Chapter XVII

Programing Units in Operating Organizations

> . . . A journey of a thousand miles begins with one step.—Chinese proverb.

THE FUNCTION AND ROLE OF PROGRAMING UNITS

A PROGRAMING unit in an operating ministry, department or agency is essentially a microcosm of a central planning agency. This is perhaps an oversimplification, but it is a basically accurate and useful analogy. For a programing unit's relations with the operating units and the head of its own organization are fundamentally similar to, and raise the same issues as, a central planning agency's relations with a government's operating organizations and the national political authority. And while the relationship between a central planning agency and a programming unit is necessarily complementary, their respective functions differ more in degree than in substance.

The primary functions of a programing unit include (1) combining of the projects and proposals of its operating organization into sectoral or subsectoral programs for medium- and short-term (including annual) periods, either on a national or regional basis; (2) submitting and defending them before central planning and budgetary authorities;[1] (3) recommending policies, instruments of economic policy, administrative or other measures and machinery required to implement the programs of its organization; (4) reviewing and evaluating its organization's projects and programs; and (5) co-ordinating the or-

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[1] Unlike a national government, an operating ministry, department or agency is generally too small, and qualified staff is too scarce, to permit programing to be separated from budgeting. Moreover, if programing and budgeting are combined within operating organizations, co-ordination between a central planning agency and a central budgetary authority is likely to be facilitated.

ganization's demand for, and the use of, outside technical skills, including consultants and consulting firms.

In addition, a programing unit must undertake *ad hoc* or special assignments, such as drafting loan applications for projects, preparing project reports for foreign aid missions and international agencies, or assessing the impact of a specific project or program on various elements, such as transport facilities, labor supply or administrative capacity. To permit the preparation of the required studies and reports, a programing unit must collect, record, process and analyze relevant statistical and other data obtained from operating units in its organization and elsewhere. It must also study ways of improving forms of organization, methods, standards and techniques for the efficient preparation and execution of projects and programs in its organization.

A programing unit therefore occupies a strategic position in a country's planning machinery. It should be the main channel of communication between a central planning agency and an operating organization. It should receive information from a central planning agency about planning objectives and directives which will permit its operating organization to prepare projects and programs for incorporation into national and regional plans. It must, in turn, transmit to the central planning agency information which the planning agency requires to formulate over-all plans, including the sector and subsector programs for its organization; and it must provide periodic progress reports on these programs to a central planning agency for inclusion into comprehensive reports covering the progress of national or regional plans. A sectoral or subsectoral program prepared by a programing unit is necessarily tentative until the central planning agency reconciles it with programs submitted by other operating organizations, approved plan targets and available resources. While the reconciliation of sector programs and their integration in an over-all plan is a central planning agency's responsibility, it is desirable that programing units participate in the process in which the final sectoral programs are evolved as part of the "planning-from-below" procedure already described.

To carry out these activities, close working relations must be established between programing units and a central planning agency. This is obvious enough, but difficult to achieve. Where a central planning agency has "vertical" or sectoral sections, one of these may be the point of contact. Frequently, more than one section in a central planning agency may need the same or related information from an operating

organization. Unless co-ordination within the planning agency works better than it does in most, two or more sections of the agency are likely to request similar information from a programing unit. Moreover, since co-ordination within an operating organization may be no better, and may even be worse, than in a central planning agency, requests for data may be addressed directly to an operating unit in an organization without the knowledge of its programing unit. Deficiencies of co-ordination are common impediments to good working relationships between a central planning agency and programing units.

A programing unit should not prepare or execute projects, since these are functions of operating units. But while each operating unit should prepare and carry out its own projects, the programing unit has the responsibility for setting up suitable forms and standards for operating units to follow. These should provide, among other things, for (1) feasibility and engineering studies, and cost-benefit analyses; (2) the identification of major "milestones" in executing projects which permit the setting of realistic work schedules and the phasing of a project with other related ones; (3) building into the project suitable means for determining, on an up-to-date basis, unit and other costs, as well as physical progress during the execution of the project; (4) assigning responsibility for each task; (5) training programs required to produce personnel qualified to operate a project when it is completed; and (6) the creation of a suitable organization and management cadre to run the finished project.

It would be difficult to find many operating organizations in the governments of less developed countries which successfully manage some of these tasks; it might well be impossible to locate any which carry out all of them with reasonable efficiency. In many countries,

> the planning of development programs limps because some operating agencies fail to enter effectively into the process. The project proposals they present are so inadequately analyzed or prepared that it is impossible to determine the cost of each project, the benefits it will yield or the time it will require to execute.[2]

In order to obtain budgetary allocations for their projects and programs, operating agencies sometimes produce estimates of their financial requirement which have little value because they are not sufficiently based on physical programing of each project. In Burma, for example, the Ministry of National Planning found that

[2] Hagen, Everett (ed). *Planning Economic Development*, p. 353.

executing agencies have their operations so exceedingly oriented to financial planning that the physical aspects of project implementation are relegated to a minor position. The ways to overcome this are to insist on complete project proposals, cost-benefit studies, through assimilation of knowledge of physical inputs required accompanied by a schedule of sources of these inputs, and the formulation of realistic work-programmes.[3]

The need for similar reform is equally great in most less developed countries.

Because the work of a programing unit transcends organization lines in an operating organization, and because it must transmit directives to which operating units must conform in preparing and executing their projects, it is desirable that a programing unit be established as a staff unit headed by a high-ranking official who reports directly to the minister or head of an agency. As with a central planning agency, it is important that the head of the programing unit have the confidence of his minister or head of agency. The operating organization should also have a programing committee, made up of the minister or head of agency, his second in command and the chiefs of each of the operating divisions in the organization. The programing committee should be the planning group for the operating organization and, as such, should review policy proposals which the programing unit has prepared for the consideration of the minister or head of agency and, where appropriate, for the cabinet or planning committee of the cabinet. The programing committee should also endeavor to evolve means for achieving economy, avoiding waste and insuring efficient execution of projects. The programing unit should act as the secretariat of the programing committee and the head of the programing unit should be the committee's secretary.

It is also frequently desirable for a ministry or agency to have an advisory body composed of persons outside the organization to participate and help in the process of preparing and executing an organization's program.[4] For example, an advisory body to a ministry of agriculture would be composed of representatives of the important producer groups and regions in a country's agricultural sector. An

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[3] Burma. Ministry of National Planning. *Second Four-Year Plan for the Union of Burma* (1961–62 to 1964–65), p. 88.

[4] This committee would differ from a working party composed of interested individuals within a government sometimes set up by a central planning agency to formulate a sectoral program.

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advisory body's size should be determined on the basis of compromise. The ideal should be to obtain a group which is neither too large to be effective nor too small to be unrepresentative. The advisory body not only should prepare policy suggestions for the head of an operating organization, but should also be the sounding board for contemplated policies. It should perform an educational function as well, since the head of an operating organization should call upon it for co-operation in disseminating information about adopted policy. The advisory body's suggestions should be studied by the programing unit, which should also constitute the advisory body's secretariat. The head of the programing unit should be the secretary of the advisory body.

The size of the staff of a programing unit will depend on several factors, the two most important being the range of its organization's activities and the attitude of its head toward the work to be done. In most ministries and agencies, one programing unit usually suffices; but if a ministry has jurisdiction over two or more major sectors of an economy, for instance, industry and mining or industry and commerce, it may be advisable to set up separate programing units for each sector.[5] But even if there is only one programing unit, its staff need not be large if it is prepared to delegate as much work as possible to the operating units. A programing unit should avoid taking over operating functions for the same reasons that a central planning agency should. If its staff is to be kept small, it is desirable that it be organized in two loose, flexible groups or sections instead of in a rigid internal organization with more sections. One group or section should be concerned with research, surveys, studies and statistical collection and analysis. The second group or section should be concerned with project evaluation, the preparation of sectoral or subsectoral programs, submission of the operating organization's program for inclusion in government plans and budgets, reporting on the progress of project and program execution and co-ordination of technical skills within the organization.

The staff of a programing unit must be familiar with techniques of project appraisal and sector programing. These techniques require both economic and technical knowledge. Engineers (or other technicians) without economic training or economists without technical background are both, by themselves, unsuited to the task of project evaluation and sector programing. It is possible to include both

[5] United Nations Center for Industrial Development. *Organizational Aspects of Planning*, p. 38.

economists and technicians in a programing unit and this is sometimes done; but it is preferable, of course, to staff a programing unit with individuals who have both the required technical and economic knowledge. While economists generally make better central planners than technicians do, experience shows that engineers, agronomists or other technicians who have acquired some competency in economic techniques are more suitable than economists for project appraisal and sector programing. One authority, with considerable experience in Latin America, points out that

> actual programming work in Latin America has demonstrated that it is very difficult to become a good specialist in sectorial programming without a minimum technological knowledge of the field. . . . It is easier to train people possessing a technical background with some knowledge of economics to be good sectorial programmers than it is to provide economists with the minimum technical education necessary.[6]

THE ESTABLISHMENT OF PROGRAMING UNITS

In the USSR, every ministry and department in the Central Government and the republics has its own programing division which prepares draft plans for submission to the appropriate authorities. But as already indicated, in the governments of most less developed countries with central planning agencies, programing units in ministries, departments and agencies are unusual. In countries where these units exist, they generally have not been established for all or most operating organizations. In the former Federation of Malaya, for example, a few federal ministries have programing units, but most have only a development officer who acts as a channel of communication between the central planning agency and his ministry and also tries to carry out the programing function as best he can. Ceylon established Planning Committees in its ministries to prepare sector programs and to coordinate the implementation of projects in each ministry's program. These committees have not proved to be effective.

But in most countries not even a development officer or a planning committee exists in operating organizations, and central planning

⁶ Ahumada, Jorge. "Problems of Specialized Training Requirements as Viewed from Inside a Country in Process of Economic Development," p. 16.

agencies have to deal separately with each operating unit in each ministry and agency. This system of operation may produce some results, but it is far from satisfactory. In Colombia, for instance,

> a great effort has been made by the planning bodies [in the central government] to promote and encourage planning activities in the executive public bodies, i.e., Ministries, autonomous agencies, and local government units, with some measure of success. In this respect the central planning organization has had a moderately successful 'demonstration effect' on other public bodies. The day is still far off, however, when the central planning bodies will play their proper role of merely guiding, analyzing, and coordinating the plans prepared by the various executive government agencies instead of having to prepare themselves much of the detailed plans of these agencies.[7]

The need for programing units is now well understood. Thus, the United Nations, after pointing out that programing units "act as channels through which the planning function permeates the executive ministries," admonishes:

> It will be advisable to establish them [i.e., programing units] at an early stage of the planning activity and to begin with the most important ministries. . . .[8]

Planners frequently urge that operating organizations establish programing units. Thus, Pakistan's First Five Year Plan counseled that ministries establish such units:

> The preparation of programmes and schemes in the different economic and social fields is and should be the responsibility of the administrative ministries concerned; for this purpose, each ministry should have a planning unit free to devote its whole time to the task.[9]

Ghana's draft Seven-Year Plan also called for the creation of programing units. In the Philippines, the Program Implementation Agency proposed the creation of programing units in each department and agency which would be staffed with individuals trained in economic analysis. Burma's central planners also exhorted ministries to establish viable programing units.

[7] Columbia University School of Law. *Public International Development Financing in Colombia,* p. 44.
[8] United Nations Center for Industrial Development. *Organizational Aspects of Planning,* p. 38.
[9] Pakistan. National Planning Board. *First Five Year Plan, 1955–1960,* p. 98.

> In addition to the central planning organization there are or should
> be planning units in the Administrative Ministries. . . . The qual-
> ity of the comprehensive plan depends on the quality of the basic
> sectoral plans. If the Administrative Ministries and executing
> agencies are deficient in formulation of plans for their respective
> fields the plan drawn up by the central planning agency may be
> unrealistic. It is essential for each Administrative Ministry to have
> a planning unit of its own. At present some of these Ministries have
> planning sections in name but are not staffed by technicians
> qualified to discharge the functions of these sections.[10]

But usually nothing comes of these exhortations. Where programing
units have been established, as much in Afghanistan, El Salvador, Syria
and the UAR as in Burma, they rarely function as they should and in
co-operation with their central planning agencies; nor are their staffs
likely to be familiar with the requisite techniques for sound project
evaluation and sector programing. Frequently, they are understaffed
and headed by junior officials or are established at too low a level in
their organizations. In many cases, their functions are not defined with
sufficient precision to permit them to carry them out effectively.

As mentioned earlier, the lack of viable programing units in the
governments of less developed countries is at least partly due to the low
priority assigned to them by planners when a country begins to plan.
But even after central planners recognize the need for programing units
and urge them upon operating organizations, progress in establishing
them is usually painfully slow. In Pakistan, for example, only a few
ministries, departments and agencies had taken the necessary measures
to establish programing units two years after the Government,
prompted by the Planning Commission, had issued directives for their
establishment. Most departments and agencies eventually created
programing units, but only three or four were reasonably effective
several years afterward.

There are several reasons for the frequent and often extended delays
in the establishment of workable programing units after central plan-
ning agencies urge that they be set up. Experience in Pakistan and
elsewhere has revealed that few old-line ministries, departments or
agencies have the technical capacity to establish and staff programing
units. In many cases, the cause lies deeper than the lack of technical
capacity. Within traditional ministries, a variety of organizational,

[10] Burma. Ministry of National Planning. *Second Four-Year Plan for the Union of
Burma* (1961–62 to 1964–65), p. 87.

procedural and bureaucratic impediments to improved co-ordination, which is basic to the programing and planning process, generally interferes with the establishment and activity of effective programing units. Together, technical and administrative inadequacy constitute too great a hurdle for most old-line operating organizations to take without outside help.

There is also uncertainty about a central planning agency's role in establishing programing units. It is widely supposed that it is a planning agency's responsibility to help operating organizations establish programing units. Thus, the Organization of American States (OAS) has suggested that

> the central planning agency can be of crucial importance in assisting the operating departments in the establishment of their planning unit. . . . In countries where there is a healthy climate of mutual trust, a temporary exchange of technicians between operating ministries and the planning agency could help in the establishment of the planning units. It would also materially benefit the technicians of the central planning agency.[11]

But the fact is that few central planning agencies are in position to help establish programing units for operating organizations. Most planning agencies are themselves so understaffed and overworked that they cannot, and in practice almost never, assume this responsibility. Central planners are also generally inadequately equipped for this task because the talent required for evaluating projects and preparing sector programs "from-the-ground-up" is different from that required for aggregative planning. Of course, this does not mean that central planners have nothing to teach programers; rather, it implies that the kind of technical assistance needed to help establish programing units is not customarily found in central planning agencies. Moreover, even when a central planning agency has qualified technicians who are available to help set up programing units, they are likely to encounter suspicion if not open hostility in traditional ministries, where they have sometimes been looked upon as interlopers whose primary purpose it is to establish outposts of the central planning agency in operating organizations in order to meddle in operations.

In countries where, as the OAS says, "there is a healthy climate of mutual trust" between a central planning agency and operating organi-

[11] OAS. Inter-American Economic and Social Council, Special Committee I, etc. *Programming for Development: Five Urgent Problems*, p. 6.

zations, and the planning agency has the necessary staff, there is, of course, no good reason why a central planning agency should not assist operating organizations in establishing programing units. But where a central planning agency lacks the personnel or is likely to have to contend with opposition from operating organizations—and experience shows one or both factors prevail in most countries—it would be best if technical assistance for establishing programing units come from other sources than a central planning agency.

This brings into question the current practice of attaching foreign or international planning advisers, whether individuals or groups, to central planning agencies. Because of this association, they often find it difficult to advise operating ministries and agencies, either because the head of a central planning agency is opposed to it or because operating organizations tend to consider the advisers as partisans of a central planning agency. A more flexible arrangement would be for foreign or international planning advisers to be part of a resident mission to a government in general, to its chief executive or a training institute. This would allow them to assist both a central planning agency and operating organizations as circumstances required, without any semblance of partiality. If training institutes exist, or were established for the purpose, programing staffs could be trained in project evaluation and sector programing, as well as in planning techniques, in numbers far exceeding those who could be trained by being attached for a time to a central planning agency. Attempts to rationalize current public investment, through the "inventory technique" previously described, also could provide a means for establishing programing units and for in-service training of personnel to operate them effectively.

SUMMARY AND CONCLUSIONS

A programing unit in an operating organization is essentially a miniature central planning agency functioning within a more limited scope. Its relations with operating units and the head of its own organization are much like those of a central planning agency's with operating organizations and a nation's political leaders; and while the relationship between a central planning agency and a programing unit is necessarily complementary, their respective functions differ more in degree than in substance. A programing unit's main functions are to prepare sector and subsector programs for its organization for submis-

sion to both central planning and budgetary authorities, to recommend measures for implementing its organization's plans, to prepare periodic reports on the progress of projects and programs, and to co-ordinate technical assistance activities.

A programing unit occupies a crucial position in a country's planning apparatus. It should be the main channel of communication between a central planning agency and an operating organization. To establish the two-way flow of information required for this purpose, close working relations must be maintained between programing units and a central planning agency. This is frequently difficult to achieve. Deficiencies of co-ordination are common impediments to smooth working relations between a central planning agency and programing units.

Programing units should not prepare or execute projects; this is a job for operating units. Programing units should, however, set up forms and standards which operating units should follow—and there is great need for improved standards of project preparation and execution.

As with a central planning agency, it is important that a programing unit be set up as a staff unit closely associated with the head of an operating organization and that the official in charge of the unit have the confidence of the head of the organization. A programing committee composed of the highest officials of the operating organization should also be established to help formulate planning policy. The programing unit should act as the committee's secretariat, with the head of the programing unit serving as the committee's secretary. It is also frequently desirable for an operating organization to have an advisory body composed of outsiders to recommend policies and otherwise to assist in preparing and executing an organization's program. The advisory body's suggestions should be studied by the programing unit, which should also constitute the advisory body's secretariat. The head of the programing unit should be the secretary of the advisory body.

Generally, the staff of a programing unit can be kept small if it delegates as much work as possible to operating units. A desirable way to organize a programing unit is to set up two loose, flexible groups or sections. One of these should be concerned with general analysis, research and statistics; the second should be concerned with programing, co-ordination, progress reporting and evaluation. While economists generally make better central planners than specialists do, experience shows that engineers, agronomists or other technicians who have

acquired some competency in economic techniques are more suitable than economists for working on project appraisal and sector programing.

The lack of viable programing units in less developed nations is at least partly explained by the low priority they usually have for planners when a country begins to plan. Another reason is the mistaken belief that a planning agency should help establish programing units. Most planning agencies are too undermanned and overburdened to undertake the task, and moreover, central planners generally do not have the technical competence required to evaluate projects and prepare sector programs "from-the-bottom-up." Finally, even when a planning agency has qualified technicians available, they are likely to meet with opposition in operating organizations. It is generally desirable, therefore, that technical assistance for establishing programing units come from sources other than a central planning agency.