

CONCEPT OF PLANNING FOR A GEO-PHYSICAL
REGION

by

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This is a study of the concept of regional Planning for countries like India and Pakistan where a possibility in organizing all the provinces into purposeful planning regions for optimum socio-economic and cultural development exists. The Thesis is divided into four parts as follows:

1. The meaning of areal (regional) consciousness.
2. The planning region and how it should be delineated.
3. Elements of areal planning and their importance from a national stand point.
4. The type of regional government necessary to fulfill such (national and regional) objectives.

The study indicates that by regionalism we mean an advanced and organized national civilization... (An integration of rural and urban culture... an interrelationship between rich and less-productive areas... a natural relation of men and area). It also points out that any criterion for planning regions should be based on planning objectives, viz, on the basis of a comprehensive unity of (1) transportation and communication, (2) utilities and services, and (3) natural resources. A critical analysis of various methods of area delineation, based on geographic, cultural and administrative factors, is also made in this connection, and a preliminary area determination for planning purposes is suggested on the basis of a total survey of physical and organic characteristics of the country.

It was found during the period of study that balance and security in the national economy depends primarily on a rational distribution of population, industry, agriculture, trade, and income among the regions. Therefore, a recommendation is made for a harmonious development of the above elements as an essential part of a regional plan.

The study proposes, as an essential condition, three levels of government: national, regional, and local. According to this arrangement, the central government functions as a federation (union) of regional commonwealths. It is a coordinating and advisory body for the regions, exercising those powers of administration which are strictly national, and cannot be handled by the individual region. There is a central planning committee at the federal level occupying a

vital position to which all local and regional information and data comes for final adjustment and evaluation. The regional bodies have power for implementation, but where a question of inter-regional policy is involved, such power would be limited to insuring conformity with national objectives. Strong vertical and horizontal relationships between various departments and bureaus are suggested in the study; and, the method of achievement is shown graphically.

The study reveals that this concept of planning is also applicable to other countries where similar kinds of socio-economic transformation are underway, and where internal political division is not too great a barrier for areal adjustment.

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Professor Frederick J. Adams
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Dear Professor Adams:

In partial fulfillment of the requirements
for a Master in City Planning Degree I submit this thesis
entitled, Concept of Planning for a Geo-physical Region.

Respectively submitted,

Pares Chandra Bhattacharji ^U

A C K N O W L E D G E M E N T :

I wish to extend my appreciation to those who gave their valuable and enlightening criticism during the preparation of this thesis, and who offered helpful and constructive suggestions throughout the course of this study. I would, especially, like to acknowledge the valuable guidance and direction received from Professor Roland B. Greeley of the Department of City Planning of Massachusetts Institute of Technology.

I also wish to express appreciation to friend Walter Thabit for his aid in editing this work.

"The reanimation and the rebuilding of regions, as deliberate works of collective art, is the grand task of politics for the opening generation. It raises anew, in a form that now has fuller human significance, the fundamental questions of human interrelationship across the ethnic, ideological, and cultural boundaries that have been carried over from the past. And as the new tasks of region-building imply shifts in the population, migration into favored areas, and the building up or reconstruction of a multitude of new urban complexes, the politics of regional development becomes of critical importance. Not merely must we define and express the region: we must work out, by deliberate experiment, the areas for inter-regional co-operation and for super-regional authority. In displacing the functions of the power-state by those of the service state we must transform the structure of the existing organizations."

----- Lewis Mumford

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I N T R O D U C T I O N

This is a study of the concept of regional structure and planning for countries like India and Pakistan where land and people are both suffering from administrative inertia, cultural vanity, religious and racial prejudice, and unrealistic handling of potential resources.

During the study four things appeared equally important to consider: (1) areal consciousness, (2) areal division, (3) areal planning, (4) areal administration. The study has been divided into these four parts so that a more careful analysis of the problem could be made.

To make the approach more practical and realistic two assumptions have been made:

1. Countries are self-sufficient units. (In some cases change of territorial boundaries may be desirable from the planning stand point, but such kinds of consideration appear unrealistic for political reasons.)
2. Regions are part of the country and have joint responsibility for the balanced development of the entire area.

Without such considerations, establishment of any kind of areal planning concept which will allow weakness, deficiency, and poverty in one area, and strength, wastage, and abundance in another, appeared meaningless.

MEANING OF AREAL CONSCIOUSNESS

Today the geographer, the sociologist, and the economist have a determined interest in advancing the concept of regional planning. Everybody is trying, not only to create a vital movement for reconstruction of their social and economic life along regional lines, but to produce a definite background on which regional divisions might be established. This co-operative effort seems hopeful.

Many people think that by dividing the country into various regions we shall again invite the same old evils of primitive localism and sectionalism. But this is a false impression. Regionalism is neither a reversion to a primitive and simple economy nor an attempt 'to revive sectionalism under a less offensive name', but it is a necessary organic manifestation of an advanced and well-organized national civilization. It is the only means through which a nation can effectively plan its domestic economy and external relationship.

The history of nations and races is one long record of regional realism, in terms of security and productivity, achieved through the expansion and contraction of regional boundaries. The whole philosophy of imperialistic aggression has its motivation not so much in national ambition for power as in the desire to bring within the range of a given people the natural and human resources--social, economic, and cultural--which exists outside.

Thus, the motive behind regionalism is not to 'Russianize' a country. It rests, by contrast, solely upon the supremacy of the national interest. It admits that there are problems and resources common to areas larger than any single state. It also realizes that certain points of view develop in some portions of the country and are not shared by the nation as a whole. Regionalism declares, however, that the solution of regional problems and the development of regional resources are matters of concern to the whole country, Therefore, it proposes to harmonize regional advancement with the national welfare.

A distinction can easily be made between sectionalism and regionalism. Sectionalism is a certain kind of regional vanity. It--as a spirit, as a movement and as a political rallying point, tends to emphasize rivalry, provincialism, isolation, and self-sufficiency. Its action is negative, exploitative, and pseudo-national. Regionalism, on the other hand,--as a spirit, as a movement, and as a political device, emphasizes the ideas of integration and balance, integration of the region with the whole nation, and the balance of region with region.

It aims at a new inter-regional balance of internally homogenous regions. It also intends to do away with the over-specialization of a region, the dictatorship and the imperialism of the big cities, and with the conception of the region as the mere hinterland of the metropolis. Such regionalism

rejects the idea that only the linking together of urban communities is important, where the countryside lying between them is just a passive interspace to be treated under the heading of rural preservation. Regionalism is the result of functional spacing within a certain area; it is a process of gradual internal areal growth which stretches out towards other regions establishing manifold contact with them.

In other words, new regionalism does not desire isolation and self-sufficiency in economy. On the contrary, it strengthens the total economic base of the country. As it relates to the universally desired redistribution of wealth and opportunity, regionalism provides the only way for such an enduring and effective redistribution by developing in the region the natural resources and the utilization of manpower to the fullest extent.

The gradual growth of the conception of regionalism helps us to understand this total situation. Perhaps the first historical sign of regionalism was what was generally called a cultural and literal regionalism in which differing groups of people have distinctive indices of homogeneity. This is an earlier form of sectionalism.

Next, was metropolitan regionalism, which was a logical growth of the rise of the urbanism and the subsequent extension of the cities into rural areas. Such regionalism, like cultural regionalism, was primarily local, and focused upon the improving of a situation within a given areal concentration.

With it came the regionalism of convenience and organization in which business concerns, industrial corporations, banking organizations, chain stores, educational and religious groups, all found it convenient to break the total area down into divisions for practical purposes of distance, size, management, and organization.

Finally, a very specialized combination of physio-graphic, economic, cultural, and administrative regionalism appears. It is that in which the valley authority explores the possibilities in regional planning, within specific geographic areas for both cultural and economic development.

Professor H. W. Odum's writing is the first successful and reasonably complete interpretation of regional facts in the light of all various aspects of regional development. Professor Odum accomplished what he wanted to accomplish, namely, the development of a methodology of regional study. This work does not, however, attempt to lay down fundamental principles from which an effective regionalism may be evolved.

What we need today is the division of the country into suitable planning regions which will be able to produce maximum satisfaction of the social, cultural, and economic needs of the people. When these regions are established, then the total development of resources, and the full productive use of manpower can be made in every region. Since this occurs in homogenous areas, the inner consciousness, which takes on form and reality as it is expressed, will begin to grow

throughout the entire region. As the region develops, so will the spirit of the people for the region. With increasing vitality, as men and area work together will produce a greater nation, a dynamic regionalism.

SEARCH FOR A PLANNING REGION

Before we go in search for the definition of a planning region, it is desirable to make a few general remarks about regions.

- a. Regions are formed according to the criteria we choose in combination with our subjective judgment which is not necessarily coincidental with economic-socio-physical facts.
- b. The rearrangement of facts takes place in such a way as to make regional boundaries everchanging (dynamic) so that any drawn regional boundary is bound to be inaccurate.
- c. Increasing mobility and expansion of communication networks may be accompanied by regional changes in structure, size, and in their relation to other regions.

Therefore, the determination of a planning region requires much judgment and consideration of cultural, institutional, technological, and economic, and natural factors. Where intermingling, mobility, and initiative is nil, the social and regional structure forms a rigid boundary. But in a dynamic society, socio-economic pressure creates a new kind of consciousness which makes the regional boundary very unstable, elastic, and difficult to identify. Since this kind of transformation has already been started all over the world, it is desirable to draw the boundary of a planning region upon this flexible base.

Condition for a Planning Region

The criteria for planning regions should be based on planning objectives:

- a. It must be of such a size as to keep planning problems and functions within manageable dimensions.
- b. It must cover the total problem area, and not a fraction of it. Where the problem area is big, it is desirable to have boundaries drawn according to the development and management convenience of the areas concerned.
- c. It must be a single continuous piece instead of having scattered segments over various parts of the country.
- d. The planning regions will, of necessity, have changing boundaries within limits.
- e. Planning regions may overlap because planning objectives of two otherwise distant regions may be equally applicable in certain areas.
- f. The overlap can be treated as a single factor region functionally responsible to both regions or in other ways which preserve its dualistic character.

Scope of Single and Multifactor Regions

Many students of the region have tried to delimit areal entities characterized by internal homogeneity rather than by

functional organization of dissimilar parts. From the planning standpoint it has certain limitations.

For purposes of research, a country might logically be divided into hydrographic, floral, commercial, agricultural, and numerous other types of regions. But unfortunately, none of these areas exist in concentric relationship. Duplication and blank spaces in between create conflicts and enormous problems in coordination. In some cases it is often difficult even to identify their locus. For example, the wheat belt of American prairies merges almost unnoticeably into the hay and dairy belt to the east, and the corn belt to the south. The cotton economy of the Daccan is subtly woven into the rice economy of its north-eastern perimeters. Similarly, in Australia, there are no land marks separating the sheep-ranching country from the desert.

When various single-factor systems of regions show such wide discrepancies in their boundaries, it is apparent that the limits of multifactor regions would be even less definite. Moreover, regions determined statistically by setting up certain premises for measurement and data breakdown, computing and mapping percentage coefficients by data units, and drawing boundary lines separating the spheres of influence which emanate from the nuclear areas of adjustment, are of restricted scope. Agricultural regions, land use maladjustment regions, no matter how valid they may be, are limited in their usefulness.

Therefore, (1) Though single factor regions allow treatment of only isolated structures inhibiting

comprehensive treatment of other existing factors, the single factor planning regions are delineated with one criterion of comprehensiveness for planning purposes. Many elements in combination are required to satisfy this criterion, and relatively simple boundaries can be drawn on the basis of this single factor.*

- (2) By using multifactors to arrive at planning regions, we are doing an injustice to the planning objectives which is comprehensiveness. Our criteria must be in terms of density, intensity of use, potential for development, etc., and these are not really factors, but elements of a 'chemical' combination. The final determination of the planning region is based on a single criterion--comprehensiveness.

Many people still believe that geographic, cultural, or administrative factors should be the basis for areal determination of a planning region. This does not appear to be sound. A careful analysis of each kind of regionalization will prove

* Comprehensiveness for planning purposes requires the delineation of areas of approximate physical and cultural homogeneity through surveys which will show the extent of mutual areal dependency, both actual and potential.

how inaccurate those assumptions are from the planning standpoint.

Geographic Regions

The geographer is habituated to divide the surface of the earth and the distribution of the population as if both were divisible into clear-cut regions, each characterized by a particular type or types of terrain. Such a regional dissection is suitable if the geographer is to carry out his analysis. The broad use of physiographic regions in human geography does, however, create certain problems and results in certain erroneous conclusions. Actually, if one continuously analyzes social and economic phenomena against the background of the natural environment, one is forced to follow a crude determinism in which environment is the total cause of the observed phenomena. The whole tendency of geography in the past generation has been away from environmentalism, and towards an ecological approach. Unfortunately, economic activity does not arrange itself strictly along physiographic lines.

Many geo-physicists have tried to adjust this weakness by defining geographic regions in a different way. They are assumed to be definable areas in which the unifying factor is homogenous relationships between cultural, economic and physical phenomena. Controversy has raged around the geographic region; some think it is most fundamental to an understanding of society, others feel it is a useless illusion.

Geographical regions are merely fragments of land whose

determination involves a considerable amount of judgment. For example, Fenneman's land form regions differ markedly from Thornwaite's climate regions. The boundaries of climate regions as drawn by Renner can scarcely be recognized as based on the same factors, as those drawn by Koppen and Geiger, and neither corresponds closely to the climatic regions of Thornwaite.

Cultural Regions

Many people think cultural force can and should be the basis of a marked regionalization of administration, government, and reconstruction. Such arguments are often hard to understand, sometimes even verging on mysticism. H. W. Odum and T. E. Moore's writing on American Regionalism is a typical example of this kind. Outdated, though such thinking may be, the authors have done a job in reminding us that cultural regionalism can be a valuable force in keeping together a group of states whose economic base is not very sound.

Actually, the locus of human region is continuously changing under the influence of physical, economic, and social forces. Just as natural forces are slowly improving the earth's surface and gradually lowering the barriers between different areas, so in a similar manner economic, social, and cultural forces are constantly breaking across thinly populated areas, pulling communities closer together and, thereby, creating even larger human regions. Thus, only vaguely and within limits is any part of the culture of a region regionally self-determined. Perhaps some folk-ways, some customs and attitudes,

especially colloquialisms, are the most pronounced cases. Regional cultural boundaries are also uncertain because other areas of various regions may and do have similar cultural elements.

Cultural patterns develop only when communication and movement between areas are difficult. Under that condition a region can easily be marked by any one of many indices: By costume, language and social customs, and even by biological characteristics. With the development of new communication and transportation systems, old identifiable regions, culturally conditioned through time and space, start to transform. Highways, railroads, and television crack old barriers. People begin to intermingle and start to come under the influence of different natural and cultural forces.

From a historical standpoint, it can be pointed out that the ideologies which nourished Europe in the era of its cultural differentiation were already passing away by the time the new was being opened up. Even in America, from the time of the pilgrims onward, almost all immigrants were animated by a sense of involvement in a new kind of life. "A spirit of brotherhood", writes Commager, "transcending class, race, and religion, a feeling that all dwellers within these states are partners in a common enterprise, is the peculiar quality that brought the American Republic into being.** No one will

* The Growth of the American Republic, Vol. II

deny the validity of that statement today. When we see one hundred and fifty millions of people who enjoy a higher standard of living than any other people on earth, subject into buying the same soap, eating the same canned foods, enjoying the same comic pages, watching at the same television programs, it is difficult to realize how distinctive folk-habits, dialects, and arts and crafts, which have done so much in the past to keep regional self-consciousness alive, can possible survive.*

Whatever may be the pattern of the future, it is sure that there will be no distinct region where sociologist or anthropologist can find a fossil community. Perhaps areal variation in the pattern of living in all categories except for land-use, type of employment, and population densities, would seem destined to die slowly.

Metropolitan Regions

Division based upon metropolitan influence possesses a certain validity, but it overlooks the fact that not all large cities are actual regional foci, but are more often supra-regional organisms. Even where this is not true, regions delineated in terms of megalopolae are of uncertain value for planning. Cities are social organisms which would seem to be primarily concerned with their own world rather than with the conditions of the people and resources in their tributary areas.

* It is also becoming true for other parts of the globe. The airplane has already started making new touch-downs. The Message of various--culture--whether in the form of merchandise or ideas--are already capturing the minds of many isolated races. Even Tibet is now open to the blandishment of foreigners selling everything from modern building materials to ladies' slacks.

Administrative Regions

Administrative regionalism is a parallel image of the regionalism of convenience and organization. Here the country is divided into areas, corps, or districts. This method of regionalization employed by a majority of federal bureaus in establishing their field offices overlooks the fact that factors of convenience rarely coincide with the distribution of elements to be administered. It is a very synthetic subdivision and fails to recognize the organic need of a region.

Group-of-States Regions

The National Planning Committee of United States once thought of utilizing a group-of-states as regional units for national planning purposes, and prepared a map of eleven such areas. It later rejected them as being unsatisfactory regional units. It stated that "there is no possible combination of states which will serve ultimate aims, although they will serve certain designated proximate aims with entire adequacy", because different parts of given states characteristically lie in contrasting regions.

Truely speaking, the states are far from being satisfactory regional units. They are not homogenous areas and they do not individually contain most of the larger areas needing treatment. Resources and resource problems requiring attention, however, are not distributed with any regard for political boundaries and, consequently, are interstate in extent and character. Although such interstate regions do bring together

parts of a problem near their core, they leave most part fragmented about their peripheries. Upon examination, therefore, it becomes apparent that there is no single combination of states which will bring about even a passable delineation of resource areas. The only solution on this basis would be to form temporary combinations of states to deal with certain major problems as they arise, and after these problems were treated, the combination would be dissolved and recombinations brought about. Such temporary and multiple participation of states in planning and resources development, however, must in the end serve to destroy the cohesion implicit in a regional structure, and, thereby, defeat the steady and unified growth of regionality.

Drainage Basin Regions

In many cases, drainage basins have been widely used as planning regions. Although they constitute essential areal units for varied problems of water control, drainage basins do not prove satisfactory for most other regional planning and administrative purposes. The boundaries of drainage basins seldom conform to those of regions delimited in other natural or social terms. A mountain range that serves as a watershed belongs in a single physio-graphic region, but is split among two or more drainage areas. A large river may flow through widely contrasting types of environment along different parts of its course--mountains and plains, humid and semi-arid areas, forests and grass land, sparse settlements or dense urban

agglomerations. Because its boundaries differ so widely from those of most other types of regions, the drainage basin may generally be regarded as a poor type of planning area except for such isolated problems as flood control, water conservation, power projects, and river navigation.

Composite Regions

The National Resources Committee of the United States advocates a sound regional planning which is based on a composite of both human and social factors. The Committee recognized the difficulty in a single standard system of regions equally valid for every planning problem, however, and met the problem by introducing the concept of the elastic boundary. This concept does not imply an indefinite or compromise boundary. Instead, it assumes that a regional center has been clearly located, and that regional boundaries enclosing an area of the greatest possible social and cultural homogeneity have already been drawn. These boundaries are then stretched, in different degrees, for each type of planning problem that extends beyond the regional limits as originally drawn, so as to include whatever territory is necessary to the formulation of a complete plan for the problem. Similarly, boundaries are shortened in cases of problems that do not cover the entire area of the original region.

This elastic boundary concept appears more logical and appropriate for planning purposes, since the boundary of a planning region cannot be precisely and permanently marked. Regional boundaries must be flexible in order that their form and areal extent may be changed as they develop.

AREAL PLANNING OF A REGION

We have defined the terms in which planning regions can be delineated. They must be determined on the basis of a comprehensive unity of (1) transportation and communication, (2) utilities and services, and (3) natural resources. The resulting regional structure will enable the best handling of problems which are regional in character.

Since the regional government can plan the growth and development of the region internally (in line with national policies), it will be in a position to have the following effects on the growth and development of the regional community:

1. Determine the areas of settlement.
2. Control the size and scope of its urban activities.
3. Provide utilities and services where and when they are needed throughout the region.
4. Provide for the organized exploitation and conservation of the natural resources of the region.
5. Develop communications within the region in a way which will promote mobility, efficiency, and life within the region.
6. Create the regional consciousness and vitality which are at most imperfectly understood and felt throughout the country.

Other Conditions

Besides this, within each region, the aim of areal planning

would be to develop agriculture fully and systematically within the regional structure. One of the greatest obstacles in introducing modern techniques of production, sanitation, education, etc., is the relative isolation of rural areas from urban influence. Agricultural adjustment to the modern way of living is a social and cultural one; its realization cannot be accomplished by changing the physical environment but by integration with a society which enables every individual to be a useful member enjoying the same rights.

Agriculture also has to be accepted as a basic unit of production and its fundamental function in the regional economy must govern its development--neither charity nor antiquarian aesthetics are a sufficient basis for an agricultural policy.* We must help the farmer to learn how to use modern techniques and machinery and bring more and stable productivity to the land and nation.

There is a need for experiment in the establishment of new agricultural communities with adequate living facilities. Plans for these communities should be made together with the

* In agriculture, land as a factor of production must be given as much consideration as labor and capital. Considering the part land plays in characterizing agriculture and distinguishing it from industry, we should give even more weight to that factor of production. We must single out land as the basic factor of production because in the present economy it is fixed. Any progress in farm technology nowadays must mean a greater productivity in land. This is achieved either by investing more capital, by employing more labor, or by introducing a new crop, breed, or a new rotation system.

plans for industrial development in the vicinity. Such a procedure will help to establish a sound diversification of the socio-economic structure; the interrelationship of agriculture and industry, must necessarily lead to the establishment of industries which consume agricultural products as raw materials, and which can supply the agricultural community with its producers and consumers goods requirements.

The kind of move needs very careful analysis at the beginning. The fulfillment of one stage must be incorporated in the outline of the next one, e.g., it would be wrong to move some industries if no sufficient labor supply can be made available, or it would be an unsuccessful procedure to establish some agricultural factories in a rural area before the necessary raw materials can be produced in sufficient amounts.

It is also necessary to develop in the region both extractive and manufacturing industries to absorb the surplus population. The basic industries, though relatively low income producers, are essential to national prosperity and for the development of secondary industries which employ larger number and more skilled personnel at higher wage scales. In short, they pay indirect dividends within the region.

The distribution of industry and population implies, however, that the use which is made of the land today might undergo great changes in the future. So it is necessary to develop some positive means for the relocation of industries systematically applied to the whole country, apportioning them

to the various regions according the productive and consuming power of the population. In other words, to safeguard the vital requirements of industry and not to repeat all the old mistakes, the various factors which influence location of industry have to be clearly distinguished in the beginning.*

Where distribution of industry and population is not possible within the same region, it is necessary to think in terms of inter-regional balance.**

Recreation involves another important areal planning problem. In addition to its imponderable human values it has direct economic values of higher order. An efficient inter-relationship between various types of use and a coordination of the various commercial activities serving these areas all over the country needs a definite policy which find its expression in the national plan.

* In an agricultural country where most of the people are rural, the regional distribution of food production to a great extent determines not only the location, but also the types and activities of processing industries and related crafts. For example, rice-polishing and wheat-milling have become such important business in India that they have spread over the greater parts of the country and are linked organically with the local economic structure in different regions. Their relative importance and types of organization and operation in different areas are closely connected with and largely determined by, the local patterns of food production.

** Population migration is in most cases due simply to the pressure caused either by famine or by a surplus in the local labor supply. Here technological changes are not necessary; extensification of production is needed. People should move towards unexplored regions. Population transfer from one field to other production field, however, may be due mainly to technological changes occurring in the expanding economy. Population transfer in this sense is a change of occupation or employment, and thus it may or may not cause migration of people between the regions.

Water pollution control is a necessary corollary of areal recreational planning. In many parts of the country the rivers and streams furnish the finest natural recreational grounds. But swimming, boating, sports, fishing, camps and resort locations are adversely affected or eliminated by pollution. Strong regional action is necessary from the beginning to prevent water contamination by industrial waste. Water quality requirements and the desirable use of streams will help acquaint both industry and recreation in making site selections.

A health service program also needs regional treatment. The task involves the consideration of almost every section of social life including housing, transportation, industrial balance, agriculture, food distribution, education and leisure; indeed, almost every problem has its socio-biological aspect which should be dealt with in collaboration with the health service. We have entered a more difficult and a more subtle phase in which medical science will have to play a still more important and active part.

Regional planning and economic planning also would be brought together. Both should continue together irrespective of the political complexity of the government. Full employment and optimum socio-economic improvement of the region would be the planning credo.

Priorities Between Competing Objectives

To fulfill the regional objectives it is necessary to give priorities between competing objectives, laying more stress on some and less on others. This technique of balancing

competing objectives is implicit in all economic considerations; it is not peculiar to planning. But planning brings it to the fore and necessitates a reasoned decision. The quality of a plan depends on the soundness of its judgment regarding priorities between objectives. For it is only if these judgments are sound that consistent policies can be formulated.

An example may make this point clear. In underdeveloped countries there is always a great surplus of agricultural labor. When industrialization get underway, this surplus population can be employed for production of food and raw materials to meet the increased demand. Moreover, this labor in agriculture can be directly or indirectly transferred to industrial or commercial uses. Thus, during the beginning stage of industry a decrease in the amount and even in the ratio of the agricultural working population may take place without introducing new farm technology. In the later stages, the surplus will be gradually absorbed. At that time, a new farm technology must be introduced, and can be profitably adopted because labor becomes scarce and costly.

In the fulfillment of varied objectives, there emerges at each stage in a country's development, an optimum combination. The task of planning is to attain this optimum.

Essential Elements of a Regional Plan

Thus, regional planning means drawing up of master plans for the balanced development of all areas, both urban and rural. The plan, therefore, include all the broad elements

of planning. It includes:

- a. Estimates of the prospective population of the region, of the prospective distribution by age and sex, and of the prospective local distribution in the various parts of the region. These would include estimates of the number and broad character of the jobs needed throughout the region to ensure full employment, and of prospective shortages or surpluses of labor in the event the plan is put into effect.
- b. The character of the industrial, commercial and agricultural development which is necessary or desirable to secure a balanced economic and social structure throughout the area, with estimates of the capital needed, both for the directly economic part of the plan and for the parallel provision of necessary utility services and other social investments.
- c. Such projects as appear desirable for the creation of new communities, for the improvement of facilities for transportation, and of harbors, airports, and for the supply of such essential services as water, gas and electricity.

Of course, no region would prepare a plan of this comprehensive kind without reference to what is being done and planned in other regions. Through all phases, regional plans

would be drawn up in close consultation with local bodies, other regions, and the center.

Regional Planning as a Part of a National Plan

Under the complex economic system of the present day, it is absolutely necessary to make regional planning an essential part of national planning. The nature and effectiveness of central planning will vary with governmental philosophy and organization. But under any system, organized foresight will greatly reduce the percentage of error and waste, increase the prospect of better utilization of all kinds of resources, and make for more definite progress toward high living standard and cultural progress.

There are three reasons why regional planning and central planning cannot be separated one from the other:

- a. The solution of many national planning problems requires consideration of regions based more on physical, economic and cultural geography than political subdivision.
- b. Regional bodies act as the trustees of the whole nation, for their efficiency and their collective financial capacity are the ultimate factors which decide whether the national resources are being wasted or thoughtfully used.
- c. Balance and security in the national economy depends highly on rational distribution of population, industry, trade, and income among the

several regions. Therefore, the best national economy needs the greatest practical efficiency and stability in every region within the country.

Today many federal departments are involved in the conservation and development of natural resources, but none has more than partial responsibility. The result is that departments have no rational program, no clear-cut mission. Their bureaus continue to go their separate ways, administering literally thousands of acts of congress. They are perfectly aware that no authority exists which can check the total plan.

Only central planning can bring together all these uncoordinated activities and adjust them in ways best suitable to influence the whole economy. The aim of central planning is, not to produce a new set of plans, but to bring all regional plans together at a central point where broad proposals for action can be discussed and general policy decided. In other words, the central planning body would make sure that the general national objectives are realized.

PROPOSAL FOR A REGIONAL GOVERNMENT

Regional planning simply will not work unless we establish the right kind of government for it. At present many inter-bureau agreements at the regional level are meaningless either because the regional officials have no right to plan and program their bureau's work in the region, or because that authority is not implemented by adequate power to shift funds or employ additional personnel so that each bureau can perform its agreed share of the joint project. A complete structural reform with the area, therefore, appears necessary.

Those who want to accept the existing agencies with their peculiar attachment to these existing structures and like to develop horizontal and vertical relations among these governments and areas should be warned that inter-area cooperation of this kind, involving all states in the country or all local governments within a state, does not advance us far in the reciprocal adjustment of area and function. Adjustments recorded by compact are too often the product of political compromise and bargaining power rather than efficient resources planning. Sometimes the process of formulating a compact takes the form of equal benefits to the negotiators, but effective resources planning demands a distribution along lines of maximum utility regardless of state boundaries. Sometimes, too, the interstate compact is more defensive measure on the part of lower levels of government against accretion of powers by the next higher level of government than a method of cooperation to promote

redrafting of governmental areas, administrative efficiency and popular control in meeting regional problems.

Some people believe that the TVA kind of organization should be accepted for the development and management of a region. Maybe in a community which seeks to plan and develop a physical environment and public service which liberates the greatest possible energy and initiative of the people, the task is pre-eminently one of design and engineering. The adequate harnessing of such a potential force, both to meet the competing demands for flood control, soil conservation, power production, irrigation, transportation, domestic and industrial use, and recreation, and to fit it into a balanced and harmonious functioning of all the habitative productive, and service components of the community, requires the most careful calculation and integration of all the objectives for the whole area. Unfortunately, TVA has not fulfilled these requirements. TVA is limited by its statute. As for example:

- a. TVA has no power to locate or relocate any industry within the region. TVA may sell or rent its patent right of research and experimentation on various minerals and products, but it cannot direct conduct or encourage their local exploitation. Under this kind of arrangement, without any control over the area, sound regional development appears very doubtful.

- b. TVA cannot sell power below cost. Since it charges the rural population more for electricity than that it charges industry, rural rehabilitation under such condition appears impossible.
- c. TVA has not pursued a policy of acquiring large public estates for public development. It was, therefore, unable to conduct certain programs which public ownership can make possible.
- d. TVA has no power to solve freight-rate discrepancy and other regional and inter-regional problems outside its border. A sound inter-regional balance is, therefore, impossible to make.

Besides this, it has other limitations. The TVA operates in a settled area and is not cut off from its vast economic background by such obstructions as man-made or natural barriers which defeat economic development in primitive parts of the world. At the same time, however, since the TVA exists in a matured economic society, it is unable to handle many situations which seem detrimental to its purpose.

One good thing about the TVA is that it has made a striking contribution to the reduction of the jurisdictional barriers that have otherwise made it impossible to see or attain a region-wide resources development program. It has infused much of its staff, whatever their special profession or functional assignment, with keen awareness of the total program and their own relationship to it. This broadening of bureaucratic concepts and interest is unique in administrative

experience. It throws into high relief most of the traditional and typical compartmentalized interests, concepts, and loyalties of federal and state-operating officials. It is not meant to suggest that every one in the TVA staff is a 'generalist** and integrator or that no bureaucratic jealousies within the structure are discoverable. The scope of the horizontal thinking that is common among its component compartment, section, and unit chief is impressive.

It is necessary for a sound regional development to infuse the programs of all functional agencies into a consistent and comprehensive regional program, and to break down the jurisdictional obstacles to cooperative administration when this is necessary.

TVA actually represents an altogether different conception of the management of a modern nation's economic resources deliberately undertaken by the Federal Government with certain special economic purposes clearly in mind from the beginning. It was not intended to deal with the total plan of the nation. For our purpose we need a regional administration with a broader scope and with devices for more inter-regional cooperation.

* The area generalist, as J. D. Millet has defined him, has the principal job of getting the greatest efficiency with the greatest economy. He has a three-fold role: To direct the central housekeeping service; to be the principal contact man or public relations man; and to work out desirable solutions of common interests among the specialties, presumably as a mere mediator, and so to maintain harmony at all times between the parts.

There has been some suggestion for the establishment of a sub-national government, either to replace the states as seats of local government or to intervene between the states and the federal government. Most of the authors of these recommendations, while enthusiastic enough in drawing the outline of the regional map, are not very specific in indicating how the reform is to be achieved.

Mr. W. Y. Elliot advocated the need for a constitutional reform for the United States. He thinks all states should be replaced by a system of regional commonwealth as members of the federal organism. The regional commonwealths would have unicameral legislatures of their own. The states within them would drop to the level of administrative units, like the English Counties, 'rich depositories of historical associations'.

Whatever may be said of this proposal, there is no doubt that it shakes our thinking, as other ideas do not, with a sense of possible and statesmanlike achievement rather than dull us with a cynical yielding to the hands of blind fate.

A strong case can be made for the proposition that the regional government based on functional regions should be established. Such a governmental area would have greater vitality than present states. It not only would have a more cultural homogeneity and distinctness from other regions than is true of any state population. The larger governmental area can reconcile the conflicting demand for uniformity and diversity by directing its resources to provision of uniform

minimal standards of government in smaller areas. It can also establish specialized staffs to advise local areas that cannot afford such staffs. Such technical help can range all the way from the advice on fiscal problems to laboratory services for local health units.

Part of the weakness of our state governments may stem directly from the fact that historical accidents rather than physical and cultural bonds have set their areal boundaries. It would have been much more logical had the state boundaries been laid on the ridge lines of watersheds or on the peripheries of physically delimited areas. Selection of state and county borders were crude attempts to divide the nation into self-governing regions; these misdirected efforts arrested the growth of many organo-natural regions.

So what we need is (1) to stop the practice of putting state boundaries on river center lines, and (2) to expand existing states into several planning regions along functional lines. There is no sense in splitting embryo regions into convenient units by political ballots.

Constitutional obstacles, the existence of state loyalties and sheer inertia may make regional government an unlikely answer at the beginning, but this difficulty could be overcome easily by taking each function separately and establishing the appropriate area for each, setting up, where necessary, a temporary specialized unit of government to perform the particular function. Then slowly they would be brought

together in each region under one control.

This involves the expert determination of separate optimum areas for public health, education, drainage, public health, etc., which are then brought under one administrative control.

The regional government, thus set up, will get power to prepare as well as administer a comprehensive plan, the controlling body of which is connected with the central government. That the establishment of such government would involve, as a necessary complement, the creation of a new form of central planning body, able to co-ordinate the activities of various regional governments dealing with economic and physical planning on a national scale, is self-evident.

This central-planning body will have direct control over the regional planning body of regional government and through them over the entire local government system. It also means that the central government has complete power to curtail or suspend certain regional activity if that clashes with the national plan. In no case would the central government be allowed to take over any activity from the hands of the regional governments. Only those affairs which are strictly national* and/or inter-national and cannot be handled by an individual region will stay within the jurisdiction of the

* By national I mean departments like the Army and Navy, Treasury, etc., which need special attention. Planning of natural resources is also a national problem, but its management function can be performed by the regional governments under the direction of the central government.

central government for direct operation and management. In other words, its main duty would be to serve as coordinating headquarters for all the regions and to guide and advise individual regions whenever they need assistance, or whenever a situation requiring intervention arises.

There would be a central statistical and research board within the central planning body to check the results of the plans as well as the basis upon which advance planning may successfully proceed. Such statistical control would differ greatly from the present scattered forecasts by the numerous uncoordinated private and governmental agencies. To this statistical board, the regions will supply all their data for interpretation and evaluation. Constant adjustment would have to be made in the program so that errors in the plan could be rectified with sufficient rapidity that breakdown would not occur elsewhere.

Horizontal and Vertical Relationships

All regions will have power to make inter-regional agreements to fulfill regional objectives. Such agreements may involve the joint construction of bridges, airports, canals, and protection devices; it may also be for the joint use of costly equipment and services for fire-fighting, routine police cooperation in apprehension of criminals, hospitalization, and highway construction.

Intra-regional cooperation is also necessary. This can be accomplished through the promotion of familiarity among

related agencies programs and operations and by promotion of personal acquaintanceship and informality among officials of these related agencies. Two-way cooperation can develop only among officials who are familiar with one another's activity and problems and can deal with one another on a personal and informal basis rather than as embodiments of the majesty of their respective agencies.

It is also desirable to shift personnel to and fro between the services of national, regional and local government, so that the local or regional administrators get a chance to know what national administration is like, and still more, the national administrators get the direct experience of working with the areal representatives.

Close cooperation between the center and the region in this way is essential for formulating as well as implementing plans. The process of mutual consultation and of adjustment of policies between the center and the region will be strengthened as planning proceeds, and the increasing measure of coherence in policies and measures thus brought about will, no doubt, accelerate the pace at which progress can be achieved along the lines indicated in the plan.

Power and Duty of a Regional Body

It is not necessary that the regional body themselves execute in detail the plans drawn up by them. They should be free to delegate functions to the local authorities--not necessarily the same to all, or to share its powers with

them in convenient way. In other words, what is needed is a flexible system, under which a variety of experiments can be tried out, and powers could be apportioned in varying ways which would meet the conditions of different regions.

The important task of a regional body would be the devising of plans in relation to an over-riding national plan drawn up collectively at the center. The regional bodies would have power to secure the observance of their plan, but where questions of inter-regional policy are involved, such power would be limited to insuring conformity with national planning policy.

Distribution and management of utilities should be performed by the regional authorities. The only good reasons for large scale organization are technical; for it is often out of the question for local authorities to afford good technical management or to undertake capital expenditures which are well worthwhile in the long run. Where supplies have to be transported a considerable distance, even regional units may not be suitable. Nevertheless, a regional arrangement seems desirable. Whenever one region proposes to draw from another region, an inter-regional arrangement would be made.

Distribution of power may present some difficulty, but advantage seems to lie in amalgamating the existing concerns, private and public, into regional groups under the management of the regional body closely linked up with the central planning

authority. It is also necessary to bring gas and electricity under one common control in order to avoid wasteful competition and to secure the use of each for the purposes for which it is best fitted.

The requirement of water supply can best be met by the establishment of a water board at the regional level with functions in some respect similar to those of power operation. A corresponding advisory group is also necessary at the federal level. This group would have the function of preparing the total plan for the development of water supplies in accordance with the needs of different areas, and of supervising, if necessary, the execution of these plans by the regional bodies in whose hand the actual operation and administration is placed.

Water supply in some cases calls for inter-regional management. It also calls for close operation with agencies responsible for planning in other fields.

It is self-evident that full horizontal coordination between those bodies dealing with land drainage, catchment areas, and similar questions is essential at all times.

Management and administration of activities like health service, education, recreation, and transportation should be handled by the regional bodies in a similar way.

It is not necessary that all functional boundaries coincide in all cases. For example, agencies concerned primarily with irrigation, flood control, river navigation, and power development might be expected to establish areas corresponding to

river systems of the country, attempting so far as possible to draw areal boundaries along the ridges of water-sheds. The need of avoiding divisions of natural areas is also apparent where agencies are dealing with railroads, highway systems, industries and mineral deposits. Similarly, natural commercial areas would follow their own convenient contours.

Location of Field Offices

In each case, field offices should be located according to the convenience of management and administration. Where inter-regional functional areas overlap, it is desirable to have a joint field office located within that overlapping zone to represent the respective regions.

ORGANIZATION OF THE CENTRAL GOVERNMENT

Union Government

The central organization functions as the federation of regional commonwealths. The President is the head of this Union.

Council of Ministers (Or Board of Political Advisors)

The real executive of the Federation is the council of ministers with a prime minister as its leader. Each member of the council is in charge of a department. They are also members of the central policy making body.

Central Policy Making Body

It consists of the council of ministers, regional governors, bureau of budget, and the chiefs of the various departments. The board establishes general policies and programs, approves projects and specific items which are of major importance or otherwise require board approval, approves the annual budget, and establishes the basic organization through which programs and policies would be executed. The central planning committee advises the board on technical matters and serves as secretary to the whole organization.

Central Planning Committee

It consists of the central statistical and research board*, the chairmen of the different commissions**, and

*The research division is a part of the central statistical

the bureau chiefs of the various departments. The committee is responsible for directing and coordinating the execution of programs, policies, and decisions which the central policy making body adopts. The committee is responsible for approving inter-regional project management techniques. It is also responsible for bringing before the policy making body matters requiring its consideration or approval, for submitting information or recommendations about different affairs to the policy making body, for providing information to the public about different problem, and for preparing the annual report of the national plan.

Individual Departments

There is no fixed rule for having an exact number of departments. In most cases it will depend upon the need of the country. But in any case each such department would be responsible for its activity to one member of the council of ministers.

board as mentioned before. They have a variety of long and short-range planning functions. They are mainly concerned with the adjustment of the economic and social life of the nation to the changed conditions brought about by the activities of the various departments. They make studies, recommend policies, and maintain relations with the regional and local governments.

**They are special bodies appointed by the President to make an independent study of and make recommendation on each special problem. At the conclusion of their independent considerations, they will work with the central planning committee to make necessary corrections on the final plan.

Within each department there will also be functional subdivision of activity in bureaus. Each bureau will consist of a regional staff sent by their respective regions plus members appointed centrally. The regional planning committee will establish direct relationships with the center through these representatives. In other words, all regional information would go first to the department headquarters and from there to the central planning committee. The purpose of this arrangement is to adjust certain figures in the department, if necessary, before dispatching for a final evaluation by the central planning committee.

No separate arrangement of horizontal coordination between the bureaus of various departments is shown at this stage because most of the bureaus' work at the federal level is coordinative and is already provided for in the central planning committee.

In organizing, departmental activities of a similar nature (i.e. bureaus which are working with the same resources) are brought together. For example, the department of food and agriculture is tied with the agencies dealing with the natural resources because the two are inseparable elements. Actually, when we are thinking about irrigation and flood control, we are dealing with both soil and water. For optimum benefits to result, it is essential to keep both in the same department.

Function of the Bureau Chiefs

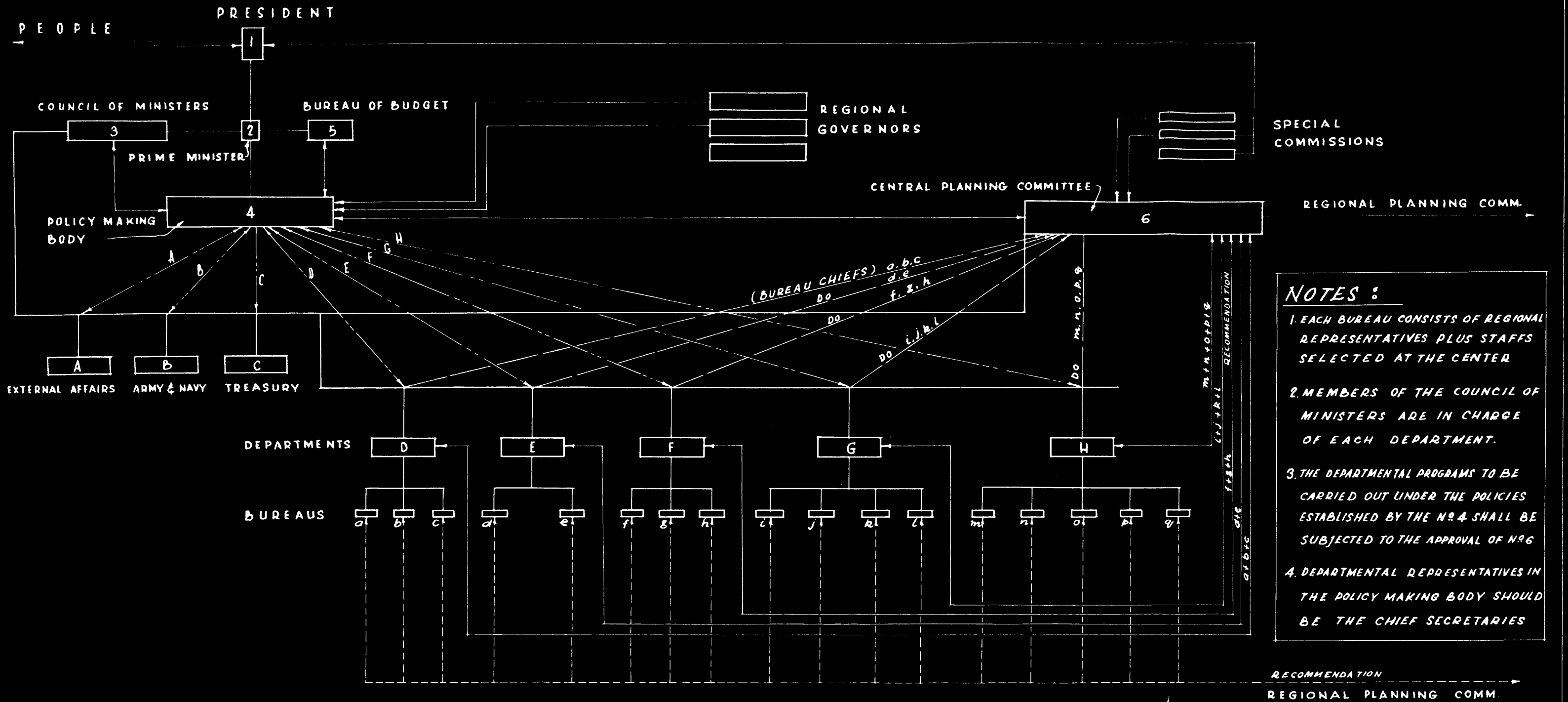
All bureau chiefs play some kind of dual role in the whole organization. They form a connecting link between the planning committee and the individual department, being equally responsible to both. The purpose of this kind of set up is to bring the bureaus' work and the central planning committee's work as close a relation as possible. In fact each bureau chief will devote most of his time to the central planning committee, and hold an official position in his respective department to give direction to its activity.

ORGANIZATION OF THE REGIONAL GOVERNMENT

Organization of the regional government would be similar to the central body except that--

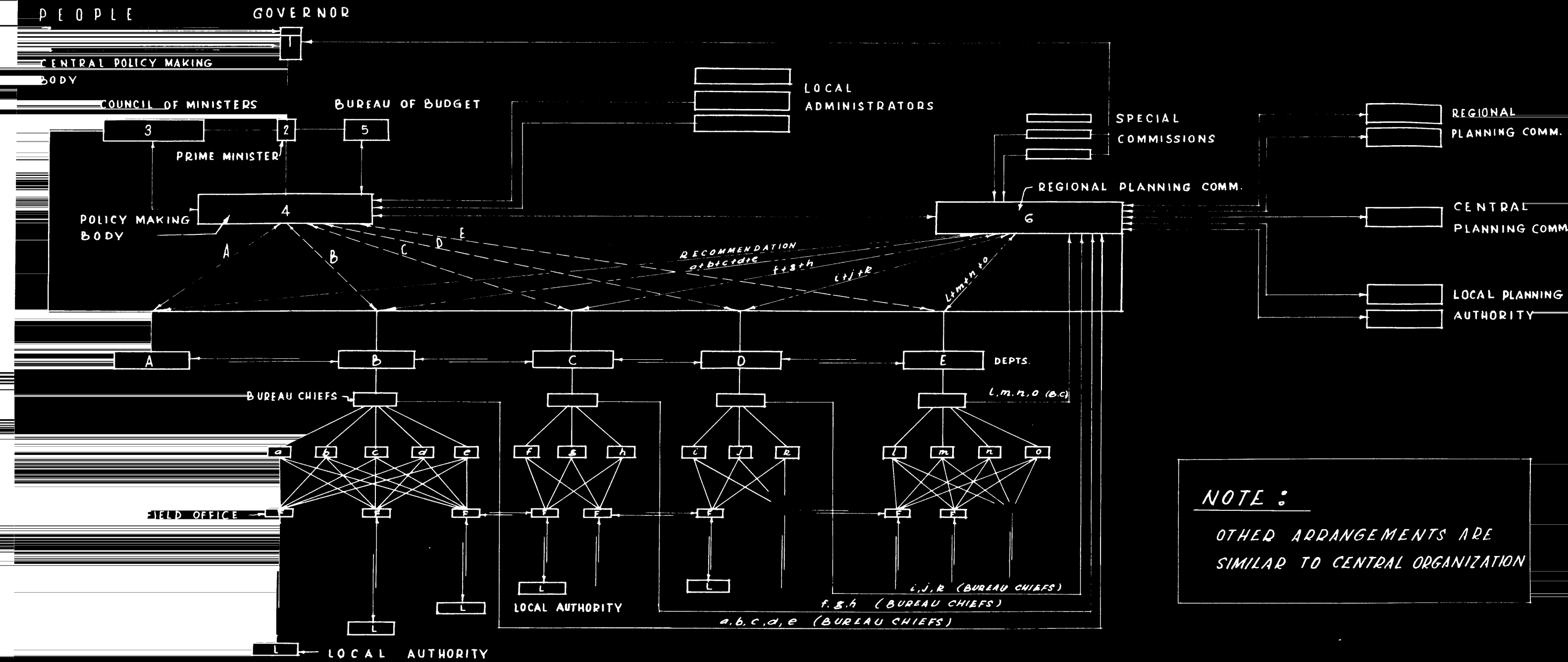
1. All departments would have field offices as well as powers for implementation.
2. Field offices of different departments would have direct connections both with the local bodies and amongst themselves.
3. All bureaus would have the power of inter-departmental negotiation at the regional level.
4. In each regional planning committee there would be representation from the adjacent regions.

CENTRAL ORGANIZATION CHART



- | | | | | | |
|--|--|---|---|--|--|
| D. RADIO, POSTS & TELEGRAPH
a. BROADCASTING
b. POSTS & TELEGRAPH
c. ETC. | E. HEALTH & HOUSING
d. PUBLIC HEALTH
e. HOUSING
ETC. | F. INDUSTRY, POWER & MINES
f. INDUSTRY
g. POWER, GAS
h. MINES, ETC. | G. TRANSPORTATION
i. HIGHWAYS
j. RAILROADS
k. AIRWAYS, ETC. | H. AGRICULTURE & NATURAL RESOURCES
m. FOOD & AGRICULTURE
n. DRAINAGE & WATER SUPPLY
o. IRRIGATION & FLOOD CONTROL
p. FORESTS & WILD LIFE
q. PARKS & RECREATION
ETC. | I. COMMERCE, EDUCATION, CENSUS, ETC.
(NOT SHOWN) |
|--|--|---|---|--|--|

REGIONAL ORGANIZATION CHART



B. AGRICULTURE & NATURAL RESOURCES

- a. FOOD & AGRICULTURE
- b. DRAINAGE & WATER SUPPLY
- c. IRRIGATION & FLOOD CONTROL
- d. FORESTS & WILD LIFE
- e. PARKS & RECREATION
- ETC.

C. INDUSTRY, POWER & MINES

- f. INDUSTRY
- g. POWER & GAS
- h. MINES, ETC.

D. HEALTH & HOUSING

- i. PUBLIC HEALTH
- j. HOUSING
- k. ETC.

E. TRANSPORTATION

- l. HIGHWAYS
- m. RAIL ROADS
- n. AIRWAYS, ETC.

A. COMMERCE

- (NOT SHOWN)
- p. BANKING
 - q. INSURANCE
 - r. ETC.

F. EDUCATION, ETC.

- (NOT SHOWN)
- s. EDUCATION
 - t. FINE ARTS
 - u. ANCIENT MONUMENTS, ETC.

STEPS IN ESTABLISHING PLANNING REGIONS

In order to fulfill regional planning objectives, it is necessary to evolve a system of regions which will work harmoniously together. This requires not only proper identification of homogenous geo-physical areas as regions, but the application of technological and administrative skill to them. We can consider the following three steps essential to such an effective regional development:

1. Survey and Identification of Regions

- a. To survey physical and organic characteristics of all parts of the country.
- b. To make an inventory of their natural-physical, manmade, and human resources.
- c. To analyze their internal relationship and factors of mutual dependence.
- d. To synthesize these areas into regions and to outline their approximate boundaries.
- e. To analyze the fundamental factors within each region. (Factors like the land use situation, financial structure, population characteristics, industrial and agricultural potentialities, and service facilities.)

2. Formulation of a Program for each Region

- a. A land use and drainage program, including erosion control and work on marginal land.
- b. A water use program, including navigation

and flood protection.

- c. Forest protection and management program.
- d. Recreation and wildlife management program.
- e. A rationalized pattern for air, water, and surface communication.
- f. An agricultural and electrification program.
- g. An industrial program, including relocation of industries and establishment of new industries.
- h. Population settlement and relocation program, including establishment of new agricultural communities.
- i. Social and economic improvement program, including allocation of costs for different purposes.

3. Establishment of a Regional Government

- a. To develop regional consciousness and vitality.
- b. To coordinate development and management of the natural resources of the region.
- c. To regulate industrial, agricultural and residential growth within the region.
- d. To provide services and efficient communication within the region.
- e. To develop bond or working relationship with

adjoining regions.

- f. To carry out national policy and regional administration.

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