

ST/TAO

APPRAISING
ADMINISTRATIVE CAPABILITY
FOR DEVELOPMENT

TECA NACIONES UNIDAS



UNITED NATIONS

Department of Economic and Social Affairs
Public Administration Division

**APPRAISING
ADMINISTRATIVE CAPABILITY
FOR DEVELOPMENT**

*A methodological monograph prepared
by the International Group for Studies
in National Planning (INTERPLAN)*



UNITED NATIONS
New York, 1969

NOTE

Symbols of United Nations documents are composed of capital letters combined with figures. Mention of such a symbol indicates a reference to a United Nations document.

ST/TAO/M/46

UNITED NATIONS PUBLICATION

Sales number: E.69. II.H. 2

Price: \$U.S. 1.25
(or equivalent in other currencies)

PREFACE

The ability of a governmental organization to formulate and execute development plans and projects depends in large part on its administrative capability. This is true of both single organizations and the larger systems involving clusters of organizations. The advancement of knowledge and skills in the appraisal of administrative capability is therefore important, especially for countries which plan their economic and social development. Sound appraisal of administrative capability is essential for sound development planning; and administrative planning and the growth of administrative capability are essential for implementation of development plans.

The Public Administration Division of the United Nations Secretariat recognized the urgency of developing sound guides for appraisal of administrative capability in conjunction with its substantive support of regional and country technical co-operation projects on administrative aspects of planning. It requested the International Group for Studies in National Planning (INTERPLAN) to take up the challenging task. The Division is grateful to INTERPLAN for accepting the challenge, and particularly to its Committee, under the Chairmanship of Professor Bertram M. Gross, which prepared this monograph. The monograph will, it is hoped, stimulate further thought and research on the subject as well as be of use to practitioners. It is evident that an operational methodology for appraising administrative capability is still a matter for the future; the present study, as the authors suggest, constitutes more the beginning than the end of the search for an appropriate methodology.

The ideas expressed in this publication are not necessarily those of the United Nations Secretariat.

2012年12月25日 星期三

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Letter of transmittal to the Secretary-General

December 1968

I have the honor of transmitting herewith the methodological monograph *Appraising Administrative Capability for Development*. This has been prepared by INTERPLAN, the International Group for Studies in National Planning, in response to the Public Administration Division's request of 1 December 1966.

This monograph was initially proposed by the Public Administration Division of the United Nations—as an outgrowth of its discussions with economists, social planners and administrators in many parts of the world. On 15 November 1966, the head of the Public Administration Division formally presented this orientation to the thirty-eight participants at INTERPLAN's conference on planning implementation held in Caracas, Venezuela (15-22 November 1966) at the invitation of CORDIPLAN, Venezuela's Central Office of Planning and Co-ordination. An intensive panel discussion on the subject, participated in by eleven members, took place on 21 November 1966. In addition, there were many separate conferences on closely related matters during and after the conference. Subsequently, the work on the monograph was carried out by an *ad hoc* INTERPLAN Committee. The active members of this Committee are as follows:

- | | |
|--|--|
| ** William B. Baker | Canada |
| * Michel Crozier | France |
| ** Bertram M. Gross (<i>Chairman of the
Committee</i>) | United States of America |
| * Said Hasan | Pakistan |
| ** Saul Katz | United States of America |
| * T. J. Mboya | Kenya |
| * Jozef Pajestka | Poland |
| ** Enrique Tejera Paris (<i>Chairman of
INTERPLAN</i>) | Venezuela |
| ** Eric Trist | United Kingdom of Great
Britain and Northern
Ireland |
| ** Peter J. D. Wiles | United Kingdom of Great
Britain and Northern
Ireland |

In addition, the following communicated with the drafting committee and attended at least one conference:

Fred G. Burke	United States of America
Yehezkel Dror	Israel
François Le Guay	France
Charles McCarthy	Ireland
H. K. Paranjape	India
Joaquin Undurraga	Chile

Many of the members of this Committee attended a three-day session at the United Nations in September 1967 to review an exploratory memorandum that had been initially prepared by the Committee Chairman. Major revisions and extensions were then undertaken by various Committee members. A five-day review session was then held at Syracuse University in July 1968. On the above lists, the two asterisks indicate those who attended both sessions; one asterisk indicates those who were only able to attend one session. The other members have been in touch with this project through correspondence.

During the early stages of the project, the ideas presented in the correspondence were fully summarized, and communicated to all members, through the careful work of Lambert Wenner, Syracuse University doctoral candidate in the social sciences. During the final stages, David Warner, Syracuse doctoral candidate in economics, assisted not only in summarizing the July 1968 discussions but also in preparing the final draft.

Special mention should be made of the efforts of Bertram Gross, Eric Trist and Peter Wiles. Gross was the Chairman of the drafting committee and prepared the initial draft. Trist totally rewrote and improved chapter IV, "Environment". Wiles was responsible for synthesizing and editing the final draft.

The views expressed here are those of the Committee and not necessarily those of INTERPLAN as a whole or those of any organization or institution with which the Committee members are affiliated. No effort has been made to express all the views of the Committee members themselves. Additional information on each member is given in the annex.

(Signed) Enrique TEJERA PARIS
Chairman, INTERPLAN

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Chapter I

INVESTMENT IN ADMINISTRATIVE CAPABILITY

INTRODUCTION

1. The implementation of the economic and social plans of Governments is receiving greater attention than ever before all over the world.¹ This is particularly true in developing nations.² More and more studies on implementation are being prepared by the United Nations and its regional economic commissions and specialized agencies, donors of development assistance, research and educational institutions and others concerned with development processes. Some of these studies may lead to more fruitful action.

2. In real life, planning and implementation cannot be arbitrarily separated. Government activity to guide economic and social development involves not only the activating of policies and programmes but also the closely related processes of formulation and appraisal.

3. Administration, in the modern sense of the process of achieving intended results through organizations, is a major factor at all levels—national, regional, sectoral and local. It is particularly critical in the public sector. Government administrators conduct many programmes indispensable to development. They exert major influences on, and affect the quality of administration in, all other sectors—private, mixed, non-profit and co-operative. They are also often highly mobile; many either have been or will be administrators in the private sector.

4. The study of public administration has in recent years impinged on development in two ways: we have analysed the administrative feasibility of specific projects and programmes and we have proposed adminis-

¹ An earlier study prepared by some of the members of INTERPLAN, *Action Under Planning*, Bertram M. Gross, ed. (New York, McGraw-Hill, 1967) concentrates much of its attention upon the implementation of plans.

² The term "developing nations" has served to avoid the unfavourable connotations of "underdeveloped", a term previously used to refer to the same countries. Yet the developing-developed distinction suffers from three weaknesses. It does not directly suggest what is developing or changing, thereby opening the door to over-simplified assumptions concerning one kind of change. Moreover, it does not recognize that some of the so-called "developed" countries are developing or changing more rapidly than some of the "developing" ones. Thirdly, some "developing" countries are not in fact developing. Some of these difficulties may be avoided by distinguishing between "pre-industrial" societies (some of which are already industrializing) and "industrial societies" (some of which are moving into the first stages of "post-industrialism"). This distinction is touched upon in *The Administration of Economic Development Planning; Principles and Fallacies* (United Nations publication, ST/TAO/M/32, 1966).

trative reforms for the public sector. In both cases questions are raised about the administrative capability of specific government organizations and of the public sector as a whole.

5. There was a time when proposals for new development projects—particularly large programmes for resource development, new crops, new industries and improved education and health services—were considered only in terms of economic and technical feasibility. After many unfortunate failures, administrative feasibility has come to be recognized—by the World Bank and others—as an important consideration also.³ But much more work is needed on the methodology of analysing administrative feasibility—particularly the way in which specific administrative bottle-necks may be overcome. Our approach in this monograph is to suggest a methodology for appraising the administrative capability—both for the present and for relevant future periods—of the specific organizations involved in the planning and execution of development projects.

6. In all developing nations, recurring attention is also given to such over-all “administrative reforms” as the structural reorganization of government agencies (both regular ministries and special development corporations), merit and career systems, salary adjustment, training facilities and improved procedures. The connexion is not always clear between such changes—which often consume considerable time and effort—and social and economic development. They may also be viewed in the above context; namely, their implications for the administrative capability of organizations responsible for social and economic development.

7. There is nothing new in the idea of administrative appraisal or evaluation. Informally, national leaders, administrators and technicians are accustomed to continuous appraisals of specific organizations, programmes and individuals. Such appraisals—although often on the basis of intuition alone—are an integral part of decision making. Business administrators in highly industrialized countries have made considerable efforts to develop more explicit and self-conscious appraisal techniques.⁴

³ See particularly John A. King, Jr., *Economic Development Projects and Their Appraisal* (Baltimore, Johns Hopkins Press, 1967), pp. 10 and 11, which discusses the World Bank's experience in thirty cases in countries in Latin America, Asia and Africa. The author says: “Management is perhaps the most difficult of all the elements of a project to appraise. Where a project is to be carried out by an existing organization, much can be learned about the quality of management from a study of what has happened in the past. Yet it often happens that a management with a good past record may be inadequate to handle a greatly expanded operation. In particular managers may be reluctant to delegate authority; in a developing country this attitude may be quite reasonable, since there may be very few people qualified to handle the responsibilities delegated. But an organization that operates with a one-man management is very vulnerable. . . . Closely related to the question of management is the question of the sort of organizational structure best suited to carry out and operate the project successfully. This question falls naturally into two parts—what organization is needed to bring the project to the operating state and what organization will be needed thereafter.” Louis Walinsky, *Planning and Execution of Economic Development* (New York, McGraw-Hill, 1963) also deals with this subject in passing.

⁴ See especially Carl Heyel, *Appraising Executive Performance* (New York, American Management Association, 1959), which provides a description of principles

Here we are doing something more than merely applying such techniques to developing nations. We are also centring attention on the new—and potentially powerful—concepts of administrative capability as the central focus of appraisal efforts.

8. In preparing this methodological monograph, we have tried to open up new aspects of development administration. Our objective has not been to provide cut-and-dried, prefabricated techniques but rather to stimulate creative approaches by many different types of people in many different countries. The following pages, therefore, should be viewed as starting points, not the end of the road, as efforts to raise questions that might be ignored rather than as all-purpose answers or panaceas.

9. Indeed we could not have done more, for “public administration” is not an exact science. It cannot, for instance, offer hard and fast numerical answers to the question, “Is this or that authority capable of a certain task, or should we enlarge it, and if so by how much?”. It cannot tell us precisely what problems *will* be important, or what authorities *will* be needed to cope with them. However, such questions must all the time be asked and answered by practical men with real responsibilities. Unable to provide a cook-book or even a checklist of basic questions, we nevertheless offer the reader a certain mental preparedness which he might not otherwise acquire.

10. Occasionally, we have indicated how our approach might be applied to specific situations. But the utility of these concepts will depend upon something more important that cannot be supplied in any written document: the skill of those who apply them (improving them in the process) to the special or unique situations of different countries in different environments, at different stages of development and with different political systems, social customs and cultural backgrounds.

11. Accordingly, our major objective—apart from self-education—is to contribute to the learning processes of key people involved in economic and social development in developing nations. As spelled out in “Developing national planning personnel”,⁵ this group includes (a) specialists, (b) leaders of interdisciplinary teams, (c) top executives, (d) political leaders and (e) interest-group leaders. To this should be added foreign and international lending agencies, public and private investors and the experts in technical assistance programmes. They too have much to learn on judging the administrative feasibility of specific project proposals and improving the administrative structure of specific organizations or the public sector as a whole. Indeed, the approach herein set forth may also be of use to many people in various parts of the “developed” world, where shortages of administrative capability are not unknown.

and techniques for appraisal of executive potentialities, taking into account factors of structure and environment. Paul Wasserman, *Measurement and Evaluation of Organizational Performance: An Annotated Bibliography* (Ithaca, Graduate School of Business and Public Administration, Cornell University, 1959) provides a descriptive bibliography of more than 200 relevant abstracts.

⁵ See Additional Note 1, “Developing national planning personnel”, by the INTERPLAN Executive Committee.

12. With so varied a readership in mind, we have tried to avoid the two extremes of overly technical jargon, on the one hand, and, on the other, the condescending kind of popularization that helps people avoid thinking. But we recognize the need for two mutually supporting (rather than conflicting) developments:

(a) The more advanced technical formulation of many of the ideas presented herein, without which there will not be scientific advances, or indeed economical communication among experts. A few suggestions along these lines are presented in Additional Notes 1 and 2;

(b) More serious efforts to develop "technical-popular bilingualism" among experts, so that they can communicate with generalists, political leaders and community leaders.

We have also provided, subject to the limitations of space and diplomacy, occasional real-life illustrations from the various countries with which we are individually familiar. However much they add to the length of the text, they are the most efficient means of explaining novelties and technicalities.

13. Our basic technical stance should nevertheless be explained at the outset. We proceed from the recognition that certain mechanistic and/or hierarchical concepts are insufficient: Max Weber's vertically integrated but horizontally compartmentalized bureaucracy; the concentration of the old "organization and methods" expertise on the smooth functioning of such a bureaucracy; the Taylor type of work study which supposes that people do only what they are supposed to do, and can easily be induced to do just that; external control and appraisal as purely fiscal or legal; government as responsible for law and order alone. We are very far from even hinting that there should be no clear vertical line of command, or that fiscal and legal controls are unnecessary, or that law and order can be dispensed with. We only insist that there is much more to be said: informal groupings are often decisive; information should be spread much more widely; feedback from below must be frank and efficient; decentralization must always be pushed as far as it will go; administrators need a new type of training etc. As Additional Note 1 shows, these shifts of practical emphasis are associated with "system theory", the rise of which parallels the communications revolution and the new demand for "participation" at all levels.

14. Two examples illustrate the shift of emphasis. The Canada Agricultural and Rural Development Administration was established in 1961 and started with a primary emphasis on physical resource adjustment in backward rural areas. By 1965 it had become apparent that the primary problem was to mobilize farm families to leave the depressed areas, and the major emphasis shifted to human resource adjustment. This meant providing social services (relocation, manpower training, job placement etc.). This shift required a major reorientation in the bureaucratic land-use orientations of provincial departments of agriculture throughout the country. Secondly, the French Office du Plan is the classic case of

what we mean. It is so well known that a reference to the literature will suffice.⁶

15. Two definitions are too important to ignore in this introductory chapter. For our purposes "planning" is a process not a final formal document. Such a document, if it is issued at all, should be called a "blueprint". The planning process includes implementation as well as formulation, though of course there are normally distinct organizations concentrating on certain specialized aspects of this complex process. Secondly, "national development" is a major societal change, not just "economic growth" (i.e., changes in particular economic magnitudes such as *per capita* income or rate of employment). Development is a complex of mutually related economic, social and political improvements. Economic changes sometimes seem more evident and generally lend themselves more readily to quantification, but they are only one aspect of a total process. Within broad limits, development may take place without growth, and *vice versa*. Both may be the spontaneous results of many individual purposes, or they may be more or less the result of a single, national purpose: development planning.

16. A valid "blueprint", even valid "planning" as a process, implies broad national agreement as to goals. The development administrator is no mere technician, but even if he were he would inevitably be sucked into the political maelstrom where such agreement is "obtained". In this whole paper we assume such broad national agreement; we also assume all or most of the very controversial value judgements on which the case for national planning rests. We are concerned with *how* to do things, and leave perforce the *why* to others.

17. In the remaining sections of this chapter, we have set forth the concept of administrative capability more explicitly, relating it to the economist's extremely valuable concepts of scarcity and investment and bringing them together into the new concept of investment in administrative capability. This chapter also introduces the scope and organization of the text. Chapters II-IV are devoted to a discussion of the three variables that the authors consider to be of primary importance in any analysis of administrative capability: the performance, the structure and the environment of organizations and larger systems. Chapter V deals with the kinds of appraisal that may be used for different purposes, and the degree of involvement required by appraisers. A brief abstract is provided at the end of the monograph. This is followed by four Additional Notes written by members of the Group.

A. ADMINISTRATIVE CAPABILITY AS A SCARCE RESOURCE

18. Administration—defined as the guidance or managing of organizations and systems of organizations—is a major factor in development processes at all levels: national, regional, local and producing unit.

⁶ See Pierre Bauchet, *Economic Planning: the French Experiment* (New York, Praeger, 1962).

Indeed, even in the private sector where enterprises are vitally affected by government programmes,⁷ no developmental programme in any field can be successful without administrative capability in the public sector.

19. Administrative capability at all levels is itself one of the scarcest of all resources in a developing nation. Senior, responsible administrative resources are very scarce in all countries. If the attention of several cabinet ministers is unduly diverted to problem A, problem B will be irrevocably decided by quite junior people, acting in various public and private offices without co-ordination. Though it remains possible that problem A will be poorly decided, error is still much more likely in the case of B. Accordingly, the misapplication of these resources is a gross error. To underwork or overwork them is to run the risk of bad decisions in extremely costly matters.

20. The time of high-level administrators is scarce indeed, and one of the major fallacies of many national plans is their attempt to exercise almost ubiquitous control and make all-encompassing projections. In real life, planning and implementation cannot be arbitrarily separated. What is clearly unimplementable, whether because the administrative capability is not obtainable or because it is humanly or technically impossible, should not be planned. What will be implemented without effort, because it will happen anyway, requires little administrative attention at high-levels and should merely be forecast.⁸ Clearly labelled, such forecasts form proper parts of national plans; knowledge of public sector intentions alters private sector intentions and, therefore, the forecasts. The completeness of a national plan has also a symbolic use. But the underfulfilment of plan targets and even of forecasts may have a most depressing effect and may lower confidence in planned development as such.⁹ This is usually too high a price to pay for the symbolic advantages of all-encompassing projections.

21. Thus, one of the primary goals of planning should be to focus the attention of administrators upon achievable goals. For the most capable administrators tend to become over-extended. They have too little time to concentrate on organization building, the development of junior personnel and replacements, and the maintenance of morale. They can easily lose sight of what is going on in their own offices, and are especially ignorant of what it is like to be a subordinate of one of their own subordinates, or a member of the "administered" public.

22. At the same time, unused administrative capacity is also very common. Often senior officers seek to preserve their cozy corners by an

⁷ See paragraphs 101 and 102 on "Market administration" in *The Administration of Economic Development Planning* (United Nations publication, ST/TAO/M/32).

⁸ We do not mean to imply that if a product is left to the market, or a service to autonomous local government, the central government will have no regulative duties with regard to it: merely that the economy of attention and trouble may be very large.

⁹ Compare paragraph 15, where the distinction is made between "planning" as a constant process and "blueprints" which are formal documents representing objectives decided upon at a moment in time.

attitude of "false urgency". They may keep their office or agency turning at a fast pace on merely subordinate or procedural questions, while the substantive questions are not properly examined.

23. Administrators waste themselves in yet other ways. They dispute with or concur with or consult each other endlessly. They must—and this is a necessary evil—also promote each other, send each other on leave and frame departmental regulations. The increase in their numbers beyond a certain point may actually reduce their net output, and will hardly ever increase it in proportion.

24. Administrators also invent things to do when their original tasks have been reduced. The new task is often not chosen for its social utility, but for its suitability to the preservation of the existing agency. Thus, there are almost always idle administrative resources in a country, did we but look for them, the over-all scarcity notwithstanding.

B. THE GENERATION OF IMPROVED ADMINISTRATIVE CAPABILITY

25. Although excess capability may exist in the administrative system, "administrative improvement" always has costs. Programmes of training, civil service reform, reorganization and procedural changes—in addition to requiring direct expenditures of local or foreign currency—must necessarily divert the time and energies of "high-quality" personnel from other activities. Hidden "change-over costs" are usually created by adjustments in organizational structures or procedures.

26. Similarly, disturbing questions may often be asked concerning the relation between "administrative improvements" and economic and social conditions. Proposals for such improvements are sometimes based too much on the experiences of highly industrialized countries under conditions of relative stability, national cohesion, a well-developed infrastructure and a large supply of trained manpower. "Experts" from industrialized countries will sometimes propose administrative improvements of the type that have been—or are being discarded—at home. Sometimes with well-intentioned enthusiasm they offer ideas that would not be listened to seriously in their own countries.

27. A useful appraisal or actual trial of such proposals is itself a costly activity. Imported evaluations are no substitute for actual local direction. It is better to act *now* moderately well than to do nothing while one's techniques are being improved for *later* use.

28. It is often not only acceptable but also necessary to concentrate talent in particular sectors to the neglect of others. The development of administrative capabilities in developing nations cannot go the same way as it went in highly industrialized nations. Instead of being extremely long-drawn out and not very conscious, it has to be quick, rational and conscious. This raises the basic problem of finding short cuts for institution building.

29. Indeed, we must view administration as more than an abstract term denoting merely a means of implementing developing programmes in

the so-called economic and social sectors, e.g., agriculture, industry, education, health and so on. It might, in fact, be possible to treat administration as a sector, susceptible of programmed development in its own right, a field with its own identity. This approach may benefit developing countries, inasmuch as it could enable them to plan administrative improvement and reform in consonance with the requirements of their economic development programmes; and would eliminate wastages associated with administrative improvement not based on relevant criteria.

30. We need better guidelines than are now available on the contribution to economic and social development of specific kinds of administrative improvements. The supply-demand approach to appraising administrative capacity should be more widely explored. A first step is to look for administrative capability bottle-necks in the fields which constitute the social and economic development bottle-necks. The strategy of social and economic change would then find its parallel in administrative strategy.

31. This can best be done by thinking of alternative improvements as possible investments in administrative capability, possibilities that compete with other opportunities for using scarce resources. But investments in administrative capability also impose a burden on existing capabilities as we have seen—that is, require the time and energies of over-worked administrators. But this is no excuse, in the long run, for not making them.

C. THE FOCI OF APPRAISAL AND IMPROVEMENT

32. We regard administrative capability as the capacity to obtain intended results through organizations. For this purpose, an organization may be regarded as a man-resource system performing certain activities through interaction among its parts and in relation to an environment. Some definitions of organizations (or systems) concentrate on dimensions of performance; some on internal structural components and relations; some on environmental transactions. Any serious appraiser of administrative capability, however, must be prepared to deal—as the specific situation may require—with any or all of these dimensions.

33. It must be stressed that, although improvement of an organization may require changes in its structure or its relations with its environment, the basic purpose of such change is to improve performance. Therefore, the content of probability statements on administrative capability is provided by information or estimates on future *performance* in the light of the strength and weaknesses in its *structure* and the constraints and opportunities provided by its *environment*.

The organization's performance

34. The results that affect the lives of people most flow directly from the performance—or ongoing activities—of specific organizations. Thus,

we may appraise a tax collection agency, an agricultural ministry or a research division by obtaining information on what they have done to collect taxes, promote agriculture and conduct research and evaluating these activities in terms of their estimated impacts.

35. But this is by no means a simple procedure. At times, one must narrow the enquiry down to the specific activities of a single administrator or a group of administrators—to note how they performed in the past or may perform in the future. But their performance must be related somehow or other to that of the organization. Otherwise, we shall not know if an organization has done well despite an administrator, or, if it has done badly, whether the administrator should be given credit for having prevented it from doing worse. It is also important to consider its performance, structure and environment over time to avoid misjudgement due to certain temporary factors. The recent personal history of an organization is an essential datum.¹⁰

36. But, when assessing the future capability of an organization to achieve future results, the analyst has another problem. The future is not known. On most important matters we can only make conjectures concerning it.¹¹ Therefore, any appraisal of administrative capability involves the making of probability statements concerning what might happen in the future under such-and-such conditions of change, risk and uncertainty. Such probability statements are fully reliable only with respect to the inevitable and the blatantly impossible. Between these two extremes it must be recognized that large risks—not always calculable—must be taken whenever rapid development is desired. Moreover, one of the ways to enlarge the capacity for action may be to embark upon courses of action that place a strain on existing capacity.¹²

¹⁰ This may be exemplified by the following illustration: "Let us look . . . at a series of events which often takes place in a department or plant engaged in an operation where performance standards or production schedules can be set. A man is put in charge of such a plant or department, knowing that he will be favourably judged and rewarded if his department achieves a high level of production. He puts a great deal of pressure on his subordinates and pushes production up. Measurement of the end-result variables indicates that he is a 'fine manager'. In a year or two his reputation earns him a promotion to another department, where he repeats the performance. In the meantime, hostilities have been developing in his subordinates and those below him in the organization. Just about the time that he moves on, the results of his unreasonable pressure begin to show up in decreased loyalty in the organization, lack of motivation to do a job, turnover, slowdowns and scrap loss. The new manager reaps the fruit of the promoted manager's behaviour and gains the reputation of being a 'poor manager', for, almost as soon as he takes over, things begin to fall apart. . .". Rensis Likert, *New Patterns of Management* (New York, McGraw-Hill), pp. 72 and 73.

¹¹ The desirability of such conjectures is presented in a masterful fashion by Bertrand de Jouvenel in his *The Art of Conjecture* (New York, Basic Books, 1967).

¹² Albert Hirschman develops this idea in great detail with a number of examples in his *Development Projects Observed* (Washington, D.C., Brookings Institution, 1967).

The organization's structure

37. The performance of any organization—and of its administrators—is vitally affected by its internal structure: that is, by its component units and their interrelations. It is these units—both individuals and groups—who perform and may be improved.

38. Some kinds of action are designed primarily to change an organization's structure. None the less, structures change (develop or run down) even without efforts to change them. It is a great mistake to regard either the components of an organization or the relations among them as fixed. Both performance and structure are aspects of social processes, the former usually more fluid and the latter usually more stable.

The organization's environment

39. Any human organization operates in an environment, providing services to external groups or individuals and responding to external influence. Important parts of its structure are designed to provide environmental linkages or respond to environmental change. An organization's environment always provides certain constraints on the growth of its capabilities. It may also provide—although these may be harder to see—unique challenges and opportunities.

40. One of the most important virtues of an administrator is the ability to understand rapid and complex environmental changes and help his organization adapt creatively to these changes. This is the "analytic capacity", described in paragraph 174.

41. An organization's ability to change certain aspects of its environment or improve its linkages with it may have as many implications for its performance as changes in its internal structure.

42. Environmental relations are crucial to the growth or diminution in size of organizations. For organizations are sustained, altered or diminished by judgements, both conscious and unconscious, by those external individuals and groups who are their clients, suppliers, competitors or supporters, or—as the case may be—indifferent to them.

D. FROM SINGLE ORGANIZATIONS TO LARGER SYSTEMS

43. Thus far we have been discussing single organizations. This is an appropriate starting point. For some administrators and students of administration, it is the focal point. Wide-ranging programmes of administrative reform may sometimes underestimate the importance of building single organizations capable of getting results. Ambitious development plans may easily become grandiose and unfeasible unless based on what specific organizations can do. Macro-planning, to be effective, must lead to some sort of micro-planning, whether public, private or mixed.

44. None the less, no organization with an important role in the development process can be self-sufficient. Its capacity to get desirable results rests, in part, upon services that can be provided only by *other* organizations. Thus, every government agency cannot be expected to collect by itself all the statistics and other essential information it might need—any more than every industrial enterprise could be expected to provide its own source of electric power. Again, although every government may not need an atomic energy commission, economic and social development often requires some central organization with certain functions in the general field of science and technology. Accordingly, any serious appraisal of implementation capacity should include an effort to identify the missing—or partially missing—organizational components.

45. Therefore, it is important to look at administrative capability in the broader framework of more inclusive systems—such as sectors, clusters or networks, and territorial entities.

Sectors

46. Sectoral programmes occupy a strategic middle-ground between micro- and macro-planning. Techniques such as input-output matrices, where feasible, may provide useful information on intersectoral relations, thereby avoiding the danger that any one sector—such as agriculture—may be regarded as autonomous.

47. But any sound appraisal of the productive capacity of the agricultural sector, for example, should include not only the inputs from other economic sectors but also administrative capabilities at key points in the growing, harvesting, storing and marketing of various crops. Naturally, this would include the capability of various central government agencies to promote the capacities of other organizations—private, public or co-operative—engaged directly in these processes.

Networks or clusters

48. Often a “sector” is merely a classification category. But as development progresses, there is a tendency for the various units in a sector—say farms, manufacturing enterprises, co-operatives etc.—to come closer together through real-life networks of communication, transactions, joint activities, mutual influence etc., and to develop some sort of administrative, sectoral or intersectoral infrastructure.

49. At certain points in such a network—say, an agricultural bank—administrative capability or incapability may have profound effects.

50. The sectoral criterion is neither the only nor necessarily the most important one in grouping various organizations. Most of the functional agencies mentioned above cut across the sectoral borders and work together in clusters or constellations—that is, groups of closely interacting organizations.

51. The most important such group is the central guidance cluster. Any single national planning agency—whether it be called a commission,

council, board or ministry—serves such important symbolic or catalytic functions that it may be mistakenly regarded as *the* single planning organ.

52. The effective formulation, activation, appraisal and readjustment of social and economic development plans require “a cluster of central government agencies performing various roles not only in the provision of specialized and general staff services, but also in national leadership, financial management, and the handling of critical problems”.¹³

53. The administrative capability of any single agency in a central guidance cluster, therefore, cannot be realistically appraised in isolation from the other components.

Territorial entities

54. Every industrializing nation faces difficult developmental problems in particular geographical areas. One of these is the lack of sufficient administrative capability.

55. Any subnational territorial entity—whether local or regional—may be regarded as an aggregation of individuals, families and various kinds of organizations. But some of these organizations are branches or field offices of national organizations. This often leads to what has been called “dual subordination”.

56. The appraisal of administrative capability in these areas—and particularly the development of practical programmes of improvement—is immensely difficult. Although this subject cannot be discussed here in detail, we merely point out that the performance-structure environment indicators are relevant also to organizations and larger systems at the local and regional levels.

57. Similarly, it is clear that some variables of analysis change significantly when the territorial entity to be examined is a rural, rather than an urban, area.

E. APPRAISAL AS A GUIDE TO IMPROVEMENT

58. The Public Administration Division asked how we can best appraise administrative capability on the premise that better appraisals might contribute to concrete improvements in administrative capability. This premise derives from the observation that programmes for administrative improvements have often been proposed or acted upon without any meaningful appraisal of the strength and weaknesses of existing administrative capabilities.

59. At the same time, appraisals by themselves, no matter how wise, will not necessarily lead to improvements. The process of appraisal has at times served as an *alternative*—or even an *obstacle*—to action or reform. “Evaluation and control may divert an undue amount of time and

¹³ See “Central guidance cluster”, *The Administration of Economic Development Planning; Principles and Fallacies*, pp. 43-45.

effort from concrete implementation steps to the filling out of the forms: the conducting of endless studies, and the exhaustive appearance before evaluation boards or investigating commissions".¹⁴ A lot depends on *who* conducts an appraisal, the motives of the appraisers and the extent to which the "appraisees" participate in the process and are willing to face the difficulties involved in moving from appraisal to improvement.

60. There are many kinds of appraisal available for evaluating and comparing organizations and systems.

(a) The arm's-length survey, of which Dr. Tannenbaum's Additional Note to this monograph¹⁵ is a good example, is sometimes compiled without the knowledge of the organization or organizations being surveyed. It is useful for scanning groups of organizations for data gathering as the basis for broader policy.

(b) The more intimate diagnosis, resulting from a tactical, limited engagement between appraiser and appraised. Most of the IBRD studies of projects, or even full-blown development efforts, are at this level.

(c) The full-length organization appraisal (discussed below in chapter III, section F, Social learning, and chapter V, section A, The need for new approaches) is the most intensive of these techniques. This requires the interpenetration and collaboration of appraiser and appraised. The result is not a formal report, but rather an enhancement of the appraised agency's ability to appraise itself and reformulate its own policies and goals.

(d) The investigation of the organization by legal, accounting or legislative bodies erected to uncover illegalities and incompetence. Such investigations often terrify administrators and destroy their efficacy simply because they overcommit resources to the task of protecting themselves. But some men are bad, and these organs of "terror" must, unfortunately, exist.

(e) Finally, there is the broad demographic or macro-appraisal of the "administrative infrastructure". This is a survey of a whole nation about to embark on a war or to adopt a new economic order or that has just gone through a revolution. When the state of the art of administration has become more refined, it may be useful to collect cross-national data on specific indicators of administrative capability.

61. Each of these techniques has its place. One of the crucial defects of administration throughout the world is the scarcity of the capability for self-appraisal and the muddled approach often taken towards organized, productive appraisals.

62. Thus type (d) can hardly be international or external. It is not our concern, but it needs to be mentioned since there exist in all countries organizations that conduct it. Along old-fashioned lines, they tend to be legal and financial only. We must repeat that no new theory or method

¹⁴ "Activating national plans", *Action Under Planning*, p. 198.

¹⁵ See Additional Note 2, for Arnold S. Tannenbaum's "Personnel survey methods in administrative agencies".

has arisen which dispenses with these old necessities. We discuss them little, simply because they are well known.

63. Type (c) is expensive and slow. Its novelty must not blind us to this elementary fact. But when simpler appraisals have led to no result—a fairly common case—the choice is between (c) and the continuing sickness of the organization. See chapter V, section A, The need for new approaches.

64. It is hurtful to be appraised, though it *may* also be helpful. Excessive appraisal, perpetual appraisal, as by zealous legislative or other control bodies, sharply lowers morale and the readiness to take risks. It may not be as bad as actual reorganization (section B, above), but it should certainly not be overdone.

65. It is sometimes necessary, and it is most regrettable that it has not been done, to appraise the administrative capability of a whole nation. Where large changes are contemplated involving the whole nation, the existing administrative capability of any one existing organ is irrelevant. The question becomes, do the requisite resources exist anywhere within the nation's borders? Can this developing country adopt a new economic system? Even, can it industrialize at all?

66. It is here that the concept of the "administrative infrastructure" becomes essential. The concept includes the general level of literacy and education, the number of telephones and typewriters, the speed of travel between major cities, the proportion of people speaking mutually incomprehensible languages or dialects etc.

67. Even the "central guidance cluster" is already so large a part of the whole nation's administrative capability that its very existence poses these macro-scopic questions. If it grows large enough to formulate a detailed and ultra-sophisticated national plan, it may bleed the implementing organs white. Thus, without a realistic assessment of what level of activity this infrastructure can support, planning becomes an academic exercise and an irrelevant and wasteful one at that.

Chapitre II

PERFORMANCE

A. THE PRIMACY AND COMPLEXITY OF PERFORMANCE

68. The term "performance" refers to the ongoing operations, activities, programmes or missions of an organization (or its subsystems or any larger system in which it may be included). Information on performance relates more to actual functioning rather than the functions or roles that an organization is supposed to fulfil.

69. Performance is the primary criterion for judging organizations. But it is a total concept, and includes not only all the costs but also all the side-effects of an action or policy; it is not confined to the fulfilment of stated goals. For instance, say there are two organizations (A and B) which produce identical quantities of identical waste-paper baskets at identical cost which are distributed through the same sales organization at the same final price to the consumer. But organization A employs extremely harsh personnel practices, pays lower wages, employs more people and has lower productivity per man than B. Even though the two firms make identical profit per article we would say that B's performance is significantly better than A's.

The multiple dimensions of performance

70. There is no one way to view performance. It includes the following: an organization's acquisition of inputs from its environment and their costs; the ways and costs with which the organization transforms inputs into outputs; and the various effects—both beneficial and damaging—of these outputs and the using up of these inputs on different groups in society.

71. Information on the financial aspects of organizational performance is found in government budgets, auditing reports on expenditures and the income (or profit and loss statements) of government corporations. Similarly, balance-sheets report on the financial aspects of organizational structure; the structure of assets and of the various claims (debt or ownership) against them.

72. Historically, the first major step in government budgeting has been to collect—for each agency and for all government agencies as a whole—lists of expenditures—for example, salaries and other payments to personnel, travel, rent, purchase of supplies and utilities etc. In systems terminology, these are *the outlay cost of inputs*. A major purpose of these

lists has been to protect against illegal or dishonest use of funds. Lists of this type, however, are not sufficient to guide decisions on the allocation of funds or the administration of programmes.

“Nations as well as organizations are involved in continuing competition or conflict over the control of resources perceived as desirable and scarce. With the emergence of industrialism and the post-industrial service society, large government expenditures now provide the basis for a growing volume and variety of services and goods. Decisions on these expenditures vitally affect the interests of all economic, social and political groupings in a country, and foreign countries too. They become continuing centers of controversy over the structure and functioning of government—from the broadest issues of national policy to the minutiae of specific programmes and agencies. . .”¹

73. “As these controversies become more complex, policy makers and administrators need conflict management procedures that will be acceptable, even if under protest, to most contestants. All contestants need guidelines for their own decision making—that is, for identifying problems, choosing among alternatives and rationalizing (or legitimating) their choices.”¹ Many high-level intellectuals and technicians respond to these needs, sometimes anticipating them decades in advance, sometimes lagging behind the inventiveness of political leaders. In every country—no matter what its political system or level of development—there are tendencies towards a continuing accumulation of budgetary techniques with respect to (1) input costs and budget cycles, (2) the specific activities on which money is spent, (3) the economic effects of total spending, (4) the effects of specific programmes and (5) the creation of alternative paths towards the same or improved objectives. These phases are associated with improvements in public management presumably oriented, respectively, towards economy, prosperity, efficiency, effectiveness and the general welfare. In each, the new techniques are rooted in implicit policy orientations, justified by explicit budgetary or management theory and spelled out in formal prescriptions. In each, the gap between prescribed and actual practice is always large. It becomes larger whenever increasing centralization outruns the capabilities of the “central guidance centre”. In most countries, changes in the formal prescriptions—no matter how small or delayed their impact on actual practice—are labelled “budget reforms”, “breakthroughs” or even “management revolutions”.¹

74. One such “breakthrough” has been performance (or programme) budgeting. This refers to more recent efforts to relate the costs of inputs to the actual services (or outputs) provided. This involves at the very least an identification—and preferably information on quantity and quality—of the services provided. It represents an application to government of cost-accounting techniques established in business. With

¹ Bertram M. Gross, “The new systems budgeting”, paper delivered at the annual meeting of the American Political Science Association, 5 September 1968, Washington, D.C., *Public Administrative Review*, March-April 1969.

government agencies that do not sell their services, however (and this goes for the bulk of regular government agencies), there is no monetary sales value to be used as an initial indicator of value to the country. Efficiently produced outputs—such as roads that lead nowhere or studies read by nobody—may be of little benefit.

75. The most recent stage in government budgeting—often referred to as “systems analysis”—brings into the picture information on effects or outcomes also. Thus, the aim of the new Planning-Programming-Budgeting System (PPBS) in the United States Federal Government is to provide information on “the direct and indirect outcomes (benefits or disbenefits) likely to result from . . . certain types, quantities, and qualities of end-product outputs (often intangible services) made possible by . . . the use of inputs whose costs are realistically estimated”.² These complex variables are employed in making long-term projections, in comparing established programmes with a variety of alternative programmes and in evaluating policy alternatives within established programmes.³

76. The essence of this benefit-output-cost budgeting is that it goes beyond financial information and puts traditional government budgeting in the broader framework of programme and policy planning and evaluation. It also provides an appropriate framework for appraising methods rather than looking at methods improvement apart from the results they are presumed to yield.

Past performance v. future potentials

77. One of the best ways to make predictions about an organization’s future performance is to analyse its past performance. This is not to say that “good performance” in the future is assured by “good” past performance, but rather that organizations develop often in terms of their recent history. An organization that has been strongly tied to or even co-opted by a specific interest group in the past will usually be resistant to behaviour in the future which is against this group’s well-being.

78. Similarly, the study of the past performance of an organization provides information on whether or not the organization has been investing or disinvesting in future capability to do certain tasks.

79. Finally, there is the question of how new tasks should be handled. Sometimes existing organizations can be seen to have the capability to take on new tasks based on their past performance. But sometimes new organizations (like the National Aeronautics and Space Administration in the United States) should be set up. And often new

² Bertram M. Gross and Michael Springer, “A new orientation in American government”, in Bertram M. Gross, ed., *Social Goals and Indicators for American Society*, Annals of the American Academy of Political and Social Science, May 1967, p. 9.

³ *Ibid.* Additional information on this new approach to budgeting is found in the symposium in the December 1966 issue of *Public Administration Review* (Washington, D.C.) and in *The Administration of Economic Development Planning; Principles and Fallacies* (United Nations publication, ST/TAO/M/32), pp. 32-34.

organizations need to be set up to take over old tasks from a number of existing organizations (as in the case of the United States Department of Transportation).

80. The crucial concept is that performance takes place over time. Benefits, which are the result of outputs transformed by the organization from inputs, can only be analysed within a suitable time perspective.

B. COSTS (INPUTS)

81. The scarcity of resources needed for development requires continuing attention to their distribution among competing programmes. Indeed, with the progress of development, more and more agencies originate more and more attractive ideas for providing more and better services to meet the growing variety of human needs and demands. The competition for those resources allocated by the Government becomes increasingly intense. Realistic cost estimates become increasingly important.

The complexity of outlay costs

82. Although the new benefit-output-cost approach to planning and budgeting provides a good framework for cost estimating and reporting, administrators must recognize that traditional methods of calculating costs may lead to serious errors. They must develop new capabilities to deal with such facts as the following:

(a) The money spent by a given organization may not relate directly to the resources used in one of its own programmes;

(b) The money budgeted for a given programme may not reflect resources used for its indirect support by some external agency or provided in the form of free services or subsidies;

(c) The fact that an agency receives money for certain purposes does not mean that it can find the real resources required—e.g., scarce personnel or machinery that simply cannot be obtained;

(d) Both public and private organizations tend to underestimate future capital expenditures (this is the “foot in the door” approach, whereby a project is allowed to start because it is thought to be cheap, and then continues to be financed whatever it actually costs, simply because it has been initiated);

(e) Current expenditures, on the other hand, are usually over-estimated;

(f) Manpower and labour cost figures often tend to conceal rising capital costs;

(g) Some government organizations may have much freer access to strictly rationed necessary inputs, such as foreign exchange, than other organizations in the society;

(h) There is no one objective way of allocating common (overhead or indirect) costs to specific outputs, distinguishing between current and

capital costs (which may appear in different budgets) or estimating the costs of depreciation or withdrawals from inventories.

83. There are other inputs that do not usually enter into formal estimates of outlay costs. These include the uncompensated extra or overtime work of employees and the "wear and tear" upon them (as well as upon machinery). Also, information is a scarce resource of strategic importance. But techniques for formally estimating the costs of obtaining and processing information are still underdeveloped.

84. All this is particularly important in connexion with government enterprises or public enterprises receiving public support. Since profit is, in this case above all, a common measure of value for both input and output, it is the most useful input-output relation and may serve as an initial indicator of benefits. Profitability measures may be used in many ways, however. One should also for the most part think in terms of the long, not the short, run. So, depending upon a variety of techniques for handling difficult accounting problems, profit is subject to considerable statistical manipulation. It may also reflect an organization's monopoly power and its ability to obtain subsidies, as well as its efficiency.

85. The individual administrative organization, as opposed to the public enterprise, can only devote limited energy to minimizing costs in an optimum fashion. But it ought to have some mechanism that can report with reasonable speed to the management scarcities of certain inputs or unprofitable high costs in acquiring or processing such inputs. This applies to administrative and other personnel inputs as well as to physical ones.

Opportunity costs

86. Outlay costs—whether expressed in monetary or physical terms—do not always indicate the magnitude of opportunity costs, that is, the benefits that might have been obtained by using the same resources to provide different outputs.

87. The concept of opportunity cost in fact can be used in comparing alternatives of the same organization as well as comparing different organizations. Similarly, when a number of organizations are bidding for very scarce resources, such as foreign exchange, it may be useful to assign shadow prices to the commodity that reflect its real worth rather than its official worth. This may reduce the possibility of incurring very high opportunity costs relative to these very scarce, but underpriced, inputs.

Social costs

88. The important concept of "social costs" may go beyond both outlay and opportunity costs. This is a new area of analysis, in which social costs, whether expressed in economic or trans-economic terms, may refer to:

- (a) Inputs that do not appear in the accounts of an organization or programme (free services, direct and indirect subsidies etc.);
- (b) Lost opportunities of doing something more beneficial; and
- (c) Actual damage (such as unemployment or water pollution) and various second- or third-order consequences to which certain outputs may contribute.

89. "Social accounting" is a still broader term that refers to various ways of collecting information not only on costs but also on social benefits and damages. The concept—rapidly becoming a fad term in industrialized countries—is ambiguously used to refer to (a) broader ways of appraising single programmes or organizations, (b) non-economic information on significant change throughout a country or (c) relevant information of any type on the changing states of a given system.⁴

90. It is by imposing some of the methods of "social accounting" that the social and other costs incurred by organizations can be better assessed. It is unrealistic to hope that organizations will assess themselves for social costs which the society is willing to let "go by the board".

91. An additional problem that arises in evaluating social costs (and benefits) is that they are often incommensurable. Ordinary financial accounting is based on monetary units (a common denominator). Some social accounting can be done in terms of monetary or perhaps even other commensurable units. Many costs, however, are not amenable to such measures. Perhaps a consideration of such costs should be called social intelligence rather than social accounting.

92. In any case, it is vital that such incommensurables be considered to be intellectually timid, and to omit them *is* to measure them by assigning a weight of zero, which we know is wrong. It is often enough to know, for making a decision, whether their value is positive or negative. Thus if two courses of action are equal in the scales of social accounting, but one has no incommensurables and the other a single positive one, the latter course must be taken. But many cases are less simple, and we find ourselves forced, willy-nilly, to assign arbitrary values to the incommensurables in order to arrive at a decision. Arbitrary as this is, we must repeat that it is far preferable to the coward's way out of omitting them.⁵

C. ACTIVITIES (OUTPUTS)

93. When performance is seen as functioning, then all of the activities of the organization may be seen as outputs. These activities may be discussed in terms of such end-product outputs as providing services, and

⁴ These alternative concepts of "social accounting" are described in more detail in Bertram M. Gross, "The coming general systems models of social systems", *Futuribles; analyse et prévision* (Paris, SEDEIS, February 1967), pp. 129-140.

⁵ There is, of course, little difference between "using one's instinct" or "judgement" and "assigning arbitrary values". The latter is largely a more scientific-sounding phrase for the same thing. But those who use it are at least a little more explicit and honest with themselves.

such intermediate services as mobilizing resources and investing in the organization. Each of these activities may then be analysed in terms of its quantity and quality. Incommensurability raises its ugly head again, just as in the case of inputs (above).

Output quantity

94. Private business organizations or public organizations that sell their services (output) have little difficulty in identifying just what that output is and what kinds and grades are included in their "output mix". Such organizations cannot only identify their output; they can also measure its volume easily and, if they want, describe its quality. In addition, their performance is amenable to comparison with the performance of other such organizations through the comparison of profits.⁶

95. Even in the non-monetary sphere, measures of the real quantity of output are relatively easy to obtain in the case of government organizations producing *goods* (such as roads and public buildings). Often, in addition to bringing in no revenue, the full units of output require a longer time span than that provided in an annual budget. One of the purposes of the new-style budgeting is to focus on such units.

96. But for the great bulk of government *services* direct monetary measures of output performance are not available. The money an agency spends (although used as a surrogate for output in national economic accounting) is a dangerous measure to use in judging its performance. For a few government services we may adduce prices from the parallel free market in competitive services privately provided. Using extreme caution we can thus approximately value education and health. But others, such as research, policy and public advice, assistance and regulatory activities, have no market parallel.

97. Of these, some present extra difficulties. They may be:

(a) *Controversial*, for example, regulatory activities and top-level decision making and planning, where there are usually major ambiguities

⁶ In a predominantly monetized economy, the best general measure of output performance for the economy as a whole and for major sectors is the net national product. This calculation can provide a continuing picture of the different kinds and quantities of output: primary (agriculture, forestry, fishing, mining); secondary (manufacturing and construction); and tertiary (services). Distinctions may be made also from the point of view of final use: between output currently consumed and output invested in the capacity for future production. The "real value" of output may, under certain circumstances, be regarded as reflecting changes in quality as well as quantity. Serious problems arise, however, in adjusting for changing price levels. In a pre-industrial society, with a large part of agriculture and other activities not "monetized" or fully within a market economy, the national product (while still a valuable indicator of national performance) is not so generally applicable. Moreover, statistical reports on sales volume and monetary value (even apart from large subsidies through protective tariffs, favourable exchange rates etc.) are less reliable. Considerable effort is needed to obtain a really useful (instead of a synthetic or misleading) calculation of output in terms of monetary value. It is also important to judge performance by physical measures of output—even in the case of sectors and enterprises (private or public) whose output is sold.

as to the very nature of the services, ambiguities that develop as a way of easing or avoiding conflict, and

(b) *Standby*, as in the case with peace-time military services (where it is usually assumed that the capacity to do certain things may, by acting as a deterrent, avoid the large-scale use of such capacity).

98. As we noted above, it is necessary for organizations and analysts of organizations to attempt to develop more appropriate output categories for these services. With service categories established, it is essential to find indicators of the quantities rendered. Often, judicious use must be made of such indirect indicators as:

(a) The number of clients served (e.g., students of a school, patients in a hospital etc.);

(b) Service duration (student-years, bed-days etc.);

(c) Intermediate services (memos written, meetings held, tests given etc.);

(d) Completions (number of graduates, discharges etc.); and

(e) Inputs used (total costs, number of teachers or doctors employed etc.).

Output quality

99. The quality of output is as important as its quantity and kind. Indeed, there is a dangerous tendency for increases in quantity to be obtained at the cost of decreases in quality.

100. Quality is multidimensional, with high performance in one aspect often counterbalanced by low performance in another. It is also often not directly measurable. In such cases it may not be inferred from such proxy variables as the quantity and quality of inputs (section B, above)⁷ or the techniques used (section E, below). But the concept does include the benefits or damages resulting from the output.

101. But the best way to measure quality indirectly is to analyse output into new and more appropriate categories. This involves experimentation with different classifications of end-product services. Thus, the services of a hospital may be classified by function (in terms of preventive, diagnostic, therapeutic, training and research services) and by field of specialization (in terms of obstetrics, pediatrics, internal medicine, surgery etc.). The "output mix" of a school may be classified in terms of level (from kindergarten to graduate and adult education), curriculum (course content), orientation (vocational or academic) and the balance between instructional, counselling and research services.

102. Such indicators are crucial for administrators within such organizations and analysts and allocating agencies which must make comparisons between similar organizations. Without such data, it is diffi-

⁷ Thus a plan based on a computer is not necessarily better than one worked out by human calculators. The quality of the plan depends overwhelmingly on the wisdom of the planners.

cult indeed to assess the extent to which an organization is performing effectively.

Mobilizing resources

103. In order to carry out any activities organizations must mobilize resources. The act of mobilizing resources is part of the organization's performance while the ability to mobilize them depends upon the people in the organization, the organization's past performance and the relation and reputation the organization has with its environment.

104. In order to raise funds, organizations must be able to legitimize their activities to those donors or investors who have or will be able to provide support. A private organization must convince bankers or private investors that the organization has the capacity, with a high degree of probability, to provide attractive returns on capital. A public organization often must convince a bureau of the budget, ministry of finance or legislature that the benefits probably accruing from its activities will be worth significantly more than the resources committed to it from the public fisc.

105. But the organization must recruit personnel and procure material as well as raise funds. The process of acquiring these resources is also part of its performance. Once acquired, they become part of the organization's structure, where their numbers and quality profoundly influence future performance.

Investing in the organization

106. It is also essential to distinguish between those services of an organization that are provided to its clientele and those that represent investments in its own capacity. These relate to the subjects discussed in chapter III, *Structure*. Note, however, that many organizations can perform more effectively over the short run by neglecting such investment. In fact, for many organizations the short run may be crucial.

107. Each investment or disinvestment is most effective if it is the conscious result of policy. The organization may also invest in irrelevant capability. For example, it may acquire people with Ph.D.s whose abilities it does not need for jobs that are not necessary.

108. Indeed there is a whole "Parkinsonian" pathology of organizations; they sometimes grow cancerously, without reference to their tasks; their mere growth becomes a part of their performance; their "institutionality" makes it difficult to uproot them when they become useless etc.

109. Here too, however, large organizations differ from small ones. First, they must have at least the trappings of institutionality in order to attain the minimal cohesion required for efficiency. Secondly, a large organization employs a large number of people. Their happiness and stability are themselves important goals. If, for instance, as in the USSR in 1958, a new planning hierarchy is introduced in order to disperse the

central guidance cluster physically from the capital city,⁸ this is no mere bureaucratic reorganization but a great social and political event. The movement of so many people has large costs that may appropriately be set against the administrative gains.

110. The whole process of investment or disinvestment in the organization must be analysed in terms of future potential performance. What tasks at what level of competence will the organization probably be required to perform at some time in the near future? What is the probability that the organization will have the capability so to perform? Finally, there is the question of to what extent current performance can be sacrificed for the future capability of the organization.

D. RESULTS (BENEFITS)

111. Rarely are the results of any activity (output) ambiguously advantageous to all the clients of an organization or to the wider environment as a whole. As noted above, the capacity of organizations to increase the quantity of services does not necessarily imply the capacity to raise the level of quality, let alone maintain past levels. In many developing nations, the number of students in primary schools and the number of health clinics have been rapidly increased—but at the cost of lower-quality service that does not adequately meet these countries' needs in these fields.

Results are hard to assess

112. The fact that an organization produces certain services in large quantities or at a high level of quality is, by itself, no assurance that these services meet important needs. Indeed, it might be much more desirable for the same resources to be used to meet other competing needs.

113. For example, one developing country has today the capability to produce about twice as many high-quality heavy electrical and heavy machine-tool products as it needs now and more than it will possibly need in the next ten years. Much of this excess capacity now lies idle. Would it not have been better if the resources devoted to building this excess capacity had been devoted to productive capacity for tractors or fertilizer, which are in very short supply in this country? A more accurate market assessment by products would have enabled the Government to better compare the true benefits accruing from these projects.

114. In appraising the "output mix" of the economy as a whole, the use of a Leontief-style input-output matrix (provided minimum information is available) may be helpful in spotting possible bottle-necks and judging feasibility and consistency. Thus, when national leaders aim at

⁸ We refer to the substitution of a "territorial" for a "production branch" chain of command, and the conversion of product-based ministries in Moscow into territory-based *sovmarkhozy* all over the USSR.

certain agricultural, industrial and export goals, it may help indicate the inputs required from various sectors. But it cannot by itself provide a definitive answer to the question of whether or not these—as contrasted to others—are the most desirable agricultural, industrial and export goals. Moreover, it cannot—at least in developing nations—provide specific guides with respect to the kinds, quantities and qualities of educational, health and research services needed as inputs.

115. In considering the “output mix” of the government sector, however, it should be possible to develop a matrix of essential government services. Through the judicious use of such a matrix it may be possible to spot the development of overcapacity at certain points relative to undercapacity (bottle-necks) at others.

116. Although these techniques may be an improvement upon existing methods of analysis and allocation, the central problem remains. Results are hard to know. Results benefit some and cause distress to others. They are indirect as well as direct in their consequences. And they are manipulated with varying degree of success by the various interest groups involved, including government administrators and organizations.

Combinations of benefits and disbenefits

117. Many activities benefit some while causing damage to others. A new bridge over a river, for instance, may reduce transportation costs to many and improve land values near its access routes while at the same time reduce the value of land and commercial properties near the old bridge.

118. If all the gains and losses can be netted out in money terms, so much the better. But in many government activities the good and bad results are very hard to assess. In order to appraise them attention may be given to the following indicators of clientele satisfaction:

(a) Overt actions indicating satisfaction. For example, students “got something out of” their course if they continued their education or entered better jobs;

(b) Expressed opinions, favourable and unfavourable, solicited and unsolicited;

(c) Choices made: the extent to which people come or stay away; and

(d) Payments made: the extent to which people have been willing to pay something for the service (even if on a non-profit basis).

119. Benefits and damages may be indirect as well as direct. A public health programme which directly reduces disease also indirectly increases the population—which may be good or not depending upon the country. A road-building programme may indirectly increase automobile imports while putting weakly organized railway employees out of work and undermining mass transportation in general. Or a land reform programme may result in a fairly substantial decrease in production, but increases in self-respect and political stability.

Objective measures of the public interest

120. In the central guidance cluster itself, some countries may at one time or another build up certain types of economic analysis (as set forth in chapter III, section B, Organizational units (subsystems)) at the expense of others that may be needed equally urgently. Similarly, central economic analysis may be under-weighted in contrast with other functions bearing on plan formulation, activation and evaluation. It is also essential to consider the extent to which this cluster may meet needs for power group representation, for liaison, communication, interpretation and bargaining services, and for expert analysis in a variety of quasi-economic or non-economic fields.

121. No one agency of government can by itself provide services to assure that more people will enjoy minimum levels of employment, health and vitality, security and self-respect. But government policies may contribute to the meeting of such needs by their direct and indirect effects on the distribution (as well as expansion) of employment, income, assets (including housing and other tangible goods) as well as savings, public services and opportunities for participation in decision making.

122. A major contribution to such policies by a central guidance cluster is to develop the capacity to obtain and disseminate regular and increasingly reliable information on the living standards of the great majority of the population. Such information is essential to the continuing evaluations that must be made by private organizations (profit as well as non-profit), local governments and individual government agencies as well as by national leaders.

123. In addition to economic data (which are indispensable), such information must include various indicators often regarded as non-economic or social. The terms "social accounting" or "systems accounting" have often been applied to this broader concept.

124. It is important that development administrators do not make the mistake of using the term "social" in the sense of "non-economic". Thus, in appraising the *social* benefits of a new factory, it is essential to include attention to such *economic* indicators as (a) direct and indirect foreign currency cost and (b) the "real" costs (as distinguished from the "outlay costs") of employing labour that would otherwise be unemployed. There are widespread tendencies for the first of these to be underestimated (with favourable profits masking a dangerous drain on a nation's resources) and the second to be overestimated (with losses or low profits concealing economic gains to the nation).

125. It is with such data that ritualistic claims on the part of private and public organizations that their activities are in the "public interest" can be scrutinized more meaningfully. Question must always be asked: which public? What about those whose interests are adversely affected? And, what about those objectives that might be more in the public interest than those served by your past programmes?

E. METHODS

126. During the nineteenth century economic and social development was closely associated with the new machine technologies of the first Industrial Revolution: for example, the spinning jenny, the steam engine, the railroad and the wireless. In the mid-twentieth century there began a new cycle of technological change based on electric power, advanced chemistry, high-energy physics, bio-physics and "social engineering" and creating a new world of computers, atomic energy, supersonic and outer-space flight, world-spanning communication systems and continuing "information explosions". These new developments are sometimes referred to as a second Industrial Revolution, sometimes as the technological aspects of the transformation from industrialism to the early stages of post-industrial, cybernetic "service societies".

Management methods in developed countries

127. The changes referred to above were associated with three spurts of innovations in administrative, or managerial, methods: the first in the nineteenth century, the second in the first part of the twentieth century, the third in the period after the Second World War.

128. Early western industrialism was dependent upon entrepreneurial capability to build large, new organizations and to obtain public policies conducive to such institution building. This capability was backed up by certain techniques that had their roots in previous centuries and that have continuously grown in sophistication: (a) double-entry book-keeping; (b) financial accounting and auditing, and (c) the legal provisions needed to bring new organizations into being, legitimate them and protect their access to financial resources. In the public sector, these techniques were concretized in ultra-legalistic provisions for traditional (input listing) budgeting, accounting and auditing.

129. In the early twentieth century, after the Industrial Revolution had already changed the face of western Europe and the United States of America, new management techniques were developed to meet the needs of large-scale organization:

- (a) Work study, methods improvement and production engineering, often referred to as "scientific management";
- (b) Cost accounting and capital budgeting;
- (c) Procurement, supply and records management; and
- (d) Personnel management, with a certain component of "human relations".

Although the biggest thrust came in the private sector, elaborate public management techniques developed in all of the above four areas. In (a) they were often referred to as "O and M", in the cost-accounting aspect of (b) as performance or programme budgeting (along the lines recorded in the proposals of the first Hoover Commission, 1947-1949).

130. Since the Second World War, the processes of western post-industrialization have been associated not only with the increased sophistication of all the old management methods, but also with such new methods as the following:

- (a) Computerized data processing and information systems;
- (b) Managerial accounting and finance;
- (c) Managerial economics and marketing;
- (d) Managerial engineering;
- (e) Operations research, and
- (f) Systems budgeting and systems analysis.

Each of these areas is characterized by continuing innovation and by subdivision into new specialities. Moreover, each tends to overlap with many other areas. Each has had a major impact on the activities of government as well as private organizations. Each has been influenced by the needs not only of large international corporations but also of military agencies interested in the most effective methods of procuring, delivering, deploying and using both old-style and new-style instruments of destruction (increasingly referred to as "defence systems").

131. During this same period there has been an equally significant growth in the "supra-technical" knowledge of individual and group behaviour. Much of this involves a greater awareness of the complexities of human motivation, the inevitability of resistances to change and the difficulties of building new institutions and preventing their ossification.

The use of modern management methods in developing countries

132. In all countries, whether developed or developing, the basic tests of new methods or techniques used by an organization or larger system are how they really work out in providing needed benefits through the provision of various outputs. On the basis of experience and intuition (and with a little help from theory and research) it is possible to infer that under certain circumstances some methods have already worked out—or may work out in the future—better than others.

133. Even in developed nations, it is extremely difficult to judge the contributions made by the new methods. There are many reasons for this:

(a) Because new methods are inevitably resisted by "old-timers", innovators usually respond to resistance by exaggerating the expected benefits and diverting attention from their direct and indirect costs;

(b) Technological "faddism" often creates an interest in adopting the latest methods in order to enjoy the prestige of appearing "up to date";

(c) Many of the new methods are extremely hard for laymen—including technicians in other areas as well as generalist administrators—to understand.

Although no serious study has yet been made of this subject, there is good reason to suspect that the introduction of new management methods

in the highly industrialized, or post-industrializing, societies has been accompanied by the large-scale kind of waste that only rich countries can afford.

134. In the developing nations, there is a growing interest in the use of modern management techniques. Many of them hold forth the promise of accelerated development through "leap-frog strategies". In some areas it is impossible, without them, to enter into internationally competitive fields of large-scale, quality-controlled operations.

135. But in developing nations the problem of the relevance of specific methods to specific problems is even harder than in the developed nations. First of all, the factors referred to in paragraph 132 apply to developing nations also—often more strongly.

136. Secondly, the problems of developing nations are in certain respects more complex, and, in any case, somewhat different from those encountered by the large organizations that have introduced computers, managerial engineering, systems analysis. The basic problems are strategic in nature—including the building up of new institutions that may develop the capability to use advanced management methods. The bulk of the modern management methods, however, are tactical in nature. They relate much more to the operational control of fairly routinized operations than to the top management. They relate even less to strategic choices among different kinds of rapidly changing programmes.

137. Thirdly, the developing nations have few of the skilled technicians necessary to introduce the new techniques. They rarely have the management-development programmes needed to assuage the legitimate fears of higher-level administrators and help them rise to the challenge of using the new techniques nurturing and co-ordinating the new technicians.

138. A useful approach to methods appraisal within any specific organization is to judge the extent of efforts to improve methods and adopt them to changing circumstances—as contrasted with doctrinaire rigidity. Any long-range efforts of this type invariably require a variety of training programmes—both at the technical and higher administrative level—that can better be handled for the government as a whole, or the country as a whole, rather than within a single organization.

Chapter III

STRUCTURE

A. RESOURCES

139. The performance of any organization and of its administrators is vitally affected by its internal structure; that is, by its component units and their interrelations. It is these units which perform and may be improved. These units, in turn, are composed of individuals and things, i.e., of resources that act in or are drawn upon by the organization. Before proceeding to other aspects of structure, we must first discuss these basic "building blocks".

People

140. The primary resources of any organization are people. Here, as with indicators of output, information on quantity alone may be extremely misleading. The number of people is significant only when related to types and quantities of personal ability, knowledge and attitudes and particularly how they fit into their roles.

141. These roles are usually defined by some form of occupational or job description. Under circumstances of rapid social change (and particularly when provisions are made for serious in-service and mid-career training), considerable flexibility is needed in applying the traditional criteria of prior education and experience. Many people must be expected to develop—on the basis of current experience and education—new capacities for performance. Accordingly, one of the most important—and difficult—judgements involved in appraising any system's capability is the capacity of its people to develop.

142. At the same time, when talent is scarce, it is often more than acceptable, it is necessary to reduce educational requirements for posts of a given level; or to concentrate talent in particular sectors to the neglect of others.

143. In fact, in some developing countries, low-grade engineers are produced in abundance when it is high-grade technicians that are required. Consequently, it is necessary to be an engineer to obtain such jobs even though these engineers usually disdain the manual work that an effective technician would welcome.

The administrator as a responsible entrepreneur

144. Ends and means are so intimately bound up that, just as every legislator is in fact part executant, so every administrator is part legislator.

In the standards of administrative performance he sets, in the interpretations he puts on his directives, in the things he knows "aren't done", in the priorities he allots when his time is short, above all in the way he acts when given his own head and in the advice he tenders of his own initiative, the executant has a very great deal of moral independence. The classical definition of his subordinate position is not and never has been true. It is even less true in developing countries and in one-party countries. We do not take pleasure in this, we simply state it as a fact. Thus, the administrator does not enter the planning process as an administrator alone; and his capability includes the capability to interpret, to re-interpret, to advise and even—whether we like it or not—to disobey. In saying this, we extend his responsibilities but not his powers; for we simultaneously admit the right of politicians, experts and plain citizens to interfere in administration.

145. While the politician has the duty to understand administration and its problems, *per contra*, the planner and administrator must be highly sensitive to political feasibility. But here there is a difference. The planner is nearly always under strong pressure to tell the politician that his favourite plan is feasible; in our context, administratively feasible. The less quantitative the issue is, the more imponderable the question and the more merely probable the wisest answer, the stronger the temptation to fudge results. But at this point, the planner's duty is to tell the bleak truth. Without it, the politician is ill-served indeed.

146. The old-fashioned ideal that the civil servant must always tell the politician the exact truth was thoroughly admirable, and we must strive to preserve it. But for the rest the word "administration" has unfortunate historical connotations: the prevention of things, the channeling of events according to strict laws. Actually such an attitude and training has never been suitable outside law, taxation and various kinds of inspectorate. It is nothing new that in road construction or state education the administrator should be a public entrepreneur. This requirement is merely magnified in developing countries, where private enterprise is characteristically absent, weak, repressed or suppressed. The old training in law and accountancy introduces a thoroughly undesirable *déformation professionnelle*.

Things

147. If they are to operate, organizations need physical resources like vehicles, housing, office supplies, telephones and—above all—money. It must, however, be remembered that organizations, like individuals, can be dominated by their possessions and that both physical and monetary capital requires maintenance, use and justification.

148. When we observe things such as buildings, office equipment, computers, communication or filing equipment etc. with the purpose of appraising an organization, these points should be watched:

(a) Serious inadequacies may undermine an organization's morale as well as its direct capacity;

(b) Nevertheless, when profitability and costing techniques are not available, there may be dangerous tendencies towards "faddism" in the urge to obtain new facilities that are beyond the capacities of personnel to use or maintain properly, or can be used only at low (and extremely wasteful) levels of capacity. Beware of salesmen, including academic experts, who do not even know that they are salesmen!

149. Premature building to house organizations may "straitjacket" the development (or reduction) of administrative structures. It may also block the use of new mechanical devices of all kinds. In a word, all kinds of change are easier in emergency structures than in permanent buildings. A "new" permanent building may require costly adaptations. The very partitioning of a building, the way the rooms are allocated to subsystems, has enormous influence on the efficiency with which the structure works, and ultimately on the structure itself. Within an organization, it must never be forgotten that communication is "architecturally determined".

150. Similarly in the broader system, the extent to which a nation has certain physical things may constrain its administrative capability. A nation without roads or telephones, or even very few of them, suffers severe constraints upon its ability to organize and communicate rapidly and to adapt itself to new considerations.

Reserves

151. Any such appraisal, however, should allow for some reserves to adjust to mistaken calculations and unforeseeable contingencies and to provide some "slack" in the system. No system can long continue very effectively if driven continually to operate at full capacity. Impatience with unutilized capacities should not lead to utopian efforts to achieve complete utilization.

152. In addition to the organization's resources of people and things (including money), there may be additional resources in the immediate environment that can be drawn upon in emergencies or are subject to its control. This is particularly important in organizations operating as part of larger clusters (or macro-systems). Money, equipment and people in other co-operating or subordinate organizations may also be major factors in the organization's capability—even though rarely, if ever, reflected in the organization's budget, personnel roles or organizational chart.

153. The reserves of the organization represent an investment in future capability and insurance against breakdowns. In fact, the ability to draw upon other organization's resources is usually not automatic and requires considerable investment in time and lobbying.

B. ORGANIZATIONAL UNITS (SUBSYSTEMS)

154. Within any organization or structure (or larger system), people, non-human resources and money are grouped together in various

subsystems. Each subsystem, in turn, is usually subdivided still further. The smallest of all, of course, is the individual person.

Subsystems differentiation

155. The most significant characteristics of any subsystem are provided by its "output mix"—that is, the specific set of services (or functions) which it is expected to perform (as discussed above in chapter II, section C, Activities (outputs)). Social development and organizational growth both seem to require a rapidly increasing differentiation of these specific services, and therefore of the subsystems themselves.

156. Units may be classified in different ways, according to the nature of their work. For instance, some do the "substantive" work, others help them. It is well to remember that these auxiliary services (such as the offices of personnel, accounting, supply, transportation etc.) are intended to assist the substantive activities, not dominate them.

157. One of the most difficult administrative problems in developing societies is to avoid the two extremes of over- and under-specialization of both individual organizations and subunits of larger organizations.

158. A development bank may have both the monetary resources and economic analysts necessary to make a large number of loans but often—unless it develops the capacity to attract customers and offer managerial assistance to new or stagnant enterprises—its programmes may fail. Without subsystems to carry out these activities, the bank is under-specialized.

159. Similarly departments of agriculture in many developing, as well as developed, countries fail really to specify their attention. They see their research, extension and teaching programmes as global in nature and not necessarily organized to any specific objective rather than "general welfare". The Indian Ministry of Agriculture is a case in point. Until 1960, it attempted to cover all rural areas and villages equally, to educate farmers in agricultural and rural development problems and build schools, roads and co-operative institutions. This approach was modified in 1960 so that the potentially most-productive districts in each state received more attention than other areas. It was further altered in 1966 when it was decided that all of the resources of the Ministry should be devoted to increasing agricultural production and that any other projects should be subordinated to this objective. This modification is considered to be one of the major factors in the speed with which Indian agriculture has been transformed in the past three years.

160. At times, however, it may be desirable to provide for excessively rapid specialization in research, medicine or engineering as a long-term investment in future capacity (particularly when there may be no other feasible way of providing an attractive career within the country for people with unusually high training and scientific ability).

Function v. title

161. Most organizations have many functions (or roles). These can never be fully described by an organization's name or title. They may also be combined and recombined in many different ways. Accordingly, this appraisal cannot be made properly in terms of the names of ministries, departments, corporations or their units. It must be made in terms of specifically identifiable functions.

162. Thus in the general area of financial management, government organizations are needed for critical roles in the "big seven" areas of (a) tax collection, (b) budgeting, (c) control of the money supply, (d) foreign currency control, (e) handling the foreign and domestic debt, (f) accounting and (g) auditing. Each of these, in turn, may be broken down into a set of more specific services. For example: (b) is sometimes handled in the prime minister's office, separately from (a) in the ministry of finance; (d) normally goes to the central bank along with (c) but much of it could be handled indirectly by import licences, in which case the function may go to the ministry of trade; (f) might be a parliamentary function etc.

163. Another important area is specialized economic analysis. This may include any permutation of the following: (a) the objective analysis of past and present trends and future probabilities; (b) the formulation—or even the proposal—of alternative goals or targets;¹ (c) the review or development of general policies, and (d) the review of development of specific projects or programme. Organizations or units charged with (a) should sometimes be kept strictly clear of those handling (b), (c) and (d), just as the objectivity of military intelligence is preserved by keeping it clear of operations. High capability for (d) is very specialized and has little to do with (b) and (c).

Missing components

164. As already suggested in paragraph 44, missing components can seriously impair the organizational capability of a single organization or larger system. The driver of an automobile, no matter how skilful, cannot travel very far if a wheel is missing.

165. Within single organizations, the diagnosis of missing wheels is not easy. Sometimes the missing components are very humble—such as the secretaries capable of serving as reliable communication links, or of an efficient filing unit. Sometimes they consist of specialized technical services—in agronomy, industrial technology, engineering, one or another branch of economics, statistics etc. Sometimes the "missing" components are really there—but are lost from sight in the hierarchical jungle of a large ministry.

¹ Considerable ambiguity may be created whenever the term "projection" is used to refer to both (a) future objective probabilities and (b) possible or proposed goals and targets.

166. One of the major missing components in most organizations engaged in productive enterprise in both the public and private sectors of developing countries is the lack of effective marketing or distribution components. Plants produce fertilizer and are unable to put it into bags. Modern power plants are erected and the distribution of that theoretically adequate power is so fluctuating that modern machines are burnt out. A target number of vasectomies is achieved during the first year, but lack of post-operative care leads to many infections and low levels of achievement thereafter. Those who aim at merely statistical success invariably underestimate the required effort in supporting services.

167. The identification of missing components in the government service as a whole is still more important. The best way to help ministry A may be to add a new "wheel" to ministry B. Thus, the central bank's operations may best be improved by providing that the ministry of trade be empowered to license imports (para. 162).

168. In developing nations, where intensive subdivision of specialized personnel is very costly and difficult, social planning cannot be readily separated from *economic* analysis. It may be useful, therefore, to combine social and economic considerations in any of the four kinds of analysis listed in paragraph 163. In many situations, failures in implementation may result from an organizational imbalance—overcapacity in refined economic analysis and incapacity (or unused capacity) in social planning.

169. Some of the less conspicuous failures in this area are tremendously strategic. Thus, organizational incapacity in such dull old areas as project formulation, foreign currency control and excise taxes is a serious obstacle in the implementation of development planning. The development of improved capacity to handle such functions should be regarded as an indispensable part of development planning itself. When we ask for concentration on key issues we do *not* necessarily mean a drive for modernity or sophistication.

170. The points at which to develop such improved capacity should be strategically selected—apart from more wide-ranged efforts to improve or "reform" the government structure or administration as a whole. These latter, as we saw in paragraphs 25 and 26, take up much energy and, while very desirable in themselves, may not always have much to do with our subject.

Reorganization or new organizations

171. Rapid economic and social development inevitably requires many new organizations to undertake new and difficult tasks. Many of these—even within the most widely accepted sphere of governmental operations—will be necessarily competitive. Thus, the very complexity of the industrializing process requires many government organizations involved in education (typically ministries of labour, health and defence as well as a ministry of education) and construction (typically ministries of industry, agriculture, health, education, housing and defence as well as

public works). Both agricultural and industrial development banks may lend money for fertilizer distribution facilities and food processing. Yet organizational proliferation places a serious strain on meagre resources. It is, therefore, essential to develop guidelines for encouraging some and discouraging—perhaps liquidating—others.

172. Healthy growth also involves adaptation, reorganization or complete reconstruction of existing organizations. The most obvious example is a ministry of finance or central bank organized by former colonial rulers and staffed by local personnel who have been thoroughly indoctrinated in non-development-minded financial operations. Less obvious examples—but also of considerable importance to the national planners—are national chambers of commerce, trade associations and trade unions that are still oriented only towards old problems to the neglect of new ones.

173. A further pitfall is to assume that setting up a new and independent organization to deal with an urgent problem will automatically ensure its success. A typical case occurs when housing is dealt with by a ministry, but not very successfully, and the Government sets up a new and expensive housing corporation, without taking time to consider why the ministry has failed in its task and why a separate corporation is more likely to succeed. There is peril, that is to say, in overemphasis on mere structure. It is the easiest (though still very costly) of all measures to adopt some new (perhaps foreign) structure. But the fault may lie rather with inadequate administrative resources or with wrong policy or with some factor quite unrelated to administration.

174. A very large organization should have its own analytical capacity: a body of people, whether on a part- or a full-time basis, that belong to it and are familiar with its workings but engage in unrestricted thought about its difficult problems, especially for developing countries. There is of course danger in such a body. It may shift the emphasis to information collection and pure analysis instead of action; it may create a new élite of super-professionals dissociated from day-to-day realities; it may encourage the growth of separatist departmental ideologies, and degenerate into making hack propaganda for some traditional "line". Further, too many scarce resources must never be taken out of action-oriented activities. Nevertheless, such a body's very existence increases the ability to take more intelligent long-term decisions. In particular if the body is in full and free communication with similar bodies elsewhere, it cannot but expose its parent organization to new ideas and new difficulties while thinking is still at a formative stage. This prevents at the very least the hardening of inappropriate attitudes to new problems through mere inertia and inattention. For it must be remembered that a man with current responsibilities, be he never so able and sensitive, has no leisure for speculation, and often blunders in the face of long-term change.

175. Since it takes a long time to establish a new organization or adjust an old one, the emphasis in such appraisals should be placed more on emerging and future needs than on present gaps.

Decentralization

176. Over-concentration upon central governmental functions, however, can place impossible burdens upon the central government and interfere with its capacity to do anything well. Unfailing attention, therefore, must be given to the role of local government and of non-government organizations and institutions. In other words, central governments must allow, promote and even experiment with various kinds of decentralized capability on the part of others. Here, indeed, may be some of the main "missing components".

177. We may even speak of a capability not to try to do things. Self-restraint, the wisdom to leave well alone, self-confidence in welcoming large independent centres of power—these too are an administrative capability that needs developing. It is notably absent in weak governments whose reach exceeds their grasp—a very common case.

C. INTERNAL RELATIONS

178. Apart from the codes and central guidance machinery discussed in the next section, various kinds of internal relations are necessary to obtain co-operative action among the components of an organization (or larger system). Since these relations are extremely complex, we shall merely identify certain major types, all of which are essential to the maintenance and growth of organizational capability.

Hierarchy

179. Hierarchy brings component subsystems together on the basis of superior-subordinate relations. Without hierarchy, it is impossible to co-ordinate a large number of components, get quick action or conflict resolution in time of emergency or provide the framework for non-hierarchical relations.

180. Nevertheless, there are dangerous tendencies in many large government agencies (often nourished by foreign "experts") to over-emphasize formalized hierarchy and rigid institutionalization. Hierarchy by itself, although indispensable, is not enough to create the co-operative relations required for effective action. Nor can the hierarchic channels of communication by themselves provide the "channel capacity" needed for the quick and accurate flow of information.

Polyarchy

181. "Lateral" or "horizontal" relations (which may be described as "polyarchy") are also essential for effective co-operation and communication. Units or persons who are not subordinate one to another may co-operate in shared responsibility through participation in committees, councils and joint projects, task forces or missions. With different

and dispersed responsibilities, they may work together through consultation, review and clearance procedures.

182. One of the hallmarks of the administrative ability of hierarchic superiors is their capacity to promote such polyarchic relations among their subordinates, keeping in general touch with what is going on but not being a "bottle-neck" through which everything must move.

Communication and mobility networks

183. Great attention must be paid at all times to the relative weight within the organization of formal and informal connexions. Does the unit actually work along the lines established by those with formal authority or on different lines that have grown up informally? Under the second, more usual, case come political party affiliation, personality clashes etc. While it is essential to know what the informal reality is, it may be very wrong to interfere with it or to alter the formal structure to correspond with it. What may be seen to be a defect in formal organization may in fact be a useful safety valve for subordinates, and a useful lever for superiors. Informal connexions are, in particular, often likely to be a superior source of information.

184. "Specialized" relations link the units of different systems or units (e.g., ministries) to form still another system, such as the planning system, the financial system, the personnel system of all the government. In this way, any unit may be included in (and subject to the authority and responsibility of) a larger unit, yet have simultaneous membership in a third.

185. Communication networks, using a variety of channels, provide the informational bloodstream on which the system's vitality and guidance capacity depend. They must include provision for "feedback" through various channels into various parts of the system.²

186. Mobility networks, by providing career opportunities for members of the organization, are vital in promoting loyalty and initiative. The use of the "hierarchic ladders" is important in developing the capacities of people already members. Provisions for "lateral entry" are essential not merely to prevent monopolization of opportunity by those with most seniority but also to bring in the "new blood" necessary to adjust to environmental change and challenge.

187. Internal relations, of course, are not always oriented towards productive, co-operative action. They also may be used to sabotage a programme or perpetuate a system of graft or collusion. In fact, one of the most difficult concepts for many people in all societies to transform into action is the proposition that some programmes accrue to the mutual benefit of all those participating in mutual co-operation. This is particularly true in societies which suffer basic scarcities of food, housing or

² Feedback is automatic information on the effects of the system's activities on the environment and on other environmental change.

other basic goods. In such societies, the bureaucrat often acts as if "another man's gain is my loss since there is a fixed quantity of wealth available".

D. CODES AND VALUES

188. "Codes" consist of:

(a) Moral and ethical codes, invariably based upon the values of the society and the various groups in it;

(b) Constitutional and legal provisions, along with judicial interpretations of either;

(c) Executive regulations promulgated by government agencies;

(d) Organizational procedures and rules of behaviour, both written and unwritten, and

(e) Professional codes of conduct, including those that develop for civil servants and "professional managers" as well as those of formally organized professions and the new quasi-professions of specialists and technicians.

189. The process of economic and social development is usually characterized by conflicting codes of behaviour and the breakdown of older codes and their underlying social values. Under these circumstances, the capacity to implement development plans requires increasing loyalty to organizational and professional codes (and in some cases to political parties as well), with decreasing emphasis on the previously more powerful codes of loyalty to relatives and friends.

190. Loyalty to the organization (or a unit thereof) is one of the most fundamental of all organizational codes. The problem of fighting corruption may be viewed, in part, as a problem in developing loyalty to an organization, in competition with its employees' (and administrators') loyalties to family, kin, friends and political associates. But to combat corruption by excessive controls and punishments may serve to break down many organizations, weaken old loyalties without establishing new ones and promote wider (albeit better-hidden) corruption.

191. While this new loyalty makes for more administrative efficiency on the whole, it leads to the ambivalent state of "institutionality". That is, the new loyalty presents its own severe problems, if the organization becomes an end in itself.

E. CENTRAL GUIDANCE CLUSTERS

192. A central guidance cluster consists of those people—relatively few compared to the members of the system as a whole—in charge of administering or managing the organization (or larger system). It consists of the top executive and his key deputies, aides and subordinates in specialized areas (whether or not formalized in an executive or manage-

ment committee). In the narrowest sense, the term "administrative capability" refers to the capacity of these top (or centre) administrators.

193. But this is significant only in terms of their capacity to obtain desired types of performance from the organization (or system) as a whole. Accordingly, any serious appraisal of administrative capability leads us inescapably to organizational (or system) capacity.

194. This approach provides the logical framework for considering the specific contributions of administrators to the organization (or larger system) for which they have responsibilities. This may be done by applying to them the same performance-structure-environment approach throughout chapters II, III and IV. Thus, an appraisal of "leadership ability" might include information both on personal abilities (as in section A, above) and methods used (as in chapter II, section E, Methods). But it is still more important to get information or probability estimates on other aspects of performance.

195. In appraising administrative capability at the higher levels of a Government's planning or development system, it is essential to look at the central machinery of the system as a whole—that is, at its "central guidance cluster". The actual nature of such clusters and their component units may not be inferred from the names of agencies, the contents of plans or doctrinal commitments and declarations (see paras. 161-163). To understand this cluster, we must analyse its structure in terms of national leadership, financial management, the handling of critical problems, specialized staff roles and general staff roles.

196. Particular attention is needed to the financial management roles (as briefly identified in paragraph 162). Of these, government budgeting is becoming the most strategic. It is an indispensable instrument in the interrelated process of formulating, activating, evaluating and re-adjusting government programmes and government policies bearing on the non-government sector.

197. In getting information on specific individuals or positions, the emphasis must once again be on actual roles and functioning, not on the formal educational background or job titles. Many highly trained economists, medical doctors, engineers and budget experts, for example, have distinguished themselves in social planning as well as in the handling of organizational, administrative and technological factors.

198. There is a relation between the agglomeration of competent people in one cluster and the efficiency of the organization; that is to say, "critical mass" can lose its efficiency when *partially* disbanded, even for the good purpose of re-enforcing other organizations, ministries for instance. Thus, the trend to divide ministries or create "autonomous institutions", far from increasing the Government's general efficiency by emphasizing an important function, may weaken it, weaken the parent ministry and perhaps weaken other units. It is, thus, important to maintain "critical masses" where they exist.

199. Government clusters are filled sometimes with administrators from the private sector. In doing this one should not forget certain facts:

(a) In underdeveloped countries, the private sector, in spite of all its vocal loyalty to itself, is as underdeveloped as the public sector or more so, for public employees have had more opportunities to travel and be trained abroad. Thus, a good merchant is not necessarily a good politician or civil servant;

(b) In the case of a good private administrator, one should weigh the advantage of acquiring him for the public sector against the danger of weakening an important branch of production, for the "installed administrative capacity" of a given country is rather constant and inelastic.

200. Where there is development planning, the central guidance cluster is likely to contain or attract a preponderance of the country's innovators. The remaining administrative body will seem tame and bureaucratic, probably to the public at large and certainly to the administrators. Within limits this is inevitable, but it can very easily go too far. Strong encouragement must often be given to innovators outside the central guidance cluster, even if their work may seem to have little or no connexion with it.

F. SOCIAL LEARNING

201. By "social learning" we mean the process according to which all human groups and societies learn from each other, in the course of doing their job, by trial and error, to develop more elaborate and successful rules of the game for collective action.³ Under certain conditions and in view of the sanctions of success and failure, groups of people can learn or develop new rules for dealing with each other. If society as a whole had such an institutional capacity to learn, it would enhance (or in perverse cases diminish) the capability of particular administrators for a given task. The administrator is, of course, himself a student in the process of social learning.

202. We mean by this nothing mystical. It is, of course, the individuals that learn, and an organization, having no head, has no memory. Even its specialized files, which are very much part of what we mean, have to be compiled and subsequently drawn upon by individuals. But it remains true that:

(a) Individuals learn within organizations and their environment;

(b) Organizations have their own processes of learning and their own sets of values and standards of behaviour. The same individual in organization A may make no contribution to that organization because of fear or feelings of inadequacy, but in organization B he may be very productive;

(c) Individuals' capacities can be changed by changes in the methods of the organization. This in turn changes the capacity of the organization;

³ The "social learning" concept originated with Committee member Michel Crozier. The processes of administrative improvement can be analysed as social learning by comparison with the processes of individual learning studied by psychologists.

(d) As for administrative capability, an organization can make changes in its ability to adapt itself and to alter its own capability.

203. Social learning supposes change, or is a way of changing the very fabric of the society in which it takes place; it involves the power system as well as basic cultural traits. Administrative structure is the most obvious vehicle or bottle-neck for institutional learning. It usually acts as a hindrance, but if used in a more comprehensive way may be of decisive help.

The difficulties

204. Institutional learning is extremely difficult in most developing nations because of a number of very special features. The gap between the formal kind of Weber-Taylor rationality⁴ and the actual practice of conflict and co-operation tends to block learning both in the administrative apparatus and in the traditional society and, indeed, in the newly developing society.

205. Another gap develops between the goals elaborated according to a conventional view of economic and social development and the means which depend on the actual capacities of the administrative apparatus and of the social system. To bridge the gap, the rulers, instead of reassessing the goals, tend to strengthen the formal means, thus producing and reinforcing costly bureaucratic vicious circles which paralyse administrative action. Another vicious circle develops socially inasmuch as the bureaucrats at the lower as well as at the higher level tend to form a separate class which benefits from acting as a screen between the rulers and the ruled, thus preventing the communication and feedback it is supposed to provide.

206. In recent colonies, most foreign experts tend to increase these constraints and reinforce the vicious circles they create. The formal standards of efficiency they develop can be met only by paralysing controls; the way of life they live imposes models of behaviour that will further estrange bureaucrats from the common people. And the human difficulties they face tend to increase their insistence on specialization, formalism and results that are immediately measurable. Thus, short-term bureaucratic objectives are preferred to investment in social learning. The capacity of various people to grow and develop through experience is overlooked and human resources are continuously wasted.

Paths towards possible solutions

207. The existence of such overwhelming difficulties calls for new solutions. The mechanical implementation of western models cannot help developing nations to catch up. Nor can the use of historical analogies of the eighteenth and nineteenth centuries for determining their strategy of development. Short cuts have to be found to escape the consequences

⁴ See para. 13.

of such sterile imitation which does not permit the necessary social learning.

208. The most conventional solutions are the use of coercion on one side, the mobilization of the masses by all forms of charismatic appeals on the other. These short cuts are only temporary substitutes. They may have catastrophic consequences as soon as enthusiasm recedes.

209. Instead of these solutions (which are based on a Taylorian model of social action with a clear subordination of means to ends), more promising solutions could be found in the development of new tools and new modes of reasoning. A better understanding of communication networks, and an attitude based on system analysis, may help achieve the necessary immediate results without jeopardizing investment in human development. If they are used in conjunction with new training techniques and with an understanding of the possibilities of learning by experience, conditions could be set for accelerated social learning.

210. Once it is decided to have central planning, a reinforcement of the central guidance system of the developing society should naturally be a prime aim of those who want to improve administrative capacity—even if their ultimate aim is only to provide the conditions for a new and better decentralization. But this reinforcement lies not, as is so often thought, in the simplification of the system but in its diversification.

211. The traditional dilemma of centralization-decentralization (or deconcentration) should be viewed in this context. Some moves in the direction of centralization may be both necessary and fruitful inasmuch as they do not decrease pluralism. But decentralization in many domains may be the indispensable means for mobilizing new resources, and preserving or enriching the quality of life. Modern methods are useful here inasmuch as they permit us to plan much wider and more diversified interplay while maintaining the advantage of an integrated society. They may provide the only reasonable answer to the plea of traditional societies whose entry in the industrial world appears to be blocked by the loss of social richness.

Chapter IV

ENVIRONMENT

A. THE TASK ENVIRONMENT

212. It is necessary to distinguish between the immediate, operational or *task* environment and the more remote, general or *contextual* environment. The task environment consists of all organizations, groups and people with whom the organization has specific relations, on both the input and output sides, even though it may not be aware of their complete range. The contextual environment consists of the relations which the entities included in the task environment have to each other and to other systems not directly entering the world of the organization's own transactions. Events in the contextual environment may at any time obtrude into this world, constructively or destructively, predictably or unpredictably.

The transactional content

213. The task environment of an organization (or larger system) includes the complex array of government groups, private organizations, ethnic minorities, voluntary associations and miscellaneous publics that serve as its clients and suppliers, controllers and controllees, supporters or adversaries. It may also include foreign clients and suppliers, lenders, investors and donors, large and small power blocs and their organizers and transnational organizations. Even when the agency and country are small, the task environment is large.

214. To be able to deal with great environmental complexity is as important an element in administrative capability as any other. Yet it is one of the most neglected and one also of the most difficult to improve. Typical weaknesses in agencies involved in development programmes are hostilities or communication gaps between them and

- (a) Various private, co-operative or other non-governmental sectors;
- (b) Community leaders throughout the country, regional and local as well as national;
- (c) The interests and desires of unorganized people, many of which they cannot articulate.

215. The scale of the effort required to develop these relations is substantial. It is usually underestimated. These relations must also be actively and continuously maintained. This too often is not realized. Coercion does not succeed except in the short run under crisis conditions. There is no substitute for building widespread, enduring support in the

task environment. This means a big investment of resources and thorough examination of the opportunity costs involved, political and human as well as economic.

216. In nations with mixed economies, plan implementation organizations must include means for enlisting the co-operation of the private sector. This means that the administrator must encourage, and know how to encourage, at one and the same time, small local entrepreneurs, whether cash-crop farmers, traders or manufacturers, and large-scale concerns, often international in character. For instance, a high bankruptcy rate in small businesses, frequent in many developing countries, is as serious a drawback to development as a failure to induce large concerns to participate on favourable terms in the rapid development of natural resources and infrastructure facilities. As regards international concerns, schemes using the newer methods now available for the training and development of "nationals" to participate in the management and technical operation of projects are as important as the financial arrangements.

217. In all economies, improved capabilities are required on the part of both national leaders and civil servants for developing widespread participation in plan formulation. This is easy to say but difficult to achieve. It is costly, time-consuming and trying of patience. Temptations to take short cuts are at the elbow of any administrator. The chief gain from widespread participation is that we get an idea, otherwise unobtainable, of the acceptability—and hence the "implementability"—of programmes. To be acceptable to the population concerned, a programme must be intelligible in terms of its needs, goals, values and habits of thought. Otherwise any proposed change or innovation will mystify and confuse; so threaten, and so cause either opposition or disengagement. Thus, village programmes have failed in parts of Africa where they ran counter to the traditional social structure of the countryside.¹ The use of *animation sociale* in the Gaspé region of Quebec Province shows one way of securing participation.² There are many other styles suitable for different circumstances.

218. So if plans are to be implemented, their objectives and attainability as "formulated" must be perceived and accepted as "right" and as "for real" by the key individuals, main interest groups and publics concerned in their implementation; and the experience of those concerned must be seen by them to have "effects"—namely, it must be taken into account in modifying the plans as originally formulated and in framing new plans. Otherwise, those concerned cannot be expected to develop any deep commitment to the plans they are supposed to implement and make work as an integral part of the new round of their everyday lives.

¹ Fred G. Burke, *Tanganyika; Preplanning* (Syracuse University Press, 1965).

² Gerald Fortin, *Papers on the Bureau d'aménagement de l'Est de Québec* (Quebec Province, Laval University, 1966/67).

Linkages become international

219. Special attention is needed to relations with foreign advisers. Foreign experts, it is repeatedly said, must become more flexible in trying to understand the special circumstances of the countries they are asked to assist. They need, however, more extensive preparation and training than they usually have in order to become so. New methods used with considerable success in parts of both West and East Africa are not yet well known.³ All this means investing additional resources in such preparation and training. Yet much harm has been done from the failure to make such investments. For example, technologies too sophisticated for local use have often been introduced. Engineering modifications could have been made in many technology transfer projects which would have yielded higher productivity, given available personnel, while also increasing employment. The countries of the Central Latin American Common Market are at present giving systematic consideration to this problem.⁴ Equal harm has been done by inculcating obsolete methods of management and work organization, both in civil services and in industry, based on Weberian and Taylorian principles now being abandoned in the west in favour of more organic approaches permitting greater autonomy and encouraging greater personal involvement.⁵ Industrializing populations can often form co-operative and cohesive work groups which are creative adaptations of previous life styles.⁶ The abilities, values and attitudes of any group undergoing change require informed assessment by development administrators. Formidable barriers may exist, such as the absence of any "cognitive maps" which will make industrial tasks intelligible—for example, a sense of "linear time".⁷ There may be an absence of congruent values—such as some interest in higher achievement.⁸ Under such circumstances, it is idle for foreign advisers to encourage the belief that superficial literacy will in itself be a sufficient remedy in the first generation.

220. There is a corresponding need for greater local understanding of the motivations, methods, operating styles and limitations of many different kinds of foreign advisers from many different kinds of countries. Those "locals" who have recently gone through a process of new learning themselves and who have weathered crises of social re-adaptation and personal identity reformation are among the most expert in judging how

³ D. Nylen, *et al.*, *Handbook of Staff Development and Human Relations Training; Materials Developed for Use in Africa*, National Training Laboratories, N.E.A. (Washington, D.C., 1966).

⁴ Communications from the Center for Latin American Studies, UCLA, 1968.

⁵ Rensis Likert, *New Patterns of Management* (New York, McGraw-Hill, 1961).

⁶ A. K. Rice, *Productivity and Social Organizations; The Ahmedabad Experiment* (London, Tavistock Publications, 1958).

⁷ Fred G. Burke, *op. cit.*

⁸ D. McClelland, *The Achieving Society* (Princeton, D. Van Nostrand Co., 1960).

fast and in what ways native talent can be developed, how different the next generations are likely to be and what is feasible and acceptable now as compared with later. Yet such men are apt to lack confidence vis-à-vis authorities from the most advanced countries, whom they endow with unquestionable superior knowledge, but towards whom their dependence makes them ambivalent. They know that "visiting firemen" have a limited commitment, and that short-tour duty men seek advancement at home. They wonder too about false identification with developing countries in some of those who elect to stay. Budgets do not allow for time and resources to be consumed in undoing the cultural misperceptions of visiting experts, nor for their difficulty in working with each other when their own national backgrounds and values are widely different. Yet all this affects administrative capability.

221. The conduct of international relations can no longer be confined to ministries of foreign affairs concerned with diplomacy. Scores of government agencies in developing nations must acquire specialized capabilities for keeping track of international trends and negotiating with foreigners and transnational agencies on such diverse matters as regional agreements, trade, communication, transport, loans, investments and technical assistance.

222. Two classes of problem may be distinguished. The first is where a foreign Government or enterprise has interests that may be inimical to those of the developing country. It may wish to make use of it—to manipulate it—in some larger political or commercial interest of its own. The nature of the possible harms to the developing country may not be at all obvious and will tend to be concealed under a parade of advantages. They may be detectable only in the detail of negotiation, so that administrators (not necessarily those at the highest level) are apt to be the first to pick them up. Many developing countries have too much fear of being manipulated and too little confidence in their negotiating skill to venture far in securing the considerable benefits often potentially present in such dangerous but not uncommon situations.

223. The second class of problem is where no contradictory interest in the outside party need be assumed but simply self-interest. This, the more common situation, is in some ways the more difficult to deal with. For the good faith of the outside party may relax vigilance but it does not entail his having thought out either the maximum benefits to be obtained by the developing country or the range of unintended damages. These developing countries must figure out for themselves. This task is one which strains administrative capability to the limit.

224. The United Nations system—with its headquarters organs, specialized agencies, regional organizations and emergency operations—is an increasingly important part of the task environment of government agencies conducting programmes of social and economic development. Many of these agencies do not know how to tap these resources. Do their administrators devote serious time to thinking out what kind of problem they can take the initiative in bringing to the notice of any of the United Nations bodies, or do they wait passively for these bodies to come to them?

As the years go by, United Nations agencies are accumulating an experience and knowledge of development problems in all their aspects and all their contexts which is becoming unrivalled.

B. THE CONTEXTUAL ENVIRONMENT

225. The state of the relations between the contextual environment, the task environment and the internal world of the organization has constantly to be borne in mind by the administrator. He must distinguish between:

(a) Processes that go on within the organization—the area of internal interdependencies—such as interdepartmental conflicts, status problems, organization dilemmas, morale or efficiency problems;

(b) The exchanges between the organization and its task environment—the area of transactional interdependencies, from either the input or the output direction—the type of problem discussed in the preceding section;

(c) Processes through which parts of the environment become related to each other, constituting what may be called its causal texture⁹—the area of interdependencies that belong within the environment itself. These processes are contextual, i.e., ecological.¹⁰ They involve characteristics of and forces in the wider society.

The processes which connect parts of the environment to each other are often unlike those connecting parts of the organization to each other, or even with those which relate the environment to the organization. A major fallacy has been to assume their identity.

The wider world moves in

226. An internally well-managed organization making a good product or rendering an excellent service does not just for these reasons succeed in the market place or continue to meet a salient need in the non-market sector. Nor for these reasons alone will its input requirements, human, financial or material, remain available to it in the accustomed quantities on the accustomed terms. Moreover, the contextual conditions determining its transactions may be affected by a wide range of factors. Though some of these may be foreseeable, others are difficult, still others impossible, to anticipate. We may instance a change of government, a change in the terms of trade, new legislation, a strike in another industry, a revolution in another country, a distant war, a period of increased financial uncertainty, a drought or other natural

⁹ F. E. Emery and E. L. Trist, "The causal texture of organizational environments", *Human Relations* (London), vol. 18, No. 1, 1965.

¹⁰ Eric Trist, "The relation of welfare and development in the transition to post industrialism", Western Management Sciences Institute, University of California, Los Angeles.

disaster, a population explosion, a new medium such as television, an alternative technology, a change in the educational system or of policy in an international agency, or the attitudes of the oncoming generation, which may lead to shifts in values or fashions regarding the relation between traditional structure and modernization.

227. Since there is an accelerating and uneven change rate in the world generally, and communications have become so explosively effective, the contextual environment is becoming more and more important for those who administer programmes in development planning. Future states of the administrator's own organization and its task environment are likely to be even more affected than even the wider societal field, both national and transnational. The administrator must, therefore, equip himself with more information and new methods.

New questions about society

228. This means that the development administrator requires a thorough working knowledge of his own society in all its principal dimensions:

agriculture	natural resources
business	population
class structure	religion
communications network	science
economic institutions	social mobility
and political education	technology
kinship system	urban characteristics
labour	values

How this might be done is considered in Additional Note 1, "Developing national planning personnel". Comprehensive sets of questions to probe such aspects of a society in relation to planning have been formulated by Peter Wiles¹¹ and Michel Crozier.¹² They provide a check list on the basis of which we can examine the contextual environment.

229. The contextual environment is international as well as national. Increasingly, events and trends have distant effects which are rapidly felt. The environment of national planners and their counterparts in operating agencies is characterized by the slow and painful emergence of a new world society. This world society is characterized by interdependent nations, world-spanning organizations, diffusing technologies, urban world centres and world-oriented élites. This growing interdependence is facilitated by increasingly rapid systems of communication and transport.

230. This same interdependence increasingly makes conflict more likely, while the more rapid means of communication make the spread of conflicts more likely. People all round the world now compare themselves

¹¹ Peter J. D. Wiles, "Some fundamental questions on national planning".

¹² Michel Crozier, "Attitudes and beliefs on national planning", *Action Under Planning* (McGraw-Hill, 1967).

with each other, especially those more privileged and advantageously placed. Expectations rise and the sense of relative deprivation grows.

231. Increased interdependence also creates countervailing tendencies towards separatism. A need is felt to ward off the contextual intrusions not only because of their increasing frequency but because they are only too apt to be alarmingly dissonant from the familiar and near. The rise in nationalism, and "subnationalism", may be accounted for in part by this. The multiplication of small nation States and of separatist regions in larger States has already created severe problems for development administration. Attempts at federation have on the whole been discouraging. Development administrators must recognize the co-presence of opposite needs for autonomy and relatedness, bigness and smallness, traditionalism and modernism, and judge both their strength and degree of reality as they frame and execute policies and programmes.

C. ENVIRONMENTAL CHANGE: TURBULENCE

232. The development administrator should base his work on a realization that, even though he himself may be operating in a relatively backward and stagnant area, the degree of change now taking place in the contemporary world as a whole is of an order as great as that which occurred when large-scale societies with written languages first arose on the basis of agricultural settlements. This ushered in what Kenneth Boulding¹³ has referred to as the era of "civilization" which, having lasted some 5,000 years, is in his view beginning to give place to a new type of social order. Those who are developing the study of the future are at present attempting to explore what possible form this new order may take. Since the *futuribles* project of Bertrand de Jouvenel¹⁴ began but a few years ago, institutes and commissions concerned with the multidisciplinary study of the future have sprung up like mushrooms in almost all of the advanced countries—and in some which are less advanced. This is in itself evidence of the intensity of the current need to prepare for what lies ahead.

The nature of the world society

233. Noting that the most critical single change that occurred during the period of "civilization" was the transition from pre-industrial to industrial societies, Daniel Bell¹⁵ has won acceptance for the term "post-industrial society" to indicate the type of social order that would

¹³ Kenneth Boulding, *The Image* (Ann Arbor, University of Michigan Press, 1956).

¹⁴ Bertrand de Jouvenel, *The Art of Conjecture* (New York, Basic Books, 1962).

¹⁵ Daniel Bell, *Penguin Survey of the Social Sciences* (London, Penguin Books, 1965). The term was originally suggested by David Riesman in "Leisure and work in post industrial society", *Mass Leisure*, E. Larrabee and R. Meyerson, ed. (Glencoe Free Press).

seem to be emerging. In post-industrialism the available technology will eventually be such that the production of economically required goods and services will no longer absorb most of the energies of most of the people. Though post-industrialism in a fully developed state is unlikely to be reached anywhere in the world for a considerable number of years, the existence of an irreversible trend in this direction is already powerfully affecting ever-widening classes of events and larger masses of people, both consciously and unconsciously.

234. This trend is proceeding far more rapidly and far more unevenly than had been anticipated, within as well as between countries. If the gap between the developing and the developed countries is widening so is that between generations. In the most advanced countries, certain parts of the society are already in or approaching an early phase of post-industrialism, while many others remain in various phases of industrialism, and still others are pre-industrial. Under some conditions, these different parts are interspersed; under others they are separate. In many critical respects it is social scatter rather than social cohesion which is increasing.

235. With the means of communication now available (especially television), a diffuse consciousness of this total state of affairs is spreading, making reactions more rapid in both unstructured publics and organized interest groups, and altering the threshold of what people will tolerate. The problems created are of a type and on a scale which call more than ever for planned intervention. But too many of the attempts so far made have had poor success. Meanwhile, new forms of violence and estrangement are appearing. Whatever their differences, serious analysts of the contemporary scene show uncommon accord in thinking that the transition to post-industrialism is likely to be fraught with hazards as difficult to surmount as any yet encountered by man, both in the societies which first confront it and, through them, in the less developed parts of the world.

Transformations

236. The difficulties arise because there is a continuous and accelerating, though uneven, change in the over-all environment, deriving ultimately from advances in science and technology; and the advances in communication particularly make this evident to all humanity. The contemporary environment is more than ever in history a *turbulent field*.¹⁶ This turbulence arises from the increased complexity and size of the total environment together with the increased interdependence of its parts and the unpredictable connexions which arise between them as a result of the accelerating but uneven change. This turbulence grossly increases the area of relevant uncertainty for individuals and organizations alike, and raises far-reaching problems concerning the limits of human adaptation. Forms of adaptation, both personal and organizational, developed to meet simpler types of environment no longer suffice to meet the new higher

¹⁶ Emery and Trist, *op. cit.*

levels of complexity. The order of change represented is so great as to constitute a transformation.

237. Michel Chevalier has drawn attention to the new type of diffuse social problem which arises under conditions of these complex turbulent environments. He refers to such problems as a *meta-problems*. Not only have the problems themselves developed far wider ramifications through the increased connectedness in the causal texture of the environment but this quality of diffuse extension is also becoming more widely perceived.

“Society has come more and more to perceive and articulate a new kind of problem. It is not only a matter of putting related problems together; new knowledge and expectations have caused a fusion, an interrelation of problems into a class of meta-problems. And society, once having perceived a meta-problem, begins also to perceive that courses of action to relieve it are interrelated. In fact, some comprehensive attack is now the only strategy acceptable to society.”¹⁷

He refers to poverty, environmental pollution and bilingualism and biculturalism as issues now widely recognized in Canadian society as being meta-problems. A rendition of this list for developing countries might read as follows: poverty, population, multilingualism and multiculturalism. Others have analysed a number of “systems” problems which are just beginning to attain meta-status in the United States. This exercise should be carried out for developing countries. It would bring out points of resemblance and difference both between them and more advanced countries and among themselves.

238. In complex turbulent environments, development administrators must recognize meta-problems and deal with them as such. This constitutes a second transformation. Unless this is realized by those responsible for formulating and executing policy, they will go on treating comprehensive meta-problems piecemeal as a series of discrete and isolable problems. They cannot in this way bring about the required collaborative “engagement” between political and interest-group leaders, agency administrators and the numerous organizations and diffuse overlapping publics whose needs their policies are framed to meet. The separateness of the programmes will perpetuate the myth of the independence of the client systems. Effective solutions to meta-problems depend on the collaboration of all concerned. Coercion cannot be effectively exercised: the higher level of complexity calls for a new mode of administrative regulation.

239. We may put it another way. With the single organization, however large, which usually has one general objective, together with a limited number of more specific objectives reconcilable through compromise, we have become reasonably expert. This is so whether these organizations be armies, industrial enterprises, churches, government agencies or voluntary associations. But in handling organizational interdependencies, where objectives are many and priorities and conflicts less easily

¹⁷ Michel Chevalier, *Stimulation of Needed Social Science Research for Canadian Water Resource Problems* (Ottawa, Privy Council Science Secretariat, 1967).

reconcilable, we remain, by comparison, novices. It is these interdependences, however, and their relation to the unstructured publics which constitute the over-all society, which create the meta-problem. We remain novices because we have been used (except in times of crisis such as depressions and wars) to a society in which, by and large, the ecological problems have taken care of themselves—as indeed they were expected to do in the ethos of pre-industrial and industrial societies alike. We need in all societies to develop a new institution-building capability in the area of organizational interdependences. This constitutes a third transformation.

Ecological traps

240. With the increasing salience of complex turbulent environments auto-regulative processes, to use a term of Michel Crozier's,¹⁸ are breaking down. We can no longer depend on them. In the opinion of Sir Geoffrey Vickers,¹⁹ societies in all parts of the world are in danger of falling into "ecological traps". Some of the main points of his thinking are summarized below:

"Ecological traps arise because biological evolution works too slowly to adapt some species or population to some environmental change or rate of change. Need we assume any significant limits to the far more rapid processes of cultural and political development?"

"I think we must. The reasons appear when we define the conditions that make regulation possible. They are, I suggest, four.

"First, the regulator must be able to discriminate those variables that are involved in the relations it seeks to regulate and to predict—or control—their future course over a period at least as long as the time needed to make an effective response.

"Secondly, it must be able to preserve sufficient constancy among its standards and priorities to make a coherent response possible.

"Thirdly, it must have in its repertory or be able to discover some response which has a better than random chance of being successful.

"Fourthly, it must be able to give effect to this response within the time which the first and second conditions allow.

"Some would add a fifth condition—that the results of the response must be sufficiently distinguishable in the future course of affairs to prove or disprove its aptness and thus give the opportunity to learn by trial and error. I do not include this, because it seems to me that in important political decisions we often must and do get on without it. The results of most of our important decisions return to us long after the event, in manifold and often unrecognizable forms and

¹⁸ Michel Crozier, *The Bureaucratic Phenomenon* (London, Tavistock Publications, 1964).

¹⁹ Vickers, *op. cit.*

indistinguishably mixed with other changes; and even when we think we can trace them we cannot compare them confidently with what would have been the results of any alternative decision we might have taken; for at these we can only guess. I suppose we do learn something from experience, even in politics; but the process is so obscure and so seemingly remote from the ways in which we learn from simpler and more repeatable experiences that I will omit from consideration the limitations which are involved in the other four.

"The other four conditions are limiting enough. The most obvious disparity is between the "lead times" needed to mount any regulative action and the future span over which any reliable prediction can be made. The first grows even longer; in important fields, such as changing land use and changing educational needs, it is reckoned in decades. The second grows even shorter; changes unforeseen a year before may make nonsense of well-matured plans which already commit huge resources. Plans for the reorganization of ports have recently been made obsolete by developments in 'containerized' transport. Examples could be multiplied. It is quite possible for the world as we know it now to become unregulable in important fields, in that it might pass the point beyond which *any* considered action might have a statistical probability of being worse than random. There are many situations in which to be systematically late is to systematically wrong."

241. The generation of processes of this kind in the most advanced societies is already having far-reaching effects on the developing countries. Their contextual environment is a world like this. It too has become turbulent.

242. This is nowhere more evident than in the urban problems arising in many of these countries. Advances in medical and biological sciences imported from the west have produced a rural population explosion in countryside which the traditional societies held in some kind of balance. These countryside cannot hold more than a proportion of their people, whatever the system of land tenure or of kindship. The rest get pushed into the cities where there is nothing for more than a few of them to do, even if industry is making some headway; and nowhere for more than a few of them to go, even though many new dwellings of a modest kind may have been built. Boulding²⁰ has called this the "rural push" phenomenon as contrasted with that of "urban pull" which characterized the growth of towns in the nineteenth century as centres of industrial employment. Many cities in and around the tropical belt are growing at the rate of 15 per cent *per annum*. The environments they are creating are becoming unregulable.

243. A ground for hope in face of this and other equally daunting situations is that means now exist for recognizing, if not yet solving, the problems raised.²⁰ There were no such means when the first industrial

²⁰ Kenneth Boulding, "Conflict management as a learning process", in *Conflict in Society*, A. de Reuck, ed. (London, Churchill, 1966).

revolution produced the unplanned miseries endured by the countries now called advanced.

D. FUTURE ORIENTATION AND THE ADMINISTRATOR'S ACTIVE ROLE

244. It may be inferred from this turbulence that the maintenance of sufficient stability in the contextual environments has become a major requirement of effective administration.

The planners' dilemma

245. This has created what may be called the planners' dilemma: that the greater the degree of uncertainty, the greater the degree of change, the greater the need for planning. Otherwise precedents of the past could guide the future; but now, plans that are right today will more probably be wrong tomorrow.

246. Yet the only chance of maintaining a sufficient degree of stability in a complex turbulent environment lies in administrators taking the active rather than the passive role. With auto-regulative processes becoming less and less dependable, the passive role no longer constitutes an option. Sir Geoffrey Vickers²¹ has called this change the end of "free fall":

"The explosion (of the industrial revolution) released several critical rates of change. Populations began to multiply faster, individuals began to produce and consume more, to travel and communicate more, to expect and demand more. As a result, they began to depend more on each other and soon to get more and more in each other's way; but these consequences were noticed only later, because the explosion in a world so under-occupied and under-developed that for a time each change could excite itself and the others without breeding limitations. This is what I call the time of free fall. It grows clearer every day that the time of free fall is coming to an end. For the man-made environment in which the industrial epoch is enclosing us—created as it now is largely by the unintended results of what everyone does—is becoming so unpredictable to live in and may soon become too unacceptable to live with. So if it is to survive, it will have to be controlled—that is, governed—on a scale and to a depth which we have as yet neither the political institutions to achieve nor the cultural attitudes to accept.

"So the end of free fall (if we escape nuclear disaster) will probably not be like hitting the pavement but more like falling into a pond. We shall have to live in a much denser political medium. We must take account of the increasing mutual demands and expectations of people and societies who are growing more numerous, more crowded, more mutually dependent—but also, at present, more diverse and more mutually intolerant. This has already been happening nationally and internationally, for long enough to invite a look ahead. . . .

"I have described our present state as the last stage in a free fall—the fall from the agricultural into the industrial epoch; from a natural into a man-made world; and so into an increasingly political world, a world so unpredictable that it demands to be regulated, nationally and internationally, by political decisions of increasing scope.

"There is nothing defeatist in this conclusion. Government is our major instrument of adaptation. Just as we pride ourselves that through technology we have learned to shape the natural world to suit us, rather than suiting ourselves to it, so we shall pride ourselves, if we ever succeed in doing it, on shaping the man-made world to suit us, rather than scurrying about in search of ways to live with its vagaries. But we cannot pride ourselves on this yet, because we have not yet achieved it, nor have we evolved either the political institutions or the political ability to achieve it.

"Worse—we are not yet developing this ability fast enough even to keep pace with the course of events. This is not surprising, because political change is limited by the speed at which people can change their ideas of the world they live in, their expectations of it and their willingness to accept its expectations of them; and all of these I regard as *cultural changes*. Culture changes with the generations, but, as with other changes, there is a limit to the rate at which it can change without losing its coherence."²¹

247. This analysis shows why, in relation to environmental change, development planning and administration have become necessary in the contemporary world. It shows also that they may not be regarded as an already acquired capability but as an unmastered art representing a new form of the political process (in all nations whatever their stage of "development").

What is the status quo?

248. Although the views of the future held by the administrator become critical, these should in the first place be based on an informed picture of the present. This entails preparing such forms of economic and social accounts as are feasible, with suitable "disaggregation". Sample survey data on attitudes, beliefs and customs should be added if possible,²² and systematic use made of informants and panel discussions with opinion leaders in all sections of the society.²³ This is the approach

²¹ Vickers, *op. cit.*

²² See A. S. Tannenbaum, Additional Note 2.

²³ An adaptation of the Delphi Technique using village headmen and local officials might prove a rewarding exercise in applied anthropology. "The Delphi Technique which substitutes a computed consensus for an agreed-on majority position. . . has been used recently in a large-scale experiment in which several instructional panels of respondents were enlisted in an effort to arrive at long-range contingency forecasts of the state of the world twenty-five to fifty years hence." Olaf Halmer, *Social Technology* (New York, Basic Books, 1966).

suggested in the *State of the Nation*,²⁴ however modest the level of skill with which it may be applied in particular countries.

249. The existence of strong pressures towards, and uneven rates of, change makes imperative the taking of regular readings on the state of the nation. Unless this is done, the administrator is likely to make false assumptions about the real state of affairs in critical subsystems of his society. "Just what is the *status quo*?" is a question that must be taken seriously. Such readings can serve three purposes:

(a) The preparation of short-run projections based on whatever forecasting techniques are feasible;

(b) The identification of high-risk areas, whether regions of the country, minority groups, processes of uncontrolled urbanization, externally vulnerable parts of the economy, special foci of conflict etc.;

(c) The separation of unchanging parts and aspects of the society from those exhibiting certain degrees of change. These may be considerably different from what they are assumed to be, once the surface is penetrated.

Constructing alternative futures

250. A second and related aspect of future orientation concerns the early detection of emergent social processes and the assessment of their implications. Emery has made some cogent suggestions:

"(a) When the emerging system is relatively very weak, it will tend to manifest itself only in the parasitical effects it has on the energies of the host system—in *symptoms of debility*. These latter will find it increasingly difficult to mobilize energy (people) for their functions and there will be a slowing down of their responsiveness to new demands. The balance of forces may oscillate so that these symptoms occur in waves and make the functioning of the existing social systems less predictable;

"(b) When the emerging system is stronger but still not strong enough to displace the existing system, we can expect to see *symptoms of intrusion*. What breaks through are social phenomena, like the swarming adolescents at Margate (and other coastal resorts of Britain) several years ago (or 'black power' and urban black riots in the United States), which are clearly not just errors in the functioning of the existing systems. At the same time, because of the relative weakness of the emerging social systems, they will usually only break through because they have short circuited or distorted the functioning of the existing systems. Their appearance will not obviously reveal the shape of the emerging system;

"(c) When the emerging system has grown to be roughly in balance with the existing systems, there may be *mutual invasion* (as

²⁴ Bertram Gross, *The State of the Nation* (London, Tavistock Publications, 1966).

in the 'revolution' triggered by the student riots in France which challenged de Gaulle's régime).

"At this stage, it should be obvious that there is a newly emerging system but mutual retardation and the general ambivalence and lack of decisiveness may still lead the new system to be seen simply as a negation of the existing system. The methodological task is to identify, in the chaotic intermingling of the systems, characteristics of the new system which are not simply an opposition to the old."²⁵

251. A third aspect of future orientation concerns the modelling of "alternative futures" as a guide to decision making. Only in very recent years has the concept of the future been replaced by that of alternative futures. If the change from singular to plural reflects the raised level of uncertainty it suggests also that the greater openness which the more rapid change rate occasions gives some scope for choice. The basic rationale of an activity such as development administration is to take the active role and to make the desirable futures more likely than the undesirable.

252. The replacement of the blueprint by the scenario as the guiding fiction of the planning process constitutes a new appreciation which has altered the "cognitive structure" of development administration. We have learnt following Gabor²⁶ that we must invent the future because we cannot predict it. The gain in this new approach lies in the separation of models whose properties can be known from realities whose properties can at best be only partially known and from eventuations whose probabilities are not calculable.

253. The construction of models of this type is a rigorous discipline. We have to make explicit the entire set of starting assumptions involved, including those concerning values. Simulation with the aid of the computer can bring to light many unintended effects. Recent suggestions concerning social observatories and urban laboratories may shortly allow large numbers of people to envisage more of the implications of alternative courses of action than they can at present. A new technology is coming into existence which will enable the political process to become both more informed and more participatory—if we so will. The development administrator should equip himself or some of his key subordinate units to use this technology.

²⁵ F. E. Emery, "The next thirty years; concepts, methods and anticipations", *Human Relations* (London), vol. 20, No. 3, 1967.

²⁶ D. Gabor, *Inventing the Future* (New York, Alfred A. Knopf, 1964).

Chapter V

SOME STEPS TOWARDS APPRAISAL FOR IMPROVEMENT

A. THE NEED FOR NEW APPROACHES

254. The results of an appraisal of an organization's (or larger system's) performance depend on (a) the capability and purposes of the individual or organization which is performing the appraisal and (b) the organization's desire to improve. Surveys, tactical appraisals, investigations, full-length organizational appraisals and broad demographic appraisals of the "administrative infrastructure" each have their place and, so long as they are relevant to the purpose of the appraisal, are useful techniques.¹

255. At this time, however, the "science" of appraisal is quite underdeveloped. When, as we have seen above, output is often intangible, costs incommensurable and benefits both good and bad, it is the rare appraisal that identifies the nature of the organization's performance, let alone selecting feasible changes in the organization's structure or its relations with its environment for improvement.

256. This is especially so when the appraisers in developing countries perform their appraisals without the knowledge of the appraised agency, or without its co-operation, or with its apparent co-operation but actual sabotage.

Avoid stereotyping and concentrate attention

257. The primary task of research, theory, educational activities and the interchange of experience is to illuminate the large number of variables involved in the performance, structure and environment of an organization or larger system. This is an important protection against over-simplified over-routinized stock-taking. It may also illuminate certain possibilities for improvement that might not otherwise be perceived.

258. For purposes of appraisal, full information on past and present performance can *never* be obtained. Indeed, any effort to obtain full information would be unduly time-consuming; it could have a depressing effect on the organization being appraised. Accordingly, a rational appraisal of administrative capability should concentrate on certain strategically selected indicators.

¹ A preliminary typology of types of appraisal may be found in chapter I, section E, Appraisal as a guide to improvement.

259. It is also practically impossible to cover all parts of the organization (or sorts of organizations) with equal emphasis. A rational appraisal of capability should, therefore, concentrate on certain strategically selected parts of the organization or networks of organizations (sectoral, functional or territorial).

260. The choice of strategic concentration depends on the identification of capability bottle-necks. Indeed, it may be right to strengthen what is already strong as well as to improve the capability of what is weak or showing poor performance.

261. Indicators of performance, structure and environment, and the fields of concentration can never be chosen by abstract, prefabricated rules. Both the selection and interpretation must be made in particular situations—by a combination of perceptive external appraisers and people familiar with the particular situation.

262. The various performance-structure-environment concepts—and the indicators relating to them—provide more than a language for ascertaining what has happened in the past or is happening in the present. They also provide a language—whether colloquial or technical, qualitative or quantitative—for expressing:

- (a) Estimates of what *might* happen in the future;
- (b) A range of choices as to what *could* happen (potential);
- (c) Goals or goal-sequences (sometimes called “scenarios”) towards which various groups may commit themselves, and
- (d) Criteria for judging past and present and future potentialities, alternatives and goals.

263. Any appraisal of administrative capability involves the making of probability statements concerning what might happen in the future under such-and-such conditions of change, risk and uncertainty. Such probability statements are fully reliable only with respect to the inevitable and the blatantly impossible. Between these two extremes, it must be recognized that large risks—seldom calculable—must be taken whenever rapid development is desired. Moreover, one of the ways to enlarge the capacity for action may be to embark on courses of action that place a strain on existing capacity.

The special case of guided appraisal and social learning

264. We have discussed above some of the conceptual problems which appraisers must master if they are to identify the problems that organizations have. This is only part of the task. Organizations and larger systems must also improve their performance by correcting faults. Knowledge that they are not as effective as they might be is not enough.

265. This leads us to some of the complex steps involved in appraising administrative capability for improvement. The theme of this section is the development of higher capability through *guided* appraisal. While best applied to the appraisal of single organizations, the theme has found application in the appraisal of wide national networks and clusters of

development organizations. It is offered to offset the too-frequent uncritical transfer of experience from the developed nations and to help prevent a stereotyped treatment of the large number of performance, structural and environmental variables considered in previous sections of this report.

266. The central concept in appraisal as a guidance process is called "social learning"—a concept discussed at some length in chapter III, section F, Social learning. It has also been called a "change process". Simply put, both of these concepts mean that administrators whose capability is to be improved are more likely to accept the need when they have been themselves involved in understanding what it is that needs to be improved. That is, appraisals are best undertaken *with* rather than *on* administrative units with potential for higher capability.

267. Situations in which its technique may be useful are highly varied but commonly require some improvement in existing roles and relationships. There is a sequence of phased activities, all of which are used by appraisers to help practical administrators and active politicians to arrive at shared perceptions of what needs to be done.

268. The first phase is a collaborative search for an acceptable and shared definition of the difficulties the organization is in. Rarely is this possible without preliminary evaluation *with* those most directly involved with the problem. The appraisers must be careful not to accept at face value the opinion of authorities several times removed from the administrative situation to be appraised. At this stage, agreements should also be reached on the conditions (rules) under which appraisal in depth will proceed. This includes the safeguarding of shared confidences. The appraisee must also be warned against undue optimism through reliance on the expertise of the appraisers. The appraiser must, by his own actions, earn the confidence of those whose capability is being appraised. He relies more on relationships of trust than of submission.

269. A problem may be known to exist, but those involved may not be committed to taking the necessary actions. Those performing the appraisal, therefore, should take special care to see that all relevant parts of the administrative system (or systems) have been involved in the definition of the problem at the appropriate stage. At times, this wider involvement may require a new assessment of the problem as the causes contributing to less than desirable capability are clarified.²

270. With agreement on the nature of the difficulty, decisions can then be made on the information required for further clarification. Surveys may be undertaken, personal consultations initiated, records studied and so on. Information secured from all sources should be subjected to the same collective scrutiny and interpreted so that new learning is facilitated.

² An example of this might be a developing nation's port authority, which, in spite of numerous "blue-ribbon" appraisals, has not made the improvements suggested. Probably because the officials in charge were incompletely taken into the appraisal process, they have felt no obligation to change.

271. As information is brought to bear on the nature of the problem, new perceptions of the difficulty may emerge; alternative paths to solving the difficulties will also be scanned. During this phase, appraisers should be conscious of the emergence of apprehensions: there may be retreat from earlier commitments to seek genuine improvements. As it becomes apparent that existing relationships or roles may require adjustment, stress and conflict in many forms may become evident. Appraisers will recognize this as a necessary and even desirable condition which provides enriched opportunity for social learning. It is because the more objective and superficial appraisals seldom generate such stress that improved capability is not realized. At times, compromise solutions may be sought which need not always endanger the objective of the appraisal. Some compromise is always to be expected in any serious appraisal that has wider objectives.

272. A common device for the improvement of administrative capability is the establishment of *ad hoc* organizations that by-pass established subsystems without abolishing them. While recognizing that there may be a place for this, the appraiser should be assured that it is not simply an attempt to escape from the rigours of adjustment in an already established administrative unit. Failure to recognize this may not only detract from the achievement of capability but may simply defer the problem so that it appears later in other forms.

273. When improved capability requires that established employees form new patterns of organization, the appraiser must be prepared to counter the resulting destabilization. This he may do through direct counselling, in-service workshops or other forms of "working through". In general, these stabilizing techniques are best handled in the situation to be changed rather than in some more remote location. The point is that it may be dangerous to unsettle people without retraining them for the new capabilities then required.

274. At all phases, one must be seeking to create an on-going internal capability for self-appraisal in the administrative unit. Improvement in capability is a continuing need in all dynamic administrations.

275. Careful preparation is necessary for terminating the project. There may be unanticipated side-effects as new power relationships emerge. It is also possible that the time taken to build higher levels of "analytical capacity" (self-appraisal, research etc.) into the unit may compete severely with its capacity for day-to-day action. The appraisal should thus be scheduled to provide varying periods of intensive and less intensive collaborative activity.

276. The absolutely crucial point of all this is that organizations and larger systems in developing countries have the opportunity to enlarge the administrative capability of both individual organizations and the larger system as a whole. But neither the requisite analytic capability nor the necessary reprogramming of the attitudes of critical administrators and workers will come automatically. There must be conscious effort to build those capabilities for appraisal and co-operation that will in turn help develop administrative capability in these nations.

B. BUILDING APPRAISAL CAPABILITY

277. It is of course not enough to point out a need for new approaches and to insist that those being appraised must be involved in the process. One must build the actual appraisal capability, both internal and external. One must also acquire information and advice from the experiences of more developed nations—but it must be more relevant than hitherto.

Internal appraisal

278. The goal of improving administrative capability is not only to appraise and correct existing shortcomings but also to establish capability for continuing self-appraisal.

279. In smaller organizations, such capability may be found only in one or two higher administrators who have been “reprogrammed” by participating in an appraisal of their organization by external appraisers or who have had similar experience in previous jobs.

280. At the level of a nation, industry or intermediate regional territorial entity, it may be necessary to “institutionalize” such capability within separate organizations as part of the official function of already established organizations such as the planning commission, ministry of finance or budget bureau. Such capability would be external to most organizations but internal to the larger system.

281. In fact, one indicator of an organization’s appraisal capability may be the extent to which it can identify situations where external help is required. Towns and small cities in the most developed societies usually do not have the internal capability they require to perform at a high level of competence. Consequently, those cities that know when they need external help and expertise and obtain it usually perform at a higher level of competence than those less self-conscious.

External appraisal

282. External appraisal is important for identifying problems and helping organizations both to make improvements and to develop internal appraisal capability. Many countries have not this capability, and in countries that do have it many organizations do not use it. As a first approach, the United Nations should establish appraisal teams which would operate in any countries which desire such assistance.

283. In developing such a proposal, the following points should be considered:

(a) The general objectives of each study, the composition of the team as well as its mission should be stated in a broad and flexible way, and should include not only the administrative aspects of development planning but also any other aspects judged relevant;

(b) The team, by its composition, should inspire maximum confidence, based at the same time on its national and methodological experi-

ence and on its plurality of professional approaches. It should thus include people from different countries and economic systems, as well as from a country of the same geographical area as the one under study. Its members should also have a varied occupational background, including at least one expert in economics, one in social affairs and one in administration;

(c) Each team would need a suitable staff (part of which would be supplied by the United Nations and part by the host Government) and sufficient time for advance preparations, field work and report preparation. The staff should include nationals of the host country coming from different administrative clusters. Special consideration should be given to the language problem, but the speaking of a foreign language should not be used as a substitute for quality. At least one half, but not all, of the staff should be from the host country;

(d) Special consideration should be given to the briefing of the group and to the fostering of a team spirit. For those who are not familiar with the host country, briefing by headquarters should be made in two steps: before going to the host country and after a short conducted tour of the country. The chief of team should be selected first and participate in the selection of candidates and in briefings. Before actual work starts, a "dry run" should be given at headquarters;

(e) In the design of country studies, past and future comparative studies should be held in mind;

(f) A sensible and realistic approach should be taken for, on one side, the United Nations is not a research organization; and on the other side, the need is not for "omnibus" studies but for foci in basic and recurrent problems. These studies should seek new ways and instruments for accelerating development, as well as be a contribution to a methodology of country and institutional studies, and provide a check list for comparative work.

Independent appraisals of experience in developed nations

284. In the developing nations, efforts are continuously made—by technicians, administrators and national leaders—to learn from the experience of the more developed nations. These efforts take the form of conscious adaptation or imitation. They are encouraged by foreign advisers who (whether or not they appreciate the necessity of adaptation to different conditions) are often very willing to explain (and are presumed to understand) "how we do it in our country".

285. In copying "how we plan", one is apt to forget "how we decide" and "how we get things done". One forgets that quick decisions are the product of fast information retrieval, which in turn is made possible by the systematic accumulation of experiences. In the process of transplanting or imposing civilizations (through immigration or through colonial rule) much of this memory is lost or becomes meaningless, that is, irretrievable. Without memory—that is, without knowledge or experience—the decision maker is insecure and the insecurity produces delays.

This points out the need for giving apt, substantive advice that can be trusted, together with operational, methodological advice for implementation.

286. Unfortunately, the image of what is done in the developed nations is often at serious variance with reality. The implementation experience under national planning in developed countries is extremely complicated. Many experts from these countries have not really studied this experience and do not understand it themselves. What they understand intuitively they may not be able to communicate explicitly—and may not be motivated to communicate in the strange environment of a developing nation. Also, some systems are based on uses or traditions that are neither common nor necessary in the developing country. Students and observers from developing nations, moreover, find it easier to observe certain techniques and procedures used in formulating plans. It is much harder for them to obtain an understanding of implementation problems.

287. Thus, both through their own efforts and as a result of well-intentioned advice, the planners in developing nations often get a dangerously exaggerated view of the value of modern techniques and procedures. They often obtain a wholly inadequate appreciation of the planning errors and implementation failures in the developed nations. In looking at the developed nations, they tend to confuse wealth with planned achievement, ignoring the enormous waste that becomes possible only with greater wealth (with or without planning and in both the public and private sectors). They tend to ignore the many unpredicted results that have often accompanied large-scale planning (whether by national Governments or large-scale enterprises) in the developed nations. They also take for granted historical factors which, through a long process of trial and error, produced the customs and foundations for civil and mercantile institutions that have not been transplanted by emigrants and colonizers, or that rest as meaningless articles in the codes of new nations.

288. As a result, lacking an adequate appreciation of the origins and experience of developed nations, the planners in developing nations, as well as some of their prospective advisers, are not in a good position to adapt what may be adaptable to their own uses (or to reject what is superfluous).

289. Consequently, it is necessary that some neutral international body or the developing countries themselves take steps to promote a series of independent appraisals of planning and implementation experiences in the more developed nations. Such appraisals should concentrate major attention upon:

(a) Negative factors, such as major failures and unpredicted consequences that have often accomplished large-scale planning in the more developed nations;

(b) Positive factors, particularly the way planners have sometimes learned through planning, adjusting their policies and methods on the basis of experience and changing conditions;

(c) The relation of planning and administration to local habits, resources and culture.

290. Such studies and reports would direct the adaptation process in developing countries more to their particular problems. We must cease to take the whole cloth of institutions from developed countries and sew it in the fashion of a "crazy-quilt" upon the existing fabric of the developing nation.

ABSTRACT

Administrative capability is an increasingly important—although often neglected—factor in economic and social development. It enters into the entire process of formulating, activating, evaluating and readjusting development plans, both national and local, whether public, mixed or private. Problems of plan implementation have led to deep concern over administrative incapability, particularly in the public sector. Hence, national leaders, administrators and technicians are increasingly aware of the need to spend time, money and resources on improvements in administrative capability, which is itself a scarce resource. We must invest in it and plan such investment like any other.

In its simplest terms, administrative capability is the capacity to get results through organization. The capacity to do this nationally depends to a large degree on administrative capability in single organizations, and in various sectors, networks and geographical areas of a country.

The results that affect the lives of most people directly are the performance—ongoing activities—of organization. But performance is vitally affected by their internal structure and the environment in which they operate. Hence, administrators aim at results in the form of environmental and structural improvements which are expected to result in improved performance.

It is important, therefore, to clarify the basic concepts and identify the typical problems involved in getting and interpreting information on each of these dimensions.

1. *Performance* is primary. It is necessary to know the kind, quantity and quality of services provided, the costs of providing such outputs, the benefits and damages that flow from providing them at this cost; also how to change benefit-output-cost relations, both directly and by changing the structure or the environment.

2. *Structure* consists of people and non-human resources as they are organized into various subsystems with certain kinds of internal relations among them, and operating under the influence of various codes and some kind of central guidance machinery. These structural variables, in their environmental context, provide the organizational capability for various kinds of performance.

3. *Environment* conditions, legitimizes and provides or denies resources to organizations and larger systems. Performance is vitally affected by relations with the environment and even definition of the environment. The new rapid and turbulent change in our environment presents a very great challenge to organizations and they must adapt.

Whether expressed in these terms or not, many efforts to improve administrative capability suffer from the following: structural changes put into effect with little attention to their implications for performance; changes in methods that do not "pay off" in (or that may even impede) more or better output; expansion or improvement of certain services with insufficient attention to costs or benefits; changes proposed or effected without realistic appraisals of present strengths and weaknesses. The concepts presented in this study provide a way of looking at problems which should make many such possible errors less likely.

Although evaluations are becoming increasingly popular, there are also too many cases of evaluations that interfere with—or are substituted for—constructive action, consist of premature judgements without sufficient stock-taking, destroy self-respect in developing nations through ignorance of the fact that most "developed" nations made and are making similar errors of allocation, or are made by "outsiders" (domestic or foreign) with too little understanding of a situation or capacity to do anything about it.

Accordingly, one of the principal ways of developing administrative capability in all countries is through the development of internal appraisal capability in both organizations and larger systems. One step towards establishing such capability ought to be a more accurate analysis of just what the experience of the more developed countries has been. Another step is to provide personnel at the international level who will be capable of both analysing such problems on demand and organizing capability to cope with these problems in the future.

ADDITIONAL NOTES

These four Additional Notes have been included as source materials so that when they are read with the monograph they may enrich it. They are occasionally technical in nature, but are by no means so abstruse that they cannot be understood by the average administrator, technician or leader who may be interested in one or more of the particular topics discussed.

The first note generally addresses itself to problems of national planning. INTERPLAN's "Developing national planning personnel" insists that "planners too must learn" and suggests a number of methods whereby the different groups participating in national planning can be trained.

The second through fourth notes address themselves to more particular, although no less important, subjects. Arnold Tannenbaum's "Personnel survey methods in administrative agencies" discusses the types, uses and collectibility of personnel survey data in developing countries. Such data is an example of the "appraisal from a distance" described in chapter V. Eric Trist's "Key aspects of environmental relations" enriches the other chapters on environment in the text above. Saul Katz's "A methodological note on appraising administrative capability for development" discusses the concepts available from research that has been done on institution building.

Additional Note 1

DEVELOPING NATIONAL PLANNING PERSONNEL

INTERPLAN EXECUTIVE COMMITTEE*

I. THE PLANNERS TOO MUST LEARN

In every country of the modern world, no matter what the level of industrial development or the type of political system, national government has accepted an important degree of responsibility for the guidance of significant economic change. Persistent efforts at national economic planning and implementation are the result.

The differences in the types and degrees of such central government responsibility are tremendous. It is quite clear that there can be no one style or form of national economic planning implementation and no "one best way" automatically applicable to all countries.

Yet in all countries this new responsibility has presented an unprecedented challenge to the capacities of key personnel involved in planning, activating and evaluating programmes of national economic change. This challenge has created a need everywhere for the development of great capacities on the part of both present personnel and the younger people who will replace them.

In part, this need may be reduced or made more manageable by the development of improved institutions and/or by greater reliance on various market mechanisms. To a considerable extent it may be met also by the learning that should take place as people go about their regular work in formulating and implementing national programmes.

In large part, however, special educational programmes are required to help people face responsibilities. Such programmes may, indeed, help people learn more from practical experience and contribute to their activities in improving institutions and utilizing market mechanisms.

This chapter deals with the preparation of educational programmes, geared to the unique needs and conditions of individual countries and regions, to help develop more effective national planning personnel.

* This Additional Note was prepared by the Executive Committee of the International Group for Studies in National Planning (INTERPLAN), based on preliminary drafts produced at an International Planning Conference, held at Warsaw, Poland, 20-24 April 1965, at the invitation of the Institute of Philosophy and Sociology of the Polish Academy of Science. It is a "preliminary" report in the sense that more specific—and improved—proposals will be developed on the basis of comments received from many countries since then and the re-examination of the subject at INTERPLAN's conference at Caracas, Venezuela, in November 1966.

II. THE LEARNERS

If we adopt the principle that planners too must learn, how can we identify the planners?

This question *cannot* be answered by simply referring to the personnel of some "central planning organ".

There is a great variety of different functions performed by the organizations designated as central planning organs in various countries. These functions may include one or more of the following: (1) the technical preparation of economic studies and proposals, (2) the co-ordination of interministerial (or interdepartmental) policies and programmes and (3) the representation of the views of major groups in the country.

In addition, tremendously important functions in the guidance of national economic change are usually played by (1) such powerful financial institutions as finance ministries and central banks, (2) some other ministry or department that may, because of some peculiar circumstance, exercise supra-ministerial influence on national programmes as a whole, (3) the chiefs of state and their immediate assistants and advisers and (4) the national leaders of political parties or powerful non-governmental interest groups. It is this network as a whole which is referred to by the phrase "central guidance cluster".

In addition, we must also include the surrounding ring of the many organizations that maintain the closest contact with a central guidance cluster, provide it with basic information and indispensable support, and, indeed, constitute its major reservoir of skilled personnel. These are the central government's many ministries, departments and commissions, the country's major nation-wide enterprises (both private and public) and the regional and local units of both.

In this context, therefore, the term "planners" is not confined to the personnel of a specialized planning agency or even of the government itself.

Let us now identify more specifically the five interdependent types of planning personnel who may be regarded as the clientele of special development programmes. It is fashionable to point to one or another of these groups as the real "powers that be". Yet we know of no objective way of singling out one group as opposed to the others. In their own way the members of each group play roles of tremendous significance in the guidance of national change.

A. *Specialists*

This group includes the large and usually increasing number of experts who handle the increasingly complex tasks of central government and technologically based nation-wide organizations. It includes an increasing number of people who have been professionally trained in engineering, agronomy, education, public health, medicine, law, statistics and the

natural sciences. It includes an increasing number of economists and people with other social science backgrounds.

In each of these fields specialization is intensifying, with subdisciplines multiplying rapidly. In each, major roles are played by specialist-administrators who co-ordinate the work of subspecialists. While the bulk of these specialists are to be found in the many agencies of central government, some of the most influential—and most in need of broadened perspectives—are always in the central guidance cluster.

B. *Leaders of interdisciplinary teams*

The development of major policies and programmes always requires intensive work by various interdisciplinary teams. Sometimes these are within specific organizations; often, they are interorganizational bodies set up on a permanent or *ad hoc* basis.

The working leaders of these teams are often specialists themselves—economists, engineers, experts on various agency programmes etc. Yet the tasks of leadership require knowledge and skills reaching far beyond their field of specialized competence or training. The lack of such knowledge and skills is a factor in contributing towards the frequent “group think” sterility of such team operations, their proclivities towards interminable red tape and the adoption by team members of frozen positions in defence of narrow bureaucratic interests.

C. *Top executives*

These are the highest-level career administrators in the central guidance cluster and its surrounding ring of nation-wide organizations. They are the generalists who must work, on the one hand, with the political leaders of the country and, on the other hand, with the specialists and the interdisciplinary team leaders. Some of them may, indeed, come from, or end up in, the sphere of national politics or specialist expertise. They face the most difficult problems of large-scale management and administration, particularly in the interrelating of complex programmes and the detailed balancing of divergent interests.

The first hurdle with this group is the old-fashioned idea that they have nothing to learn from advanced management conferences. Once this hurdle is overcome—and this is beginning to happen in many countries—the second hurdle is the attitude “We’re too busy—we have no time”. This hurdle often can be overcome by a series of short conferences or workshops in which they may appear as major contributors, discussants or debaters.

The participation of this group in educational activities of this type can be crucial in developing a “learning atmosphere” on the part of specialists and interdisciplinary team leaders.

D. *Political leaders*

This group includes (1) major political appointees in executive-branch organizations, (2) elected members of the national legislature, (3) national party officials and staff members, and above all (4) the chief executive (whether prime minister or president) and his immediate staff.

This is the hardest group to involve directly in educational activities, in part because of the tremendous time pressures generated by political life, in part because of the old-fashioned assumption that they need know nothing but the skills of political manoeuvre, in part because of the anti-intellectual orientation of the old-fashioned politician. The first of these factors is a tremendous difficulty. The others are weakening, as the complexities of modern society tend to create a new breed of politician.

We believe that in many countries it is possible to include political leaders (with the sole exception of the chief executive) in special educational programmes. In some cases they may take part in conferences arranged for top executives also. In other cases special programmes may be arranged for and with legislative committees—indeed, even in the form of special legislative studies and investigations.

E. *Interest-group leaders*

These are the leaders of the major federations of enterprises, trade unions, professional groups, educational institutions etc., apart from or outside the government apparatus. In many countries these leaders are called upon to play major roles in formulating, reviewing or legitimatizing national policies and programmes. Yet they are often completely unprepared to play such roles. Participation in national planning processes may itself be a major educational influence, particularly by helping interest-group leaders obtain a better appreciation of other interests in society. But this participation could be greatly facilitated and indeed be made more meaningful and less ritualistic if accompanied by participation in special seminars and conferences of the type to be discussed in the next section.

III. SOME LEARNING OBJECTIVES AND METHODS

Just what can these various kinds of people hope to learn from special educational programmes?

One way to answer this question is to summarize the substantive content of the special educational programmes now being conducted in developing nations or for people from developing nations—often in, or with assistance from, more developed nations. Valuable information on substantive content may be obtained from various publications of the Organisation for Economic Co-operation and Development and the Economic Commission for Latin America. Similar information on the various development institutes in eastern Europe has not yet been developed.

Yet with but few exceptions these programmes are currently oriented mainly towards the training of economic specialists, and often junior specialists at that. Rarely do they attempt to help specialists learn how to take a multidimensional analysis of planning problems, recognize the uses and limitations of non-economic techniques and disciplines or handle conflicts among competing interests (even competing forms of economic analysis). Still more rarely are they oriented towards the learning needs of interdisciplinary group leaders, top executives, political leaders or interest-group leaders. Often, these programmes are too much based upon general approaches developed in other countries and not sufficiently adapted to the special conditions, political and social system and goals of the country concerned.

Moreover, we have as yet found no instance of educational programmes to meet the needs of the more highly industrialized problems in the guidance of social change, the former in overcoming institutionalized resistances to modernization and social mobility, the latter in overcoming poverty and building a "Great Society". The tendency of top government personnel in both countries is to approach their problems with the narrow tools and concepts of a previous generation. Education of central policy makers and programmers is regarded as appropriate for others (that is, people from developing nations), not for themselves.

Nevertheless, we have found many encouraging currents. Some of the best economists are the very first to point out the limitations of economics and the need for education in transeconomic matters. Some of the institutes for development planning are experimenting with new and broader subject matter. Many interesting new approaches are to be found at the Institute of Social Studies at The Hague and the University of Pittsburgh's Economic and Social Development Program.

As we have tried to understand these new currents, we find that they flow in three directions. They may be briefly summarized as the development of educational programmes designed to help people learn something significant about (1) the multidimensional analysis of planning problems, (2) the uses and limitations of specialized techniques and (3) the arts of conflict management.

Further progress in these directions undoubtedly requires much more experimentation and innovation by many different kinds of educational institutions in many parts of the world. It undoubtedly requires a much stronger foundation in empirical research (both basic and applied) and in the development of more relevant concepts and theories concerning the formulation and implementation of plans. Above all, it is essential that educational programmes of this type be geared to the unique conditions in individual countries. There is no general formula that can be automatically applied without very considerable adjustment to both industrializing and industrialized countries, to both socialist and non-socialist countries.

The following suggestions are designed to encourage a variety of educational programmes in many different countries.

A. *The multidimensional analysis of planning problems*

In the managing of national change there is no such thing as a purely *economic* problem, a purely *political* problem, a purely *legal* problem, a purely *cultural* problem or a purely *technological* problem. Real-life problems are exceedingly complex. They invariably fall into all of these categories at once.

A major goal of special educational programmes, therefore, should be to help the various types of planners learn how to define and analyse these problems in many dimensions.

Towards this end we suggest consideration of the use of workshops, seminars and conferences.

1. *Problem-oriented workshops*

There are many fundamental national problems that are widely mishandled because of a tendency to analyse them, at least formally and explicitly, in unidimensional terms. Among these are the following:

(a) *The development or appraisal of specific programmes.* Much work has been done by economists on criteria for the evaluation of major investment programmes. Some of this falls under the heading of "cost-benefit analysis". Yet the benefit side of such analysis is typically very narrow, with too much attention to direct, as distinguished from indirect, benefits and to benefits that can be expressed in monetary terms as distinguished from those that can properly be expressed only in non-monetary terms. Much of this work suffers from a major unstated premise that somehow or other all the considerations may be reduced to some single-valued index number or "utility function".

The cost-benefit analysts can make a major contribution towards the evaluation of major investment programmes. In our judgement, one of the best ways for this contribution to be made is to arrange seminars or workshops in which their work is used as a "starting point" to develop multi-dimensional analysis of, let us say, agricultural programmes or new educational programmes or new programmes of scientific research. The participants in these conferences, who might include many different types of planners, would then be challenged to include in the analysis such factors as:

(i) the actual and potential support for the proposed programme or major variations thereof;

(ii) the political, social and cultural benefits and disadvantages accruing to various groups as a result of the programme (in other words "whose nest would be feathered" and "whose ox would be gored");

(iii) the various areas in which there might be consequences at present unanticipated, for good or for bad;

(iv) the managerial and administrative factors that might affect the feasibility or the content of the programme;

(b) *Preparing an annual budget geared to long-range plans.* The current government budget or the next year's budget is in most countries the core of long-range planning. Yet there are invariably certain understandable tensions and jurisdictional conflicts between the budget units of government and those who specialize in developing or co-ordinating long-range plans. Although some of these tensions are both unavoidable and healthy, progress often depends upon much better work in making the budget an instrument of long-range planning. To do so, however, involves relationships that go far beyond the central guidance cluster and vitally affect the work of individual departments. It also involves the development of new concepts of mission definition or programme formulation, concepts that deal more adequately with the quantity and quality of government services and with presumed effect upon various aspects of social structure and social performance. All this, in turn, requires the participation of many kinds of people from many departments or ministries, from legislatures and from universities. In a country like the United Kingdom, workshops on this subject could not only help educate the old-time bureaucracy in the Treasury; they could also help democratize the entire structure of governmental planning. In the United States such workshops could help the major departments make the difficult transition from financial budgeting to genuine programme planning. In developing nations they could help develop budget machinery that would play a much more vital role in planning for the governmental sector;

(c) *Institution building.* National change requires many new institutions and considerable adaptation in existing ones. How is this to be done?

This subject also can be taken up in specific terms, as with conferences on how to build effective public enterprise corporations, how to strengthen the tax-collection organization, how to establish the institutions required for a securities market or how to promote innovating of service-oriented corporations in the private sector. Some of these subjects may best be dealt with through international workshops covering major regions of the world;

(d) *Mobilizing resources.* This essential subject is usually handled as a technical problem in the field of tax policy and borrowing.

But taxation is also a political process par excellence. So is borrowing. It would be exceedingly helpful to develop ways of dealing with this subject in language stripped of "double-talk" and oriented squarely towards analysing its political, administrative and cultural aspects.

It would be still more helpful if conferences and workshops in this area also dealt with the fundamental problems raised by developing nations in mobilizing external resources from the developed nations and from international agencies. This would mean dealing with "trade versus aid" in a framework of the direct identification of the pressure group and institutional obstacles in developed nations to trade policies that promote economic growth in "poor countries". It would mean dealing frankly with the various alternatives involved in "playing one side against the other";

(e) *Handling essential controls.* Development programmes often involve various approaches to the direct or indirect control of non-government activity. Among the most universal of these are "wage policy", "income policy", or "price policy". In some cases these verge on direct wage control or price control. In most developing nations (and some others) there are various controls over foreign currency or foreign investment.

Here again we find phenomena that are political, administrative and psychological but are usually discussed as though they were only economic or legal. Here again, we need conferences or workshops that produce multidimensional analyses;

(f) *Obtaining improved statistics.* This is a problem in every country and in some countries a desperate problem, but it is only in small part a problem that can be handled by statisticians. The training of statisticians qualifies them mainly to process data that has already been obtained. Obtaining data that is worth processing is an entirely different matter. Statistics are tremendous sources of power. The building of machinery for collecting statistics sets up new channels of communication between different sectors of society. These are processes that should be faced "in the round".

2. *Seminars on the social system of a country or region*

Planners, more than any other people, should understand the country in which they live and for which they plan. To help develop this understanding special seminars or courses should be established, particularly for technicians and group leaders. Such courses should deal with the kind of subject-matter found in *The American Society*, by the Cornell sociologist Robin Williams, Jr.¹ They should analyse the resource base of the country, family stratification and mobility, economic institutions, political institutions, communication network, education, business, agriculture, labour, religion, values, science, technology and major currents of social, cultural, economic and political change. Immersion in basic facts about their own country would help overcome tendencies among planners to analyse problems in over-generalized terms.

In countries where frank analysis of the power structure and institutional change might touch upon ultrasensitive areas, it might be more feasible if such seminars were set up internationally to deal with a group of countries.

3. *Conferences on social, as distinguished from economic, accounting*

National economic accounts, although invaluable, can provide but a pallid reflection of the substantive changes sought or attained by major programmes of economic and social change. Indeed, overemphasis upon quantitative economic information may serve to detract attention from

¹ Robin Williams, Jr., *The American Society* (revised edition) (New York, Alfred A. Knopf, Inc., 1960).

more qualitative and equally significant information. The remedy to this problem is not to cut down on economic data (which, on the contrary, usually needs expansion and improvement) but rather to compile and disseminate non-economic data as well. One possible way to do this is to prepare *annual social reports* as parts of, or supplements to, the annual economic analyses that are regularly prepared in most countries.

Such reports cannot be prepared in ivory towers. The basic concepts require new thinking along lines that are still far from clear. We believe that conferences on this subject co-sponsored by universities and United Nations agencies, would help people think and learn together. Those participating in such conferences should include a wide variety of specialists, executives and social scientists from the academic world.

B. The uses and limitations of specialized techniques

Economic analysis is at the very heart of national economic planning. Accordingly, it is essential that the professional economists in national planning agencies continuously refresh and improve their professional skills.

It is also important that the non-economists be given nonprofessional training concerning:

Elementary economic concepts and principles, particularly in relation to development, resource allocation, money and taxation, motivations of investors, consumers and workers, international trade and spatial economics;

The use and manipulation of economic data, particularly of national income accounts, at the national level;

The major disputes and major new directions in the economics of development, growth and planning;

The kinds of questions that should be put to economists;

The kinds of errors and bias to which different kinds of economists are prone.

Successful economic planning increasingly requires the talents of specialized technicians in many other fields. This has been more widely recognized in such fields as engineering, agronomy, industrial technology, scientific research, medicine and health services, education, public administration and business management. Much greater recognition is needed of the potential contributions of specialists in political analysis, anthropology, sociology, psychology, social psychology and psychiatry. Political leaders and administrators need to learn how best to develop these valuable specialities, how to get the specialists to work together and how to integrate their divergent views. The specialists themselves, particularly the economists, need to learn how their skills may be supplemented and invigorated by people from other disciplines.

We recommend special attention to the following already recognized academic disciplines:

Statistics (methods and data; no theory apart from elementary probability; special reference to errors and reliability);

The necessary mathematics (functions; the principles of input/output; linear programming; econometrics);

Sociology (human behaviour theory; social structure theory; urban and rural sociology; sociology of work);

Political science (organization theory and management; public administration; political theory and the main ideologies; parties; pressure groups, especially trade-union and military; international organizations);

Regionalism (spatial economics; land use; regional geography).

Also, for our purposes, the following vocational subjects are of equal status with academic disciplines:

Social welfare (education; health; unemployment; social gerontology; penology; urban renewal; youth problems);

Finance (budgeting; project presentation and evaluation; fiscal management);

Public law (constitutional and administrative);

Planning techniques and procedures.

There should further be in each country at least one body responsible for all this education. Whether it gave all the courses itself or contracted with others to give them would depend on local circumstances.

Finally, there should be a few international colleges, such as the one in Santiago, Chile. These should have a specialized resident faculty, as well as a high turnover of visiting faculty.

C. The arts of conflict management

The formulation and implementation of national plans and policies involve the resolution of conflicting interests and divergent plans under conditions of imperfect information, ambiguity, changing pressures and turbulent environments.

This requires continuous improvement and innovation in the arts and techniques of:

1. Negotiation, bargaining, compromise, and creative integration;
2. The organization of groups and coalitions;
3. Individual and mass persuasion;
4. Command and regulation;
5. Evaluation and control.

Although experience is indispensable to the development of these arts, there is nevertheless an important role for special educational programmes, particularly if geared to the specific needs of individual countries and regions.

1. *The specialists*

In many specialized fields, particularly those which seem more scientific in nature, there is a dangerous tendency for the specialists to become rigid and narrow.

To help specialists make their full contribution it would be helpful to provide a serious course (preferably at a university or independent institution) dealing with the cognitive, personality and environmental aspects of *real-life decision making*.

The cognitive aspects of the course would present heuristic models of research. As against deterministic models that assume certainty and simplicity, they would stress the necessity of coping with uncertainty and complexity. They would recognize the role in decision making of power, influence, habit and cultural norms. They would also stress the importance of problem analysis, problem definition and "problem creating", as against mere problem solving. For this purpose, detailed problems, case studies and simulation-discussion exercises would be very useful in supplementing lectures.

The personality aspects of the course would try to develop among the participants:

- (a) A tolerance of ambiguity;
- (b) The capacity to live with dissonant alternatives until possibilities for choices become clear;
- (c) An awareness of the importance of permissive psycho-social climates;
- (d) An interest in immediate feedback and in continuous evaluation;
- (e) A willingness to learn, unlearn, take risks and admit errors;
- (f) A feeling for the occasions that warrant the stronger forms of persuasion.

For this purpose many of the methods used in human relations training would be useful.

The environmental aspects would deal with:

- (a) The need for environmental scanning;
- (b) The awareness that environmental information will always be imperfect and require interpretation;
- (c) Acclimatization to the emergence of the unexpected or the uncontrollable;
- (d) The possibilities of adaptation to new conditions without giving up the most important objectives.

Case studies and simulation-discussion exercises may also be useful here.

2. *Team leaders*

Here the educational task is to help people make a difficult role transition from specialist to the leader of a group of specialists.

Such people need a programme of planned management education that opens up the best available knowledge from the behavioural sciences and other disciplines on small-group dynamics and the management of complex formal organizations.

The group-dynamics aspect of the programme should deal with role differentiation; communication; the conditions of group cohesion, conflict and creativity, and leadership styles.

The managerial aspect should deal with the details and dynamics of formal and informal organization, financial and other dimensions of organizational performance and the process of planning, activating and evaluating. It should deal directly with the differences between various organizations, particularly between those organizations that do not sell their output and those that do. Attention should be given to relations with legislatures, pressure groups and political leaders.

3. *Top executives and other leaders*

These people are continuously immersed in complex conflict situations. Many of them may be better qualified than anyone else to help specialists and team leaders learn more about the arts of conflict management. Yet this does not mean that they themselves cannot learn more or that special educational programmes cannot contribute to their learning processes.

Four types of educational programmes should be given particular attention.

First, internal conferences or workshops should be organized to help executives and other leaders explore the major problems within their own organizations, whether these are problems of "hardening of the arteries", the lack of managerial personnel, "bureaucratic federalism", low morale or low productivity. External advisers or consultants can often be helpful in this connexion.

Secondly, broader conferences and workshops can deal with such ever-practical problems as the organization of a "support base" (or activation base) for major programmes. Attention can be given to the strategies needed to develop effective coalitions or alliances, overcome apathy or organized resistance and lead effective action campaigns.

Thirdly, under "social island" conditions, top executives, political and interest-group leaders, journalists, professors and other opinion leaders can be brought together for mutual confrontation in exploring such problems as (a) opinion formulation, influence, and alienation, (b) policy making, and (c) the theory and practice of institution building.

Fourthly, political leaders and interest-group leaders especially should be provided with organized opportunities for (a) learning about their country's plans and planning institutions and (b) meeting and working with their country's top planning executives and specialists. At times this has been done through conferences organized by the central planning institutions themselves. In many circumstances, however, it may prove

more fruitful to arrange for less official undertakings under the sponsorship of international bodies, universities or independent institutions.

IV. CONCLUSION

Thus the education and ongoing training of specialists, interdisciplinary team leaders, top executives and political and interest-group leaders must be an area of constant investment and adaptation. We have outlined some techniques and subject-matter which must be emphasized. The implementation of such programmes will be dependent upon the efforts of countries acting alone and together to develop the personnel who will help determine their futures.

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Additional Note 2

**PERSONNEL SURVEY METHODS
IN ADMINISTRATIVE AGENCIES**

ARNOLD S. TANNENBAUM

This note consists of three parts. First, we describe types of information obtained from personnel surveys that might be of value for the assessment of organizations and for the acceleration of adaptive change. Secondly, we consider how these data might be used to assess organizations and to expedite change. Finally, we shall be concerned with the problem of collecting survey data in organizations of developing nations.

I. TYPES OF SURVEY INFORMATION

Survey data include information about the behaviours, attitudes, perceptions and motivations as well as demographic characteristics of persons. Inferences from these data may differ in their level of generality and in their complexity. First, are very "manifest" inferences that describe in every-day language relatively simple facts of interest to administrators. Such facts might include the attitudes of members towards specific aspects of an organization's incentive system, recreation facilities, retirement plan or organization policy. Secondly, are inferences concerning "variables" that are more abstract and general in their definition than are the above "facts" and that apply in principle in many organizations in addition to the one in question. The definition of these variables may have a theoretical basis but they need not be devoid of practical importance. Included here are variables concerning the leadership, communication and control processes in organizations as well as the motivations, identifications and loyalties of members. Theories of organization argue that such variables are important determinants of organizational performance.¹ Hence, their measurement may provide one basis for the assessment of organizations.

A third form of inference from survey data concerns *relationships* among "facts" and/or "variables". The discovery of such relationships need not be based on the analyses of survey data exclusively. Members' attitudes as measured through a survey can be correlated with members' rates of absenteeism or levels of performance obtained from organization records. Analyses of survey data may be more or less complex. For

¹ R. Likert, *The Human Organization*, New York, McGraw-Hill, 1967.

example, analyses may simply show the distributions of members' attitudes towards their organization. Or they may show that members in some departments have less favourable attitudes towards the organization than do members in other departments. More complex analyses may be carried out by introducing "controls" to hold constant the effects of sex, age, skill level and seniority. Multiple correlations, analyses of variance, factor analyses and other statistical procedures can also be employed to elucidate the ways in which numbers of variables simultaneously affect an outcome or how the effects of some variables may depend upon the presence (or absence) of others. For example, analyses have suggested that the effects on subordinates of participative leadership practices differ according to whether the subordinates are high or low on measures of authoritarianism. Or, members of highly cohesive work groups are likely to be more productive than members of less cohesive work groups only where superiors are able to create a positive attitudinal climate. Thus, while neither group cohesiveness nor supervisory practice alone explains group performance, the combination of these variables does.

II. USES OF SURVEY DATA

Survey data may be utilized as part of the conventional administrative decision-making process; the data may simply provide decision makers with relevant information that otherwise would not be available. However, special procedures and structures may be created for the purpose of data utilization, and the total result may imply an organizational form and atmosphere quite different from the conventional ones.

Survey data and administrative decision making

The use of survey data by administrators illustrates the feedback principle that defines a condition essential to the adaptability of any system, physical, biological or social:

"Feedback involves the internal communication of information about the system's functioning so that corrections can be made when the system is acting inappropriately. The term 'negative feedback' refers to the communication of information about errors or deficiencies in aspects of system functioning. Negative feedback is essential to the survival of any system, because without some way of discovering and correcting its errors, it will continue to make these errors and will ultimately destroy itself. Biological organisms have intricate systems for such feedback. For example, the proprioceptive senses continually inform us how our arms and legs are moving as we walk from one place to another. Without such feedback we would overstep or under-step, we would lose our balance, and we would stumble into obstacles. Organizations also make use of negative feedback mechanisms, although theorists have differed regarding the form such mechanisms should take. In the view of some earlier theorists

the only kind of information considered of importance for feedback was information regarding the technical performance of organization members and sub-units. This information was to be collected for the exclusive use of superiors in evaluating, rewarding or punishing, and correcting the performance of their subordinates. Information, then, was seen as a tool to be used by superiors in controlling the behaviour of subordinates. . . . [However, feedback may] include information about the human aspects of organization (the attitudes, motivation, conflicts and tensions of members), as well as the technical."²

There is ample evidence to indicate that organization leaders are frequently uninformed or misinformed about many of the relevant attitudes, perceptions and motives of organization members.³ For example, a survey in a company indicated dissatisfaction among new employees with the company's retirement plan. Hence, the management changed its retirement plan so as better to accommodate these new employees. As a result of this change, along with a number of others suggested by the survey, the proportion of employees satisfied with the plan increased by about 30 per cent. Management in another company was troubled by a lack of concern by supervisors with production costs. A survey revealed that a supervisor's concern for such costs was affected by the extent to which he was involved in budget-setting decisions.⁴ These data suggested that supervisors should have shared responsibility for budget decisions. This suggestion implies a change in the distribution of power within the company hierarchy and a modification in some degree of company policy.

Survey data can be used by administrators to assess the human aspects of the organization, including the qualities of leadership, the character and direction of communication, the levels of confidence and of trust that subordinates have in superiors and superiors have in subordinates and the sense of responsibility that all members feel for the success of the organization. Such data can inform administrators about the areas in which change may be desirable, and they may also suggest how changes can best be achieved. Furthermore, surveys repeated periodically can help to assess attempts by administrators to create change.

Work groups and survey feedback

The approach of presenting survey data to top-level administrators as an aid to assessment and decision making may be replaced by a system of feedback in which data are presented to and utilized by members at all levels in an organization. This system is a more thorough application of the feedback principle but it requires an organizational form and atmos-

² Jon H. Barret and A. S. Tannenbaum, "Organization theory" (1968) (paper prepared for Management Career Education Project, Wayne State University, Detroit, Michigan).

³ See, for example, A. S. Tannenbaum, *Social Psychology of the Work Organization* (Belmont, Calif., Wadsworth, 1966).

⁴ R. L. Kahn and F. C. Mann, "Uses of survey research in policy determination", *Proc. Ninth Annual Meeting, IRRRA*, 1957, pp. 256-274.

phere somewhat more complex, skilled and sophisticated than the conventional.

For this purpose, work groups composed of superiors and their immediate subordinates may be defined explicitly throughout the organization. These groups have overlapping memberships in that the superior in one group will be a member in a second group composed of his peers and their immediate superior. Hence, the leader in each group is an important means for communicating between groups. Feedback of data takes place within these groups starting at the top of the organization and moving progressively down the hierarchy. Thus members of the top group will be familiar with the data and will have had some experience with the feedback process before they participate in feedback sessions with their subordinates. Similarly, personnel at the second highest echelon will be exposed to the process before they participate with their subordinates. In time the feedback will move into groups that include rank and file employees and their immediate superiors. During the early stages the feedback will include only items of information that are relatively easy to discuss in groups of subordinates and superiors. Ultimately all the relevant data will be fed back to all groups. To the extent necessary, consultation should be provided by the research staff to help group members interpret the data. In so far as the data imply organizational problems, the groups will consider courses of action that might help to overcome these problems. Obviously, data can be fed back to these groups only after members are prepared, partly through training, to discuss and utilize data concerning the human aspects of organization.⁵

Survey data and leadership training

Analyses of survey data, particularly those that reveal relationships between leadership behaviour and subordinate reactions, provide insights into the kind of leadership that is most likely to be effective. Such data can provide the basis for seminars that can help supervisory personnel learn how they might improve their effectiveness as leaders. Learning is likely to be enhanced when the supervisor has survey data from his own subordinates concerning how they perceive him with respect to the important dimensions of leadership. Furthermore, a periodic feedback of data to a supervisor can help him gauge the effects of his attempts to change his behaviour.

Experience with class-room or seminar-type training programmes has not been very encouraging. Administrators who undergo such training may add to their intellectual understanding of leadership without enhancing their leadership skills. Furthermore, the organization itself may not be structured to support and expedite the leadership principles that are advocated in training. Hence, the utilization of survey data in training

⁵ F. C. Mann, "Studying and creating change; a means to understanding social organization" in *Research in Industrial Human Relations*, by C. M. Arensberg (IRRA publication, No. 17) (New York, Harper, 1957) pp. 147-167.

must be co-ordinated with changes in the organization itself. The system of feedback through overlapping groups and the use of these groups as loci for communication, discussion and decision making illustrate one approach consistent with human relations training programmes designed to improve leadership effectiveness.

III. THE COLLECTION OF SURVEY DATA IN ORGANIZATIONS IN DEVELOPING COUNTRIES

The conduct of a survey is beset with many difficulties, some of which are especially acute in organizations of developing countries. These difficulties include:

- (a) Linguistic and ethnic heterogeneity within the country;
- (b) The low level of literacy that may prevail;
- (c) Substantial gaps in status between the administrators and the administered, and the consequent state of conflict between these groups;
- (d) Rapid environmental changes that may add some degree of confusion and instability;
- (e) The absence of indigenous survey technicians to conduct the survey.

The collection of survey data requires the application of a number of skills each of which is most relevant at each of a number of phases of the survey process. Research often involves the collaboration of several persons and it is therefore possible for members of a team to complement each other with respect to the necessary skills.

A first phase involves definition of the problem to be studied. Conceptual skills and an understanding of the organization to be studied are essential here. If the problem is that of assessment, criteria must be chosen. Ideally, these criteria should have some theoretical as well as empirical justification. For example, Likert has proposed a theory of organizations, based in part on research, that defines the human characteristics of an organization that are related to its long-term success or profitability.⁶ These include:

- (a) The character of motivational forces employed—e.g., whether based exclusively on the need for physical and economic security or whether based as well on ego motives and motives arising from group processes (effective organization is more likely than ineffective organization to draw upon ego motives in addition to economic ones);
- (b) The character of communication—e.g., whether the direction of communication is exclusively downward in the chain of command or whether it is up and down as well as among peers (effective organization is more likely than ineffective to be characterized by a network pattern

⁶ R. Likert, *New Patterns of Management* (New York, McGraw-Hill, 1961). Also, *The Human Organization*.

of communication rather than communication exclusively down the hierarchy);

(c) The character of the interaction-influence process—e.g., whether interaction among persons is characterized by mutual confidence or by distrust (there is more feeling of confidence and trust among persons in effective than ineffective organization), and

(d) The character of decision making and control (decisions in the effective organization are made at the lowest appropriate level in the hierarchy rather than at the highest possible level).

Variables may be justified as criteria of assessment on purely value or moral grounds or because theory and/or research indicate(s) that the variables are related to other accepted criteria such as absenteeism, waste, productivity and long-run profitability. Likert's theory, for example, which is based on a large body of research findings, argues for the above list of characteristics primarily in terms of the latter justification. None the less, the assessment of organizations through surveys requires that the researcher have a sound rationale for his choice of criteria. Furthermore, he must choose criteria that are operational.

Secondly, the researcher must formulate a measurement instrument, either in the form of a paper-and-pencil questionnaire or a personal interview. The collection of data from organization members who are illiterate or semi-literate requires personal interviews. Researchers must therefore have:

(a) An understanding of questionnaire and/or interview construction (for example, avoid double-barrelled questions);

(b) An intimate understanding of the culture (so as to know what kind of questions are appropriate and how to word the questions);

(c) Ability to conduct interviews (for example, to gain rapport, be non-evaluative and trustworthy in the eyes of the respondent etc.).

Thirdly, the researchers must have some understanding of sampling procedures and of some of the statistical rules that apply to sampling.

Fourthly, the researchers must understand at least the elementary statistical techniques that apply to the analyses of data.

Fifthly, the researchers must be able to interpret data and write or present reports so that they can be understood by administrators.

Finally, if they are to play an active role in the utilization of the data, researchers must be able to work with personnel at all levels in the organization and they must be able to provide the consultation and training outlined in section II above.

Acquisition of the above skills requires technical training. Relatively few persons in the developing countries have had such training. Furthermore, most persons who are trained in the above skills do not speak the languages and do not understand the cultures of developing countries. Hence, the necessary talent is in very short supply and it must therefore be developed. This requires either or all of the following:

- (a) Collaboration in research between persons in developing countries and those from advanced countries;
- (b) Study abroad by persons from developing countries;
- (c) The development of training facilities in developing countries;
- (d) Familiarization by persons from developed countries with the languages and cultures of developing countries.

Precedents have been established for each of these.

REFERENCES

An introduction to survey methods can be found in the book by Mildred Parten, *Surveys, Polls, and Samples* (Harper and Bros., 1950). Robert Kahn and Charles Cannell describe the theory and techniques of interviewing in *The Dynamics of Interviewing* (John Wiley, 1957). Discussion of the measurement of organizational variables through survey methods can be seen in Barton, *Organizational Measurement* (New York, College Entrance Examination Board, 1961). Illustrations of survey studies in organization (primarily American) can be found in Likert, *New Patterns of Management* (McGraw-Hill, 1961) and A. S. Tannenbaum, *Social Psychology of the Work Organization* (Wadsworth, 1966). Surveys in organizations have been or are being conducted in developing nations. Research is also being conducted in underdeveloped parts of relatively developed countries. India and Yugoslavia are perhaps outstanding in the intensity of their efforts to apply survey methods in the industrial setting. Unfortunately, relatively few publications describing research in organizations of developing lands are available. Illustrations of the rise of survey methods relevant to problems of industrial organizations of developing lands can be found in: Suresh Srivastva, *Annotated Bibliography on Research on Human Factors in Industry in India* (Indian Institute of Management, Division of Behavioral Sciences, 1966); Sremec and Sverko, *An Attempt of Investigating the Degree of Workers' Participation in the Life and Work of the Factory* (*Acta Instituti Psychologici*, No. 35-48, 1964, pp. 16-20); Zupanov and Tannenbaum, "The distribution of control in some Yugoslav industrial organizations as perceived by members, in Tannenbaum, *Control in Organizations* (McGraw-Hill, 1968), chap. 6; Haire, Ghiselli and Porter, *Managerial Thinking* (Wiley, 1966). A newly developed journal, *Moderna Organizacija* (Kranj), is indicative of the interest in the application of modern organizational theory and research tools in industrial organizations in Yugoslavia.

Additional Note 3

KEY ASPECTS OF ENVIRONMENTAL RELATIONS

ERIC TRIST

Environment is a relative concept. Its specific meaning depends on some distinction between what is "enviored" and what "environs". This must be useful for the task in hand and represents the "objective world" as related to and viewed by some "subject systems". A tax-collection agency is part of the environment of enterprises and individual taxpayers, while enterprises and individuals are part of the agency's environment.

If the agency is taken as the subject system, its environment will also include all those, be they ministers, other government departments, political parties or interest groups, who have a hand in fashioning policies. The agency will have views about the desirability and feasibility of these policies, but may have, or believe that it has, little chance of making these heard. It may be inflexible in enforcing rules about payment periods or allowances, so that a large number of small enterprises, particularly important in many developing countries, are unnecessarily cramped. For the agency may not appreciate the developmental, as distinct from the control, aspect of its role. It may fail to collect large sums of much needed revenue from various large organizations, some of them foreign, because of loopholes in the law or a judiciary open to influence which it is powerless to change. It may be afraid to make test cases of certain issues lest they would be politically unwelcome—but it may never have tested the limits in this regard.

The example of the tax-collecting agency may serve to show that the environment of an organization is both a texture of relations and a collection of entities. The state of these relations is affected by the organization's own attitudes and behaviour to a degree which it only partially realizes and rarely fully exploits. The many different kinds of environmental entity to which it is linked are always, explicitly or implicitly, "appraising" the organization and being "appraised" by it. In what follows, an attempt will be made to bring out the implications of such characteristics of environmental relations for administrative capability.

DOMAINS AND BOUNDARIES

If an organization (or larger system) is looked at in human terms only, its immediate physical setting may be regarded as its environment. For example, the building and electronic equipment of a telephone organi-

zation would be part of the employees' environment. There are advantages, however, in regarding an operating organization (or larger system) as a *total resource system*.¹ From this point of view, the people and equipment of the agency are both inherent parts of the system itself. Similarly, the land used by farmers is part of the agricultural sector when one is considering this total sector as a system. If a city as a whole is regarded as a system, then the land facilities of its urban area are parts of a territorial entity, but one must include also with the housing stock the local government, related administrative bodies, a large number of private organizations and a local population, all embedded in a wider regional environment.

An organization must establish a domain,² i.e., a sphere of activities recognized by the environment. This constitutes its "distinctive competence".³ Recognition of this competence can be granted only by the interest groups or interested publics affected by its activities. Whether as customers, clients, investors, taxpayers, voters, believers or approvers, their support is a requirement for the continued existence of the organization. The forms in which recognition may be expressed are many: professional or legislative mandate, market share, political influence, popularity, ascription of élite status and mixes of these and other factors.

On its side, the organization cannot remain passive towards environmental recognition. It must actively seek to maintain power over its domain. A principal means by which it does this is to set the boundary between itself and its environment at a point where it can control a large number of the most disturbing external factors (the key "variances") which affect its performance by including their sources within itself. Forward and backward integration, for example, are well-known phenomena in industrial enterprises and there are many forms of partial integration. The criteria for pursuing such integration are better known under these conditions than for non-market organizations. Nevertheless, analogous problems exist for these organizations where, for example, "empire building", for better or for worse, is common. Over-inclusion or under-inclusion within its own boundary of domain-relevant activities adversely affects organizational performance. Only too often are such issues settled by power politics and personal ambition or by the application of traditional assumptions regarding what should be super-ordinate, grouped together or kept apart.

Discernment of what to include within the organization and what to leave outside it in the interests of the task to be done constitutes a critical expertise. Investigation of the positioning of the organization-environment boundary should be a principal component of any appraisal of administrative capability. Two distinct aspects may be noted:

¹ See E. L. Trist *et al.*, *Organizational Choice* (London, Tavistock Publications, 1963) for a treatment of operating organizations as socio-technical systems.

² *Vide* J. D. Thompson, *Organizations in Action* (New York, McGraw-Hill, 1967).

³ Selznick, *Leadership and Administration* (Evanston, Illinois, Row, Peterson and Company, 1957).

(a) Is there the analytical and diagnostic skill to see where the boundary should best be placed?

(b) Is there the power to put it there?

Such problems are complicated by the fact that the environment is multidimensional. The most desirable boundaries may be in different places for different purposes. Sometimes environment is thought of primarily as the physical or natural environment; at other times primarily as the economic or the social environment—human, political, cultural or institutional. The environment of an organization has all these dimensions. They do not, however, follow the same rules. Though they may be interrelated, they do not “add up”. Often they contradict each other. Whatever lip-service may be paid to this discomfiting fact, a common administrative fallacy is to deal with all aspects of a complex problem as if they can be reduced to one model, such as the economic or the political.⁴ Plans and policies based on belief in environmental “monism”, whether explicit or implicit, come to grief—as when cultural factors are neglected in development programmes. Administrative capability requires an appreciation of the likely effects of events in one of these worlds on those in another. This in turn requires separate types and sources of technical information and different forms of expert analysis. Their synthesis constitutes an act of appreciative judgement concerning “trade-offs”.⁵ This appreciation may lie entirely within the discretion of an administrator as a decision maker or it may be his responsibility to offer it as advice to a minister. In either case, a critical part of his capability is in making such appreciations.

ENVIRONMENTAL SEARCH

The environment of an organization (or larger resource system) is made up of other systems variously related both to it and to each other. Yet “environment” is not equivalent to “the outside world”. It refers to those parts of it which are relevant to the maintenance and development of particular organizations or sets of organizations (considered as “subject systems”). The environment of a central bank is different from that of a local government body, and that of an industrial enterprise different from either. Moreover, it is far from easy to determine all that should be included in the “relevant environment”. This is *not* a given; much of it has to be discovered. To some extent it remains unknowable both as regards content and structure. It requires continuous search and surveillance by the administrator. The development of effective means of environmental “scanning” is a key requirement of administrative capability. Recognition of the importance of “cognitive search”, which entails looking not only for new facts but for new angles, is especially important

⁴ Yehezkel Dror, “Policy analysts; a new professional role in government”, *Public Administration Review* (Washington, D.C.), vol. XXVII, No. 3, 1967.

⁵ For the concept of appreciation, see Sir Geoffrey Vickers, *The Art of Judgement* (London, Chapman and Hall, 1966).

among those concerned with development, else a number of options will never be considered. One needs to build in "redundant" capability for this type of scanning and searching at the beginning of a decision-making process. This has been one of the key learnings of those concerned with designing complex weapon systems. But the lesson is general for all those who must deal with high orders of complexity, and these include development administrators.

The environment towards which a particular agency directs its activities is whatever its administrators believe and perceive this environment to be. Their subjective and necessarily partially informed construction of the environment may contain elements of delusion and misunderstanding and also of ignorance and omission. The greater these are the more will the efforts of the agency be negated. An organization requires to make frequent systematic re-appraisals of what its relevant environment is:

(a) How far is it looking in the right directions and effectively relating itself to these?

(b) How much does it know about them and how much more does it need to know?

(c) What are the criteria in terms of which it interprets and assesses the information at its disposal?

(d) What is the feasibility of obtaining more of the required information?

(e) What are the costs, and the costs also of remaining ignorant?

(f) What of what it has is *not* required?

(g) What are the costs of collecting useless "information"?

One may propose an external audit as a complement to an internal audit.

Any change in the mission or objectives of the organization or in its understanding of them, has far-reaching effects on what may be included in the relevant environment and what is regarded as salient. In economic enterprises one basic question, which is now more frequently asked than it used to be, is, "What business are we really in or should we be in? Are we in the oil business or the energy business, the computer business or the information business? Are we selling hardware or know-how?" According to the answer, the *operational* or *task environment*⁶ becomes different, and it is the operational environment which is the relevant environment. If one is playing the wrong game, it matters little how well one plays it.

This holds true for other forms of organization than economic enterprises, and especially for development agencies which exist to change and shape their environments in ways intended to be constructive. There may be gross differences between assumed mission and actual mission—

⁶ For the concept of the task environment see W. R. Dill, "Environment as an influence on managerial autonomy", *Administrative Science Quarterly* (Ithaca, N.Y.), March 1958, vol. 2, pp. 409-443.

between what people *think* they are doing and what they *are* doing. The latter can only be inferred from an analysis of the operations being carried out and their effects in the target environment. This is more difficult to make in the case of non-market organizations but no less necessary. Such analyses are essential to the appraisal and improvement of administrative capability. For example, the implicit mission of an agency set up to promote the social and economic development of a backward region of a particular country may not be to do this so much as to hold in precarious balance contradictory political forces in the larger society supporting and opposing such ventures. In this case, the political system is a more salient feature of the relevant environment than the target region.⁷ This may not be well understood by the agency personnel. The better their understanding, however, the more likely are they to be able to use effectively whatever degrees of freedom (and resources) they command. The greater the administrative capability the more will environmental constraints be minimized.

SUPPORT LINKAGES

A common fallacy is to concentrate on the output environment to the exclusion of the input environment. Yet a critical part of administrative capability consists in identifying and securing the resources that the organization requires. The following points may be made:

(a) Required resources take many forms: natural resources, processed material resources, capital, services, people, permission to proceed with certain activities, agreements and bargains with other organizations etc.⁸ Omissions are easy to make, especially in the categories towards the end of this list;

(b) Easy to underestimate are the total over-all requirements. Their costs might appear too formidable to confront if a thorough inventory of all relevant factors, direct and indirect, were to be made. It is often deemed expedient to "pretend on the small side" when approval is required from a higher authority, such as a treasury; or from contributing interest groups or supporting publics which may become disturbed;

(c) Many organizations fail to carry out sufficiently extensive surveys of their input environments. They make false assumptions about what is available and the degree of its scarcity; its concentration or dispersion; or its alternative uses for competing ends;

(d) Often a number of less costly equivalents or near equivalents exist which pass unnoticed because the search is too narrowly conceived. The range above what is minimally required is considerable. What should the administrator settle for, bearing in mind other claims?

⁷ J. Sutherland, "The Sudene—a study of a development agency in north-east Brazil", Ph.D. thesis, UCLA, 1967.

⁸ See Saul M. Katz on enabling linkages in Additional Note 4.

(e) Power to secure most of what is required varies with the value placed on the organization's outputs (whether by the market, government or by important interest groups) and its standard of performance;

(f) This power is a function also of the organization's skill in taking informed action towards its input environment. If this aspect of administrative capability is partly a matter of technical knowledge and partly a matter of "intelligence" regarding availability and substitution, involved no less is the ability to persuade and to negotiate with power-holders on which the organization is dependent, and to attract and to compete for required but scarce resources.

APPRAISAL BY OUTSIDERS

Another common fallacy is for an organization to assume that the resources it has acquired and contains within itself are wholly rather than partially included, totally rather than conditionally controlled or owned.⁹ An organization's resources of whatever kind belong also to other resource systems which form part of its environment. Employees, for example, are people who have roles in other organizations. They may leave if dissatisfied; or, should the only option be to stay, they may become alienated and contribute poorly. Funds may be withdrawn, as may some physical assets, while others may not be replaced. To varying degree, an organization's resources have alternative uses. In this sense, the environment is inside as well as outside the organization, which is a trustee of resources belonging to the wider society as well as itself. When an organization is discerned as misusing these resources—in terms of prevailing social values and norms—it begins to lose credibility at the institutional level.¹⁰ This, in turn, lessens its effectiveness, which, while protecting society against further destruction, scarcely aids development.¹¹

Administrators in key positions are the people best placed to detect such processes and to initiate countervailing action, as they are the most immediately and deeply exposed to the concrete and often unforeseen consequences of their mandates. An important element in administrative capability is a value system through which it is expected that such matters are brought to the attention of outside policy makers and which includes the right and the duty of the administrator to resign—to withdraw himself as a resource—if he cannot secure new policies which will allow him conscientiously to proceed. Resignations over policy issues are common in industry—uncommon in civil services, where conditions of service and constrained opportunities for alternative careers make them exceedingly difficult. This contributes to the persistence of discredited and task-

⁹ Cf. Shell Refining Company, *Statement of Company Objectives and Management Philosophy* (London, Shell Centre, 1966).

¹⁰ Talcott Parsons makes a qualitative distinction between the institutional, managerial and technical levels in organizations in *Structure and Process in Modern Societies* (New York, The Free Press of Glencoe, 1960).

¹¹ Cf. Saul Katz on supporting and normative linkages in Additional Note 4.

misoriented bureaucracies. Developing countries least of all can afford waste of this kind. They need to be able to dissolve ineffective and unwanted organizations.

If the values placed on its products or services are central to the organization's relations with its output environment, the administrator must seek to discover how these products or services are evaluated by various segments of this environment. For economic organizations in a market economy, this evaluation is given by the price mechanism, which, whatever its distortions, is both clear and punctual in the feedback it provides compared with that available to organizations in the non-market sector. Development administration must contend with the following conditions:

(a) An administrator in a development agency may face conflicting opinions about the worth of his efforts according to the interest group affected. Views of what he is doing may be based on ignorance or prejudice as well as on superior wisdom or more informed analysis;

(b) Only indirect indications may be available of the effects of his programmes;

(c) Such effects may become apparent only in the long run;

(d) Their significance may, moreover, be ambiguous.

A great deal that the administrator does has to be taken on trust because of the uncertainty of the outcome of so much of it. This trust must be earned and maintained in the relations he makes with his task environment.

Relations with the task environment must be good enough not only to permit the administrator to know how his organization is being assessed (too often concealed by "hidden agendas") but also to grant him a hearing if the assessments are negative. For it will not be obvious who is right when complex issues of social value, political feasibility, technical efficacy and uncertainty as regards intended and unintended effects have all to be taken into account. Under what circumstances and according to what criteria should the administrator make concessions or hold course? From the point of view of administrative capability, the desideratum is that the behavioural norms should require the continuation of confrontational dialogue between the parties concerned until "organic compromises" can be evolved which take account of most of the factors and in which alternatives are subjected to a substantial degree of reality testing. This means creating social climates that promote open rather than closed government.

Additional Note 4

**A METHODOLOGICAL NOTE
ON APPRAISING ADMINISTRATIVE CAPABILITY
FOR DEVELOPMENT**

SAUL M. KATZ

Development planning has mainly involved the formulation of policies and plans, the "what" of development. The problems of implementing plans, the "how" of development, has received relatively little attention. This note is concerned with the "how" of development, the capability for administering the implementation of development plans.

Specifically, the note is concerned with a methodology for appraising the administrative capability for achieving development. Section I discusses the logic of the inquiry and proposes a systems framework involving three dimensions of appraisal. Section II treats with performance, the first of these dimensions. The next, environmental linkages, is considered in section III. The third dimension, system structure, is discussed in section IV with special attention to the guidance substructure. The final section takes a brief look at the over-all appraisal of the system.

It should be emphasized that what follows is a summary introduction to an appraisal methodology. It seeks to help in organizing the inquiry; to provide "handles" for selecting, collecting, arranging and analysing data. It is not the inquiry itself and does not pretend to note all of the important characteristics, nor, for that matter, most of them. Rather, the note is intended to provide an approach and a check list, perhaps a framework, for the empirical appraisal of administrative capability for development.

I. THE LOGIC OF THE INQUIRY

The methodology of an inquiry revolves around a definition of purpose. This purpose gives rise to, and is derived from, a conceptual framework, and the two provide the basis for a methodology, a way of selecting and combining study techniques. The techniques themselves are procedures for acquiring and analysing data.¹

¹ See Abraham Kaplan, *The Conduct of Inquiry* (San Francisco, California, Chandler Publishing Co., 1964). The terms "methodology", "technique" and "tool" follow the usage of Russell L. Achoff *et al.*, *Scientific Methods: Optimizing Applied Research Decisions* (New York, Wiley, 1962), chap. 1.

The purpose

The main purpose of the inquiry is to appraise administrative capability for development, the ability of a nation to achieve its development plan objectives. Administrative capability, thus, depends on what is meant by national development, the nature of planning and what is involved in plan achievement.

National development is major societal change, not just change in particular economic magnitudes such as *per capita* income or rate of employment. It involves a complex of mutually related economic, social and political changes. Economic changes sometimes seem more evident and generally lend themselves more readily to quantification, but they are only one aspect of a total process. Changes are the result of both previous history and current experience of the country and, in turn, provide the base for future changes. This concept of development as a process over time has important implications for development planning.²

Development planning is concerned with directing and accelerating this major societal change. It usually starts with the formulation of a plan, a set of interrelated preliminary decisions regarding development ends and means to achieve them. As efforts are made to implement these decisions, there is feedback of information revealing estimating errors, unexpected events and new possibilities. These require changes in original decisions in order to achieve better results. Since the decisions are inter-related, the information has to be evaluated and the whole set of earlier decisions reformulated. As noted above, development takes place over a series of time periods, hence, planning designed to achieve development may be seen as a continuous spiralling process.³

Administrative capability for development involves the ability to

² The view that development involves a great variety of changes in the society has been classically exemplified in the "Stages of development" of W. W. Rostow, *The Stages of Economic Growth; A Non-Communist Manifesto* (New York, Cambridge University Press, 1960). See also M. F. Millikan and D. M. Blackmer (ed.), *The Emerging Nations* (Boston, Little Brown, 1961). Some other interesting views of the characteristics that should be considered in development are given by Fred Riggs, "Agraria and industria . . . toward a typology of comparative administration", in W. J. Siffin (ed.), *Toward the Comparative Study of Public Administration* (Bloomington, Ind., Indiana University Press, 1960); Everett E. Hagen, *On the Theory of Social Change* (Homewood, Ill., Dorsey Press, 1962); as well as George M. Foster, *Traditional Cultures and the Impact of Technological Change* (New York, Harper and Row, 1962). Most economists recognize that while development may be defined or measured in material terms, the subject itself is concerned with social, cultural and political as well as economic changes. See, for example, James Dusenberry, "Some aspects on the theory of economic development", *Explorations in Entrepreneurial History*, vol. III (1950), pp. 63-102; Everett E. Hagen, "The process of economic development", *Economic Development and Cultural Change*, vol. V, (1957), pp. 193-215; Simon Kuznets, "Toward a theory of economic growth", in Robert Lekachman (ed.), *National Policy for Economic Welfare at Home and Abroad* (Garden City, Doubleday, 1955).

³ Saul M. Katz, *A Systems Approach to Development Administration*, Papers in Comparative Public Administration, Special Series No. 6 (Washington, D.C., American Society for Public Administration, 1965), pp. 4-10.

mobilize, allocate and combine the actions that are technically needed to achieve development objectives. These needs are technical in the sense that scientific and professional knowledge prescribes detailed procedures for executing given actions to satisfy them. Opinions as to what particular actions are technically necessary for development tend to vary with the professional background and experience of the technician. A review of national development theory and practice suggests five groups of such needs: skilled manpower; financing; logistics of supplies and information; individual and group participation, and legitimated power to enforce decisions.⁴

The body of traditional public administration knowledge and experience identifies similar technical needs for the achievement of government policies and objectives, although not always in the same terms. Three of these technical needs have similar names; manpower for staffing; finances for budgeting, and arrangements for procuring and distributing supplies and for transmitting instructions, reports and statistics. The other two technical needs, while stated in somewhat different terms, are readily discernible. Participation in government decision making and commitment to its actions are sought from employees, clients and the public through a variety of arrangements. There are also procedures for enforcing government decisions by education, persuasion and the use of positive and negative sanctions, including physical force.⁴

Capability thus involves the availability of facilities and procedures to perform the technically necessary development activities. For example, if financial capital is to be available when and where it is needed, there has to be an interrelated group of organizations such as banks of various kinds, tax collection and disbursement agencies, fiscal and monetary policy guidance bodies and similar organizations. There has to be an established set of procedures for dealing with the financial flows and some means of guiding the whole process to contribute to the financial needs of national development. Similarly this is necessary for other technical needs such as manpower, logistics, participation and power to enforce decisions. It is readily evident that appraisal of such capability involves an interdisciplinary combination of economic, social and political behaviour into a coherent and dynamic whole.

A systems framework

Administrative capability for development may be seen more clearly in systems terms. A systems approach suggests a way of ordering a large number of complexly interrelated elements. Administrative capability would, thus, be a set of characteristics of development systems, and appraisal could be made in terms of these characteristics.

A systems perspective is concerned with providing a coherent framework for describing general relationships of the empirical world as a unitary whole. It makes it feasible to understand and deal with devel-

⁴ *Ibid.*, pp. 13-20.

opment in its physical, economic, social and political aspects and build them into a coherent and purposive whole. It is not something brand new, but rather a way of looking at empirical reality as consisting of groups of relevant component parts in dynamic relationship.

The term "systems" is generally used by social scientists to refer to an assemblage of components (characteristics of individuals or of groups of individuals) that have an ordered pattern of interrelationships. They have a recurrent pattern of interaction that is interdependent or complementary with respect to some common purpose or function and which is thus separated or "bounded" from the rest of the environment. To sum up, a system involves a set of identifiable elements or components; these system-components have interrelationships; the relationships have consequences; these consequences have further consequences (including the future set of interrelationships), and both sets of consequences have effects on the performance of the system.⁵

The systems approach may be used at different levels of aggregation and for various purposes. The best known use has been in operations research where it is applied to micro-economic units, such as enterprises and projects. A good deal of attention, however, has also been given to the study of society at a comprehensive or over-all level, starting from different disciplines but attempting to achieve an integrated approach. Of special interest for our purposes is the increasing amount of work on the application of a systems perspective to the empirical problems of administration in general and the administration of development in particular.⁶

Appraisal contours

Administrative capability, in systems terms, may be appraised in terms of three dimensions by means of what can be called "appraisal contours". The use of well-established study techniques is proposed.

Administrative capability, then, as a systems characteristic, depends upon whether there are systems to effect development goals, and how well these systems can function. A development system consists of the inter-related activities of one or more organizations to perform some desired development behaviour. These systems may be analysed in terms of the technical needs enumerated earlier and in terms of their national, sectoral or organizational focus. Administrative capability is evidenced by the ability or potential ability of these systems to achieve their desired performance. This ability, and its potentiality, is associated with the characteristics of the system.

⁵ Suggested by, but not the same as in, Anatol Rapport, "Some systems approaches to political theory", chap. 6 of *Varieties of Political Theory* (David Easton, ed.) (Englewood Cliffs, Prentice Hall, 1966), pp. 129-141.

⁶ For the application of a systems perspective to the administration of development, see Bertram M. Gross, *The Administration of Economic Development Planning; Principles and Fallacies* (United Nations publication, ST/TAO/M/32, 1966), also Katz, *op. cit.*

Systems analysis suggests three dimensions for appraising the capability of a development system. First, the ability to effect intended results may be assessed in terms of present or past performance. Secondly, this ability may be evaluated in the light of the system's linkages with the environment. Thirdly, capability, and particularly its potential appearance, may be analysed on the basis of the system structure, including the part of the structure concerned with system guidance.⁷

Methods of appraising each of these dimensions are suggested in the succeeding three sections, in terms of appraisal contours. These are combinations of information to sketch, for each dimension, the characteristics and indicators believed relevant to system capability. The number and complexity of the characteristics make a detailed mapping impractical, particularly since the concern here is with a general methodology rather than the methodology for a specific study.

Before proceeding to the three contours, some general comment on study techniques is in order. For field conditions the main techniques referred to are the well-established ones of document analysis, participant observation with systematic recording of data and interviewing, preferably with questionnaires and schedules. Where feasible, measurement, the assignment of numbers to objects and events in accordance with some rule, is preferred. Where available data or present knowledge do not permit this, recourse may be had to individual qualitative descriptions.⁸ General comments on other study techniques are made in the final section of the note.

II. APPRAISING PERFORMANCE

The way a development system functions in defining and achieving its goals may be called its performance. This, however, is even more involved than it might seem since goals and goal achievement affect and are affected by the image people have of the system and its activities.

Goal definition

Defining the goals of a development system is difficult and complex. Goals only imperfectly reflect underlying value patterns. They include both manifest and latent purposes and are expressed in a variety of ways.

Goals reflect the pattern of values and norms of the people involved in a system. The purposes of the system are instrumental for these value preferences. As these values, and their interpretations, change, the goals change. Different individuals and groups in the system may have different

⁷ For a stimulating discussion of structure and performance in administration, see Bertram M. Gross, *The State of the Nation: Social Systems Accounting* (New York, Barnes and Noble, 1966). As is evident, the terms, while similar to Gross's, are used in a slightly different manner.

⁸ See the relevant essays in Leon Festinger and Daniel Katz (ed.), *Research Methods in the Behavioural Science* (New York, Holt, 1953).

definitions of the system goals. In fact, goals may be the result of coalitions and bargaining, within the system and between the system and its environment. Our main concern here is with methods of defining existing goals and their trends.

Systems goals may be manifest or latent.⁹ *Manifest* goals are those that are the openly and explicitly defined purposes of the system. The nature and specificity of such definition depends on the particular system. The finance system may have as its manifest goal a 15 per cent annual increase in the capital investment in the country with, say, one-third of this going into the agricultural sector. An agricultural credit system, a subsystem of the finance system, may have as its manifest goal increasing the investment in agricultural production facilities on 100,000 farms by \$5 million in five years.

Latent goals are those that are not openly defined. They are the implicit or hidden purposes. Thus, the over-all financial systems noted above may have as a latent purpose the redistribution of income from certain groups in the economy, say a wealthy ethnic minority, to new native entrepreneurs. The agricultural credit system may have as a latent purpose the encouragement and support of small farmers. Latent goals may be conscious and deliberate or they may be unintended. In either case they are an important part of the system's goals.

Another axis in appraising performance goals is the manner in which they are expressed. Goals may be formally stated, informally acknowledged or only discernible in light of the operations being carried on. There is some congruence of this axis with the manifest-latent axis since latent goals are almost never formally expressed. However, the manner of expression is a distinct and important axis. In fact, it is the form of expression that suggests the techniques for studying the system's goals.¹⁰

Formal goals are those officially set out for the system and its component-units. These include the goals and targets of development plans, laws, executive decrees and other legislation. They include objectives in official messages, budget statements and major speeches of influential leaders. They also include the aims and purposes of legislation such as those establishing and guiding governmental organizations, the so-called "organic laws". A definition of formal goals usually may be obtained by a study of the foregoing types of documents and records.

Informal goals are not formally stated but are none the less important in the minds of those directing the development system and its component units. They may, or may not, coincide with the formal goals. This needs to be determined. Probably the best way to do this is through inter-

⁹ The manifest-latent dichotomy is discussed at length in Robert Merton, *Social Theory and Social Structure* (Glencoe, Ill., The Free Press, 1957). For its use in development planning analysis, see John Friedmann, *Venezuela, from Doctrine to Dialogue* (Syracuse, New York, Syracuse University Press, 1965). Gross's preface to the book is particularly interesting.

¹⁰ See Charles Perrow, "Goals in complex organizations", *American Sociological Review* (Washington, D.C.), vol. 26, December 1961. I have divided Perrow's "official goals" into two parts, formal and informal.

viewing the second-level and lower-level administrators of the system and its organizational components. The interviewing may be a sample or preferably the whole universe which is usually not too large. Questionnaires need to be designed so that answers reveal major individual unit goals on a comparable basis, but do not endanger rapport with the informant officials.

Operational goals refer to those that officials will not discuss either because they are deliberately held secret or are simply not consciously recognized; nevertheless they are often essential to the analysis of a system's performance. For example, efficiency, in the sense of the input-output ratio, may become a high-priority goal in itself, or the protection of the interests of a particular group may have overriding importance. Operational goals may be inferred from directions and policy interpretations that are internal to the system and its component units. They are most often deduced from participant observations. They are also suggested by the structure and linkages of the system discussed in the following two sections.

DEFINITION OF SYSTEMS GOALS ALONG TWO AXES
AND SUGGESTED STUDY TECHNIQUES

<i>Formal</i>	<i>Informal</i>	<i>Operational</i>
<i>Manifest:</i> Analysis of national plans, legislation, official documents, major speeches	Informal statements, interviews	Participant-observation, content analysis of directives and internal policy interpretations
<i>Latent:</i> —	As above; participant-observation, content analysis	Analysis of structure and linkages

The table shows the two axes of goal definition and notes some of the study techniques. As has been suggested, there may not only be inconsistencies between cells in the table, but in each cell there may be differences between and within system component-units. No human system is monolithic with respect to goals. There is only more or less variation between organizations and individuals in the system. Some way may have to be found for weighting different goals so they may be conveniently aggregated. This will often be suggested by the relative influence and importance of the different individuals and groups holding the goals.

Goal achievement

Goal achievement is a comparison of current or past systems' achievement with goals. It is similar to what is often called organizational effectiveness.¹¹ Data on what the system is doing, or has done, need to be acquired and compared with the defined goals.

¹¹ James Price, *Organizational Effectiveness* (Homewood, Ill., Irwin, 1968).

Data on goal achievement can be obtained from documents, interviews and national development indicators. Documents include published reports and internal operating data from both the system and its component-units, and also from client groups. Interviews with system administrators and others can provide useful data on achievement. Statistical and other development indicators, such as annual investment, tax collections or number of engineers graduated annually, can also be very helpful.

Determining achievement is a difficult problem. Data may not be available at all. When they are available, it is often not in terms of the defined goals. Their reliability may be in question. And they almost always have to be carefully interpreted. Interviews with system administrators and clients can be particularly helpful in this connexion. They can be a source of data on achievement of latent goals and can be helpful in interpreting documentary information. Participant observation is also helpful in dealing with latent goal achievement.

Where goals seem contradictory, and where there is considerable uncertainty, achievement may have to be compared on alternative bases. That is, goal achievement may have to be stated as: if goal *a* is important, then *x* has been achieved; but if goal *b* is the guide, then *y* has been achieved.¹²

Performance contours

System performance includes a technical aspect and an institutionality or image aspect. Performance contours are concerned with measuring both aspects.

The technical aspect concerns the goal definition and goal achievement just discussed. The performance contour includes comparisons of defined goals with actual achievements on the several axes that have been discussed. There is, however, an additional aspect of performance that needs to be discussed.

Performance involves institutionality, the infusion of positive value towards the system by the society. That is, it is concerned with the image people have of the system. This involves favourable views of the system by those who provide support and authority, by clients outside the system, by other systems and by the environment in general. It also includes emotional as well as cognitive approval by the leaders and personnel within the system. The concept of image entails value-laden justifications which favourably relate the system to larger national conditions and aspirations.¹³

¹² See Jiri Nehnevahsa, "A working paper: methodological issues in institution-building research", an unpublished paper prepared for the Inter-University Research Program in Institution Building (University of Pittsburgh, 1964).

¹³ On institutionality, see the guiding concepts of the Inter-University Research Program in Institution Building, particularly Milton Esman and Hans Blaise, *Institution-Building Research: The Guiding Concepts* (University of Pittsburgh, February 1966). For the concept of image, see G. A. Miller, E. Galenter and

(Continued on next page)

Institutionality is expressed, and measurable, in several ways. The degree of ability of the study to survive and carry on its function is the first. The extent to which the system is able to persist in its goals in the face of changes in its environment is another way in which institutionality is expressed. Indirectly, it is reflected in the environmental linkages and system structure.¹⁴

The system's performance is a composite of the technical and institutionality aspects and thus includes values, norms and attitudinal and other states of being. As such, it is the basis for the performance contour which includes the various axes of measurement for both aspects.

III. APPRAISING ENVIRONMENTAL LINKAGES

A development system is related to its environment in a variety of ways, in addition to its performance. These environmental linkages enable it to operate, provide support, tie it to the larger society's values and norms and also include diffuse relationships.¹⁵ The environmental linkage contours involve gathering and combining data on four sets of linkage.

Enabling linkages

The enabling linkages are those that relate the development system to super-ordinate systems, organizations, groups and individuals. That is, those parts of the environment that control the allocation of authority and resources (but not the resources themselves) needed by the system for its operation. These linkages determine whether the system may be established and whether it will be permitted to continue once established.

The measure here is of the extent to which the system is able to justify its existence to super-ordinates. The axes of observations might include the system's degree of formal legitimation, how system boundaries are defined, and what kinds of resources it can legitimately receive and from whom. Appropriate data can usually be obtained through document analysis and interviews.

Supporting linkages

Supporting linkages provide the flows of resources necessary for continuing the system's activities. These include inputs of both human and material resources. Supporting linkages should also be construed

K. H. Pribram, *Plans and the Structure of Behavior* (New York, Holt, 1960), chap. 1. For a general discussion of the meaning of "image", see K. E. Boulding, *The Image: Knowledge and Life in Society* (Ann Arbor, Michigan, University of Michigan Press, 1956).

¹⁴ The use of environmental linkages is discussed in Esman and Blaise, *op. cit.*

¹⁵ For a discussion of the empirical determination of environmental linkages, see Nehnevahsa, *op. cit.*

to include the relationship of the system to other systems that compete for the same inputs.

The flow of material resources and their sources may be, more or less, determined from documents and observations. To a somewhat lesser extent, because of variation in kind and quality, this applies to human resources. Competitive and co-operative relationships are sometimes more difficult to ascertain this way. In all cases, interview techniques are helpful. In appraising these linkages some attention will need to be paid to their relative importance. One way of appraising this is by estimating what would happen if a particular flow relationship is increased or decreased in magnitude, or terminated. Competing relationships with other systems for resources may be observed in terms of the degree of functional complementarity with the competing system.

Normative linkages

Normative linkages specify the relationship with other systems, organizations and groups that institutionalize major social values and norms relevant to the system's operation. A development system explicitly and implicitly deals with major social values, what might be called ideology. This ideology is usually institutionalized in various other systems and groups such as political parties, religious organizations and various types of interest groups. There may be no enabling or functional linkages with these groups, but lack of an acceptable ideology may constitute a serious constraint on the system.

Observation of normative linkages may be in terms of congruence and importance. The first of these refers to the congruence of the system's ideology with that espoused by other systems and groups. The second is the degree of importance the society accords to the other system or group and its ideology. These kinds of linkages are difficult to ascertain; one way to do so is to approach them as possible constraints on system behaviour.

Diffuse linkages

The residual category of linkages is called diffuse linkages. Any environmental relationship that cannot be classified elsewhere will fit into this category. In particular, it includes generalized opposition or support in the society to the system and its activities. This is a difficult appraisal, but it may be put in terms of what sources of opposition and support there are, and why, and whether they are increasing (or decreasing) in effectiveness over time.

Linkage contours

The environmental linkage contours are composites of observations on the various linkages discussed above. These linkages take a variety of forms: transactions of resources and behaviour; constraints, or lack of

constraints, on system activities; and more general behavioural responses. Techniques for acquiring data on linkages have already been discussed under each of the types of linkages. However, they can also be appraised in terms of their effects on other system dimensions, as noted in the preceding sections on performance, and as will become evident in the following section on system structure.

IV. APPRAISING STRUCTURE

The ability of a system to achieve intended results is closely related to system structure. Four substructures, or parts of the system structure, are discussed in this section. Three of them, transformation, maintenance and adaptation are treated in the subsection that follows; the fourth substructure, for system guidance, has a special role in the system and is treated separately in the next subsection. The last subsection discusses structure contours. But first, a general comment on system structure.

The structure of a development system is composed of component-units and their, more or less, stable interrelationships. The component-units may be organizations, other kinds of groups, individuals or some combination of these, which co-operate for some common purposes. More specifically, it is the roles or characteristics or activities of these organizations and individuals, relevant to system purposes that constitute the component-units. Thus, a central bank, having a role in fiscal and marketing policy, is a part of the finance system. If, in addition, the bank has an important role providing economists for government service, then it is also a part of the government personnel system. The interrelationships are the stable patterned relationships between the component-units. Such relationships can take many forms all involving some transaction of energy. For example, they include the interchange of resources such as commodities or information bits; and human behavioural states, such as approval and support or antagonism and competition.

Substructures

The appraisal of system structure can be facilitated by viewing it as composed of a set of substructures. These are groups of component-units and their interrelationships that are discernible in accordance with some analytic rule. The most common basis is functional contribution to system behaviour. We identify four such substructures for appraisal purposes. Three of them, transformation, maintenance and adaptation, are discussed together here. The fourth, the substructure for guidance, has a special role in systems behaviour and is discussed in the following subsection.¹⁶

¹⁶ Adapted from the generic types of organizational subsystem discussed in Daniel Katz and Robert Kahn, *The Social Psychology of Organizations* (New York, Wiley, 1966).

The *transformation* substructure, sometimes called technical or conversion or production subsystem, is a major and central substructure in the system. It encompasses the system relationships concerned with the transformation of inputs into the system's performance-outputs. In economic production the conversion activities of individual units in the system are clear, for example, moulding clay into bowls or planting, weeding and harvesting rice. This substructure is equally identifiable in a finance system or a personnel training system. It is also present, although harder to identify, in a system whose purpose is to obtain widespread support and participation in development plan implementation. It is technical in the sense that it involves rationally determinable sets of input-output relationships, i.e., the application of fertilizer will have a generally predictable effect. This is, of course, a major characteristic of systems and a whole system is often categorized and classified on the basis of its technical transformation purposes, for example, finance, manpower or logistic systems.

The *maintenance* substructure is concerned with maintaining the patterned behaviour necessary to carry on the technical transformation activities. The substructure has two aspects, an internal one and an external one. Internally, it is concerned with maintaining the stability and continuity of the system. This involves the internal allocation of resources such as finances and supplies in a way that will preserve the existing pattern of relationships. It includes stabilizing system behaviour by selective recruitment and indoctrination of system actors with the system's norms. Its external aspect is in its being the major system substructure for dealing with environmental linkages. It is concerned with the processing of inputs and the disposal of outputs. Sometimes it is divided into a number of separate substructures for the different functions as: a maintenance substructure limited to maintaining or continuing existing behavioural relationships; one or more procurement substructures for obtaining and distributing inputs; one or more disposal substructures for arranging the flows of system outputs.

The *adaptation* substructure is one of the less obvious and more often inadequate, parts of the system structure. This substructure is concerned with survival of the system in the environment. While the maintenance substructure has as its major emphasis the internal stability and survival of the system, the adaptative substructure is primarily concerned with the external continuity and survival of the system and the adaptation (internal and external) necessary to ensure this survival. It includes planning and appraisal and research and development staffs, and public relations offices to cope with a changing environment.

The foregoing brief descriptions highlight the likelihood of difference, disagreements and conflict between the three substructures. Personnel in the transformation substructure tend to view the whole system as a production structure concerned with the technical relationships of providing output. The maintenance substructure view of the system emphasizes internal stability, continuity and survival. The adaptation substructure sees the system as particularly concerned with external continuity, con-

tribution and survival in a changing environment. This kind of conflict has been one of the traditional concerns of administration, and may be approached through consideration of the guidance substructure.

The guidance substructure

Every purposive social system requires management if it is to achieve its defined purposes. System activities have to be directed and coordinated, problems resolved and conflicts managed. The guidance substructure or guidance cluster fulfils this special role.¹⁷ It is this substructure that provides for the functions of decision making, specification, communication and control.¹⁸

Decision making refers to the structure of points or nodes in the system where decisions are made and legitimated. This is sometimes identified as the hierarchy and reflects the distribution of decision-making power in the system. Legitimacy refers to the general acceptance and approval of decision-making behaviour within the system and by those outside the system.

Specification is associated with the decision making, but can be considered a separate function. When decisions are made they need to specify, in detail, what the set of targets is and what units will be responsible for taking what action. Detailed instructions, as to priorities, timing, constraints, resources and similar elements, must be worked out in a consistent and coherent manner.

Communication involves providing the common understanding of the policies, programmes and predispositions for action between decision nodes and action centres. It involves the transmission of information, but also much more. The communication network is concerned with establishing a mutuality of interests, objectives and predispositions to work together to achieve common goals along the line of the decisions and programmes. It also provides multidirectional flows of information necessary for the other three functions.

Control is concerned with ensuring that system performance is in conformity with the decisions and specifications, within allowable limits of variation. It involves the availability of data on actual performance, a comparison of this performance with decision standards, and a facility for taking and enforcing corrective action.

These four managerial functions may be carried on by the same substructure or, as is more often the case, there may be specialized parts

¹⁷ See Gross, *State of the Nation: Social Systems Accounting* for a discussion of the guidance cluster.

¹⁸ See, for illustration and support data, W. Lloyd Warner and J. O. Law, *The Social System of the Modern Factory* (New Haven, Yale, 1947). The idea of the importance of the division of labour and specialization goes back to Adam Smith.

in substructure. In any case, they must be carried on if the system is to achieve its purposes, and they must be carried on consistently and continuously.

Structure contours

Structure contours identify, describe and measure the characteristics of the system structure and its substructures. They are, thus, important for appraisal. The four substructures are treated together because of space limitations and because they are, in any case, closely related.

The identification of system structure, and its substructures, is the delineation of the functional relationships within the system. This includes, as a first step, the determination as to whether there is a functioning substructure. That is, whether component-units are missing or relationships are not existent with respect to particular functions.

Study techniques for identification often involve charting the flow paths in the system for each of the substructures identified above. For the technical, maintenance and adaptation substructures this would involve tracing movements of resources and behavioural states with detection of gaps and bottle-necks. For the guidance substructure, the decision paths might be mapped, specification channels marked and communication and control networks explored. Critical incident studies are helpful in confirming (or denying) estimates of flow paths, particularly for the guidance substructure.

The *characteristics* of system structure and substructure include a wide variety of behaviour. There will be problems of relevancy and data availability in selecting them for study. General rules of relevancy are suggested by the foregoing discussion of the substructural purposes. Others will be suggested by the body of available knowledge and experience. Specific study techniques will vary depending on the particular characteristics being analysed, but in general they will include the three types of techniques mentioned earlier of document analysis, interviews and participant observation. Study of relationships may be facilitated by matrices and network analysis.

Appraisal of system structure and substructures follows from the preceding comments. Clearly, the absence of substructures to carry on internal system activities means a lack of structural capability. However, even if the component-units and relationships are present they may not have a high degree of capability.

The lack or inadequacy of structure capability may be associated with particular characteristics. Empirical studies of organizational systems suggest some characteristics associated with structural capability. For example, division of labour and specialization, where the system is large enough, are generally associated with better performance of most substructures. There are also structural characteristics associated with performance of particular systems. For example, a higher degree of performance seems present when mechanization is associated with transforma-

tion substructures;¹⁹ and continuous assembly of output with maintenance substructures.²⁰

For the guidance substructure, a high degree of legitimacy seems to help decision making,²¹ as do a clear description of authority and responsibility in specification,²² a high degree of multidirectional vertical and horizontal movement in communication,²³ and a high degree of sanctions (positive and negative) for control.²⁴

Our concern with structural appraisal, however, needs to be related to the capability of the over-all system, and we now turn to that.

V. APPRAISING THE SYSTEM

The empirical appraisal of administrative capability for development is a complex task. It must consider the system as a whole, as well as study its parts. Such appraisal involves troublesome methodological problems. In particular, it should be seen as part of a long-term process for improving development implementation that involves a strategy of successive approximations.

Administrative capability

Administrative capability, as it has been suggested in this note, is the ability to achieve intended purpose through development systems. This ability may be actual or potential, and can be appraised through the characteristics of the several dimensions of the system. However, it must also be considered from the viewpoint of the composite system. The figure lists the sets of characteristics for each of the three dimensions and represents their interconnexions.

The *actual ability* is indicated by current and past system performance. However, performance characteristics reflect the characteristics of the structure and linkages of the system. The performance dimension may be seen as the dependent variable and the other two dimensions as the independent variables, keeping in mind, at the same time, that changes in this dependent variable also have effects on the other dimensions.

¹⁹ Supporting data can be found in Samuel Hollander, *The Sources of Increased Efficiency* (Cambridge, Mass., MIT, 1965). This reference and those in the next five foot-notes plus many additional references for the stated characteristics in this paragraph as well as additional characteristics, may be found in Price, op. cit.

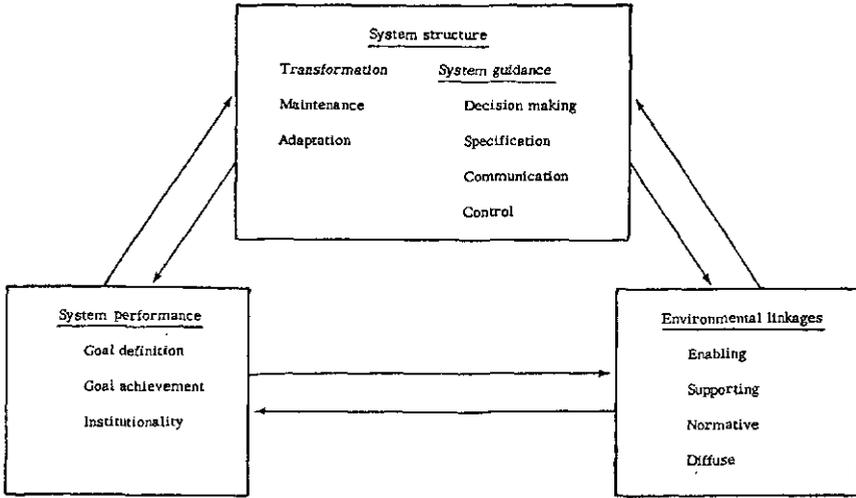
²⁰ See, for illustration, A. K. Rice and E. L. Trist, "Institutional and sub-institutional determinants of change in labour turnover", *Human Relations* (London), vol. 5, 1952.

²¹ See, for illustration, Peter Blau, *The Dynamics of Bureaucracy* (Chicago, University of Chicago Press, 1955).

²² This would seem to be supported by Herbert Kaufmann, *The Forest Ranger* (Baltimore, Maryland, Johns Hopkins Press, 1960).

²³ *Ibid.*

²⁴ See, for illustration data, Kuo Heng Sheh, *China Enters the Machine Age* (Cambridge, Mass., Harvard University Press, 1944).



Representation of the dimensions of a development system and their interconnexions

Potential ability is even more difficult to appraise. Current and past performance does not directly indicate future ability. Some extrapolation has to be made. A measurable basis for this is the association of performance characteristics with relevant characteristics of the other dimensions. These characteristics have been identified and techniques for their empirical appraisal have been noted in the preceding sections. The rules for determining such relevancy are based on a framework of development systems analysis and organizational systems analysis on the latter of which empirical knowledge seems more available. However, the interconnexions or associations between dimension characteristics are also important.

Administrative capability is the expression of a composite of the various dimensional appraisal characteristics. The complex multidirectional interconnexions between the characteristics needs to be identified and, if possible, measured. The characteristics then have to be selected and combined into a meaningful *gestalt* of performance, linkages and structure, including guidance. This is difficult since the administration of development is a subject-field in which knowledge is limited and uncertainty great. As has already been noted, a multitude of factors are involved in development, including individual motives, institutionalized codes of conduct and social value patterns. Furthermore, these are complexly interrelated in a variety of ways. The difficulties are complicated by the subtlety of some of the phenomena, for example, of leadership and morale. All this points up the methodological problems.

Methodological problems

There are some troublesome methodological problems in empirically appraising administrative capability for development, particularly its

potential. Some of these have already been commented on. Three more need to be noted: national differences, the time horizon and data problems. Some attention is also given to over-all system study techniques.

National differences in culture and technology can result in variations in the characteristics by which a system is appraised. Every country has distinctive ways of carrying on particular activities—its “national style”—and sometimes they differ markedly from those of other countries. This has been identified by Merton as functional substitutability and he points out that a given function may be fulfilled in more than one way. Thus, the presence or absence of part of a system structure or linkage may be misleading unless there is some assurance that, first, it fulfils the particular function and, secondly, there is no other system segment, or other system, that fulfils or can fulfil that function.²⁵ This increases the difficulty of making comparisons between countries, and also between time periods. It raises considerable question about the validity of using normative criteria developed in other countries, or for other times, without careful attention to functional substitutability.

The *time horizon* also entails other problems. For example, in constructing performance contours, there are difficulties in matching achievements against the appropriate defined goals since both goals and achievements may change over time with the latter tending to lag behind the appropriate goals. It is also very difficult to extrapolate given goal patterns into the future with any degree of reliability. Yet this may be necessary in evaluating the other system dimensions for which the performance contours act as a dependent variable. These other dimensions may also change, more or less, over time.

Data problems further complicate the empirical appraisal of administrative capability. This is indicated by the national differences and time problems already noted. In addition, there are almost always problems of inadequacies and uncertainties of data. Information is not readily available on many aspects of development system operations, for example, on values and attitudes, or they are not available in a form useful for appraisal. Furthermore, there are often uncertainties with respect to the data. Observations on values, for example, are easily affected by subjective considerations of both the informant and the observer.

The *study techniques* for appraising system dimension characteristics, the dimensional axes, have been discussed earlier. Here we are concerned with study techniques that combine data on characteristics to give more composite views of the system. As has been indicated, there are a variety of problems in obtaining reliable and meaningful data. At the present state of knowledge, regression analysis probably provides the most convenient technique for analysing the associations between the dimensional axes particularly including performance characteristics. The regression equations can then be extrapolated on the basis of assumptions or predictions about the presence or absence of certain characteristics. This can provide a rough guide in appraising potential capability.

²⁵ Merton, *op. cit.*

As knowledge increases and methodological problems are resolved, more sophisticated techniques can be used. For instance, sets of equations in various forms to simulate the system, the so-called machine simulation models may be used. This permits testing the effects of changes in variables and parameters on the functioning of the simulated system. Such manipulation may give insight into appraisal and redesign of the real-world system without the time and expense of direct experimentation. Its usefulness depends on how meaningfully the simulation model reflects the real-world system. Caution should be exercised to make sure the technique used is appropriate to the data. Sophisticated techniques used on crude data may result in a loss of time and effort. Crude techniques used on sophisticated data may result in a loss of knowledge and understanding. In all cases, the contribution to appraisal should be one of the important criteria in selecting and combining study techniques.

Strategy for appraisal

Appraisal is an essential part of the effort to increase administrative capability for development. As such, it should take special cognizance of system change and fit into the strategy of successive approximations for improving development systems.

Appraisal is part of the larger effort to redesign and improve the administration of the development system. Appraisal identifies deficiencies in the system and suggests reasons for them. On this basis, improvements can be designed to change development system operation for the better. This suggests the importance of the dynamics of system change.

The system must be seen as being in a process of change. That the dimensions of the system and their characteristics are changing over time has already been pointed out. These changes may be more or less rapid, but they are taking place and appraisal needs to take cognizance of this. It means that, to the extent feasible, the appraisal should be dynamic, that is, attempt to discern and plot the changes. Characteristics should be described and measured over time. In the beginning this may only mean comparative static analysis, i.e., observing the same characteristics at regular intervals to identify comparative changes. As feasible, the appraisal should be put in more dynamic terms.

The foregoing suggests that appraisal should be a continuing activity, that is, a part of a system improvement strategy of successive approximations, the first approximation involving appraisal based on the best available information and knowledge and using this to design immediate improvement action within existing environmental constraints, at the same time taking steps to improve appraisal and design and modify constraints; the second approximation, following from the first, and using new information and knowledge to improve appraisals and to design better action within the now somewhat modified environment, correcting mistakes made in the first approximations, and taking preparatory steps for the third approximation; and so on.

It is through this means that appraisal can best contribute to the slow and difficult work of improving the administrative capability for development.

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