

Chapter XIII

NATIONAL SOCIALISM IN GERMANY

Since Hitler became Chancellor of Germany on January 30, 1933, great changes have taken place in the political and social fabric of Germany. This is too short a period to discover how far the measures adopted are part of a comprehensive plan. The influence of conservatives has so far been dominant, but there are radical elements in the National Socialist Party; there is some evidence that also the totalitarian state reflects shifting coalitions behind the head of the State and proceeds through the compromise of various plans. The existence of a clear-cut rational plan is furthermore opposed to the romantic and irrational spirit of National Socialism.

National Socialism is an expression of the struggles and hardships of the post-war years. Germans smarted under what they regarded as the injustices of the Treaty of Versailles; they felt that changes in the situation were not to be viewed as concessions but, coming as they always did too late, were recognitions of necessity. The domestic situation was characterized by insecurity. The rising generation assumed that it would be unemployed. The middle class had lost its property through inflation. Political parties were more effective in blocking action than in solving difficulties. The intensification of the class struggle cast shadows of revolution from the left and domination by large capital from the right. The split between Communists and Social Democrats made effective labor action impossible. But the Government became more conservative as the electorate became more radical. In this situation the middle classes and the peasantry especially demanded a strong government to serve them and "unite" the German people.

Because of the fact that post-war political parties had represented primarily the economic interests of various fractions of the population, unity could not be achieved through any economic program. The rallying cry of the National Socialists has been the unity of the German people. From this has derived a related body of social, political, and even economic policy.

I. Social and political coordination

The reorientation of social policy has been extensive. Hatred of the Jew has been substituted in considerable measure for hatred of economic institutions, which, it is alleged, were dominated by Jews. The measures of repression against Jews have been justified as furthering racial purity, but even in carrying out these policies the Government has been restrained by economic pressure from sources beyond its control. There has also been a change in the position of women through law and the establishment of new social standards. It is explained as being in "the Aryan tradition", though it conforms to the needs of a movement dominated by males during a period of intense unemployment. The educational

process has been used to instill the doctrine of "Aryan" superiority, to develop the heroic or martial attitude, and to idealize the virtues of peasants and artisans as compared with the international standards of intellectuals and the upper classes. In the movement there has been the puritanical tone that is common to youth movements generally.

In the methods of promoting these social changes there have been hysterical excesses. The atmosphere suggests less the presence of a positive ideal, that might seem to warrant the excesses, than it does the presence of a social psychosis arising as compensation for weakness and fear—understandable but unlovely.

In international policy there is strict continuity with the past. It is difficult to discover any new objective in the program of the National Socialists, though it has been stated in such a way as to alienate almost all powers simultaneously. In the movement prior to 1933 a new method—the show of force rather than conciliation—was advocated; but it has not been used consistently.

Much of the effort of Hitler has been directed to the political unification of Germany. It was formerly a Federal State; the States have lost all power. This also is strictly in line with the policy of Bismarck; there was even a growth of the national idea in the Weimar Constitution.

The attempt to weld all Germans together in a single party is another of Hitler's main objectives. Hitler completely smashed all political opposition and seized control of almost all agencies directing public thinking by a series of measures that started with the outlawing of the Communist Party in March 1933 and that finally centralized in his person all powers of president and chancellor in August 1934. However, the opposition within the church, the conflicts between Stahlhelm and S. A., the campaign against "grumblers", von Papen's answer on their behalf on June 17, and finally the "purging" which began on June 30—all these indicate that an inner unification has not occurred.

II. Economic coordination

Except in the field of agriculture and of labor it is difficult to discover any homogeneous economic program and even more difficult to discover anything new in what is done. This is partly due to the fact that Hitler has given little thought to economic problems,¹ partly to the fact that there was already a substantial social intervention in economic life, and largely to the fact that there was no unity in the economic interests and programs of his various groups of supporters. In the fields of industry, commerce and finance, control has been exercised by conservatives. In finance there is strict continuity with the

¹ Cf. Hitler: *Mein Kampf*.

policies of earlier Governments; though Government intervention is extensive, it has been forced by the situation in international trade. There is a greater attempt to justify it in the name of "autarchie" than there was. In industry there was a tradition of a certain type of planning.³ Cartel organization was widespread. The Economic Council (the Reichswirtschaftsrat) had existed since the war; during the "Decree Government" it acted almost as a parliament for economic legislation. This type of organization has been continued. Though the powers of the minister of economics are now complete, no view of the economy as a whole has developed. The regulation of imports, as expanded at the end of August, would seem almost necessarily to require large steps in planning to be taken.

III. Labor

In the case of labor there has been a clear-cut and consistent program to destroy the strength of organized labor and to disavow the divergence of interest implicit in collective bargaining. The labor unions in May 1933 were first brought under Nazi leaders; in November they were dissolved. The German Labor Front, its leader, Dr. Ley has said, is charged with the "education of all laboring Germans" in the spirit of the National Socialist State.⁴ The highly developed process of collective bargaining and of labor courts that existed under the Republic has been replaced by a new law which refers to the employer as the responsible "leader" and to the workers as "followers."⁴ Most of the elements of the old law are continued in recognizable form in the new one. It is alleged that it is not designed for the exploitation of labor; but one notes that the machinery provided makes it easier for the employer than for the worker to represent his interest. It is said by the National Socialists that it expresses their ideals of unity and leadership because the "leaders" (employers) are charged with responsibility to the State for decisions in the social interest.

The measures taken to increase employment form a unified body of policy, though, as private enterprise has been left generally free, there is a large uncontrolled area. These measures look to decreasing the labor supply and removing the load on unemployment relief, and to creating new jobs. Through marriage loans it was hoped to remove women from employment. As a further measure the cities have been closed to migration from the land. The Labor Service is proposed for a similar purpose. Various measures have been taken to make more stringent the eligibility requirements for unemployment relief.

Attempts to create new employment have followed several lines. The Germans have used the "ballyhoo"

of confidence as have other countries. Various types of tax exemption and subsidy for employment of new workers have been offered. In domestic service and agriculture there has been a deflation of wages, often to board and lodging, to encourage employment. Industrial wages have not been officially deflated, though a movement to spread work has been pushed. Finally extensive public works have been undertaken. Though it is officially claimed that only one-third of the former 6,000,000 are unemployed, the alleged increase of employment has not led to a condition of well-being, as the crisis measures of the summer of 1934 indicate.

IV. Agricultural planning

In agriculture the program of the National Socialists has been most comprehensive. They inherited both the threatened bankruptcy of agriculture and a series of interventionist measures for the benefit of agriculture—tax policies, easy credits, moratoria, interest reductions, tariffs, quotas, state monopolies, and state regulation of consumption. Measures of this sort were continued and extended.

The National Socialists have developed a "fat plan", which, while interventionist in method, has a broader integration than most such measures. It seeks to satisfy the two objectives of protecting the dairy interests (small peasants) and of making Germany independent of the world. The attack has been focused on margarine manufacturers, who are subjected to special taxes, limited quotas for production, and requirements to use certain proportions of domestic materials.⁵

The difficulties encountered in the program illustrate the dangers of limited intervention, which tends to raise ever new problems. The machinery of regulation is extensive, but, having raised the price of butter, it was then necessary to set up a complicated machinery to deliver cheap margarine to those who could not afford the commercial product. It may be argued quite plausibly that the entire structure was made necessary by such earlier encouragement of dairying as forced German peasants to bear the full brunt of the competition with margarine.

The basic law of German agriculture is today the act for the Provisional Organization of the Corporate Body of Food Producers and for Measures for Regulating the Market and Price of Agricultural Produce. This act gave the Government the broadest powers to organize the various occupational groups, to regulate marketing, fix prices, and fix profit margins. The powers have been used, but not in all fields, in the manner described for margarine. Under this law all producers and distributors of foodstuffs have been organized into associations, in some respects similar to those we know in connection with NRA and AAA, but with a greater degree of authority, deriving from the leaders.

The most characteristically Nazi act is the law of land inheritance,⁶ which expresses the fundamental

³ Cf. Brady, *Rationalization in Germany*; and Lorwin, *Planning in Europe*.

⁴ Quoted in *International Labour Review*: "The New German Act for the Organization of National Labour", April 1934, p. 455.

⁵ *Reichsgesetzblatt*, pt. I, (Jan. 23, 1934); see *United States Monthly Labor Review*, May 1934, for translation and *International Labour Review*, loc. cit. for analysis.

⁶ For brief discussion, see H. E. Reed, *U. S. Department of Agriculture: The Edible Fat Problem in Germany*; and *Foreign Crops and Markets*, July 31, 1933.

⁷ *Reichsgesetzblatt I* (Sept. 29, 1933).

belief that the small peasant proprietor is to be the source of racial regeneration. It recognizes the principle of primogeniture. While it protects the peasant against expropriation, it also forbids the sale of his estate, and thus binds him to the soil. It will certainly have marked repercussions in the field of social and family relationships, for it reestablishes dependence upon a sole heir. But while the legislation is dressed in vivid phrases, it is designed quite largely to free the farms from the burden of mortgages necessitated to settle inheritance.⁷

⁷ See U. S. Department of Agriculture: *Foreign Crops and Markets*, Jan. 15, 1934

The agricultural orientation of the party is being seriously strained by the drought and the economic crisis of 1934. The concept of the just price secured more enthusiastic support when it was a minimum price. The establishment of maximum prices and the principle of compulsory sale is less palatable.⁸ It gives the agricultural policy a more national, or less sectional, orientation. But it makes the agricultural policy less homogeneous than it was. It is more proper to characterize the economy of today as an economy of necessity than as a planned economy.

⁸ See R. C. Long, *Current History*, September 1934.

Chapter XIV

PLANNED EXPANSION OF JAPANESE INDUSTRY

From the beginning of the modern period in Japan, which dates from the Imperial Restoration in 1867, the Government has played an active role in the development of Japanese industry. The historical setting forced the Japanese to look to Friedrich List rather than the classical economists. Rapid industrialization was forced on Japan to protect herself against exploitation by occidental imperialism. Since there was an inadequate commercial class to come forward with the needed capital and management, and since the initial industrial ventures would probably have had to operate at a loss, the Government could not rely on private initiative. Japanese feudal tradition though decaying, made the intervention of the Government seem a natural development.

To say that the Japanese leaders "set up a series of national objectives, political, social, and economic, and then proceeded in systematic fashion to develop the ways and means for reaching the ends in view"¹ may suggest greater coherence, precision, and foresight than the plan possessed. Military strength was one definite ideal. Westernization adapted to the social life of Japan was another, less definite and accepted with the more or less uncritical belief that this would lead to better conditions for a growing population. The means visualized involved opening opportunities for private profit; there was no effort to organize the economic system so as to better directly the lot of tenant farmers and wage earners. The problems which Japan faces today indicate that there was inadequate consideration of the nature of the society which would result.

Government intervention has been made in the field of education, by operation of industries, by direct and indirect subsidies, in the development of markets and the manipulation of the credit mechanism. In some cases, as for example, the trunk-line railroads, the Government has operated the enterprise as a matter of principle. In many cases, as for example in textile weaving, the Government has carried a venture through the experimental stage and has then transferred it to private enterprise. Subsidies have been extensively used, as for shipping, for feeder railroads, and for sugar. The tariff has of course been used. In developing the export market the Government has inspected goods to maintain quality and hence goodwill, has encouraged the development of associations to facilitate trade, and has recently lent the support of currency depreciation.

The growth of Japanese economy has been phenomenal. In 60 years the country has been transformed

¹ Moulton, Harold C., *Japan* (1931), p. 238.

from a secluded feudal state, threatened with the fate of becoming a semi-colonial dependency, into a world power. The period of expansion was interrupted by cyclical depressions, but there was a rapid development for nearly 50 years. From 1868 to 1896 the industrial expansion was comparatively slow; it was a period of foundation building. Stimulated by two successful wars and by the generally prosperous state of world trade, Japan then expanded rapidly until 1914. The World War produced a sweeping boom, creating a world demand for products that had had little development in Japan and opening markets formerly closed. The earthquake reconstruction created an inflationary boom that postponed the readjustments that would normally have followed the war. The Government availed itself of all these opportunities to push any line of feasible expansion.

The banking crisis of 1927, which merged into the world crisis, seems to have inaugurated a new era. At all events the measures recently adopted aim not at expansion but at stabilization. Thus subsidies have been offered to rice (since 1921) and silk to maintain prices in glutted or weak markets. The Bureau for the Rationalization of Industry established in 1930 is working on the standardization of products, the exchange of information among producers and the promotion of the use of domestic products. The Principal Industries Control Act of 1931 carries the movement for cartelization further than it had gone, giving the Government the power to compel as much as one-third of an industry to abide by agreements made by the other two-thirds. Unlike the NRA, this has not covered small-unit industries, which have been cared for under Industrial Union Acts. Those for the export trade not only engage in cooperative buying of raw materials and credit operations but also carry certain controls over prices, inspection of goods and shipping methods. Under the Export Indemnity Act the Government offers to indemnify a certain proportion of the losses of designated exchange houses on bills to undeveloped markets. Finally the Control of Foreign Trade Act of 1934 gives the Foreign Office the right to levy special taxes above the posted tariff rates on imports, to reduce or abolish import duties, and to prohibit or restrict imports. It would seem to be significant that the Japanese economy has reached a point to require the same type of legislation to which the rest of the world has had recourse.

Even before the world crisis Japan faced serious problems that indicate that what planning there was did not look beyond immediately profitable expansion. The population of Japan has been growing ever more

rapidly since 1870. There is no large emigration to relieve the pressure nor is any considerable agricultural expansion possible. The only relief will come from a larger and larger export trade, based for the most part on imported raw materials. There is a strong presumption that unemployment will continue an acute problem.

The concentration of wealth in Japan is marked, developing as a network of varied enterprises centering about one or another of the large family banks.² In

² Cf. American Council Institute of Pacific Relations, vol. II, no. 25, Dec. 28, 1933; and Jules Sauerwein in *New York Times*, May 20, 1934.

the last few years the control of these "trusts" has been increased. Their rival influence on the two political parties raises serious problems in attempting to maintain the public interest.

Insofar as there was a Japanese plan of industrialization, it has been followed by remarkable development. But this objective may be seen today to have been inadequate; for the Japanese face the same difficulties and social grievances as do occidental countries, whose unplanned achievements set goals for this plan.

Chapter XV

SOVIET PLANNING

I. Objectives and scope

The most extensive attempt to plan a society is that being undertaken in the U.S.S.R. To be understood it must be studied against the Communist Russian background. But since this plan is adapted to a transition to Communism, its objectives, procedures, and processes may not be adapted to the needs of nonsocialist nations.

The Russian Communists are attempting to build a new society which has for its ideal serviceability to workers. The ultimate objectives are two: a classless socialist society and a higher standard of well-being for the masses. Insofar as it is necessary to subordinate immediate comfort to the strengthening of socialist forms of life, the Communists are willing to do so, for they believe that significant and enduring gains may be made only after socialism is established. The plan embraces the whole of society: state, family, religion, education, national minorities, and economic activity.

The Communists emphasize the fact that their planning is only possible under conditions of proletarian dictatorship. They do not mean by this the supremacy of any man or small clique. They do mean the domination of the Communist Party, which is assumed to represent the point of view of class-conscious, property-less wage earners. Though the influence of the political machine is tremendous, discussions in local party cells are an essential part of the development of policy and a widespread educational program aims to make the policies acceptable to the broad masses. Once a line of action is decided upon opposition must cease and criticism be confined to the manner in which the policy is executed.

In considering the objectives of Communist planning and their relationship to the plan, several points are to be noted. In the first place the Communists admit the desirability of nonacquisitive social ideals with which we are familiar. If a choice must be made, however, such values as individual liberty or family affection will be sacrificed to the ultimate objectives. In the second place it must be observed that these ultimate ideals express a state of mind, rather than a detailed description of the nature of the future society. When agreement on point of view and broad policies exists, the Russians have found that a flexible conception of the objectives is possible. The notion that there should be complete regimentation and that the plan should be inflexible is combated by the Communists themselves.

The planning process embraces in a unified whole all aspects of life. There is an attempt, therefore, to plan individual behavior. Insofar as there is a regimentation of personal habits, it consists chiefly in providing facilities to universalize practices that have been already accepted by civilized men as a matter of course, and in awakening a widespread desire to follow such

practices. The most fundamental attack on the individual is not on his personal routine but on his attitude toward life. It is intended to develop individuals who shall see their chance for a better life to be dependent upon a similar chance for all, who shall be willing to sacrifice themselves to the collective good, who shall think always in terms of "we." In part this is attempted through propaganda. But the chief means of securing a Communist ethic is the control of the institutions which shape man's behavior. The ideal is that every social practice should serve two ends; an immediate purpose regarded as good in itself, and also the development of social habits of mind. For example it was imperative that agricultural production be increased. Two alternative methods might have been followed—to encourage the richer peasants, or to mechanize collective farms. The latter was chosen.

The Communists are uncompromising in their intention to establish this ethic. They have shown a great flexibility in choosing the various types of social practice best adapted to achieve it. In many cases they are frankly experimental, as, for example, in regard to the particular form socialized agriculture should take. In other cases they are opportunistic; as for example, in weaning the child from the family during the early years of the revolution, when the family might turn the child against the revolution, and today tolerating even the conventional home.

The social structure is even more definitely planned than individual behavior. These plans involve decisions as to policy in connection with national attitudes with the relationships of social classes and of country and city to one another, and with the relative importance of private and public enterprise.

The problem of nationalities has been a particularly difficult one, for there are 185 peoples speaking 147 languages in the U.S.S.R. It has been important to economic life and political security to hold together the former Empire. But under the oppression of the Czar well-developed separatist movement sprang up in many of the more important outlying areas. Furthermore, acting as the champions of freedom for colonial peoples, the Communists had to adopt a distinctive policy in their own territory.

The program of dealing with this problem involved first of all setting up a political organization granting autonomy with reference to those functions of government most likely to give rise to racial antagonism. Even a constitutional right of secession is accorded the seven separate republics. "Pan-Russianism" has been attacked with great success, so that one finds little race consciousness among the more advanced people of northern and western Russia. The minor national groups have been encouraged to develop their national languages and those cultural forms that are consistent with Communism. They have been favored as regards

economic development. Insofar as Communists can be found among them, adequately trained for leadership, they have been used in preference to great Russians.

This program is not wholly altruistic in character. When separatist movements have developed, they have been regarded as "counter-revolutionary"—rather than anti-Russian—and vigorously combated. The official use of native languages has been essential to bring leadership from the masses. Cultural autonomy has not included the right to repudiate Communism.

The plan is being used to change the social balance throughout the country. Great emphasis is laid upon accelerating the development of socialized forms of production. Private enterprise plays a smaller and smaller role. The most drastic attack on the private sector of the economy was that against the individual peasant, but the plan also has provided for increasing the importance of cooperative and state trade. It is used also to change the relationships between other groups, as, for example, when it is provided to advance the wages of one group more rapidly than another; or when the price of particular commodities is altered to benefit one or another section of the country.

II. Economic planning

The economic plan of the U.S.S.R. is merely one part of a complex larger whole. It is influenced by the objectives and accomplishments of social reorganization and in turn exerts its influence on the social program. There is a sufficiently distinctive organization for the production and distribution of goods to warrant referring to the planning and coordination of these efforts as an economic plan. The State Planning Commission (Gosplan) is the technical coordinating agency; seven departments of government (Commissariats) are involved: The Commissariats of Heavy Industry, Light Industry, Lumber, Agriculture, Transportation, Distribution, and Foreign Trade.

Special Objectives.—The economic plan, as all plans in the U.S.S.R., is ultimately concerned with establishing a classless Socialist society and a higher standard of well-being for the masses. But the form of the economic plan is determined by a series of more immediate objectives, which are regarded as essentially basic means of attaining the underlying ideal. The collectivization of agriculture, involving a second revolution to give a socialized form to production on the land as well as in the cities, has profoundly modified the economic, cultural, and political programs. A second objective involves stressing the development of heavy industry in order to increase the influence of the proletariat, to render the nation capable of resisting external aggression, and to furnish a flow of capital equipment by means of which the U.S.S.R. may not only raise its living standards but may serve as an example to revolutionary elements in other parts of the world. Another objective is to use the plan as a means of welding together the city and the country.

The decision as to these objectives is a political one. These or other directives must be established before technical elaboration of methods to achieve them—i. e., an elaborated economic plan—can be drafted. The physical capacity of the country to achieve such objectives is usually subject to preliminary technical research by organs attached to the planning agencies.

It should be realized that economic planning in the Soviet Union is not conceived of as primarily a means of maintaining an equilibrium between different parts of the system. It is realized that maximum efficiency cannot be attained without such balance; plans are drawn so that, if they were all realized, the most significant elements in the economy would be adjusted to one another. But the plan is first of all an expression of the types of new social relationships that the leaders of the U.S.S.R. are trying to establish. They analyze what they call the "balance" first with an eye to the way in which the proportion between socialist and individualist elements are changing. The establishment of this attitude involved a conflict within the Communist Party extending across several years. Until its attitude was clearly defined, it was impossible for planners to decide such vital problems as to whether they should assume an active guidance of economic development or should make passive adjustments to calculated trends; what rate of development might be contemplated; and what the scope of the plan should be. A decision with reference to this attitude also carried far-reaching implications as to what the future social structure might be. The Communists have insisted that a plan must always be an instrument of social change, and should never become a straight-jacket.

The emphasis of the Communist on the part to be assigned to the will-to-achievement in the plan develops in substantial measure from the backwardness of Russian industrial development and from the rapidity with which industry grows. This makes technical planning at the level of production management far more difficult than it is in the United States. The degree of achievement in the U.S.S.R. depends upon the level at which the morale of manual workers and directors is pitched. The Communists regard the maintenance and raising of this level as one of the chief tasks of the Communist Party. The decision, as to how effective a force the will-to-achievement (Bolshevik spirit) is likely to be in the period for which a given plan is prepared, is made by the political authorities; their general attitude is followed by technicians in shaping the plans.

In the U.S.S.R. a sharp distinction is made between perspective and control plans. The Five-Year Plans especially, and to some extent the annual plans, are intended to develop a broad picture of desired goals, which, if attained, will establish relationships regarded as desirable at the time the plan is drawn. These perspective plans are freely changed in current operating plans for a year or quarter to incorporate modifications of objective or to adjust for currently

arising discrepancies between the plan and the possibilities of achievement. The perspective plan gives significance to the operating plan; but it is only through revisions of the operating plan that flexibility is maintained.

The economic planning of the Soviet Union has an ever-increasing scope. The intervention of the central Government in the production process during the period of war Communism in 1918-20 represented no planned perspective but was merely an attempt to work out expedients for survival. During this chaotic period the Plan for Electrification was produced in 1920. It dealt merely with electrification; but because of its basic character and subsequent influence, it is to be regarded as the first attempt at a national economic plan for Russia. The State Planning Commission (Gosplan) was established early in 1921 to develop and supervise a program to realize this plan. Its main energies were devoted in the next 4 years to criticizing and improving the operating plans of the separate economic administrations. In 1925 it attempted to present a general plan for the Soviet Union, but the plan was given no official sanction. In each subsequent year the annual control figures became more inclusive and the basic data on which these plans rested became more accurate. The First Five-Year Plan was approved in 1929 for the period October 1928-33.¹

The technic of planning involves both political and engineering decisions, since the plan is conceived of as a tool in the class struggle. This places an especially great weight on the quality of political decisions, which, if bad, invalidate the plans proposed. The great changes in the temper of political directives from 1928 to 1934 reflect the changing Russian background in these years. The period of 1930-32 was that in which the plans leaned most heavily on Bolshevik spirit. The shortages of raw materials and footstuffs in 1931 and 1932 led to the drafting of plans for more moderate increases in the Second Five-Year Plan than were at first contemplated, though the general rate of development projected is still phenomenally high.

The importance of the political element in planning is seen in connection with the program for agriculture. The will-to-achievement has been relied upon to restore the morale of the peasantry and to improve the management of collective farms. In conjunction with a revision of the tax system this policy won through to a good crop in 1933 under favorable weather conditions and to the promise of an equally large harvest in 1934 when growing conditions have been poor. The alternative policy would have been to abandon collectivization. Each policy would lead to a distinctive economic plan.

The engineer and economist are called upon chiefly to elaborate the technical means of achieving these directives.² In general the elements used in the cal-

culations are those of advanced engineering practice modified to conform supposedly to Soviet conditions. The scope and unity of such planning, reaching back into scientific research, is unusual. The technical studies may indicate that it is physically impossible to fulfill the original directive or that fulfillment will prove too costly.³ In many cases in preparing the Second Five-Year Plan directives were modified.

Some of the technical problems of planning in the U.S.S.R. are simpler than they would be in more advanced economics. There is, for example, relatively little danger that capital equipment of any sort will be expanded beyond eventual requirements. It is also much easier to estimate consumer needs for basic goods than it would be for luxuries. Essentially balance is more in the nature of a common-sense approximation than it is of precise measurements, and the immediate objective is the most rapid possible expansion of production in any and all lines.

It is important to note that the Russians do not attempt to resolve all economic relationships in a single blueprint as though they were solving a series of simultaneous equations. The process is rather that of successive approximate adjustments. To be successful this method assumes that the status quo is accurately measured and that the adjustments projected are realizable. Otherwise, the process of planning becomes increasingly difficult as the miscarriage of plans further distorts equilibrium and the difficulties become greater as the scope of planning expands.

It is impossible to estimate how large the overhead burden of the planning organization is. Plans are based on accounting records, most of which are also necessary to reporting current achievements and to management control. Plans are not the result of the work of a small body of men but are subject to influence by many thousands.

The state planning commission is the central organ for the technical elaboration of plans to accomplish the directives of the Communist Party. Through its various sections a liaison is maintained with the planning divisions of the various commissariats and a synthesis of these plans is effected. There are also similar planning organs in the various republics and their political subdivisions. The state planning commission is concerned chiefly with the broad outlines of the plans of the various commissariats and with the draft made on financial and labor resources by the plans of the republics. More detailed plans are prepared at the scene of actual operations.

Time is a vital element in the preparation of plans. The planning process goes on continuously, at certain seasons of the year being concerned especially with general research and at others with the drafting of a definitive plan. Furthermore the process goes on simultaneously at the center and on the periphery. By means of constant conferences, interchange of

¹ See Friedrich Pollack, *Planwirtschaftliche Versuche des Sowjetunion* (see p. 319) for the best account of the evolution of the planning process.

² See Hinrichs and Brown, planning in the Soviet Union *Political Science Quarterly*, September 1931, for a brief treatment; for a more extended discussion see V. V. Obolensky, Ositsky, and others, *Social Economic Planning in the U.S.S.R.*

³ Cf. *Planned Economy*, No. 1, 1932, pp. 38-56, (journal published by Gosplan) on a program for copper production from 1933 to 1937. It is not common to report that a given directive is impossible. The article in question purports to show how the directive of self-sufficiency may be attained; but the obstacles to accomplishment were obvious and overwhelming.

reports and directions it is attempted to hold the work of the various agencies to a common front. In this shuttling back and forth, by means of which the details of the plan are filled in and the directives are supposed to receive a realistic character, there is observable first a general movement of the directives from the center to the operating units and next a similar return flow to the center for a reorientation before the plan for the year is finally published. The detailed elaboration of the annual control figures is ordinarily completed in the period from July to December.

The Russians have very successfully used the construction of these plans as a means of increasing the worker's interest in his job. The plan is discussed in its broadest outlines and in its specifically relevant details throughout the land in every factory and production department. Suggestions and criticism are encouraged. In this way the worker, even on a minute stage of a mass-production process, discovers the importance of his task in the total society. The Russian worker has a unique opportunity to feel a sense of importance and to acquire the dignity which attaches usually to craftsmanship rather than the methods of mass production.

The Soviet economic plan could not be drafted, were it dependent upon professional planners in Moscow only. Its preparation draws upon the active aid of thousands of executives and technicians in factory and on the farm. It is affected by the thinking and attitudes of millions of workers.

III. Limitations and problems

The accomplishments in the U.S.S.R. under the Five-Year Plan have been chiefly in the field of construction and the production of capital equipment. The nation has also passed through a second revolution, affecting even more profoundly the ways of life than did the first. The development is partially expressed in the changed international position of the U.S.S.R., which has become again one of the great powers. No chronicle of the failures, which have also occurred, should hide or belittle the accomplishment. But in the problems that have been encountered, especially those so large as to lead to partial or complete failure, there is significant material bearing on the general character of the planning process.

When the plan has broken down, it has frequently necessitated an improvised intervention. At times this has actually made matters worse. Even more frequently it has been extremely wasteful. For example, when it was necessary to reduce hastily the number of plants under construction to hasten the ripening of investments made, there was a tendency to select as most important the obvious and the dramatic, but to overlook vital inconspicuous units. The completion of a giant tractor works at Cheliabinsk was held up because a small nut and bolt factory had not also been listed as urgent. Improvising under pressure may merely shift the break-down, as resources are rushed to critical points at the expense of operations that have been functioning satisfactorily.

The tempo of Soviet planning has necessitated large amounts of improvising, the plans having been drawn with inadequate margins to meet all the adverse conditions that arose. Furthermore the pressure for accomplishment has applied even to the planning itself, so that in many cases commitments have been made with inadequate preliminary study and with resulting waste.

Soviet experience indicates that successful operational planning is limited by the capacity to make accurate production plans for single enterprises. This type of planning is universal among advanced businesses in the United States, and is well done. The Russian setting makes its immediate application in the Soviet Union one of the most difficult tasks.

Individual liberty, as the term is understood in the United States, is not valued by Communists. But the Soviet authorities have found it a difficult problem to find a nice balance between the compulsion of collective decisions and the free development of the keenest critical thinking to avoid costly political errors. Fear that mistakes of management may be regarded as willful sabotage has tended to make individuals shift responsibility to inefficient committees of management and direction.

In the economic system of the U.S.S.R. money is used and introduces planning problems that would not be present if accounting were only in physical units. It is in connection with the monetary aspects of Soviet planning that the need for precision has been most evident. For example, in the period of the First Five-Year Plan productivity of labor had increased 40 percent, a remarkable achievement. But since the financial plan had presupposed an increase of 110 percent in productivity and a smaller increase in money wages than occurred, it followed that the Government was unable to recover as large a part of the costs of plant construction from industrial profits as had been planned. Despite the development of other financial expedients, an inflation of the currency results. Once inflation occurs, it destroys the effect of plans to use money as a means of readjusting social relations.

Miscarriage of financial plans created many new problems. It was this which made it necessary to complicate greatly the system of rationed distribution to replace or supplement the special incentive of piece-rate wages. In some cases it led to a situation in which it "paid" to produce defective goods, which could be sold without regard to price restrictions.

Events that lie outside the area of control limit the accuracy with which plans can be drawn. Such are "acts of God" and also international developments. The world depression and fear of war have each reacted disastrously upon the Russian economy. The necessity of cutting down the import program has had an effect which is larger than the amounts involved might seem to indicate. The nature of the imports is such that often a large domestic investment is frozen, awaiting the receipt of small but strategic imports of precision instruments, machinery, etc.

The general problems that most concern the leaders of the U.S.S.R. today are: The planning of plant

organization and production; the lack of uniform accounting and records to facilitate synthetic analysis; the tendency of the planning agencies to become isolated from each other; and the increasing complexity of the planning process without a corresponding improvement in the adjustment of the different parts of the economic system to one another.

The plan is intended to do a number of different things: to express the communist ideal, to act as a dynamic driving force to stimulate maximum development in all directions, to provide a nice adjustment between the parts of the system. There is a conflict between the second and third purposes; and the stronger whip it is, the more difficult is it to maintain adjustment. In the second place, the plan is intended to raise the standard of living and to reorganize society. Here

also there is conflict, because a revolution disorganizes production. Hence, as one or the other of these aspects of the plan is stressed, appraisals of its success vary. Despite grave problems the theory and process of perspective planning have won respectful consideration, because the evidence indicates that under appropriate rates of development and under certain conditions it is probable that operating programs may achieve their objective. The self-correcting factor in Soviet planning is the existence of social objectives which serve as a constant standard of reference in all fields. In devising ways and means of attaining these objectives there is an effort at flexibility that makes the process a very different one from mere research "blueprinting" of society.

APPENDIX

APPENDIX
PLANNING CONSIDERATIONS—GEOGRAPHIC DISTRIBUTION
OF PROJECTS

National Planning Board, September 26, 1933

The geographic distribution of funds for approved Federal projects, as shown on the bar chart prepared in the office of the Deputy Administrator, raises a question as to the *criteria* for geographic allotments under the "Comprehensive Program of Public Works." Current talk as to the "legitimate share" of this or that State indicates that this problem may prove troublesome, although it is understood that no allocation of funds by States has been or is contemplated by the Administrator or Board for Public Works.

**Need of criteria
For geographic allocations**

Less than half of the funds for a public works project are ordinarily spent at the point of construction. Usually about 60 percent of the cost of public works is in materials and transportation. These materials must often be obtained from other States or regions away from the location of the project. The figures showing distribution of funds geographically may be made more useful if regions or other large area units are used as a basis, since regions will more often include the source of materials used on the job, but even regional units would not cover such cases as the machinery for Boulder Dam in Arizona, which will come from New York or Pennsylvania.

The sources of materials for public construction were investigated last year by the Federal Employment Stabilization Board, and a chart was prepared to show the State distribution of the "material dollar." This chart offers a general guide for the geographic distribution of approximately 60 percent of the funds allocated under the "Comprehensive Program of Public Works."

Only the remaining 40 percent may safely be considered as spent at the site.

Possible criteria testing distribution

Possible criteria by which to test the geographic allocation of funds and to assist the Administrator in preventing a dislocation of the comprehensive program, are—

1. Population by States or regions.
2. Unemployed by States or regions.
3. Relief funds by States or regions.
4. Families given assistance by States or regions.
5. Federal income by States or regions.
6. Area.
7. Combinations of some of the foregoing, with varying weights for different factors.

Each of these possible methods of testing distribution of funds has its own advantages and limitations, and each may contribute significant considerations to be kept in mind.

1. *Population* provides a general test by comparing percentage of funds with the percentage of population in the several States. The advantage of this method lies in its simplicity. But the *needs* of the States, from the social or economic point of view, may or may not be proportionate to population. Just as the aid to the unemployed provided by a project cannot be judged wholly on a basis of location, so also the need for aid cannot be judged wholly on a basis of population.

Some of the apparent dislocations between the allocation and population bars on the chart are not, perhaps, as significant as a first glance might indicate. For instance, the shortage in such States as Alabama, Georgia, North Carolina, and Tennessee is more than made up by the \$50,000,000 allotted to the Tennessee Valley Authority. Further, it may be argued, in justification of the allotments to the "public lands" States of Arizona, Nevada, New Mexico, Oregon, Washington, and Wyoming, that these States are less likely to require further funds for State, local, or private projects than other States, because so large a part of their area is owned by the Federal Government.

2. *Unemployment figures* would presumably show the need for aid if they were available or accurate. The best indications available show a distribution of unemployed in approximate percentages. This indication is perhaps better than nothing, but no reliable figures are obtainable for a comparative study throughout the country. Even if such figures could be obtained, they would not show the whole story, for they would not include many cases of distress which are well known to exist. Self-employed rural distress cases, for instance, would not be covered by this classification.

3. *Relief funds* also are incomplete as a guide. The Federal Emergency Relief Administration has compiled the available information by States and months.

4. *Families receiving aid* as shown on the tables compiled by the Federal Emergency Relief are, perhaps, the best indication of need so far available.

5. *Federal income*. It may reasonably be urged that those who pay for relief or for public works should benefit accordingly, or at least be given some preference. Since the congested and industrial areas, where large taxes are paid, are now the areas of great distress, this basis for distribution might also approximate the need.

6. *Area* bears less relation to need than any of the methods just discussed, and is therefore not recommended.

7. *Combinations*, with varying weights for different factors. The Recovery Act, in sec-

tion 204 (b), establishes a basis for allocation of highway funds, as follows:

7/24ths by area;
7/24ths by mileage of rural delivery routes, and
10/24ths by population.

This combination of factors is obviously not applicable to the whole program of public works, because of its special relation to post-roads and omission of unemployment relief as a factor. The existence of this method as a part of the basic act does, however, suggest the advantages of a weighted factor combination as a test for distribution of projects.

Recommended Test

The best combination appears to be an average of the population, unemployment, relief, and family figures discussed above. This average may prove useful as a measuring stick if allocations are figured 60 percent, in accordance with the material dollar distribution among the States, and 40 percent in accordance with location of the project. The possibilities of so measuring the distribution of projects is illustrated by the analysis of the allocations to projects up to September 18, 1933, shown on the bar chart.

FREDERIC A. DELANO, *Chairman*.

WESLEY C. MITCHELL.

CHARLES E. MERRIAM.

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