

THE HOLISTIC PERSPECTIVE IN THE EVALUATION OF PUBLIC PROGRAMS: A CONCEPTUAL FRAMEWORK

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Abstract: Public programs should be considered as components of the overall societal welfare system in which social, economic, political, and biophysical factors interact. Evaluation of the effectiveness of public programs should recognize that they are an integral part of the overall societal welfare system. Evaluating programs as individual entities with specific objectives is not likely to yield information of critical importance to public decision-makers. With the continuing fiscal restraints, there is a need for strategic information on the overall performance of public programs. Existing techniques for broadening the focus of evaluations are not sufficient. This article discusses a holistic approach for evaluating public programs and examines a national performance databank for managing the results of such evaluations.

Résumé: Les programmes publics devraient être considérés comme une partie intégral du système global de bien-être sociétal dans lequel les aspects sociaux, économiques, politiques et biophysiques inter-agissent. L'évaluation de l'efficacité des programmes publics devrait reconnaître la part que jouent ceux-ci dans ce système global de bien-être sociétal. Évaluer les programmes comme des entités individuelles ayant des objectifs spécifiques ne fournit probablement pas les informations qui sont essentielles aux décideurs politiques. Avec l'augmentation des contraintes fiscales, il y a un besoin d'informations stratégiques sur la performance d'ensemble des programmes publics. À cause de la relative étroitesse des présentes perspectives d'évaluation, les évaluations de programmes publics n'ont que peu d'impacts sur les décideurs politiques. Les techniques existantes pour élargir les cadres d'évaluation ne sont pas suffisantes. Cet article discute d'une approche plus holistique de l'évaluation des programmes publics et de la gestion des résultats d'évaluation à l'aide d'une banque de données nationale de performance.

Public planners and decision-makers often face the difficult challenge of designing programs and policies that promote economic welfare within a specific sector of the economy. For example, consider many programs that are designed to enhance the vitality of industries such as forestry, fisheries, agrifood, and transportation. Each of these programs is targeted to the needs of a specific interest group; collectively these programs are expected to maximize societal welfare. By analogy, public programs are expected to function as components of systems in which social, economic, political, and physical factors interact. As Figure 1 illustrates within this system, public planners have to identify a number of interrelated factors, such as:

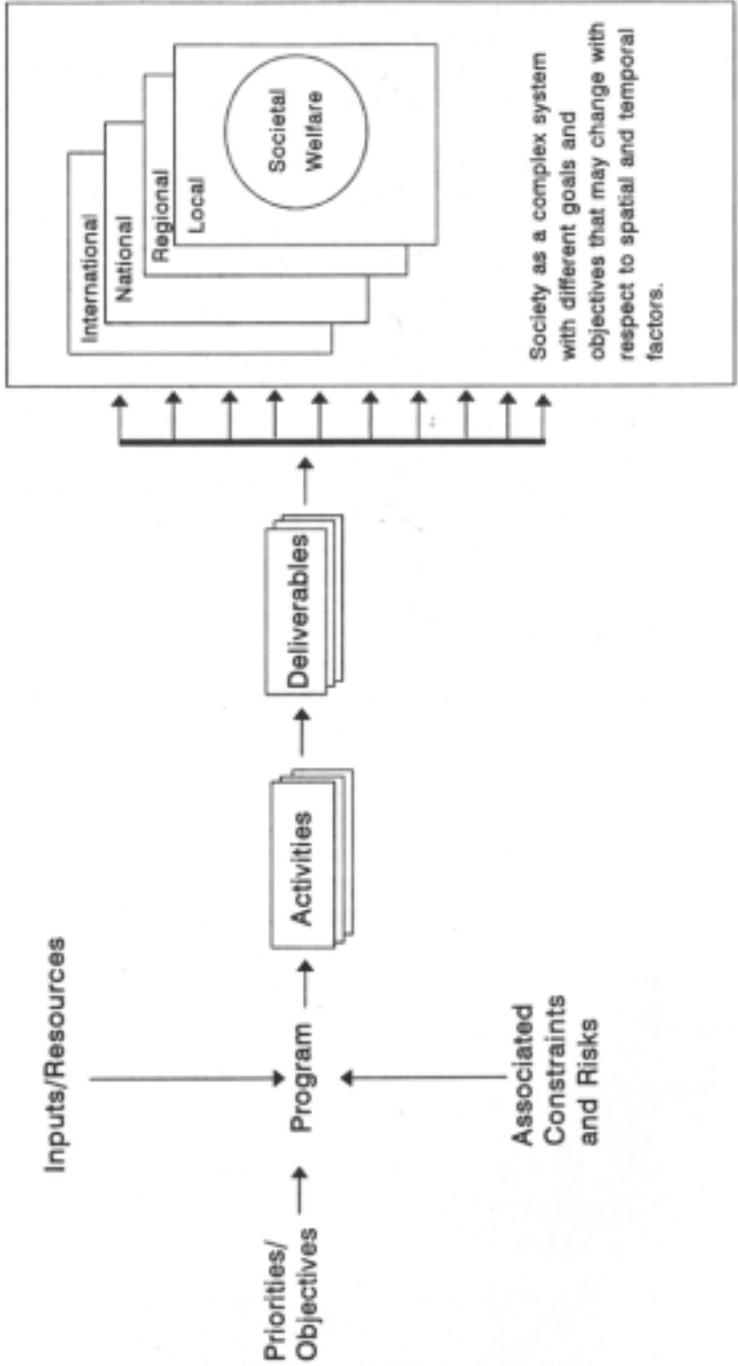
- priorities that reflect the specific demands of political constituencies and interest groups, as well as other exogenous socioeconomic and enviropolitical determinants, such as trade agreements, environmental regulations, and international obligations;
- availability of resources, such as technical knowledge of the issues and capital or material infrastructures; and
- constraints and risks associated with design and implementation, such as changing demographics, rising public expectations, and ethical issues.

All of these factors may involve trade-offs between several competing objectives at times (e.g., tobacco and alcohol tax revenue and societal cost of the public health programs).

To ensure effectiveness of various public programs, it is imperative that policy decision-makers be provided with credible information on the performance of the program. With newly emerging issues such as the current fiscal restraints, the promise of greater trade liberalization, new market opportunities, and the growing emphasis on environmental sustainability, new frontiers are being explored across sciences. At the same time, within the context of the decision-making process, new meanings are being sought for terms like *operation*, *effectiveness*, and *accountability*. This implies that public program evaluators are faced with the challenge of identifying and selecting the most effective means to measure the effectiveness of public programs.

In the pursuit of efficiency, evaluators of public programs continually seek to improve their approaches and methods of evaluation.

Figure 1
The Process Involved in the Design of Public Programs



This ongoing “feedback” process enables evaluators to assess the effectiveness and efficiency of approaches and tools used in their evaluations. This in turn enables evaluators to provide the most effective approach to measuring performance in the public sector.

This article presents a new conceptual perspective on the evaluation of public programs. The article provides neither an assessment of theoretical positions on public programs nor a detailed historical analysis of public program evaluation. Most of these issues and other related discussions on governance have been attempted elsewhere (e.g., Corbeil, 1989; Mayne, 1986; Osborne, 1993; Osborne & Gaebler, 1992; Segsworth, 1990; Shadish, Jr., Cook, & Leriton, 1991; Stowe, 1992). This article provides a holistic perspective on the evaluation of public programs. In discussing this perspective I will provide an overview of program evaluation, the public perception of program evaluation, and the holistic approach to program evaluation. Here the terms *effectiveness measurement* and *program evaluation* are used interchangeably.

PROGRAM EVALUATION

In a broad sense, evaluation is a systematic process of expert enquiry to evaluate the performance and effectiveness of various activities within an organization. In other words, evaluation is a “feedback” process through which information is generated. This information is considered an important management tool that decision-makers can use to continually improve the operation of the organization. For example, as a control mechanism, evaluation can be viewed as a strategic instrument used to inform with the purpose of amending, refuting, or validating terms of reference of an organization (e.g., Caron, 1993). Evaluation is also considered an important tool within the context of political activities and organizational tasks (e.g., Boyce, 1993; House, 1991; Osbaldeston, 1992). For example, as part of a broader management system, it can be an effective tool for organizational tasks such as reducing or augmenting services within any public environment. Regardless of the realm of application, the main purpose of evaluation is to provide credible information so that well-informed executive and policy decisions can be made (e.g., Caron, 1993; Haveman, 1987).

Program evaluation (PE) is a concept that has come to be widely accepted in a number of countries, including Canada. Within the Canadian public service, PE has become associated with a process

designed to assess the relevance, cost-effectiveness, performance, and results of public programs under a specific set of guidelines provided by the Treasury Board (Office of the Comptroller General, 1991) as well as directives of deputy heads. Generally speaking, findings and recommendations of evaluations are provided to deputy heads; however, a wider audience can use the results of public program evaluations. According to McQueen (1992), the information generated by public evaluations can be used by a broader audience that includes policy stakeholders, and even parliamentary committee members.

Factors Affecting the Evaluation of Public Programs

Regardless of the multiple definitions provided for effectiveness evaluation, the success of the evaluation process within the public sector will depend on a number of factors, some of which are:

- The concerns and needs of the evaluation user (i.e., the client), program management, and policy stakeholders
- Technical demands of the evaluation
- Analyst's orientation and background
- Background material and availability of resources
- Appropriateness of the methods used, in terms of both robustness and applicability
- The rigor whereby all the information collected is analyzed and interpreted
- The political and technical subtleties considered in presenting the final recommendations

COMMON PERCEPTIONS OF PROGRAM EVALUATION

As evaluators of public programs and policies, we are often confronted with the argument that program evaluation is not very effective (e.g., Corbeil, 1989), it is irrelevant (mainly because it is process oriented), and it is after the fact (program evaluation takes place after a strategy has been put into practice). Often it is also argued that public evaluations are underutilized. For example, it is said that public program evaluations are infrequently used as a benchmark to improve policy outcomes, and in some cases are not even read (e.g., Corbeil, 1989; Goldstein, Marcus, & Rausch, 1987; Mitchel, 1990). Some of the end users believe that most evaluations are of poor quality. According to Osborne and Gaebler (1992), many people in government resist the idea of performance measurement because they

have seen it done badly. The perceived poor quality of evaluations could have several bases, such as inappropriateness of the methods applied, unreliability of data used, and irrelevance: perhaps evaluations do not look at issues that concern the public.

Critical views on public program evaluation have also been expressed by some of Canada's prominent civil servants. For example, Johnson (1992) found that on a number of occasions senior government officials expressed dissatisfaction with public program evaluations. According to Johnson, effectiveness evaluation has not yet been perfected, and there are real technical difficulties that must be overcome. Some of these concerns have been echoed in the 1992 and, particularly, the 1993 reports of the Auditor General of Canada to the House of Commons.

Analysis of Public Perceptions

In order to better understand the constraints and overcome some of the limitations enforced by public perceptions of program evaluation, we should examine those perceptions from different perspectives. Some of these perspectives are discussed below.

Resistance to Change

One of the reasons why evaluations are underutilized may be that people and organizations in general resist change and tend to avoid any report that recommends new and innovative actions (Dibella, 1990). But this reaction may no longer be defensible, for the following reasons:

1. *Global pressure for change:* From an international perspective, we have entered an era of profound transition in the socioeconomic and enviropolitical order, technology, climate, and the scale of effects. Rising public expectations and the need for reform of central and local governments are confronting governments worldwide (British Council 1991; National Performance Review, 1993; Osborne, 1993; Stowe, 1992). Therefore, there are compelling reasons for reorientation and adaption to the new socioeconomic and enviropolitical order.

2. *National pressures for change:* Given current global conditions, the public sector is experiencing relentless pressure to respond to some of the above changes. According to Wood (1992), the need for

change has been stimulated by the challenge to government of providing the high-quality services demanded by Canadians in the current economic climate of scarce resources.

Poor Presentation of Results

Some have argued that one of the reasons why we cannot push the issue of utilization is that our recommendations are not robust enough. According to Patton (1988), we have made little progress in learning how to construct useful recommendations.

Management Perception

It is said that some managers do not consider evaluation a necessary part of the ongoing decision-making process, a means of maintaining a productive and efficient program (e.g., Love, 1991). On the contrary, the conventional wisdom is that if they are to cope with newly emerging pressures, governments must increasingly begin to build demands for monitoring, control, and evaluation of performance into their programs (Osborne & Gaebler, 1992).

The Approach Used in PE

The approach adopted by public evaluators has a direct bearing on the outcome of the evaluation. There is a general consensus among stakeholders that most evaluations have been from a very limited perspective. The Auditor General of Canada (1993) observes that, generally, program evaluations have focused on micromanagement issues rather than on broader issues. Using this limited perspective, evaluations could only measure effectiveness within the immediate boundaries of a specific program, ignoring potential overlaps. For example, consider the ramifications of overlooking the inter- and intra-institutional competitive nature of some programs and the widening gap between their sectoral goals and the resources available to achieve them.

It is likely that this narrow perspective was a partial reflection of the overall myopic approach to growth and development at the time. For example, until recently most agricultural policies in industrialized countries targeted a single perspective (i.e., increased capacity to produce), ignoring societal costs of some practices, such as soil-water management. In evaluating benefits of such programs, a

number of studies have highlighted the shortcomings of that single perspective (e.g., Jorjani, 1990; Jorjani & Duinker, 1989).

A NEW APPROACH FOR THE EVALUATION OF PUBLIC PROGRAMS

The new approaches to governance that are changing the basic thinking of modern politics are inspired, in part, by a new wave of innovations. These innovations are primarily in response to some of the changes discussed in preceding sections, such as fiscal restraints and rising public concerns. The rapidly changing global situation that dominates today's socioeconomic and enviropolitical agenda clearly points out that management must adopt a broader perspective that sees and understands the intricate interactions among the key factors (e.g., socioeconomic, political, environmental, international obligations) involved in public programs. This is particularly true in the case of effectiveness measurement of public programs.

Given the multifarious nature of public programs, the public sector could be defined as a complex system where each department or government agency functions as a subsystem to maintain or maximize the integrity of the system. Obviously, the integrity of such a system could be associated with its ability to function effectively. In order to be able to function effectively, the system will require a constant flow of inputs: resources, information, and know-how. Such a system cannot maintain integrity and effective functioning in the absence of credible information. The continuous flow of credible information will allow the system to identify alternative options in the face of changing conditions, internally and externally.

Relating this to the effective function of the public sector and the evaluation of public programs, it is obviously imperative that we adopt a new approach for measuring effectiveness. Recognizing the complex nature of public programs and the common thread (i.e., maximizing societal welfare) that connects all public programs, I propose a holistic approach for the evaluation of public programs. This new conceptual approach is premised on three principles: (1) evaluation of public programs should ultimately focus on enumerating effectiveness in terms of the program's contribution to societal well-being; (2) given the intrinsic interconnectedness of public programs and their components, an integrated approach should be adopted for enumerating effectiveness; and (3) a central databank will be required to provide a record of government-wide programs

that have been evaluated and credible benchmarks for the design and delivery of future programs. The following section will examine these issues in more detail.

THE HOLISTIC APPROACH

The concept of the interconnectedness of matter and universe is not new, but the modern reference to it as holism (from the Greek *holos*) dates from the 1920s (Savory, 1988). The more recent application of this concept and the notion of the interconnectedness of subsystems within the ecosystem are more commonplace in the environmental sustainability literature. For example, the holistic approach has been described as a method that integrates all factors, including environmental, economic, and social, on the basis of systems rather than individual elements (Agriculture Canada, 1990; Price, 1989, 1990a, 1990b).

Within the context of public programs and social relations, a system may be defined as a composite entity that embodies an organized collection of interrelated elements. This complex entity is characterized by a boundary (e.g., the scope of individual programs and the targeted constituencies and interest groups) and functional unity (e.g., maximizing societal welfare). In this context, the notion of systems emphasizes the embodied cause-effect relationship that allows the analysis of mutual processes involving large numbers of entities (Dechert, 1966). The premise of this view of public programs is the idea that the relationship among these several entities is interlocking and not necessarily additive. The cause-effect is often multiplicative rather than merely additive. For example, a decision concerning one program could affect other related programs and activities.

As illustrated in Figure 1, evaluation of public programs should respond to the nexus between various components of the entire system, which embodies a wide spectrum of activities and performance levels that would arguably require a specific type of feedback and performance indicators. This feedback is a process through which the performance (i.e., at different stages of the wide spectrum) of the program is linked to its decision-making apparatus (or, in systems terminology, linked to the “input”). This linkage is designed to allow decision-makers to make timely adjustments, in order to maintain or enhance performance at a desirable level. In other words, the complex interrelationship that is involved in program design

and implementation requires several types of feedback information to facilitate planning, monitoring, controlling, replanning, and ultimately measuring the outcome of the program.

Using a systems concept, the wide spectrum of program performance can be summarized in three components: process feedback, direction feedback, and outcome feedback. These components are discussed below.

Process Feedback

The main purpose of this feedback process is to provide management with the early operational information that would enable a better understanding of programs. The so-called quick and dirty approaches to evaluation might be more appropriate for process feedback types of evaluations where clients are provided with a quick assessment of issues pertaining to program rationale and some aspects of program design and delivery.

Direction Feedback

This feedback process could be considered an interim or mid-term evaluation whereby program managers determine whether the program is proceeding as planned and how it responds to its changing environment. These evaluations enable management to make judgments on causality earlier on in order to ensure the desired outcome, if particular control and direction decisions are made.

Outcome Feedback

The most complex of these feedback processes is the outcome feedback, whereby decision-makers can obtain credible information on the program's effectiveness within a broad perspective that deals with its overall outcome in terms of societal welfare.

In the past, most of the effectiveness measurements in the public sector were primarily based on a process that was obsessively focused on the objective function of a group of individuals in a sector. At the time, conventional wisdom assumed that the summation of those individual objective functions would be equivalent to the overall welfare of the entire system. Based on this principle, policy plan-

ners devised a multitude of public programs that were designed to provide different types of incentives for a number of economic activities. The major shortcoming of this approach was that most factors outside the immediate boundary of the individual perspective were considered externalities (e.g., Jorjani, 1990); as a result, societal perspectives were rarely if ever considered. In other words, the effectiveness of a program was measured via a narrow focus on its objectives, ignoring impacts on other programs (within a unit or sections in other public organizations) or on the ultimate objective of the government, which is maximizing societal welfare. As a consequence, effectiveness measurements became irrelevant, lacking objective information that would enable policy decision-makers to resolve the underlying problem: maximizing the ultimate outcome of public programs in terms of societal welfare.

As we realize that society is more than the sum of individual objective functions and become aware of the scale of effects and impacts, which transcend the boundaries of a specific public program, it becomes imperative that performances be measured from the societal perspective. Today, modern approaches to governance increasingly demand an effectiveness measurement that endogenizes all the intricate linkages and enumerates performance in terms of outcomes. According to the Auditor General of Canada's report (1993, p. 261), there is a shift toward a more result-oriented public service and a growing public interest in holding the government accountable for its performance. In today's political terms, the significance of this approach has become so well entrenched in the public's mind that if the public sector can demonstrate results to taxpayers, it can win public support from even the most tax-fatigued citizens (Osborne & Gaebler, 1992).

The complexity of the outcome feedback increases when programs with broad-reaching mandates (e.g., Canada's Action Plan on Environmental Sustainability, the Green Plan) require interdepartmental evaluations.

Regardless of the type of feedback process used, the evaluations require an orderly technique for identifying the problem, prioritizing issues, and analyzing and aggregating elements of an outcome brought about by implementation of a public program. In addressing these issues, the next section will examine an integrated approach for measuring effectiveness.

Integrated Performance Measurement

As described in the preceding sections, a single-minded approach in program evaluation may well prove counterproductive to government pursuit of societal welfare. Program evaluation can be addressed more effectively when most critical cause-effect linkages are identified through close collaboration between evaluators, technical staff, and other stakeholders. Therefore, measuring the effectiveness of public programs on the basis of their outcome rather than output requires an integrated approach. An integrated approach is premised on systems analysis. It has been suggested that systems analysis transcends individual disciplines with their constrained perspectives (Keyfitz, 1991). The basic supposition of this integrated approach is to identify all the key cause-effect linkages and impacts that involve a public program. In the past this approach was considered cumbersome and expensive, but today, with the speedy diffusion of information made possible by supercomputers, fiber optics, satellites, and other information technologies, we can generate, analyze, and communicate much faster for a fraction of the cost. Relying on these advances, the holistic process forms the basis for generating, integrating, and providing a new interpretation of the best information on program performance, which will finally enable public decision-makers to tie resources to desired outcomes.

In devising the holistic approach, the most important aspect is to map out the entire system with all the key components. The approach would enable evaluation analysts to develop a detailed portrayal of the program and its jurisdictional as well as operational boundaries. This detailed sketch would assist program evaluators to determine:

1. the critical components and subcomponents involved in the program environment, particularly within the context of design and delivery of the program (e.g., organizational charts, description of the broad and specific objectives of the program). In other words, all the key organizational and process-oriented aspects of the program and the possible duplications and overlaps can be identified;
2. the likely positive and negative (i.e., both intended and unintended) impacts from sectoral as well as societal perspectives;
3. a set of appropriate performance indicators. Indicators are an empirical expression (both qualitative and quantitative) of the cause-effect structure and impacts (Jorjani, 1993);

4. how these indicators can be quantified. For example, by looking at the whole picture and the key cause-effect structures, analysts can determine how to measure socioeconomic or ecological impacts and effects using the actual and/or proxy values;
5. what type of input data will be required (e.g., time series or cross-section);
6. how much of the information is available and what additional data needs to be collected. At this stage, the analyst could also determine the cost and time involved in obtaining the additional information;
7. the appropriate methods and options to conduct the evaluation;
8. constraints; and
9. the overall resources required to carry out the evaluation in the face of possible constraints.

Initially, this procedure may seem unwieldy and time consuming. However, as indicated in the section entitled “Program Evaluation,” the timeliness and the overall success of this procedure will depend on the analyst’s orientation and background, among other things. Today, with the help of modern information and communication technologies (e.g., supercomputers, GIS, and more integrated software and networks), an evaluation analyst with cross-disciplinary experience will be able to accomplish this task within a reasonable amount of time. If organized systematically, all the above information could be presented in a multicriteria matrix format (e.g., Paquin & Paquin, 1991).

In order to better visualize this approach and the steps involved in it, let us focus on the agrifood sector. The system depicted in Figure 2 focuses on the three major resources of soil, water, and air as predominant factors that influence societal well-being at local, regional, and national levels. The influence of these factors can also be examined at the international level. Analysis of this system can provide an understanding of the complex cause-effect structures that are involved in the sector. For example, this cause-effect structure embodies the linkages between socioeconomic, political, and biophysical factors and their impacts at various levels. The central component of this system depicts the interactions between the major factors, such as socioeconomic pressures, farming practices, natural endowments, and agroclimatic changes (e.g., historical trends and transboundary effects). All these interactions are part of a dynamic process with temporal and spatial dimensions.

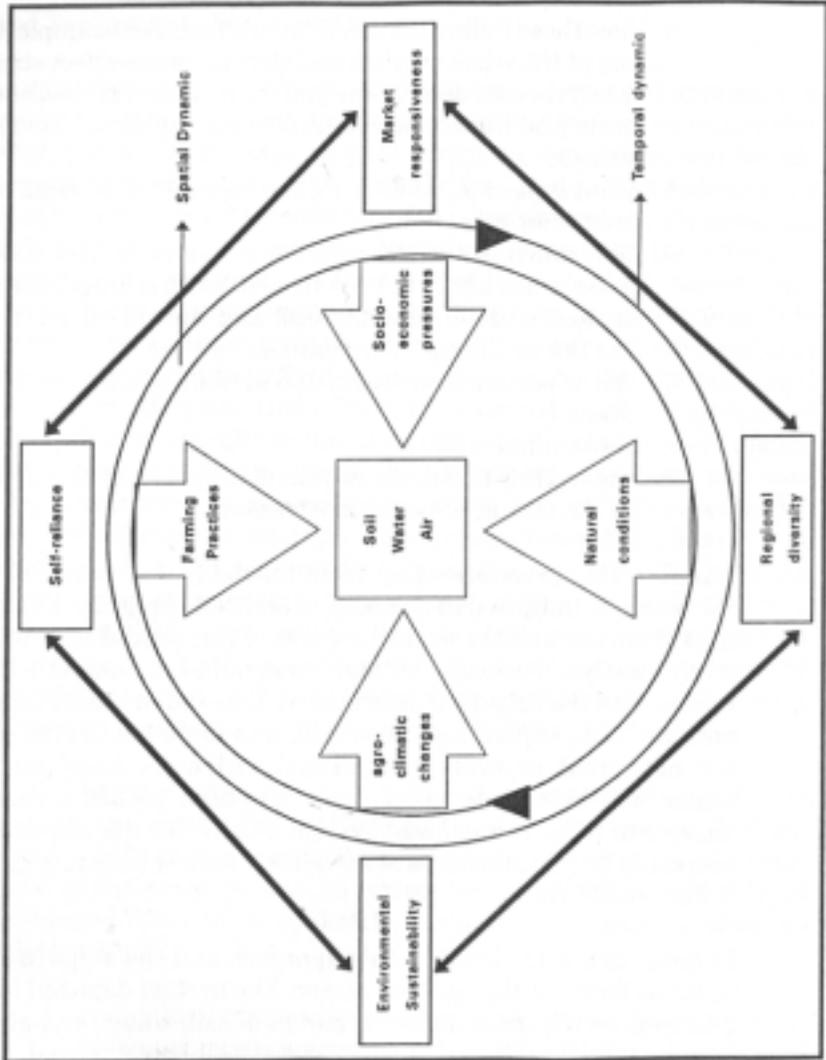


Figure 2
A Schematic of an Agrifood System

The integrity or balance of this system is maintained by the harmony between the four policy pillars of the sector, which are self-reliance, market responsiveness, regional diversity, and environmental sustainability (Agriculture Canada, 1990). These four pillars provide direction and focus to the interactions between the central components of the system. In other words, the pillars will be instrumental in determining the function and the integrity (or sustainability) of the central component of the system. For example, the extent and intensity of land use practices can directly influence the interaction between natural conditions and soil productivity. Similarly, the extent and the nature of changes in agroclimatic conditions can have a positive or negative impact on the entire system. Hence, when the system operates in harmony, both the vitality of the sector and overall societal welfare are maximized.

Steps Involved in Integrated Performance Measurement

Integrated performance measurement of public programs encompasses all the key cause-effects and linkages across several components of a public program and within their processes. One of the most important elements of this approach is to establish a set of common standards in measuring the performance of a public program. As discussed earlier, the fundamental objective of this process is to measure outcomes in terms of societal welfare rather than outputs of a program, which do not necessarily have a positive effect on societal welfare. Some components may not lend themselves to a quantitative analysis, in which case the outcome could be expressed in quasi-economic terms, such as willingness to pay (Hufschmidt, James, Meister, Bower, & Dixon, 1983). Other techniques suggested in the literature include the “decision-making” approach (Wall, 1991), which compares costs and consequences from multiple perspectives, including that of program clients and other stakeholders as well as society, and other decision-making viewpoints relevant to the particular evaluation. Regardless of the measurement techniques used, the holistic approach to evaluation is based on an elaborate pyramid of objectives with the broadest societal goals at its apex and more specific objectives associated with programs and activities at its wider base (Figure 3). This pyramidal conception implies that despite wide differences in the specific objectives of each initiative and project at different jurisdictional and operational levels, ultimately their utility must be measured in terms of contributions to societal goals.

Figure 3
A Schematic of Objectives Pyramid



To address these issues systematically, a specific procedure should be established that includes the following steps:

1. Identify the national, regional, and local priorities.
2. Map out the entire system as described in the section entitled "Integrated Performance Measurement."
3. Identify linkages (e.g., identify the common thread of the program that would allow aggregation of impacts and effects in a systematic manner).
4. Identify evaluation issues and validate assessment criteria.
5. Identify a set of performance indicators.
6. Identify appropriate evaluation methods (ones that provide a balance between scientific rigor, practicality, and cost-effectiveness).
7. Conduct analysis to measure effectiveness.
8. Present results, outcome scenarios, and options.

This procedure is presented schematically in Figure 4. As illustrated, a holistic approach includes all the key parameters, looks at the issue globally, and consequently is a more reliable and outcome-driven evaluation process. On this approach, the parameters of evaluation become sufficiently broad to cover each dimension of government and sectoral priorities. Furthermore, the approach recognizes the critical nexus between societal goals, government priorities, jurisdiction, and the carrying capacity of natural assets. Hence an evaluation, by adopting the proposed holistic approach, would respond to a combination of societal, political, ecological, and economic subsystems that are mutually supporting. In addition, the evaluation would reflect a multiplicity of spatial, temporal, and organizational scales.

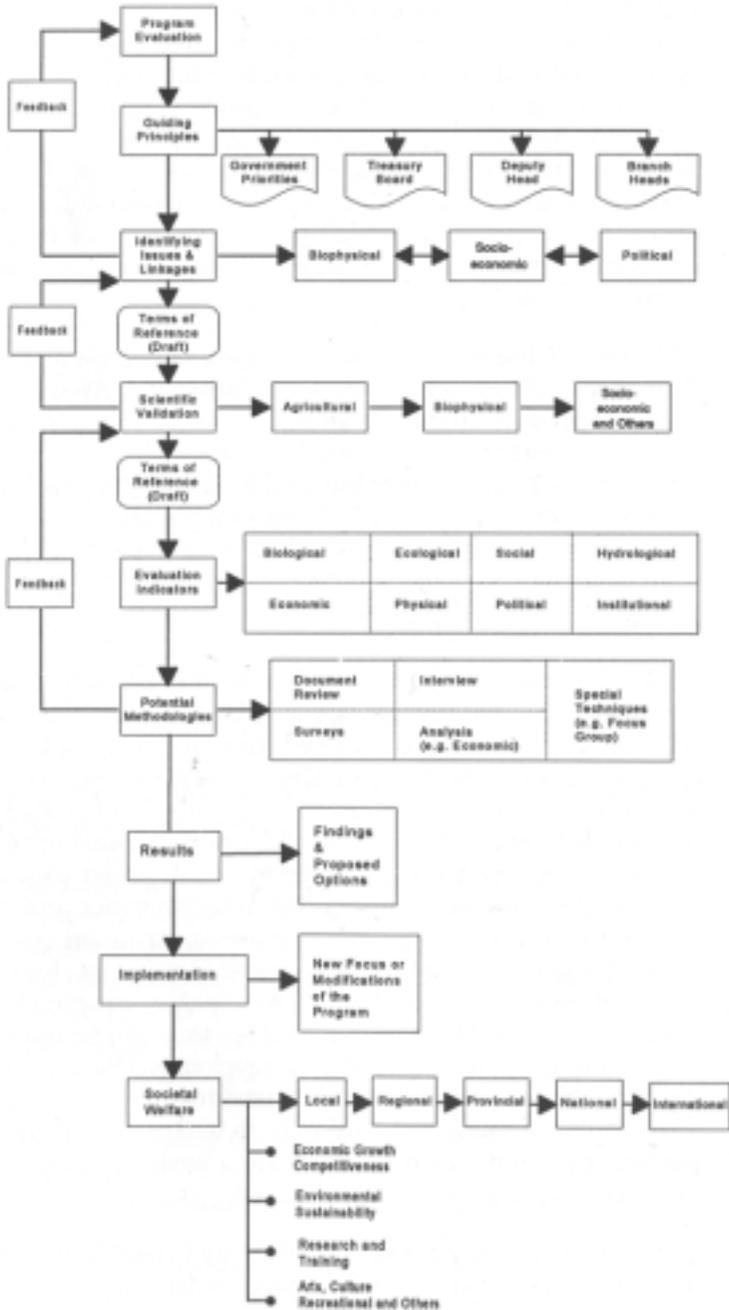
This approach enables senior managers to pursue operational performance goals based on reliable information. Analysis through a holistic approach enables evaluators to draw broader meaning from data to support evaluation and decision-making at various levels by focusing not only on trends but also on cause-effect linkages. Consequently, it enables evaluators and senior management to identify the linkages between various components of public programs.

The National Performance Databank

Public programs have a common denominator, which is providing services that maximize societal well-being within the framework of national and international norms. Because of this common thread, the new approach to the evaluation of public programs necessitates access to a systematic, comprehensive, and reliable information base on how different public programs have performed or are performing. Such a reliable corporate memory will assist central agencies and line departments to identify societal priorities and avoid duplication. Collectively, these would allow government agencies to design efficient programs that provide more at less cost. The information stored in the central databank or clearing house can be used as baseline data to set objectives that can be operationalized as input data in the design of new programs. The baseline data can also be used as an indication of constraints, risks, and uncertainty. The databank would not lead only to better overall assessment of performance, but would also provide a basis for better operational design of ongoing and future programs.

Hence, this central databank or clearing house should provide both a record of government-wide programs that have been evaluated

Figure 4
Schematic of a Holistic Approach to the Evaluation of Public Programs



and credible benchmarks for the design and delivery of future programs. Simply put, this central databank not only would enable program analysts and decision-makers to build on past experiences and achievements, but would also provide them with a comprehensive outlook on the cause-and-effect structure and impacts of the newly emerging issues, with their diverse and complex manifestations. Some of the logistic and management aspects of the proposed central databank would be similar to those currently performed by federal agencies such as the Treasury Board or Statistics Canada.

CONCLUSION

The discussion advanced here addresses problems implicit in the rapidly changing public-sector environment. Although some of the related literature attempts to examine the theoretical aspects of public program evaluation and new ways of governance, little attention has focused on incorporating new methods of measuring performance.

The rapidly changing global situation, such as fiscal pressures and the highly competitive and information-rich markets that dominate today's political agenda, clearly indicates the shortcomings of a single-perspective approach to performance measurement of public programs.

As a result of the newly emerging political realities of our time, government circles and the public at large are realizing that our activities are increasingly becoming more intertwined. This interconnectedness of all activities calls for a new approach that is capable of identifying all the key cause-effects and impacts from a broader perspective primarily concerned with the overall well-being of society.

Collectively, the ideas presented in this article and the principles that highlight them constitute a new holistic approach for the evaluation of public programs. The framework presented here is premised on the systems approach and allows assessment of performance in a holistic manner. This approach underlines the fact that by identifying all the key linkages involved in public programs, planners can better design programs that maximize societal welfare. If program design is approached in this way, the value of the benefits realized by society will exceed the sum of all the specific sectoral benefits.

Finally, it is hoped that the conceptual framework and the discussions set forth in this article will provide the basis for further discussion and research on new approaches to the evaluation of public programs.

ACKNOWLEDGEMENT

In writing this paper I benefited greatly from discussions with many of my colleagues, including Heather Clemenson, Carol Motuz, and Bernice Vincent. Valuable suggestions were made by the anonymous reviewers of the manuscript. Others whose comments have improved the manuscript are Simon Glance, Sharon Manouchehri, France Dauphin, and Jim Dyer. For this aid I am truly grateful. I also would like to acknowledge assistance received from Ling Lee, Steeve Beaupre, and Yuk Man Cheung in preparing the illustrations.

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