An Evaluation Assessment

of the General Development Agreements of New Brunswick, Nova Scotia and Newfoundland,

and Phase II of the Comprehensive Development Plan for Prince Edward Island

Prepared for
Atlantic Region
Department of Regional
Economic Expansion

Prepared by
DPA Consulting Ltd.

1.

EXECUTIVE SUMMARY

EVALUATION ASSESSMENT OF THE GENERAL DEVELOPMENT AGREEMENTS FOR NEW BRUNSWICK, NOVA SCOTIA AND NEWFOUNDLAND AND PHASE II OF THE P.E.I. COMPREHENSIVE DEVELOPMENT PLAN

Prepared for:

DREE - Atlantic
Moncton, New Brunswick

Prepared by:

DPA Consulting Ltd.
Halifax, Nova Scotia

March, 1982

3087

EXECUTIVE SUMMARY

INTRODUCTION

The Department of Regional Economic Expansion, in preparing an evaluation assessment of the General Development Agreements for New Brunswick, Nova Scotia and Newfoundland, as well as Phase II of the P.E.I. Comprehensive Development Plan*, engaged DPA Consulting Ltd. to determine evaluation approaches to addressing issues and questions related to the impacts and effects of GDA programming in the Atlantic Region. This Report provides the results of that undertaking which involved active participation between the Department and DPA Consulting Ltd. over a period of approximately five months.

Scope of the Analysis

The Evaluation Assessment was intended to focus upon the economic development effects of GDA programming and not upon the GDA's as a mechanism for economic development. The Department felt this approach was reflective of the fact that decisions were at that time being made within the Federal government concerning alternate funding structures and processes for the future. DREE was of the opinion that outside expertise should be engaged to deal with economic impacts and effects and private sector involvement in the GDA process, as well as the achievement of program objectives. In respect of the remaining classes of issues, program rationale and alternatives were set aside as were all questions relating to the GDA program as mechanism for economic development.

---

* Any future reference in this Report to GDA should be interpreted to include Phase II of the P.E.I. Comprehensive Development Plan.

The evaluation assessment process generally followed the guidelines set out in the "Guide on the Program Evaluation Function in Federal Departments and Agencies" as published by the Office of the Comptroller General, May 1981.

The process generated the following products:

- heirarchies of GDA program objectives, subsequently priorized by Senior Departmental Management in accordance with their priorities for evaluation;

- program component logic models portraying the causal linkages between the legal basis for the program, its mandate, activities, outputs and intended impacts and effects;

- evaluation issues and questions priorized by senior management for evaluation. (The questions were further classified as being of impacts and effects, objectives achievements or policy/program in nature and their focus was prescribed as being either functional, sectoral, spatial or aggregate);

- performance indicators in respect of each of the questions to be addressed in the evaluation;

- a range of possible evaluation options portraying the approaches and methodologies to be employed in measuring the assigned performance indicators, as well as the associated estimated resources and time required to evaluate each option;

- a pilot evaluation and review of completed Sub-Agreement evaluations to test the availability and suitability of program data and the analytical techniques proposed; and

....iii

- generalized Terms of Reference for subsequent GDA evaluation studies.

Evaluation Options

The following criteria were employed in the development of options for evaluation:

i) Options must be derived in a manner which enables separate evaluation reviews to be undertaken in each province at different points in time.

ii) Options should reflect the priorities for evaluation assigned by Senior Management in each Province.

iii) Options for each Province should be generated which portray a range of alternatives reflecting minimum evaluation requirements to those of a more comprehensive nature.

iv) Options must represent a reasonable cost and be capable of completion within a reasonable period of time.

v) Options must address, with varying degrees of emphasis, issues related both to impacts and effects as well as to objectives achievement.

vi) Evaluation techniques must satisfy the need to measure the incremental impacts and effects of GDA programming in the Atlantic Region.

....iv

Three options for evaluation were developed for each Province as follows:

- Basic Evaluation: the minimum requirement for evaluation of the economic impacts and effects and objectives achievement of the GDA program in the Province, addressing the minimum number of questions of highest priority to senior management.

- Intermediate Evaluation: the Basic option plus an expansion to include other issues and questions of interest to senior management.

- Comprehensive Evaluation: the Intermediate option plus supplementary questions of priority to senior management, a broad review of objectives achievement, or a more specific analysis of priority sectors in the economy.

Both the nature and focus of the questions to be addressed in the evaluation determined the set of options to be developed for each Province, commensurate with the priorities of senior management for the evaluation of the GDA program.

The options for each Province were developed in a manner to facilitate a "re-packaging" of options following a presentation of the Report to Senior DREE Management in the Atlantic Region.

Exhibit A describes in summary format the basic features of the evaluation options developed for each Province.

....v

EXHIBIT A: SUMMARY DESCRIPTION OF PROVINCIAL EVALUATION OPTIONS

PROVINCE	OPTION TITLE	OPTION DESCRIPTION	ESTIMATED COST*	TIME (WEEKS)
New Brunswick	Option NB 1: Basic Evaluation	Assessment of economic impacts and objectives achievement with repect to employment, income, output and sub-provincial disparities	$ 77,280-$132,720	46-79
	Option NB 2: Intermediate Evaluation	Option NB 1 plus: Assessment of economic impacts on productivity, population distribution and program recipient and effectiveness analysis	$102,480-$176,400	61-105
	Option NB 3: Comprehensive Evaluation	Option NB 2 plus: Analysis of removal of barriers to industry viability and expansion	$162,960-$257,040	97-153

*A range of the estimated costs has been developed reflecting the level of effort, detail and coverage which may be requested of the evaluator in answering each question. Costs projected beyond this range are not felt justifiable to reasonably evaluate the Program as proposed.

PROVINCE	OPTION TITLE	OPTION DESCRIPTION	ESTIMATED COST*	TIME (WEEKS)
Nova Scotia	Option NS 1: Basic Evaluation	Assessment of economic impacts and objectives achievement with respect to employment and income, and a GDA recipient analysis.	$ 45,360- $ 62,160	27-37
	Option NS 2: Intermediate Evaluation	Option NS 1 plus: GDA programming impact and instrument analysis.	$ 75,600- $107,520	45-64
	Option NS 3: Comprehensive Evaluation	Option NS 2 plus: Assessment of economic impacts with respect to quality of life, labour and management skills and the removal of barriers to industry viability and expansion.	$124,320- $173,040	74-103

*A range of the estimated costs has been developed reflecting the level of effort, detail and coverage which may be requested of the evaluator in answering each question. Costs projected beyond this range are not felt justifiable to reasonably evaluate the Program as proposed.

EXHIBIT A: SUMMARY DESCRIPTION OF PROVINCIAL EVALUATION OPTIONS

PROVINCE	OPTION TITLE	OPTION DESCRIPTION	ESTIMATED COST*	TIME (WEEKS)
Newfoundland	Option Nfld 1: Basic Evaluation	Assessment of economic impacts and objectives achievement with respect to employment and income and structural impediments to development.	$ 75,600-$110,880	45-66
	Option Nfld 2: Intermediate Evaluation	Option Nfld 1 plus: Assessment of economic impacts with respect to resource utilization/ management, population distribution, private investment, sub-provincial spatial effects and a GDA programming instrument analysis.	$ 97,440-$161,280	58-96
	Option Nfld 3: Comprehensive Evaluation	Option Nfld 2 plus: Assessment of economic impact with respect to quality of life, sectoral effects and barriers to industry viability and expansion.	$112,560-$196,560	67-117

*A range of the estimated costs has been developed reflecting the level of effort, detail and coverage which may be requested of the evaluator in answering each question. Costs projected beyond this range are not felt justifiable to reasonably evaluate the Program as proposed.

PROVINCE	OPTION TITLE	OPTION DESCRIPTION	ESTIMATED COST*	TIME (WEEKS)
Prince Edward Island	Option PEI 1: Basic Evaluation	Assessment of economic impacts and objectives achievement with respect to employment, income, output, productivity and GDA recipient and structural impediments to development analysis.	$ 67,200- $ 90,720	40-54
	Option PEI 2: Intermediate Evaluation	Option PEI 1 plus: Assessment of economic impacts on resource utilization/management and sectoral analysis.	$ 99,120- $136,080	59-81
	Option PEI 3: Comprehensive Evaluation	Option PEI 2 plus: Private investment and subsidy dependency analysis.	$129,360- $176,400	77-105

*A range of the estimated costs has been developed reflecting the level of effort, detail and coverage which may be requested of the evaluator in answering each question. Costs projected beyond this range are not felt justifiable to reasonably evaluate the Program as proposed.

The following schedules portray in greater detail for each Province, the questions addressed in each option as well as the focus of the analysis proposed in each case. They also reflect the focus of analysis which would be undertaken in an evaluation of Federal coordination and Federal-Provincial Coordination issues in a comprehensive evaluation option.

OPTIONS FOR EVALUATION

New Brunswick

Issues and Questions	Basic	Intermediate	Comprehensive
Impacts and Effects			
A) Intended Impacts and Effects			
-Aggregate Focus			
.Employment	x		
.Income	x		
.Output	x		
.Productivity		x	
.Private Investment			
.Population Distribution		x	
.Reduced Imped. to Dev.			
.Ultimate Recipients		x	
-Sectorial Focus			
.Resource Util./Manage.			
.Support Pos. Econ. Change			x
.Sectorial Impact	x(Mining)		
.Comparative Res. Sector Impact	x(Mining)		
.Further Priv. Inv. Potential			
-Spatial Focus			
.Quality of Life			
.Sub-Provincial Disparities	x		
-Functional Focus			
.Labour/Man. Skills			
.Priv. sector participation - process			
.Infrastructure Sufficiency			x
.Program Instr. Effectiveness		x	
B) Unintended Impacts and Effects			
-Aggregate Focus			
.Influence on Subsidy Dependency			
.Encour. Effic./Inefficiencies			
Objectives Achievement			
-Aggregate Focus			
.Extent of Achievement	x		
.Matching of Impacts and Objectives	x		
.Factors affecting achievement	x		
Fed./Prov. Coord. Effects			x
Federal Coord. Effects			

OPTIONS FOR EVALUATION

Nova Scotia

Issues and Questions	Basic	Intermediate	Comprehensive
Impacts and Effects			
A) Intended Impacts and Effects			
-Aggregate Focus			
.Employment	x		
.Income	x		
.Output			
.Productivity			
.Private Investment			
.Population Distribution			
.Reduced Imped. to Dev.			
.Ultimate Recipients	x		
-Sectorial Focus			
.Resource Util./Manage.			
.Support Pos. Econ. Change		x(Ind. Dev.)	
.Sectorial Impact		x(Ind. Dev.)	
.Comparative Res. Sector Impact			
.Further Priv. Inv. Potential			
-Spatial Focus			
.Quality of Life			x
.Sub-Provincial Disparities			
-Functional Focus			
.Labour/Man. Skills			x
.Priv. sector participation - process			
.Infrastructure Sufficiency			x
.Program Instr. Effectiveness		x(Ind. Dev.)	
B) Unintended Impacts and Effects			
-Aggregate Focus			
.Influence on Subsidy Dependency			
.Encour. Effic./Inefficiencies			
Objectives Achievement			
-Aggregate Focus			
.Extent of Achievement	x		
.Matching of Impacts and Objectives	x		
.Factors affecting achievement	x		
Fed./Prov. Coord. Effects			
Federal Coord. Effects			x

OPTIONS FOR EVALUATION

Newfoundland

Issues and Questions	Basic	Intermediate	Comprehensive
Impacts and Effects			
A) Intended Impacts and Effects			
-Aggregate Focus			
.Employment	x		
.Income	x		
.Output			
.Productivity			
.Private Investment		x(Fish. & For.)	
.Population Distribution		x	
.Reduced Imped. to Dev.	x		
.Ultimate Recipients			
-Sectorial Focus			
.Resource Util./Manage.		x(Fish. & For.)	
.Support Pos. Econ. Change			
.Sectorial Impact			x(Agr.)
.Comparative Res. Sector Impact			
.Further Priv. Inv. Potential			
-Spatial Focus			
.Quality of Life			x
.Sub-Provincial Disparities		x	
-Functional Focus			
.Labour/Man. Skills			
.Priv. sector participation - process			
.Infrastructure Sufficiency			x
.Program Instr. Effectiveness		x	
B) Unintended Impacts and Effects			
-Aggregate Focus			
.Influence on Subsidy Dependency			
.Encour. Effic./Inefficiencies			
Objectives Achievement			
-Aggregate Focus			
.Extent of Achievement	x		
.Matching of Impacts and Objectives	x		
.Factors affecting achievement	x		
Fed./Prov. Coord. Effects			
Federal Coord. Effects			x

OPTIONS FOR EVALUATION

Prince Edward Island

Issues and Questions	Basic	Intermediate	Comprehensive
Impacts and Effects			
A) Intended Impacts and Effects			
-Aggregate Focus			
.Employment	x		
.Income	x		
.Output	x		
.Productivity	x		
.Private Investment			
.Population Distribution			
.Reduced Imped. to Dev.	x		
.Ultimate Recipients	x		
-Sectorial Focus			
.Resource Util./Manage.		x	
.Support Pos. Econ. Change		x	
.Sectorial Impact		x	
.Comparative Res. Sector Impact		x	
.Further Priv. Inv. Potential			x
-Spatial Focus			
.Quality of Life			
.Sub-Provincial Disparities			
-Functional Focus			
.Labour/Man. Skills			
.Priv. sector participation - process			
.Infrastructure Sufficiency			
.Program Instr. Effectiveness			
B) Unintended Impacts and Effects			
-Aggregate Focus			
.Influence on Subsidy Dependency			x
.Encour. Effic./Inefficiencies			
Objectives Achievement			
-Aggregate Focus			
.Extent of Achievement	x		
.Matching of Impacts and Objectives	x		
.Factors affecting achievement	x		
Fed./Prov. Coord. Effects			x
Federal Coord. Effects			

15

EVALUATION ASSESSMENT OF THE GENERAL DEVELOPMENT AGREEMENTS FOR NEW BRUNSWICK, NOVA SCOTIA, NEWFOUNDLAND AND PHASE II OF THE PEI COMPREHENSIVE DEVELOPMENT PLAN

Prepared for:

DREE - Atlantic
Moncton, New Brunswick

Prepared by:

DPA Consulting Ltd.
Halifax, Nova Scotia

March, 1982

ib.

TABLE OF CONTENTS

* * *

1. INTRODUCTION

1.1 Background

The Government of Canada, in endeavouring to achieve its mandate of regional economic expansion and social adjustment, developed in 1973 a program process known as the "General Development Agreement" (GDA). The GDA initiative was basically an "enabling" framework through which the Federal and provincial governments were able to enter into Sub-Agreements with each other to jointly plan and execute programs of mutual priority in regional economic expansion and social adjustment.

Each GDA signed with a Province provided a broad outline of the economic and social objectives of the Federal-Provincial initiative in that Province. Sub-Agreements pursuant to the General Development Agreement prescribed specific objectives and outlined programs and projects which at a strategic level, had as their objective the ultimate achievement of the broad objectives enunciated in the GDA.

All Provinces, with the exception of Prince Edward Island, signed GDA's with the Government of Canada in the mid-1970's. Prince Edward Island however, pursued a different route from that of the other Provinces by signing with the Government of Canada, a 15-year Comprehensive Development Plan. This Plan, which was similar to the GDA's was designed to assist in economic activities aimed at creating jobs and raising per capita income as well as other economic and social objectives identified by both levels of government.

1.2 Organization of this Report

Chapter 1 provides relevant background information to the Study and describes the purpose, scope and approach of the Evaluation Assessment. The second chapter presents a profile of the GDA programs including mandate, structure and delivery process. Chapter 3 describes the issues and questions which are to be addressed in the evaluation study. The fourth chapter provides a full description of the data collection and analytical techniques which will be employed in the evaluation study, as well as the sampling methodology for selecting projects to be evaluated, a definition and methodology for measuring incrementality and a summary of the pilot evaluation undertaken in this study. Chapter 5 presents the evaluation options on a province by province basis, which have been developed through the course of the study, and Chapter 6 contains the draft terms of reference for the recommended evaluation option which will be undertaken during the evaluation phase of this exercise.

1.3 Purpose and Scope

The Department of Regional Economic Expansion is currently preparing an evaluation assessment of its General Development Agreements in the Atlantic Region and of Phase II of the Prince Edward Island Comprehensive Development Plan.[1]

As a first step in this process a number of evaluation issues were formulated by DREE staff covering the broad range of basic program evaluation issues enunciated by the

---

1. Any future reference in this report to GDA should be interpreted to include Phase II of the Prince Edward Island Comprehensive Development Plan.

Office of the Comptroller General (OCG) in the Federal Government's "Guide to the Program Evaluation Function".[2] These basic classes of evaluation issues and questions are portrayed in Exhibit 1.1.1.

DPA Consulting Limited was then engaged to undertake an evaluation assessment of the program's "intended" impacts and effects (to include economic impacts and effects and private sector involvement), its "unintended" impacts and effects and the achievement of GDA program objectives. It was felt by the Department that the remaining classes of issues, for example, those relating to Program Rationale, Impacts and Effects pertaining to the coordination of Federal-Provincial policies and programs, the coordination of Federal policies and programs, and Program Alternatives would best be addressed internally by DREE staff in the Atlantic Region.

---

2. Guide on the Program Evaluation Function, Office of the Comptroller General of Canada, Treasury Board of Canada, May 1981, page 7.

EXHIBIT 1.1.1: BASIC PROGRAM EVALUATION ISSUES

Classes of Evaluation Issues	Basic Evaluation Questions
Program Rationale (Does the program make sense?)	To what extent are the objectives and mandate of the program still relevant? Are the activities and outputs of the program consistent with its mandate and plausibly linked to the attainment of the objectives and the intended impacts and effects?
Impacts and Effects (What has happened as a result of the program?)	What impacts and effects, both intended and unintended, resulted from carrying out the program? In what manner and to what extent does the program complement, duplicate, overlap or work at crosspurposes with other programs?
Objectives Achievement (Has the program achieved what was expected?)	In what manner and to what extent were appropriate program objectives achieved as a result of the program?
Alternatives (Are there better ways of achieving the results?)	Are there more cost-effective alternative programs which might achieve the objectives and intended impacts and effects? Are there more cost-effective ways of delivering the existing program?

The following products were generated in the course of this work:

At the Overall Level

- a refinement of evaluation issues and questions;

At the Provincial Level

- program component profiles including the legal basis, activities, products and structure of the program components outlining causal linkages between elements in the program;
- heirarchies of objectives priorized by senior departmental management in accordance with their priority for evaluation;
- a number of possible evaluation options including the approaches and methodologies to be employed and the associated estimated resources and time required to undertake each option; and,
- the terms of reference for evaluation of those options preferred by DREE management.

1.4 Approach

Throughout the study the consultants worked closely with DREE staff from DREE offices across the Atlantic Region. The work program was conducted in the following four phases:

Phase I:

GDA documents were reviewed, evaluation issues and questions priorized, refined and finalized, and objectives heirarchies developed and priorized for each Province.

Phase II:

Program models were prepared for each Province. Performance indicators were identified, and basic options and evaluation approaches derived.

Phase III:

A range of evaluation options and approaches for each Province were derived reflecting the preferences indicated by Steering Committee members. A limited pilot evaluation was undertaken for each Province which assessed data availability, evaluation approaches, analytical techniques and resource requirements for conducting the study.

Phase IV:

The final report was prepared which included the terms of reference and preliminary cost estimates for the evaluation phase of the study.

Phases I-III were each concluded with a meeting of the Steering Committee. The Steering Committee was comprised of three individuals from DREE (Atlantic), one from each of the DREE Provincial offices, as well as a representative from the OCG in Ottawa (see Appendix 1: Steering Committee Members). A senior evaluation officer from the DREE (Atlantic) office was assigned to work with the Project Team throughout the term of the project.

The fourth and last phase of the study was finalized with a presentation of the Study Report to senior DREE management in the Atlantic Region.

An iterative approach was employed throughout all phases of the evaluation assessment to ensure that the final report was useful and relevant to the needs of the Department. This approach involved a consultative process with government officials which inturn, aided the consulting team to better understand the scope and diversity of DREE programming across the Atlantic provinces.

For example, occasionally precise program objectives were lacking, reflecting an effort to afford program flexibility in project implementation. This "program flexibility" on the other hand often represented an impediment to the measurement of objectives achievement. Therefore, while program objectives as well as their role in the GDA process were largely derived from available documentation, they were supplemented, adjusted and priorized through interviews and consultation with Federal officials at all levels. Structured interviews were arranged with the following officials:

- The Assistant Deputy Minister and Director General, Planning and Coordination of the DREE (Atlantic) office.

- The four Directors-General of the provincial DREE offices of Newfoundland, Nova Scotia, New Brunswick and Prince Edward Island.

- At least one other senior official from each of the four provincial offices noted above.

- Three representatives from the Ministry of State for Economic Development.

- Two officials from the Treasury Board of Canada.

- The Director General, Analysis and Liaison of the DREE (Hull) office.

- The Deputy Comptroller General and a senior evaluation analyst of the Office of the Comptroller General of Canada.

A complete list of officials interviewed, and the format of questions posed both at the provincial and Regional offices, as well as in Ottawa, are included as Appendices 2 and 3.

The Project Team, with the assistance of the provincial and regional offices, also reviewed a number of Sub-Agreement Evaluations already completed respecting the Provinces under review, a list of which is attached as Appendix 4. The information being sought from these Sub-Agreement Evaluations was documented in the format shown in Appendix 5.

2. DREE/GENERAL DEVELOPMENT AGREEMENT PROFILE

2.1 GDA MANDATE

In 1969, the Government of Canada undertook to consolidate and enrich its efforts to stimulate regional economic development and social adjustment. Prior to that time various Departments and agencies of Government assumed "scattered" responsibility for this undertaking and at times the approach was duplicative, inadequate and not sufficiently broad to tackle the basic root causes of economic and social disparity across the Country. Furthermore, Federal programming was unable to maximize the opportunity of consolidating its thrust with programs and priorities at the provincial government level.

Therefore, in 1969, the Government of Canada formed the Department of Regional Economic Expansion which was intended:

1) to consolidate programs existing at that time in the field of regional development; and,

2) to embark upon new initiatives in regional economic expansion and social adjustment.

The mandate of the Department of Regional Economic Expansion is found in the Department of Regional Economic Expansion Act, 1969. Sections 5(a) and (b) of the Act define the Department's responsibilities as:

Section 5(a)

> "all matters over which the Parliament of Canada has jurisdiction not by law assigned to any other department, branch or agency of the Government of Canada, relating to economic expansion and social adjustment in areas requiring special measures to improve opportunities for productive employment and access to those opportunities."

Section 5(b)

> "such other matters over which the Parliament of Canada has jurisdiction relating to economic expansion and social adjustment as are by law assigned to the Minister."

DREE responsibilities were not restricted, however, to consolidating only Federal policies and programs within its own bureaucracy.

Sections 7(1) and 8(1)(a) of the Act also prescribe that the Department should carry out its mandate in cooperation with any province, as well as other departments, branches or agencies of the Government of Canada. More specifically, the cooperative effort with the Provinces should involve the formulation of a plan of economic expansion and social adjustment in a special area and for the entering "into an agreement with that province for the joint carrying out of that plan."

The GDA mechanism represents the formal framework adopted in 1973 to give effect to this undertaking, pursuant to which DREE and the provincial governments together embarked upon initiatives supportive of development opportunities and the removal of obstacles to those opportunities. The authority enabling the Minister of Regional Economic Expansion to enter into such agreements with the provinces is granted through Section 11(a) of the Appropriations Act, 1973, which reads:

> "To authorize the Minister of Regional Economic Expansion to enter into general development agreement with the provinces, ..., to provide measures for economic expansion and social adjustment in areas in Canada requiring such measures to improve opportunities for productive employment in those areas and access to such opportunities."

The Province of Prince Edward Island did not, however, conclude a General Development Agreement with the Government of Canada. Instead the Province in 1969 signed a 15-year Comprehensive Development Plan to stimulate economic activity in Prince Edward Island and attempt to reduce disparities relative to the rest of Canada.

The legislative mandate for the P.E.I. Plan was originally the Fund for Rural Economic Development Act (FRED). First administered by the Department of Forestry and Rural Development, it was soon absorbed by the newly created Department of Regional Economic Expansion. Although the legislation establishing FRED was repealed in 1969, existing agreements were permitted to continue to their termination dates.

Phase II of the P.E.I. Comprehensive Development Plan, which commenced April 1, 1975, placed future joint Federal-Provincial initiatives in the field of regional economic development under the authority of Vote 11(a) of the Appropriation Act, 1973.

During the course of this Evaluation Assessment, the Government of Canada announced the formation of a new Department, the Department of Regional Industrial Expansion. This new Department will amalgamate most of DREE's program functions as well as Industry, Trade and Commerce's domestic responsibilities for industry, tourism and small business. The program focus for this new Department will concentrate on industrial development, thereby relinquishing DREE and IT&C's current role in the primary resource sectors to the respective line Departments in the federal government. Furthermore, the Ministry of State for Economic Development (MSED) will take on both the regional policy and co-ordinative functions currently performed by DREE as well as the responsibility for developing new and simpler sets of development agreements (similar to the GDA's) which will involve a wider range of federal departments.

This new policy and programming environment has been considered to the extent possible, in this current study.

2.2. GDA Program Structure

The GDA strategy of the Department of Regional Economic Expansion was, therefore, to provide a vehicle, or "enabling framework", within which the Government of Canada, together with the provinces, would cooperate in the pursuit of initiatives to alleviate economic and social disparities in selected areas of the Country by improving opportunities for productive employment.

Emanating from its broad statement of intent and purpose, the Government of Canada then signed GDA agreements of a ten-year term with provincial governments. These agreements are reviewed regularly in consultation with the respective provinces, and with other federal government departments, to review progress and to consider the implementation of new development initiatives based on the continuing analysis of each Province's socio-economic circumstances.

Each GDA signed with a Province contains a statement of its own program objective(s) in accordance with the general mandate of the Department. The objectives so designated for the Provinces of Nova Scotia, New Brunswick, Prince Edward Island and Newfoundland are found in Section 2.4 of this Report.

Inasmuch as General Development Agreements represent the "enabling" framework within which the federal and provincial governments undertake joint initiatives, Sub-Agreements to these General Agreements represent the "tools" or "delivery mechanisms" of this coordinated approach.

Each Sub-Agreement has a financial limitation and fixed cost-sharing arrangement with provisions for monitoring the implementation of programs and projects under the Agreement. Also included are appropriate provisions regarding an evaluation to review consistency with the objectives and strategies of the GDA.

General Development Agreements were signed with the Provinces of Newfoundland and Nova Scotia in February, 1974, and with the Province of New Brunswick in April, 1974. As of December 31, 1981, DREE had signed 58 Subsidiary Agreements in the Atlantic Region: 21 in Newfoundland, 21 in New Brunswick, and 16 in Nova Scotia.

As noted earlier, on March 7, 1969, Prince Edward Island signed a 15-year Comprehensive Development Plan with the Government of Canada (originally as part of the FRED program).

The P.E.I. Plan provided for a three phase approach, each of a consecutive five-year duration:

Phase I - April 1, 1969, to March 31, 1974
Phase II - April 1, 1974, to March 31, 1979
Phase III - April 1, 1979, to March 31, 1984

However, delays led to an extension of Phase I to March 31, 1975, and Phase II to March 31, 1981.

2.3 Financial Expenditures

The programming undertaken pursuant to the General Development Agreements has been implemented through a mechanism (federal/provincial agreement) called the Subsidiary Agreement. Each Subsidiary Agreement signed by the federal and provincial governments detail specific programs and projects to be undertaken, including an implementation strategy, goals and objectives and financial commitments (cost shared).

While there is an abundance of financial data regarding the Subsidiary Agreements, very little detailed financial data on the overall GDA's for each province has been published. For this reason the project team, with the assistance of DREE staff, undertook to develop a functional and sectoral classification of GDA expenditures for each of the four Atlantic Provinces using the DREE Atlantic computerized project reporting system. These two classifications, functional and sectoral, were developed to provide an overview of the expenditures of the GDA program.

The functional classification categories include; resource management, planning, administration, human resources, infrastructure, assistance to business and special programming. Due to the high proportion of spending on infrastructure projects, the category was further broken down to include a finer resolution of the different types of infrastructure activities of the GDA program. As well the assistance to business categories are further broken down into a number of sub-groupings. By reviewing the functional classification it is possible to view the expenditures of the program as they relate to the various program thrusts.

The sectoral classification scheme categorizes various GDA expenditures into a variety of standard industrial classification codes. Included is a classification of expenditures in the primary sectors, including agriculture, fisheries, mining, forestry, as well as tourism and transportation, and on the manufacturing side, primary manufacturing is broken down into agriculture, fisheries, mining and forestry sectors and secondary manufacturing. In addition, expenditures in commercial activities are also grouped. A sectoral classification titled "community development expenditures" are grouped by water and sewer, street improvements, social infrastructure and industrial parks. Program expenditures in the energy sector are also grouped.

EXHIBIT 2.3.1: FUNCTIONAL CLASSIFICATION OF GDA EXPENDITURES FOR NEW BRUNSWICK, NOVA SCOTIA, NEWFOUNDLAND AND PRINCE EDWARD ISLAND 1974 - Dec. 1981

	New Brunswick		Nova Scotia		Newfoundland		Prince Edward Island	
	$'000	%	$'000	$	$'000	%	$'000	$
100 Resource Mgt.	51,732	16.1	48,255	20.3	36,492	10.4	12,034	6.3
200 Planning	11,947	3.7	9,348	3.9	5,767	1.6	7,613	4.0
300 Administration	15,293	4.8	2,692	1.1	7,963	2.3	6,541	3.4
400 Human Resources	2,304	0.7	-	-	221	0.1	6,029	3.2
510 Roads to Resources	15,374	4.8	290	0.1	17,536	5.0	355	0.2
20 Highways	67,673	21.1	11,968	5.0	134,701	38.4	23,374	12.3
30 Bridges	-	-	-	-	6,995	2.0	1,645	0.9
40 Community Inf	44,927	14.0	64,642	27.3	69,774	19.9	10,160	5.3
50 Institutional Inf	10,999	3.4	-	-	1,273	0.4	19,856	10.4
60 Tourism	21,506	6.7	5,714	2.4	2,897	0.8	5,263	2.8
70 Power Lines	183	0.1	213	0.1	5	0.0	18,359	9.6
80 Airports & Railways	1,273	0.4	959	0.4	-	-	-	0.0
610 Financial Assistance to Business	42,220	13.2	62,122	26.2	28,378	8.1	34,914	18.3
620 Industrial Inf	24,535	7.7	25,526	10.8	31,100	8.9	9,734	5.1
631 Mgt. Development	823	0.3	146	0.1	242	0.1	14,047	7.4
32 Tech Trans/Development	4,937	1.5	2,161	0.9	4,946	1.4	5,483	2.9
33 Marketing	1,572	0.5	275	0.1	730	0.2	4,252	2.2
34 Business Studies	1,815	0.6	926	0.4	-	-	-	0.0
35 Other Bus	575	0.2	1,649	0.7	740	0.2	5,315	2.8
40 Marketing Tourism	22	0.0	314	0.1	790	0.2	1,233	0.6
700 Other N.E.C.	971	0.3			-	-	4,100	2.2
Total	320,685	100	237,200	100	350,552	100	190,307	100

The GDA functional expenditures for the four Atlantic Provinces are displayed in Exhibit 2.3.1 and the expenditures on a sectoral basis for the four provinces is displayed in Exhibit 2.3.2.

While these classifications are helpful in viewing the program activities from the expenditure viewpoint, they should not be interpreted as program priorities or be seen as relating to program objectives. From an evaluation perspective, functional and sectoral classifications are helpful in defining the outputs of the program and establishing the relationship between these outputs and the intended impacts and effects of the program.

Beyond the uses outlined above, it is important to exercise considerable caution in the employment and interpretation of this expenditure data. For example, while the functional classification provides a rough measure of the pattern of program expenditures most predominant throughout the GDA process, it does not reveal subsequent costs born by the provinces in continuing the services provided or maintaining the capital structures put into place.

Furthermore, the process of developing a classification scheme is not in itself without difficulty. In some instances, relative magnitude of a single project, or the difficulty involved in securing sufficient expenditure detail, leaves the data base open to question and varied interpretation. As noted earlier, however, the core of the data base has been under development by DREE staff for some period of time and every possible effort has been taken to ensure that the categories reflect the nature of the activity and that the classifications are as accurate as possible.

EXHIBIT 2.3.2: SECTORAL CLASSIFICATION OF GDA EXPENDITURES FOR NEW BRUNSWICK, NOVA SCOTIA, NEWFOUNDLAND AND PRINCE EDWARD ISLAND 1974 - Dec. 1981

	New Brunswick		Nova Scotia		Newfoundland		Prince Edward Island	
	$'000	%	$'000	%	$'000	%	$'000	%
101 Agr.	28,237	8.8	29,702	12.5	5,000	1.4	51,145	26.9
102 Fish	3,558	1.1	-	-	16,283	4.6	8,685	4.6
103 Mining	11,406	3.6	15,879	6.7	5,437	1.6	-	-
104 Forestry	64,710	20.2	26,634	11.2	58,441	16.7	7,241	3.8
200 Tourism	25,441	7.9	8,378	3.5	6,251	1.8	9,993	5.3
300 Transportation	74,483	23.2	22,391	9.4	143,891	41.0	24,585	12.9
401 Agr. Processing	1,276	0.4	-	0.0	730	0.2	-	-
402 Fish Processing	415	0.1	687	0.3	10,443	3.0	-	-
403 Mining Processing	2,520	0.8	253	0.1	-	-	-	-
404 Forestry Processing	5,886	1.8	510	0.2	-	-	-	-
405 Mfg.	12,587	3.9	40,809	17.2	16,029	4.6	6,450	3.4
500 Commercial Activities	4,588	1.4	25,255	10.6	-	-	5,747	3.0
601 Water & Sewer	10,536	3.3	24,836	10.5	17,798	5.1	10,176	5.3
602 Street Improvements & Urban Arterial	34,674	10.8	22,249	9.4	52,570	15.0	-	-
603 Social Infrastructure	9,646	3.0	65	*	1,384	0.4	19,856	10.4
604 Industrial Parks	16,067	5.0	11,482	4.8	4,379	1.2	5,363	2.8
605 Housing	1,017	0.3	-	-	-	-	4,318	2.3
609 Community Development General	3,542	1.1	-	-	-	-	-	-
700 Energy	427	0.1	3,568	1.5	52	*	19,099	10.0
900 Nordco	-	-	-	-	4,419	1.3	-	-
950 N.E.S.	9,670	3.0	4,503	1.9	7,444	2.1	17,651	9.3
Total	320,685	100	237,200	100	350,552	100	190,307	100

* Less than one tenth of one per cent.

Foregoing the accuracy of the data, there is one more caution that should be noted in the interpretation of the expenditures data. Certain types of expenditures, such as infrastructure are, in relative terms, very expensive. Therefore, they reflect a substantial portion of total GDA spending compared to other projects which were given higher priority in terms of GDA objectives. When the GDA program was in its early stages, the provinces and the federal government were both eager to enter into sub-agreements and initiate joint projects without delay. In most of these cases, projects were "off the shelf" and were largely capital intensive in nature. Expenditures of this nature, therefore, reflect a disproportionate share of total GDA spending.

On the other hand, infrastructure expenditures, in some cases, were reflective of provincial priorities and funds were accordingly allocated. There has also been a change in priority, and in recent years projects were more reflective of the most pressing concerns and closer allied with GDA objectives. A time series of program expenditures for each province might, therefore, give a better indication of the changing expenditure patterns over time.

In addition to the function and sectoral classifications which are presented in the exhibits above, a combined functional and sectoral classification has been developed for each province. The combined classification provides an opportunity to view the GDA program expenditures from both a functional and a sectoral viewpoint. This joint classification is provided in Appendix VI of this report.

With the reservations noted above, the following paragraphs describe the outcome of the functional and sectoral classifications for each province.

i) New Brunswick (Functional)

As of the end of 1981, GDA program expenditures in the Province of New Brunswick amounted to approximately $321 million. Approximately 161 million dollars representing 50.5 percent of the total GDA expenditures are in the infrastructure classification excluding industrial infrastructure. Of this group, highways represented $67.7 million or 21.1 percent and community infrastructure $45 million or 14 percent. The latter can largely be attributed to the construction and development of the Saint John and Moncton arterial highways. Tourism infrastructure accounted for approximately $21.5 million and roads to resources approximately $15.3 million. During the same time period resource management expenditures amounted to $51.7 million or 16.1 percent of total GDA expenditures, with most of these funds being allocated to the forestry, mining and agriculture sectors. Financial assistance to business accounted for $42.2 million or 13.2 percent of total expenditures which included a variety of programs designed to expand and diversify the manufacturing and processing sectors. Other major GDA expenditures, on a functional basis, include planning at 3.7 percent, administration at 4.8 percent and industrial infrastructure at 7.7 percent of total GDA expenditures in New Brunswick.

New Brunswick (Sectoral)

If we examine GDA expenditures on a sectoral basis for the Province of New Brunswick, we find that from 1974 to the end of 1981, approximately $74.5 million or 23.2 percent of GDA expenditures were in transportation and $64.7 million or 20.2 percent were in the forestry sector. The latter expenditure reflects the importance and the magnitude of the forestry industry in New Brunswick. Approximately $70 million of GDA funds were committed to the community development sector. This includes projects in water and

37

sewer, street improvement, social infrastructure, and industrial parks classifications. Projects in the primary agricultural sector represented $28.2 million or approximately 8.8 percent of total expenditures. These expenditures were designed to pursue specific commodity strategies which had been developed through a major review of the agricultural potential of New Brunswick agricultural sector. GDA programming in the area of manufacturing accounted for approximately $12 million or 3.9 percent of total expenditures during the time period in New Brunswick, (excluding primary processing).

ii) Nova Scotia (Functional)

Total GDA expenditures in the Province of Nova Scotia between 1974 and 1981 were approximately $237 million. Two major functional groupings account for approximately 50% of GDA expenditures in this Province. These are financial assistance to business, which amounted to $62 million or 26 percent, and community infrastructure which totalled $64.6 million or 27.3 percent. A large portion of the assistance to business expenditures were directed at the Sydney Steel Corporation Assistance Program. The community infrastructure projects were largely in the Metropolitan Halifax/Dartmouth area and the Strait of Canso area. Resource management accounted for $48.2 million or 20.3 percent of GDA expenditures most of which went to the forestry sector. The only other functional groupings to receive more than 1 percent overall funding were the planning function with 3.9 percent; highways with 5 percent and tourism infrastructure with 2.4 percent and industrial infrastructure with 10.8 percent.

Nova Scotia (Sectoral)

If we examine GDA expenditures on a sectoral basis for Nova Scotia, we find a wide distribution of expenditures in a variety of sectors. For example, manufacturing received

$40.8 million or 17.2 percent of total expenditures, primary agriculture $29.7 million or 12.5 percent and primary forestry $26.6 million or 11.2 percent. Primary mining received $15.8 or 6.7 percent of GDA expenditures. $22.4 million or 9.4 percent of GDA expenditures were in the transportation sector, which included major highway projects in the Halifax/Dartmouth and Strait of Canso area. The commercial activity sector received $25.5 million or 10.6 percent of GDA funds while community development (water and sewer, street improvements, social infrastructure, and industrial parks) received approximately 25 percent of GDA expenditures.

iii) Newfoundland (Functional)

GDA expenditures in the Province of Newfoundland from 1974 to 1982 amounted to $350.5 million which is substantially higher than any of the other Atlantic Provinces. On a functional basis, expenditures on highways in the Province accounted for $134.7 million or 38.4 percent. If we examine the other expenditures in the infrastructure classification, roads to resources account for $17.5 million, bridge construction $6.9 million, community infrastructure $69.7 million, institutional infrastructure $1.2 million, tourism $2.9 million and industrial infrastructure $31.1 million. If we combine all infrastructure expenditures in Newfoundland they total approximately 75 percent of all program expenditures in that Province. What remains is an expenditure of $36.5 million in resource management, largely in the forestry and mining sectors, and $28.4 million in the financial assistance to business category.

Newfoundland (Sectoral)

As in the case with the functional classification, a large portion of GDA expenditures in Newfoundland, on a sectoral basis, fall into the transportation and community development sectors. Approximately $143.9 million was spent in the

transportation sector, $17.8 million in the water and sewer sector, $52.6 million in the street improvement sector and $4.4 million in industrial park development. In addition, primary forestry expenditures accounted for approximately $58.4 million or 16.7 percent of GDA expenditures and the fisheries sector received $16.3 million or 4.6 percent of total funds. Expenditures in the secondary manufacturing sector totalled $16.0 million or 4.6 percent of total expenditures.

iv) Prince Edward Island (Functional)

While the P.E.I. Comprehensive Development Plan is structured differently from the GDA programs in the other Atlantic Provinces, the functional distribution of expenditures is somewhat similar. $34.9 million of the Plan's expenditures or 18.3 percent are in the financial assistance to business category. The majority of these funds were in the family farm program and other farm-related development programs. In addition, management development accounted for $14 million or 7.4 percent of the Plan's expenditures while transfers of technology accounted for $5.4 million and marketing accounted for $4.3 million. If we examine the assistance to business relative to GDA expenditures in the other provinces, we find that there is a higher portion of expenditures in P.E.I. than in any of the other Provinces. Other functional expenditures under the Plan included $23.4 million or 12.3 percent for highway construction and $12 million or 6.3 percent for resource management. The other major expenditure under the P.E.I. Plan was the $18.4 million or 9.6 percent which was directed at construction of a power cable between Prince Edward Island and the Province of New Brunswick.

Prince Edward Island (Sectoral)

On a sectoral basis, the P.E.I. Comprehensive Development Plan expenditures were largely concentrated in the primary agricultural sector with program expenditures of $51.1 million or 26.9 percent. Other sectors receiving a substantial portion of the Plan's expenditures were transportation, with a total expenditure of $24.6 million or 12.9 percent, social infrastructure $19.8 million or 10.4 percent and $19.1 million or 10 percent in the energy sector. No expenditures are listed in the primary manufacturing sectors, however, in the secondary manufacturing sectors $6.5 million or 3.4 percent of Plan expenditures were committed.

In summary, while we can see some similarities between GDA and P.E.I. development planning expenditures across the region, however, there are also a number of striking differences. While we can presume that a number of these differences are, in large part, due to different priorities and objectives in the various provinces, the existing industrial and infrastructure base had a considerable bearing on GDA expenditures. However, the expenditures on the functional and sectoral basis provide background information upon which to review the objectives and priorities of GDA programming in the region and relating these priorities to actual program outputs.

In addition to the background provided by the functional and sectoral classification, the combined functional/sectoral distribution (which is detailed in Appendix 6) provides a basis upon which to sample projects for the proposed evaluation of the GDA program (see Section 4.3 on sampling). Once program priorities have been defined and impacts and effects outlined, it is possible to use this type of classification system to draw a sample of projects for evaluation.

2.4 Objectives of the GDA

The precise delineation of program objectives is critical to conducting an Evaluation Assessment. It not only provides the basis for assessing a program's success in achieving its desired impacts but it also affords policy makers an opportunity to priorize those objectives and hence eventually select an evaluation option and approach which most closely meets those priorities.

In the case of the GDA program, the derivation of program objectives heirarchies was of particular value in view of the magnitude, number and diversity of the programs involved, and the resources available for an evaluation of the program (i.e., it provides a focus for the evaluation study).

While it might be suggested that priorized programming objectives can be drawn from the functional analysis described in Section 2.3 of this Report such an approach would be defficient in the following ways:

- It assumes, prior to evaluation, that expenditures do in fact reflect program objectives whereas the confirmation of such a linkage should in itself be the subject of evaluation.

- Functional program expenditures do not necessarily reflect either policy priorities, or priorities for evaluation. The magnitude of the capital investment required for infrastructure initiatives could bias less expensive endeavours of high priority.

- Program expenditures can be considered to meet a number of program objectives at one time and as such cannot be clearly assigned to specific or separate objectives, particularly at a higher level of objectives aggregation.

Program objectives were therefore drawn from the General Development Agreements and Sub-Agreements for each Province. The objectives heirarchies were then constructed to reflect a) GDA objectives of the highest order for each Province (ultimate objectives) in accordance with the overall objectives of the GDA program and DREE itself, b) strategic objectives, and c) sub-strategic objectives, specified and consolidated where possible.

The sub-strategic objectives are closely aligned with the specific goals or targets emunciated in the Sub-Agreements whereas the Strategic and ultimate level of objectives were predominantly drawn directly from each Province's General Development Agreement.

Exhibits 2.4.1 through 2.4.4 inclusive, portray the objective heirarchies derived and subsequently presented for amendment and priorization by Senior DREE Management by means of the interview process. As noted earlier, the upper-most objectives in each case are described as the "ultimate objectives" of each GDA, which in turn are supported by the "strategic" and "sub-strategic" objectives respectively.

Senior management were generally supportive of the objectives drawn from the GDA documentation, with a couple of noteable adjustments. For example, in the Provinces of New Brunswick and Newfoundland, both provincial DREE offices felt that the "reduction of intra-provincial disparities", although not specified in the GDA documentation, was indeed a strategic priority supported by the Sub-Agreement initiatives taken in that regard.

On the same grounds, DREE Newfoundland felt that the documented objective, "to stabilize and expand the construction industry", was not in and of itself an objective and therefore warranted its deletion from the heirarchy of objectives developed for this Province.

EXHIBIT 2.4.1: Heirarchy of Objectives - New Brunswick

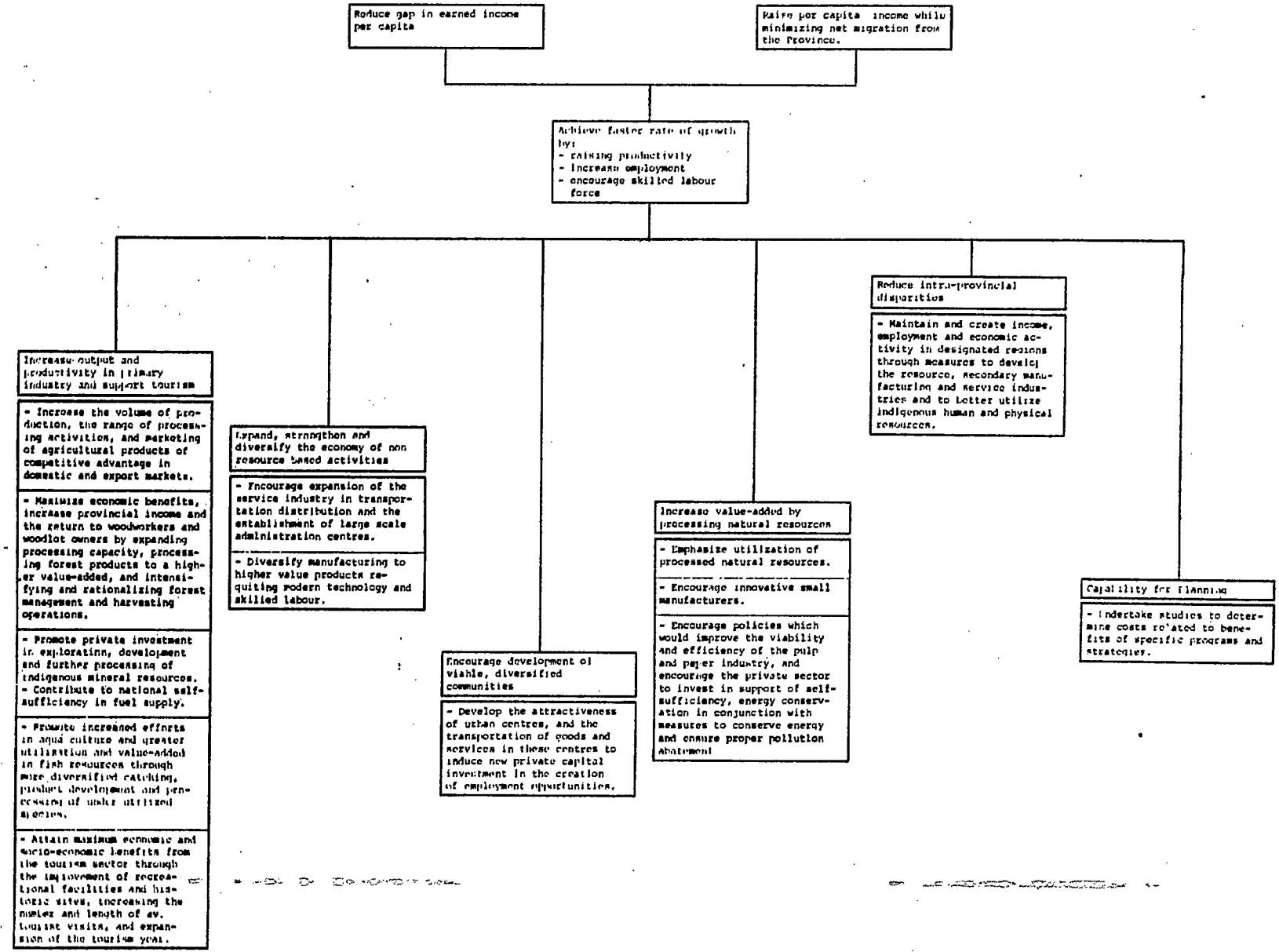


EXHIBIT 2.4.2: Heirarchy of Objectives - Nova Scotia

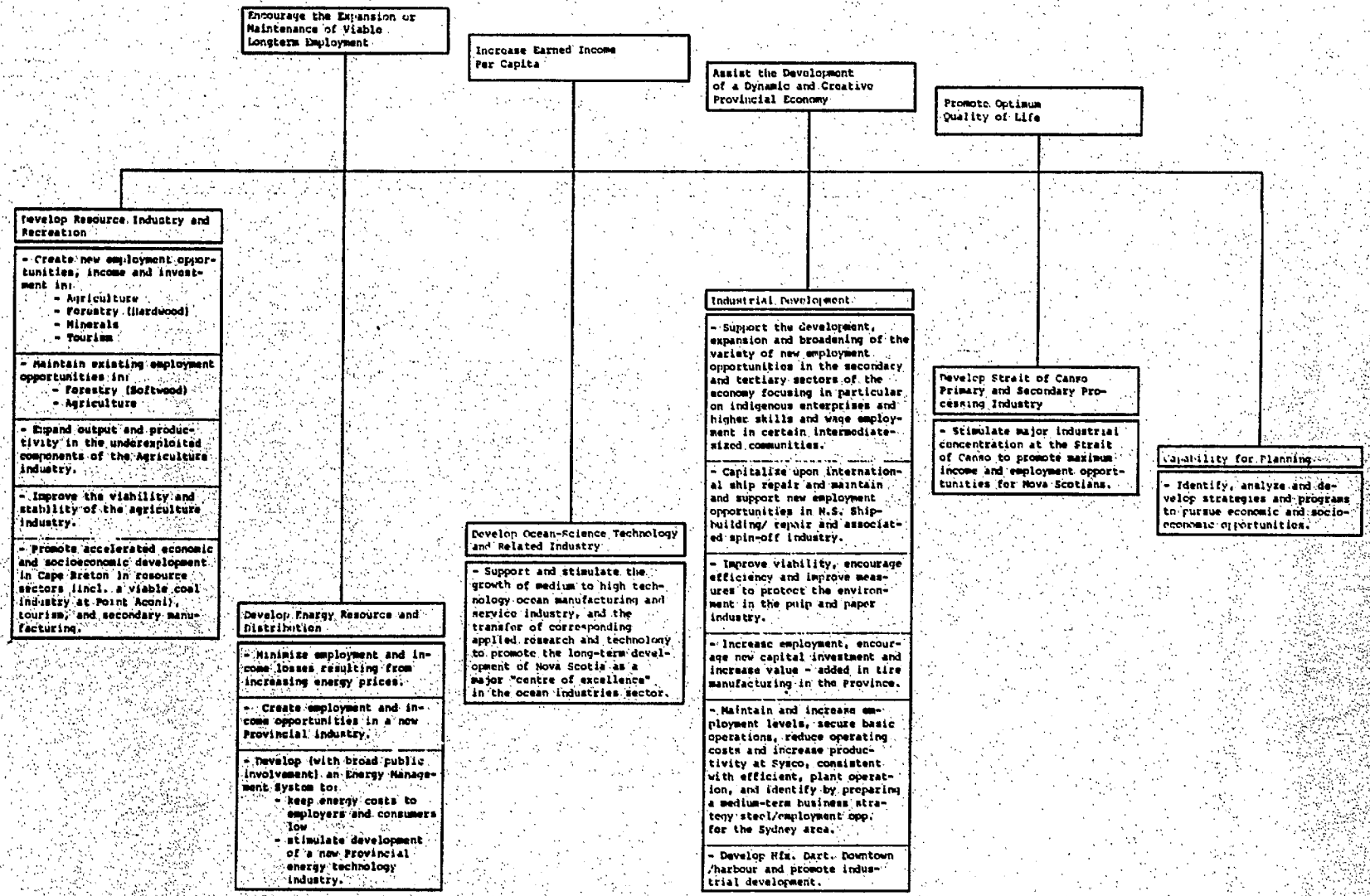


EXHIBIT 2.4.3: Heirarchy of Objectives - Newfoundland

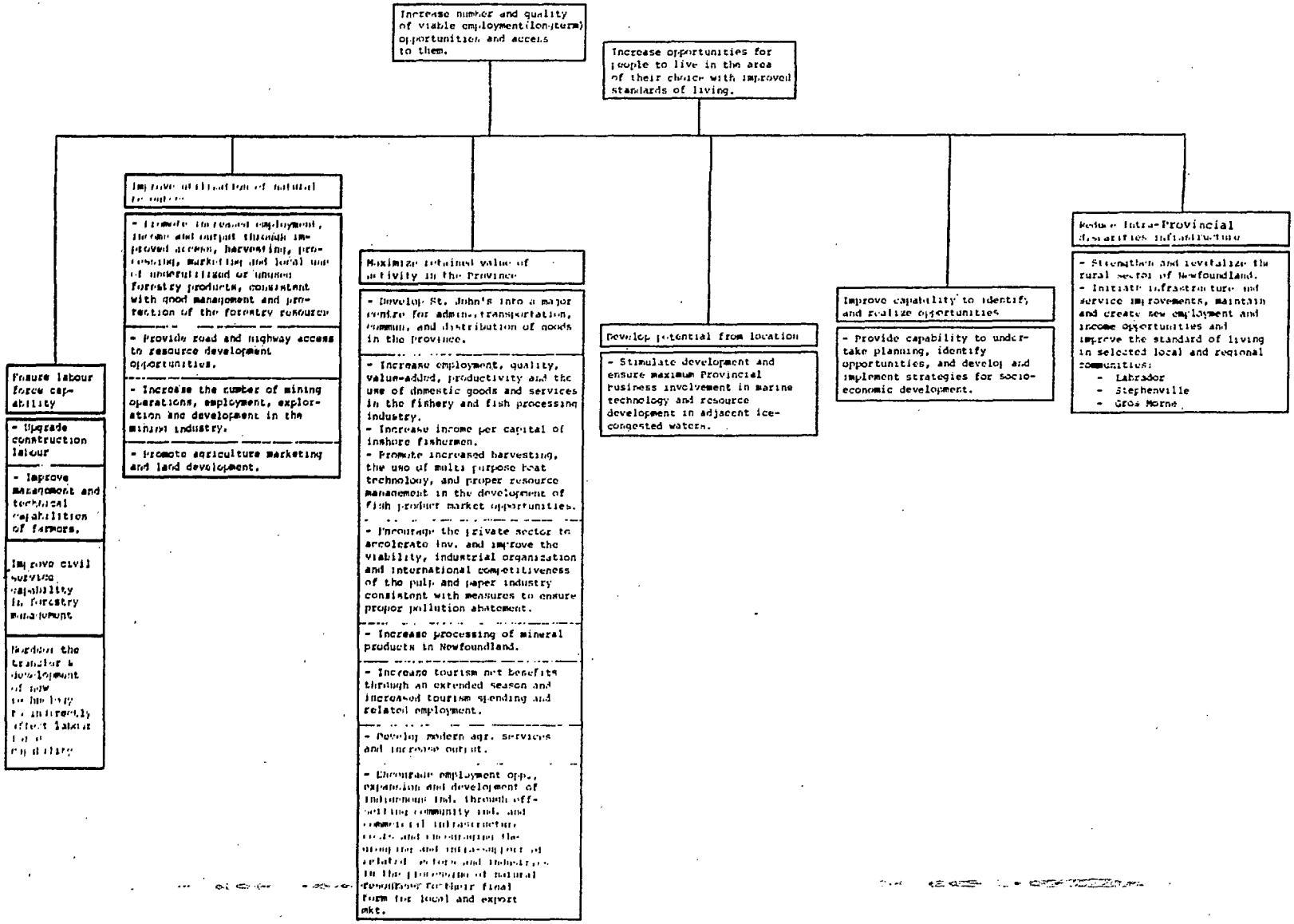
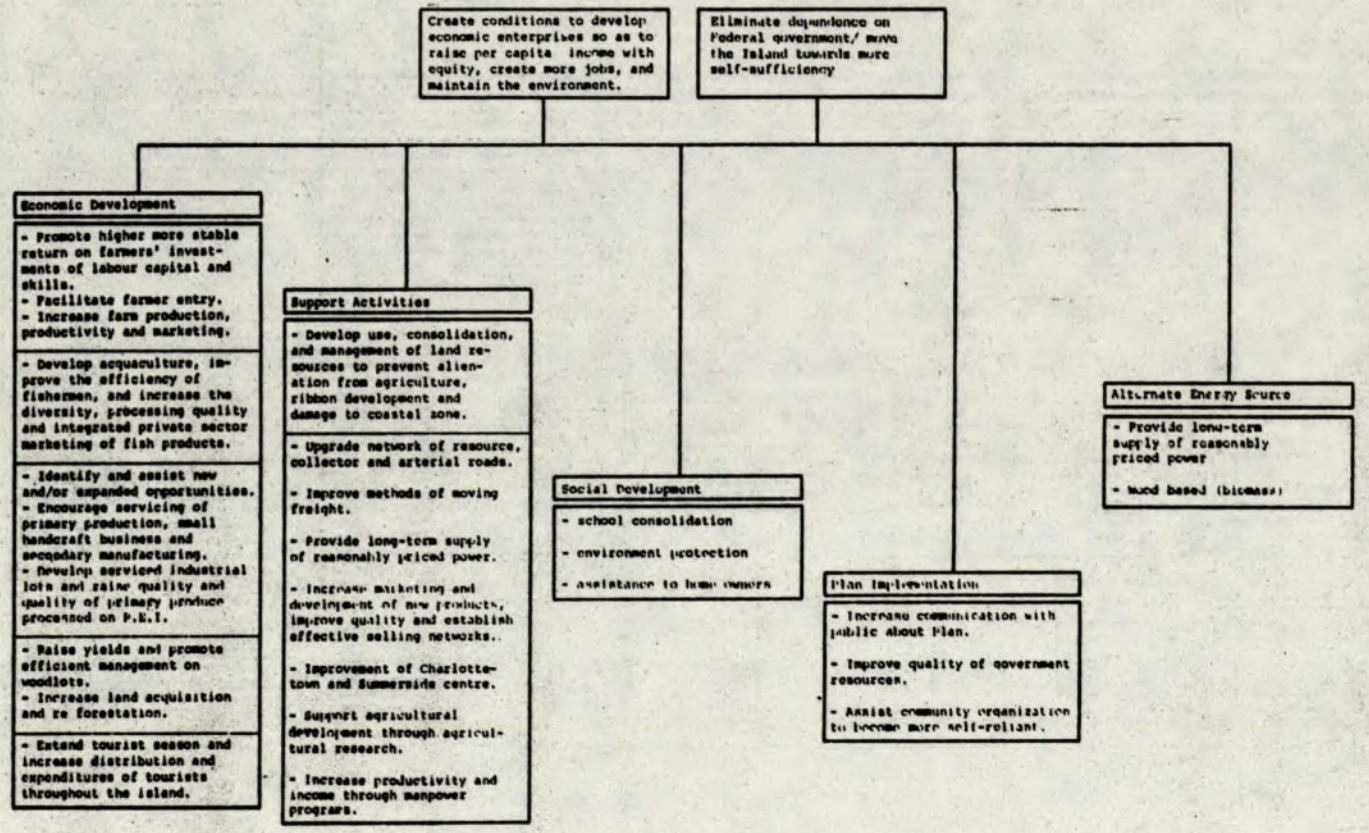


EXHIBIT 2.4.4: Heirarchy of Objectives - Prince Edward Island



The heirarchies therefore reflect the successive derivation of objectives over time in respect of practical opportunities and constraints. The priorization of these objectives is equally reflective of program evolution and changing events.

However, some difficulty was experienced by managers in priorizing objectives by virtue of the perceived use to which such a priorization would be put.

For example, some Managers felt priorities were largely of a temporal nature, evolving over time. They argued priorities assigned to objectives could change over time due to any or all of the following factors:

- changes in the national and international economic and social environment
- emergence of new opportunities
- achievement of new opportunities
- budgetary restraint
- priority drift.

These managers felt therefore that an Evaluation of the GDA program should focus on most recent objectives. It was their view that current priorities had most relevance to the development of new program initiatives and design.

On the other hand, it was felt by other managers that current priorites were not an accurate reflection of the heirarchy of priorities over the term of the GDA's. These managers preferred to view the GDA program in each Province

from a "global" perspective and to give priorization to program objectives with this same overview approach. They felt such a perspective was consistent with an evaluation of the GDA program in that it focuses on "What the GDA Program has done, and it identifies the degree to which its objectives were achieved." While such an approach did not rule out the assignment of a higher priority to most current objectives, it nevertheless did balance on the whole, objectives over the duration of GDA programming. It also carried the benefit from an evaluation point of view, of providing more measurable evidence as to program impact and objectives achievement.

In view of these two management perspectives, it was decided by the Project Team that priorities assigned to the objectives of GDA programming should largely be a matter of judgement to be exercised by the Provincial DREE offices. Therefore the interview process was aimed at soliciting from senior management their views as to which objectives for their respective province had for them the greatest priority for evaluation. This priorization is reflected in each Province's heirarchy of objectives by the position of one objective relative to another. That is, objectives with the highest priority, are highest in the heirarchy relative to other objectives at the same level of aggregation. For the most part, managers priorized program objectives using the "global" or "overview" approach. In some instances this priorization was supported by program expenditures and commitments - in other instances, such was not the case.

Since the interviews were conducted with Senior Management in the fall of 1981, the Government of Canada has announced, as mentioned earlier, an amalgamation of some of DREE's responsibilities with those of Industry, Trade and Commerce in the form of the new Department of Regional Industrial

Expansion. While the mandate of the new Department is still in the process of being clearly defined, it has been suggested by DREE officials that the priority assigned to GDA objectives could be affected in a downgrading of the priority given to developing the resource sectors, increased priority for industrial development, resource processing and industrial processing, as well as a shifting of priority for regional economic development. These considerations are of particular relevance to the process of selecting the most appropriate options for evaluation.

2.5 Program Logic Models

While Section 2.4 distinguishes the objective heirarchies of GDA programming for each Province, it nevertheless leaves unanswered, questions relating to the form and appropriateness of GDA programming in response to these objectives. In other words, the heirarchies portray what GDA programming was "intended to accomplish". They do not however, draw the critical linkages which identify specific programming activities which are structured to achieve these objectives - the "how did it go about it" side of the question.

To this end, Logic Models of the programs were prepared for each Province (see Exhibits 2.5.1 through 2.5.4). These models, which were reviewed and confirmed by the Steering Committee, link the mandate and activities of each Province's General Development Agreement, to the outputs flowing from those activities, as well as their consequent and anticipated impacts.

The logic models therefore portray the hypothetical framework and implicit linkages which must be tested in an evaluation. For example, a comprehensive evaluation would address the appropriateness of programming activities vis a vis the mandate of the program. It would also test the

EXHIBIT 2.5.1: NEW BRUNSWICK GDA LOGIC MODEL

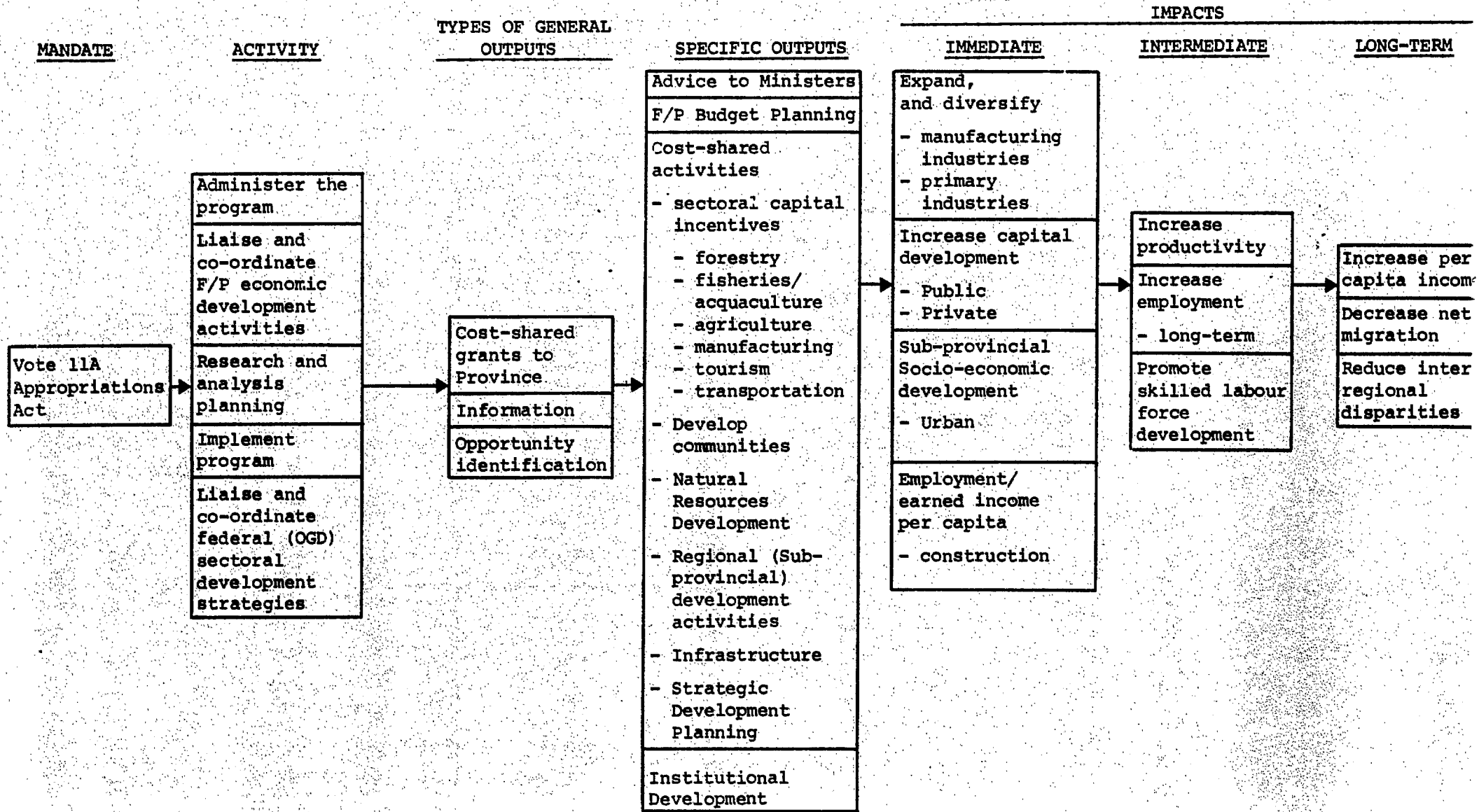


EXHIBIT 2.5.2: NOVA SCOTIA GDA LOGIC MODEL

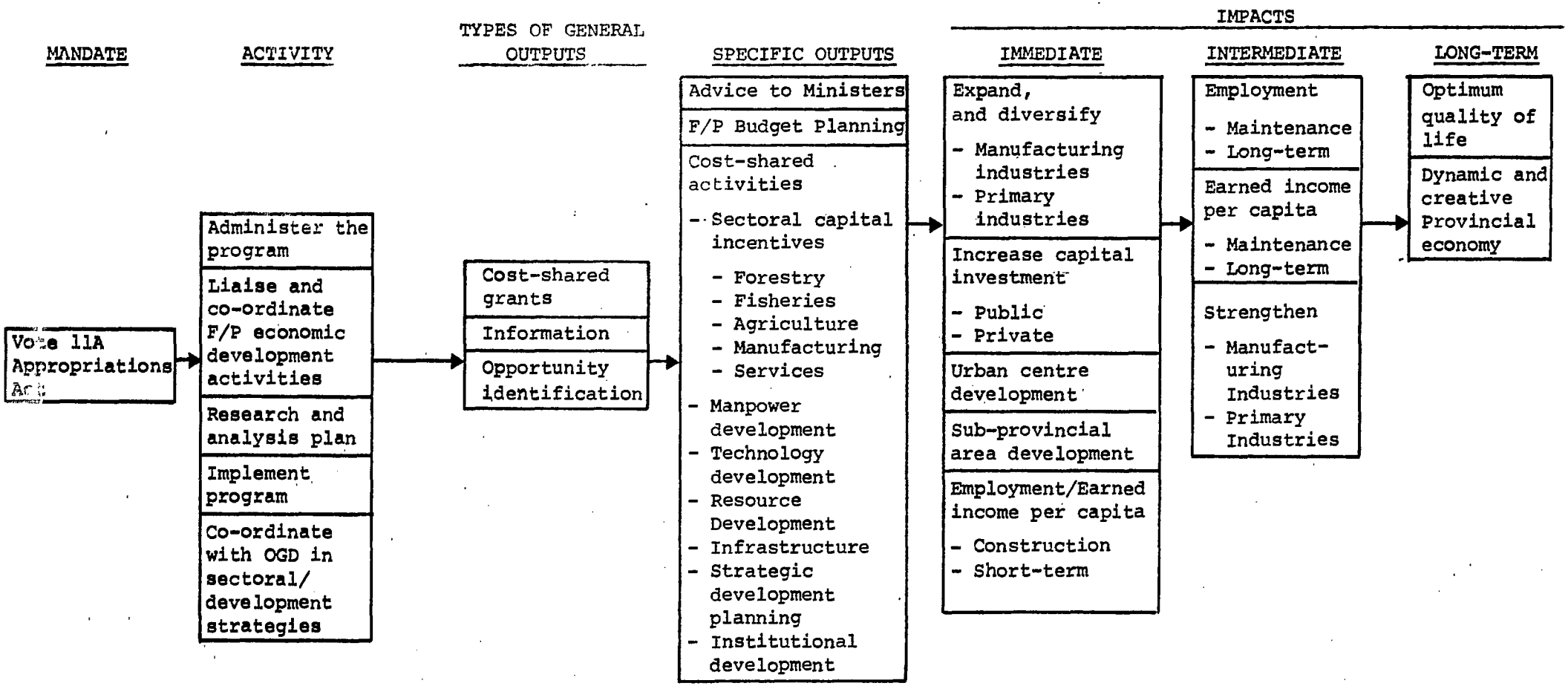
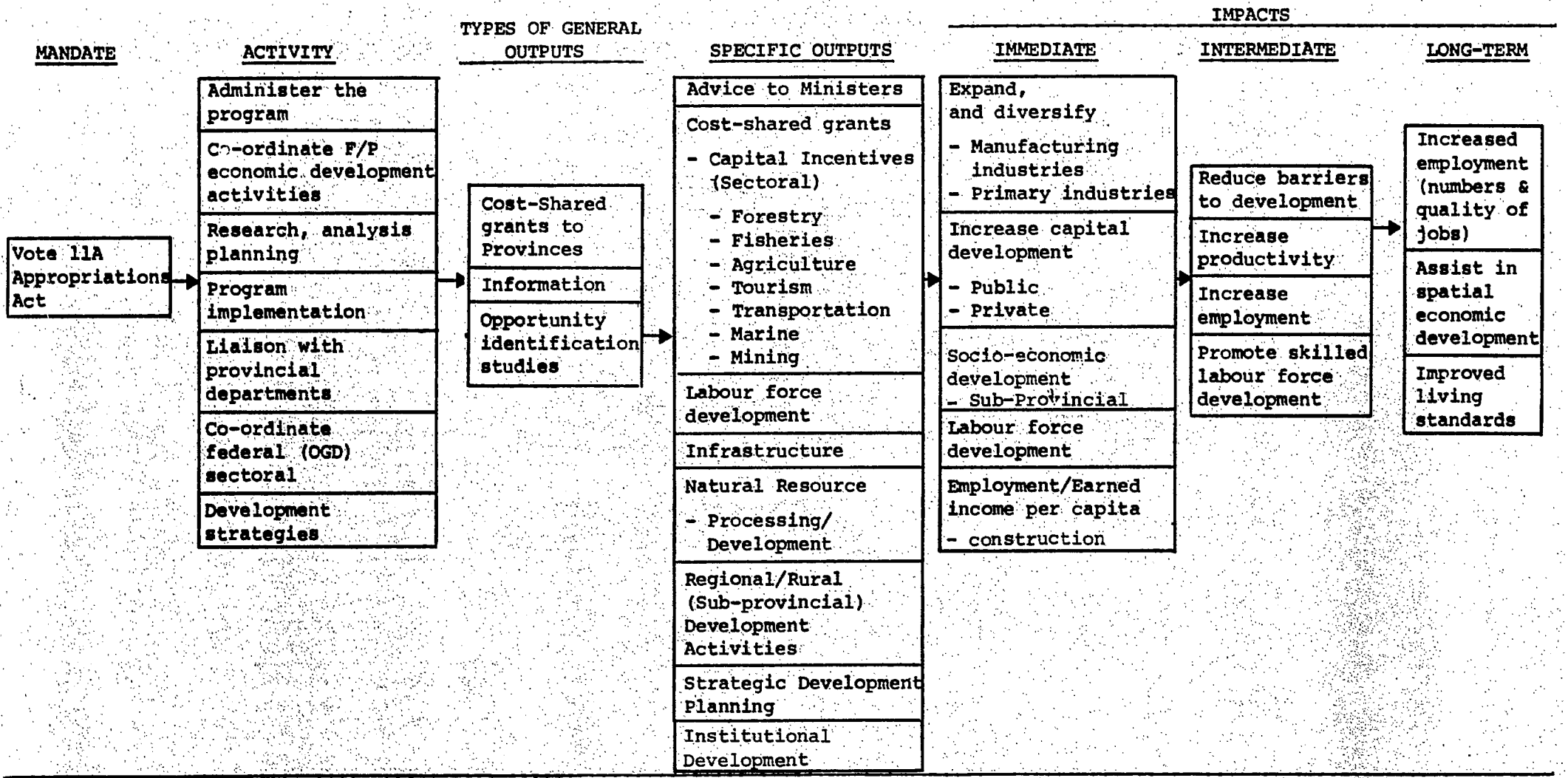
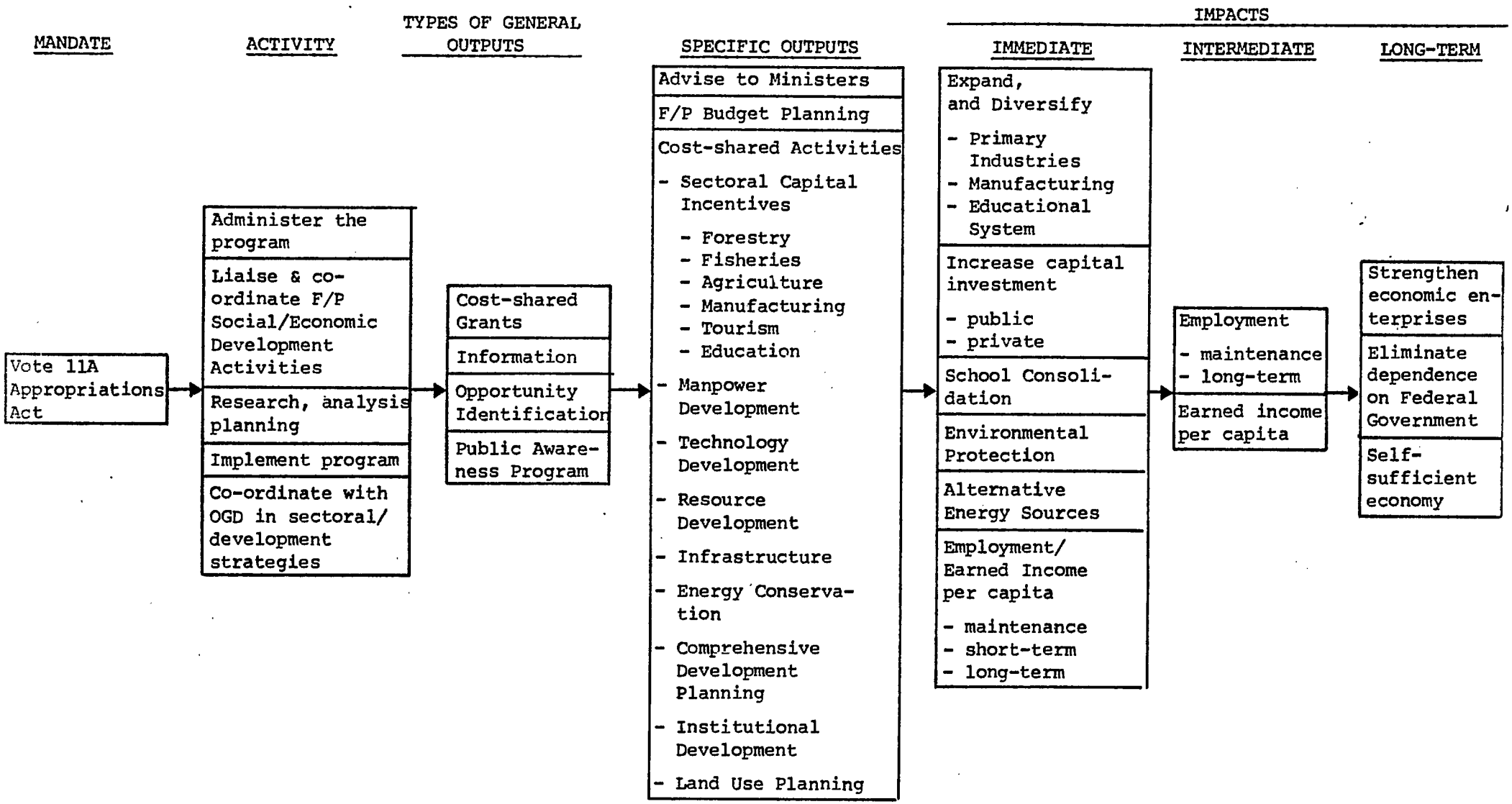


EXHIBIT 2.5.3 NEWFOUNDLAND GDA LOGIC MODEL



XHIBIT 2.5.4: PRINCE EDWARD ISLAND COMPREHENSIVE DEVELOPMENT PLAN (PHASE II) LOGIC MODEL



strength of the linkages between the program activities and the general and specific outputs of GDA programming. In both cases the focus is largely of a programmatic nature and will be addressed internally by DREE.

This study, however, in view of its restricted focus directs its attention primarily to the fundamental hypothetical linkages which are assumed to exist between the specific outputs of GDA programming and the impacts of those outputs upon the environment under review.

3. EVALUATION ISSUES AND QUESTIONS

3.1 Issues

Prior to the commencement of this evaluation assessment exercise, the Department of Regional Economic Expansion determined that the evaluation assessment should focus primarily upon the economic development effects of GDA programming. The Department maintained that issues relating to the General Development Agreements as a "mechanism" would have less priority for program evaluation, largely reflective of the fact that decisions were at that time being made within the Federal government concerning alternate funding structures and processes for the future. Furthermore, it was decided by DREE that since the assessment was to be a direct federal exercise, that the issues and questions should reflect federal priorities only. Therefore, as noted earlier in Section 1.3 of the Report, the issues prescribed for study by the Consultant were related to the impacts and effects and objectives achievement of GDA programming in the Atlantic Region. Issues relating to Program Rationale, and Alternatives were to be undertaken by DREE staff.

The Impacts and Effects issues category was further sub-divided into the following intended and unintended sub-categories.

1. Intended Impacts and Effects

   - economic impacts and effects;
   - coordination of Federal-Provincial policies and programs;
   - coordination of Federal policies and programs, and,
   - private sector involvement.

2. Unintended Impacts and Effects

In view of the decision by DREE to focus upon economic development effects, the Project Team was further directed to address only those questions related to intended economic impacts and effects, private sector involvement and unintended impacts and effects leaving Federal and Federal-Provincial program coordination issues to DREE officials for assessment.

Therefore, the issues to be addressed by the Project Team were:

Impacts and Effects

1) Intended Impacts and Effects

i) Economic Impacts and Effects

ii) Private Sector Involvement

2) Unintended Impacts and Effects

Objectives Achievement

While the scope of this study reflected the Department's priorities as outlined above, the compartmentalization of the Evaluation Assessment process into these separate units did not permit an assessment in this study of the program implementation factors which lead to the impacts and effects and objectives achievement of the program.

3.2 Evaluation Questions

At the outset of the study process, DREE officials provided to the Project Team recommended questions which addressed the designated issues which required evaluation methodologies and approaches. While the prescription of program evaluation questions normally follows the identification of program causal linkages and an appreciation of the issues and their priority for evaluation as they relate specifically to the program under review, the interview process was again used in this study as an opportunity to attain the priorities of Senior Management following which, appropriate revisions to the evaluation questions were made. Some questions were accordingly dropped from the list while others were made more precise and new questions added to render the focus of the study more relevant and specific to the concerns of senior management in DREE.

Exhibit 3.2.1 portrays the following:

- the class into which each question falls; and,
- the focus of the analysis to be applied in answering each question;

By categorizing each question in this manner, various evaluation options can be developed with a sensitivity to focusing on questions largely of an economic impacts and effects nature, or with a policy/program or objectives achievement orientation. As is demonstrated in Section 5 of the Report, the most realistic set of evaluation options reflect a blend of questions of various classes at alternative levels of analysis, reflective of priorities and the use to which the subsequent evaluation might be put in each Province.

While some questions listed in Exhibit 3.2.1 reflect, in themselves, the appropriate indicators to be measured in developing their response, in other cases a number of alternate performance indicators were developed, and in most instances more than one for each question.

Following is a brief review of the questions listed in Exhibit 3.2.1 as well as a description of the performance indicators developed for answering the respective questions in each case. The questions and listing of all possible performance indicators are provided in matrix form in Appendix 7.

1. Impacts and Effects

1. Intended Effects and Impacts

i) Economic Impacts and Effects

Questions 1(a), (b) and (c):

> In what manner and to what extent has GDA programming led to improvements in employment income and output?

These questions are basic to an assessment of the economic impact of GDA programming in each of the Provinces under review. In most Provinces they are reflective, in part, of the objectives of the GDA programs.

In measuring the impact of GDA programming specifically on employment, income and output it is necessary to address the complex issue of incrementality - that is, isolating from any impact assessment, the extent to which this economic activity would have occurred in the absence of the GDA

EXHIBIT 3.2.1 QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED

Issues	Specific Questions	Class of Question			Focus of Analysis			
		Impacts and Effects	Objectives Achievement	Policy/ Program Formulation	Functional	Sectoral	Spatial	Aggregate
I. Effects and Impacts								
A. Intended Effects and Impacts								
i) Economic effects and impacts	1. In what manner and to what extent has GDA programming led to improvement of socioeconomic circumstances?							
	(a) employment (creation/ maintenance)	X						X
	(b) income (earned)	X						X
	(c) output	X						X
	(d) productivity	X						X
	(e) resource utilization/ management			X		X		
	(f) population distribution	X						X
	(g) quality of life	X					X	
	(h) private investment	X						X
	(i) increased labor and management skills			X	X			
	(j) reduce or eliminate structural impediments to development (negative impacts of structural change)			X				X
	(k) sub-provincial disparities	X					X	

EXHIBIT 3.2.1 Con't — QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED

Issues	Specific Questions	Class of Question			Focus of Analysis			
		Impacts and Effects	Objectives Achievement	Policy/ Program Formulation	Functional	Sectoral	Spatial	Aggregate
	2. Who have been the ultimate recipients of GDA programming by category of recipients? (provincial, governments, businesses, communities, individuals, non-profit)			X				X
	3. Has GDA programming supported the positive changes which have occured within the provincial economy?	X				X		
	4. What has been the impact of GDA programming of a sectoral basis?	X				X		
	5. How does the impact in the resource sectors compare with the impact in other sectors?	X				X		
	6. What has been the economic impact of GDA programming on a sub-provincial spatial basis?	X					X	
ii) Private sector investment	7. What has been the participation of the private sector in the GDA process, both in terms of financial contribution and involvement in the planning process?			X	X			

EXHIBIT 3.2.1 Con't — QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED

Issues	Specific Questions	Class of Question			Focus of Analysis			
		Impacts and Effects	Objectives Achievement	Policy/ Program Formulation	Functional	Sectoral	Spatial	Aggregate
	8. What is the potential for further private investment? (restricted to areas in which the greatest amount of investment has been made resulting from direct GDA investment)			X		X		
	9. Has the amount of infrastructure investment under the GDA been sufficient to remove the barriers to industry viability and expansion?			X	X			
	10. What types of GDA program instruments (e.g., infrastructure, incentives) have been most effective in terms of achieving GDA objectives?	X			X			
B. Unintended Impacts and Effects	11. Has GDA encouraged the creation of development which is subsidy dependent?			X				X
	12. Has the GDA programming encouraged inefficiencies or efficiencies with respect to regional economic development in the Atlantic Region?		X					X

EXHIBIT 3.2.1 Con't — QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED

Issues	Specific Questions	Class of Question			Focus of Analysis			
		Impacts and Effects	Objectives Achievement	Policy/ Program Formulation	Functional	Sectoral	Spatial	Aggregate
II. Objectives Achievement	13. To what degree have the objectives laid out in the GDA been met?							
	Compare impact and effects with objectives.		X					X
	14. Does a great deal of the GDA impact fall in areas not set out in its objectives?							
	To what extent do the impacts and effects of the GDA match with stated objectives?		X					X
	15. What have been the factors which affected the achievement of objectives (i.e., programming? Financial commitments? Implementation? Planning? Changing economic circumstances? Other reasons?		X					X

program. Furthermore it is important to distinguish between what constitutes intended* and construction/incidental* impacts of GDA program expenditures.

With respect to construction/incidental impacts, the Project Team considered that GDA programming must be seen to be of value not only in promoting economic activity as an intended result of its program initiative, but also in generating similar employment, income and output benefits through the expenditure of the program commitments themselves. Infrastructure commitments for example, were therefore seen to have a construction or incidental impact value through, for example, the employment opportunities generated in building a highway. Once the infrastructure, in this case being a highway, was in place, it should also be considered that a further positive and intended impact on employment opportunities will be experienced, largely reflective of the rationale for undertaking the project in the first place.

For both "Intended" and "Construction Incidental" impacts on employment, income and output, performance indicators were also developed to distinguish between the direct, indirect and induced multiplier effects of the initiative.

The Steering Committee was of the opinion, however, that construction/incidental impacts have less priority than "intended" impacts for evaluation in that they strictly constitute a transfer in economic terms; they have largely been identified and measured in Sub-Agreement evaluations; and finally they were not viewed as having a high priority for evaluation by Senior Management. This priority is subsequently reflected in the options prepared for undertaking the evaluation.

---

* Intended impacts are defined as the second order impacts of GDA expenditures. Construction/incidental impacts are the construction related activities of GDA expenditures.

Regardless of the focus or sequence of employment, income or output activity selected from the above, however, the measurement of the performance indicators nevertheless must be reflective of the "incremental" impacts of GDA programming. This consideration becomes a predominant factor in assigning the methodologies or techniques of measuring these indicators as described in greater detail in Section 4 (Methodologies) of the Report.

Question 1(d):

> In what manner and to what extent has GDA programming led to improvements in productivity?

This question addresses the incremental impact of GDA programming on productivity which is reflected in the objectives heirarchies of GDA programming in most Provinces. Numerous indicators can be assigned to the measurement of incremental increases in productivity all of which are comparable to circumstances prior to the inception of the program. While a measurement of the marginal change in output divided by the marginal change in input can be viewed as the most appropriate measurement of a change in productivity, consideration was also given to comparing:

- the output per man year by sector compared to national averages;
- wage rates of assisted sectors compared to other comparable wage rates;
- changes in value-added per employee;
- changes in average total output per manhour.

The quality of the indicator as well as the consequent technique, level of intensity and cost necessary to generate each performance indicator were factors in selecting which indicators would be measured when evaluation options were subsequently developed.

Question 1(e):

> In what manner and to what extent has GDA programming led to improvements in resource utilization/management?

The incremental impact of GDA programming on resource utilization and management in each Province could be ascertained through a review of harvestible rates and the mix of resource utilization for each sector, focusing on the various uses to which land may be put. As well, an evaluation might assess the degree to which new harvestibles have been developed as a result of GDA programming. As noted in Exhibit 3.2.1, this question is viewed as a policy/program class of question, less directly concerned with a quantitative impact assessment than with a qualitative appraisal of GDA programming.

Question 1(f):

> In what manner and to what extent has GDA programming led to improvements in population distribution?

The impact of GDA programming on population distribution can be discerned from an incremental analysis of the indicators noted above, depending upon the technique or methodology employed for their measurement. This analysis could be supplemented with a review of inter-provincial census data.

Question 1(g):

In what manner and to what extent has GDA programming led to improvements in quality of life?

This question relates directly to an ultimate objective of GDA programming in the Province of Nova Scotia. The assignment of performance indicators, by virtue of the question itself, was somewhat vague. Senior DREE Management in Nova Scotia suggested that although this objective was largely assessible in qualitative terms, an improvement in earned income per capita was considered a general reflection of a preferred quality of life in the Province.

An analysis of changes in income distribution, personal consumption patterns and the consumption of public goods (health, housing and eduction) was also thought to be indicative of changes in the quality of life, although it is acknowledged that positive changes in indicators could not be strictly attributable to GDA programming alone.

Question 1(h):

In what manner and to what extent has GDA programming led to improvements in private investment?

The impact of GDA programming on private investment reflects the extent to which GDA expenditures generated or induced private sector spending in the direction of the stated goals of the GDA. The technique or methodology employed to measure this indicator must satisfactorily address the issue of incrementality.

Question 1(i):

In what manner and to what extent has GDA programming led to improvements in labour and management skills?

Increased labour and management skills resulting from GDA programming can be partially assessed with reference to the indicators prescribed for the measurement of productivity changes. An analysis of profitability in sectors affected by the GDA program and the development of special indicators respecting labour classifications, etc., would supplement these productivity indicators. This question is classified as being largely of a policy/program nature.

Question 1(j):

In what manner and to what extent has GDA programming led to the reduction or elimination of structural impediments to development?

A number of indicators were developed to measure in various ways the extent to which GDA programming would result in a reduction or elimination of structural impediments to development. The indicators themselves suggest a considerable variance in the techniques to be employed, or the level of intensity devoted, to answering this question. For example, a change in the availability of labour and capital stock in the region as a result of GDA programming might be considered an adequate assessment of the question. It might however, be desireable to support this analysis with a review of the quality, level and retention of graduates from training and education institutions in the Atlantic Region.

On a more "micro" level this question might also be addressed by undertaking an analysis of the distance of manufacturing/industrial plants to first class Highways or for

selected industries the improved time and cost of reaching the market place. Alternatively, at a "macro" level an analysis (sectoral path) might be conducted to portray the impact that GDA programming has had on selected sectors of the economy to discern whether sectoral growth had been affected both on a long or short-term basis, relative to the rate of growth which would have occurred in the absence of the GDA program.

This question was viewed to fall within the policy/program class of questions affording considerable leeway in determining the approach and level of effort to be employed in generating a response.

Question 1(k):

> In what manner and to what extent has GDA programming led to the reduction of sub-provincial disparities?

The reduction of sub-provincial or "intra-provincial" disparities, while not formally documented, was for Newfoundland and New Brunswick, an objective of significant priority. Performance indicators noted for questions 1(a) to 1(i), developed at the sub-provincial level, would be applicable to answering this question, depending upon the availability of data and the ability of the methodologies applied to earlier questions to disaggregate results on a sub-provincial basis.

Question 2:

> Who have been the ultimate recipients of GDA programming?

The identification of the ultimate recipients of GDA programming is less of an economic impacts and effects question and one more related to policy/program formulation. Nevertheless the analysis should consider identifying both the direct and indirect consequences of GDA initiatives on possibly a sectoral basis focusing on individuals, labour, industry profits and government taxes, etc. Alternatively the analysis could be conducted on an aggregate basis with much the same focus inclusive of various income components.

Question 3:

> Has GDA programming supported the positive changes which have occurred within the provincial economy?

In identifying GDA support for the positive changes which have occurred within the economy, one might employ the sectoral path analysis alluded to earlier whereby the actual growth of various sectors of the Provincial economy would be compared against growth paths in the absence of GDA programming. These indicators would endeavour to measure the short, medium and long-range sectoral implications of GDA programming.

A much less sophisticated analysis aimed at measuring similar impacts could simply involve an identification of changes in key economic indicators at either the sectoral or aggregate level in a Province and relate those growth paths to GDA expenditures over time (classified either on a sectoral or functional basis), to identify the degree of correlation between the two indicators. The approach taken would largely dictate the estimation technique and level of effort which must be employed to generate the desired results. (It was felt by the Steering Committee that this question should be addressed at the sectoral level.)

Questions 4 and 5:

4) What has been the impact of GDA programming on a sectoral basis?

5) How does the impact on the resource sectors compare with the impact on other sectors?

These questions relating to the sectoral impact of GDA programming could be addressed by measuring on a sectoral basis, the indicators recommended for Questions 1(a) to (i) inclusive. In the case of Question 5 the analysis would include a comparison of the resource sector against other sectors of the economy as well as the incremental analysis required of the impact which would have ultimately occurred in any case, (i.e., in the absence of GDA funding).

Question 6:

What has been the economic impact of GDA programming on a sub-provincial (spatial) basis?

Assessing the economic impact of GDA programming on a sub-provincial or spatial basis, once again requires an appraisal of the indicators noted in Question 1 adjusting where possible for the spatial perspective required in this question. In most cases the results of answering Question 1(f) will be directly applicable to addressing this question.

ii) Private Sector Involvement

Question 7:

What has been the participation of the private sector in the GDA process, both in terms of financial contributions and involvement in the planning process?

This question represents the first of four questions dealing with the intended impacts and effects of private sector involvement in the GDA process. Senior Management viewed the issue of private sector involvement as having a high priority for evaluation reflecting in part, a perception that involvement of the private sector has been inadequate in the past and was of growing priority for the future. This question is directed to a measurement of the financial contribution involved and the participation of the private sector in the planning process. The indicators most appropriate for answering this question could be drawn from the following:

- the amount and degree of participation by the private sector in feasibility studies;
- the number of planning meetings attended by the private sector;
- the number of grant programs, voluntary planning exercises and boards established;
- the quality of Board discussions, turnover rates, etc.

The indicators prescribed require a modest level of statistical sophistication although the level of effort employed in their generation could vary to a significant extent. The question was considered to fall within the policy/program class of questions best addressed with a functional focus.

Question 8:

What is the potential for further private investment?

This question endeavours to identify the potential for further private sector investment in areas in which the greatest amount of investment has been made resulting from direct GDA investment. This question should be distinguished from the "process" orientation of the previous question. It focuses directly upon the opportunities for investment by the private sector generated by the GDA process rather than the investment initiated by the private sector as part of the GDA process.

Again on an incremental basis, the analysis should focus upon investment intentions, the level of business confidence and take-up rates of GDA induced investment opportunities. The technique employed in deriving these indicators must be capable of compiling the information on an incremental basis. This question was considered to fall into the policy/program class of questions best studied with a sectoral focus.

Question 9:

Has the amount of infrastructure investment under the GDA been sufficient to remove barriers to industrial viability and expansion?

This question endeavours to address the extent to which infrastructure investment made through the GDA program has been sufficient to remove barriers to industry viability and expansion. Indicators assigned to assess the performance of GDA funding in this regard could be developed through identifying particular firms in areas representative of this type of GDA activity that have or have not, located and/or

expanded in the Atlantic region as a result of GDA programming. The extent to which GDA infrastructure investment has influenced private sector investment could also be assessed at the same time to determine whether the program's impact was essential, marginal or of no value in influencing the expansion and/or viability of firms located or planning to locate.

The analysis could be supplemented by a determination of the lower operating costs which may have accrued to these firms as a result of GDA infrastructure investment. Again this question is considered to fall within the class of policy/program formulation focusing at a functional level of analysis.

Question 10:

> What types of GDA program instruments (i.e., infrastructure) have been most effective in terms of achieving GDA objectives?

This last question relating to Private Sector involvement in or as a result of GDA programming, is the only one considered to be of an impacts and effects nature. Focussing at the aggregate level of analyses the evaluation is requested to identify those types of GDA program instruments (eg. infrastructure, incentives, etc.) which have been most effective in terms of achieving GDA objectives.

Performance indicators could be derived in accordance with those identified for the first question in that GDA objectives generally tend towards improved levels of employment, output, income, productivity, etc. The data input however would be formulated on a functional basis or as closely aligned to the GDA instrument utilized. That is, by separating the inputs to the analysis in accordance with the

GDA instruments employed, the consequent results of each analysis would attribute the economic impacts and effects to the respective programming instrument. To the extent that objectives are not aligned with economic impacts identified earlier, performance indicators would have to be developed for those objectives against which the functional expenditure classification would be compared to determine occurances of relative positive correlation.

B. Unintended Impacts and Effects

Unintended impacts of GDA programming can be viewed from both a positive and negative perspective. Questions developed pertaining to these issues focus primarily upon unforeseen or unplanned consequences of the GDA program and were considered by the Project team to represent the policy/program formulation or objectives achievement class of questions.

Question 11:

> Has the GDA encouraged the creation of development which is subsidy dependent?

The first question pertaining to this issue addresses the extent to which GDA programming has, as a by-product of its support, encouraged the creation of development which is subsidy dependent. This question is most relevant to policy/program formulation needs and can be addressed at an agregate level through the identification of some of the following indicators:

- the number of firms tht have grown and matured as a result of the GDA program;
- the number of repeat applications for GDA funding and/or other government programs;

- the differences between first, second and third applicants for DREE assistance;

- a dependency index within the business community;

- the degree to which subsidies have reduced costs and made firms more competive.

In most cases the techniques applied to measuring the above noted indicators are similar although considerable latitude can be exercised in determining the level of effort to be employed.

Question 12:

> Has the GDA programming encouraged inefficiencies or efficiences with respect to regional economic development in the Atlantic region?

The second unintended impact and effects question is similar in some respects to the preceding question, but can be considered to be more of an objectives achievement class of question. Furthermore, in assessing whether GDA programming has encouraged efficiencies or inefficiencies with respect to regional economic development in the Atlantic Region, one is faced with conducting an analysis which is not restricted to provincial boundaries. While an evaluation might measure changes in employment, productivity and income or compare to select series of economic indicators with and without GDA programming, the option and process selected by Senior Management will have a considerable bearing on the answerability of the question and the costs and time inherent of doing so. That is, if a decision is reached to evaluate this particular question with reference to an identification of the net effect in the Atlantic Region of the incidence of competition artificially induced by GDA programming, such an

analysis could be viewed as expensive and difficult to conduct if each provincial GDA program is to be evaluated separately. In such a case the question could be viewed in an intra-regional context with the intra-regional boundaries mirroring provincial boundaries within the Region. Alternatively the approach could be refined to proceed on a sectoral basis for perhaps selected sectors of the economy again within the intra-regional context.

II Objectives Achievement

Three questions were prescribed by the Steering Committee in evaluating the achievement of GDA program objectives. Before such an evaluation can begin, however, a decision must be made as to the level and number of objectives to be addressed. As indicated in Section 2, the General Development Agreements and their respective Sub-Agreements each specify a unique set of objectives which, in this study, have been classified as falling into ultimate, strategic and Sub-Strategic levels of focus. If the evaluation were to assess the attainment of all Provincial GDA objectives at all levels, then accordingly appropriate indicators and measurement techniques would have to be developed. This would not only require an onerous effort but would offer a questionnable return in respect of the expense and level of effort involved.

Alternately a select number of objectives could be identified from the objectives heirarchies developed for each Province, focusing upon those objectives given highest priority for evaluation by Senior Management during the interview process. Again by virtue of the close alignment which often exists between Provincial GDA objectives and the economic performance indicators specified for the various parts of question (1), the achievement of numerous objectives could be answered in part, by reference to the indicators measured in answering the first question.

A second alternative for selecting Provincial GDA objectives assessment is to expand upon the first approach by selecting all objectives which align themselves with earlier questions pertaining to other issues. That is, objectives to increase employment, income, output and productivity could be assessed utilizing the impact analysis results of the first question and by establishing and comparing this performance against a benchmark. Similarily, earlier questions addressing intra-provincial disparities and infrastructure investment to remove barriers to industry growth and viability readily align with specific Provincial objectives.

In short, barring an assessment of all Provincial objectives at all levels, some criteria must be developed to distinguish which objectives will be selected for evaluation.

Another criterion that should be taken into account in identifying objectives to be evaluated is the level of effort involved in their measurement. That is, an evaluation of objectives which align closely with the impact analysis undertaken in answering earlier questions could largely draw from the results of that analysis. In other cases an additional impact assessment might be required to evaluate the achievement of specific objectives.

A greater problem confronts the assessment of objectives achievement however, than that simply of selecting the "group" of objectives to be evaluated in each Province. The larger problem originates with the prescription of the objectives themselves. That is, in numerous cases, objectives were insufficiently prescribed so as to specifiy what might "reasonably" reflect their attainment. For example, while most provinces viewed increasing employment, income, output and productivity as GDA objectives, they failed to designate a performance target with which to assess the attainment of those objectives. While it would appear

unreasonable to accept that a Province might have demonstrated positive performance for each of the three indicators noted above but slipped in performance relative to other Provinces in the Country, had in fact achieved its objectives specified under its General Development Agreement, nothing in the specification of the objectives themselves precludes such an interpretation.

Therefore in designating those objectives which for each Province are to be the subject of evaluation in respect of the questions raised, it is also necessary to exercise varying degrees of judgement in specifying the performance indicators which might reasonably suggest their achievement.

Question 13:

> To what degree have the objectives laid out in the GDA been met?

The first question which addresses the objectives achievement issue is reflective of the concerns just noted. Its focus is to discern the degree to which the objectives laid out in the GDA have been met. It also requires that the GDA program impacts and effects be compared with these objectives. Following the earlier comment made respecting this issue, criteria must be first established for selecting the objectives to the assessed and secondly performance indicators must be derived which gauge the threshold or level of objectives achievement.

Question 14:

> Does a great deal of the GDA impact fall in areas not set out in its objectives? To what extent do the impacts and effects of the GDA match with stated objectives?

As a corollary to question 13, this question asks whether a great deal of the GDA impact falls in areas not set out in its objectives. It goes on to question the extent to which the impacts and effects of GDA programming match with stated objectives.

Question 13, if approached satisfactorily, suggests the approach to this question. Clearly the most comprehensive approach to this question would call for a complete evaluation of the achievement of all GDA objectives at all levels, relative to the impacts and effects measured in earlier questions respecting the impacts and effects issue.

In the event that a more restricted approach is selected in addressing question 13, the focus of this question could similarily be reduced. That is, if the previous question addressed only those provincial GDA objectives for which impacts were assessed in the course of responding to earlier questions, the latter part of question 14 would therefore be substantially answered in that process. The approach to answering the first part of question 14 is less obvious however, in that it strives to identify the "residual" impact of GDA programming beyond that foreseen in the objective of introducing the initiative or program in the first place. This could involve a complete comparison of the impacts analysis undertaken against all levels of objectives to identify overlap where it may occur.

Conversely, if one views the second part of Question 14 as merely a refinement of the first part, the analysis and approach noted earlier would be sufficient.

Once again, in developing evaluation options around the issues and questions, careful consideration should be given not only to the levels of effort involved in the interpretation and scope given to each question, but also to the

relative priority of questions to be addressed in order that the desired results of the option preferred are balanced against the time and financial resources available for the evaluation.

Question 15:

> What have been the factors which affected the achievement of objectives?

The last question addressing the issue of objectives achievement is one which might, depending upon its scope, appropriately be classified as being of a "programming" nature, requiring an assessment which could be considered to go beyond the terms of reference of this evaluation assessment.

If the question, in endeavouring to identify those factors which have affected the achievement of objectives were to focus strictly upon changing economic circumstances, such a question would be relevant to the scope of this study. If, however, factors such as programming, financial commitments, implementation and planning, are also encompassed by this question, they could more properly be addressed in the work concerning those evaluation issues being assessed internally by DREE.

A comprehensive evaluation should however, identify key economic trends in various sectors of the Provinces concerned, and compare these developments against the timing, size and nature of GDA initiatives in these same sectors. Other factors might be specified in addressing this question should consider alternatives to the current GDA programming process or to answering those questions related to the coordination of Federal and Federal-Provincial policies and programs.

From the preceeding review of the questions to be addressed in the GDA evaluation, and reflective of the breadth and size of the programming involved in each Province, it is obvious that any option involving less than a complete and comprehensive evaluation of all aspects of the GDA program in each Province will involve a process of selection, not only of the questions to be addressed in the case of each Province, but of the performance indicators to be selected, the objectives to be appraised, and the level of effort to be exercised. While Exhibit 3.2.1 reflects the focus of the analysis preferred by the Project Team and Steering Committee in addressing each question, revisions can be made either to supplement or adjust that portrayed on the Exhibit.

The following section of the report presents various approaches and measurement techniques relevant to measuring the performance indicators noted in this Section, and in turn affords another appreciation of the varying degrees of intensity of effort which can be employed and should be given careful consideration in the development of a set of evaluation options.

4. METHODOLOGIES

4.1 Introduction

This Section of the Report describes the various methodologies applicable for an evaluation of the issues and questions described in Section 3 and as shown in Exhibit 3.2.1. To assist in the development of evaluation options, a framework was developed to portray the issues involved, the questions relating to those issues, alternative performance indicators addressing those questions, and the various processes of data collection and analytical techniques appropriate to measuring those performance indicators.

The framework prepared for this purpose is reflected in Appendix 7 to this Report. This matrix format facilitates the derivation of evaluation options by providing all variables which must be considered in formulating options. It also facilitates the process of adjusting the evaluation coverage and level of effort involved in accordance with the human and financial resources available for an evaluation.

In considering Appendix 7, it is important to distinguish between what are described as "data collection techniques" and methodologies or "analytical techniques".

Data collection techniques in this study represent the process or steps which must be taken to derive or collect the data required to measure the performance indicators designated in each case. That is, before any analytic analysis can be undertaken, one or more of the data collection techniques shown in Appendix 7 must be applied to prepare or construct the data base upon which subsequent analysis will be based. In some cases, the data base prepared for one question might serve to generate performance indicators respecting other questions, thereby affording an economy of effort in pursuing questions of a similar nature and focus.

Methodology or "analytical techniques" on the other hand, represent the process or approach to utilizing the available data in deriving the performance indicator required. While varying levels of effort are evident as between the techniques shown in Appendix 7, differing levels of effort can also apply in the use of each technique indicated.

While it may be argued that the process of deriving the data base, in itself, might reflect the employment of various analytical techniques, for purposes of this analysis, the distinction has been made recognizing that in contemplating evaluation studies for the Atlantic region GDA's, data generation (i.e. collection) could be a significant component of all evaluation approaches.

In accordance with the detail provided in Appendix 7 following is a brief summary describing each of the techniques employed in data collection and question analysis.

4.2 Data Collection Techniques

4.2.1 Journalistic Review

This data collection technique reflects a highly informal approach to compiling information. In most cases, it is used in conjunction with other more quantitatively sophisticated data collection techniques. This technique involves primarily a review of published information, newspaper and magazine articles or other information readily accessible for public review.

4.2.2 File Review

This technique involves a review of files kept on various GDA initiatives at both the Federal and provincial levels of government or, in some instances, regarding third party participants in GDA sponsored activities. Such a file review could involve varying levels of effort reflective of the extent to which this source is relied upon as the basic data base for the evaluation, as well as the level of detail, time series and quality of information that is available in the files.

4.2.3 Interviews

The interview process endeavours to seek information from individuals and organizations related in some way to the project under review. It can also be used as a means to assessing the incrementality associated with a GDA initiative. This technique is normally employed to seek information both qualitative and quantitative from informed individuals when no other source of data exists, or alternatively to expand and perhaps priorize information obtained from other secondary sources.

4.2.4 Structured Seminars

Although there are numerous ways of structuring seminars, generally the technique of bringing together informed individuals, facilitates the generation of new information developed and/or priorized as a result of the exchange between the indivudals involved.

4.2.5 Survey

Survey methods are widely accepted as a rigorous unbiased technique for gathering data. If interviewees are chosen at random, statistical inference produces objective and defensible results. Once again, the level of effort and expense involved in undertaking a survey can vary widely in accordance with the sample size and the quantity and detail of the information required.

4.2.6 Longitudinal Surveys

This type of survey focuses upon the same sample population over various points in time so as to generate a "longitudinal data base" of information on individual units in the population under review. The cost and time involved in utilizing this approach is somewhat higher than that associated with a standard survey approach. This technique has limitations for use in ex-post evaluation studies in that the data collection should commence in conjunction with the initiation of the project.

4.2.7 Case Studies

This technique is employed to study, in significant detail, the impact of GDA programming upon a specific segment or highly limited population group. This technique also assumes the need in certain circumstances to similarily observe a "control group" in order that the incremental effects of the GDA program can be more readily identified.

4.2.8 Pilot Projects

Pilot projects, like case studies, focus upon small groups, individual firms or specific segments of a population under review. They differ, however, in that they endeavour to identify the impacts and effects of new exogenous initiatives upon these groups or sample populations. Pilot projects are used most frequently therefore in a simulative sense for assessing the implications of new policy directions whereas case studies focus more closely upon the impacts and effects of previous initiatives. This approach can require a substantial commitment of time and resources and accordingly a higher expense.

4.3 Sampling Methodology

Key elements of sampling are the definitions of the population from which the sample is being taken (called the sampling frame), the determination of sample size required (and the allocation of the sample to sub-categories within the sampling frame), and the method of random sample selection. These are used after the sample had been drawn in order that statistical inferences can chart the entire population based on estimates obtained from sample measures.

4.3.1 The Sampling Frame

The population from which the sample is drawn is the total list of projects conducted under the GDA in each province. Apart from the provincial split, sub-categories are created by cross referencing pseudo-Standard Industrial Classifications with functional classifications. The characteristics recorded for each project is the amount of money expended, used as a proxy for the size of each project. The classification process then tabulates for each province, by SIC and functional code, a unique project identifier and the

amount for each individual project. As well, for each cell, amounts spent are sub-totalled, and marginal sums of these sub-totals are provided for each dimension of the classification, that is, for each SIC, a summation of all sub-totals across functional codes, and visa versa. A grand total for each province is then the sum of the marginals.

4.3.2 Sample Size Determination/Allocation

Theoretically, sample sizes are determined and allocated on the basis of required precision for the estimate which in turn may be determined by the purpose for which the estimate is required. Precision is a function of the amount of variability from project to project and the size of the population. In practical terms, cost or time is more often a determinant of sample size, and, in part, a determinant of the allocation of the sample size to the individual cells. In allocating sample size, variability (if known) and cost (if estimable) are used to determine the most precise result. Other practical constraints might dictate that at least one project from each marginal or from each cell should be sampled. While this constrains the precision, various experimental designs can be employed in the selection process to optimize the efficiency of the sample in predicting overall result.

4.3.3 Selection Process

To be statistically valid, each sample element in the population must have a known probability of being included in the sample. Selection processes, subject to constraints, require a random selection of projects. This random selection can be simple (every nineth project), proportional to a population parameter (such as amount spent on the project), etc. depending on the estimates required. In the present context, using amount spent as a measure of "size"

of the project, random sampling of projects in proportion to the amount spent would ensure that "large" projects have a greater chance of being included in the sample. Since large projects can be assumed to have a large impact on general development, this particular selection process might be seen as appropriate for estimating the impact of all projects. Again, the important criterion is that the selection process be random, so that each project will have a known probability of selection, and inferences from the sample to the population will be statistically valid. (This known probability can, in fact, be zero. If particular projects or groups of projects are not considered "worth sampling", for whatever reason, then these may be excluded from the sampling frame. A word of caution: no inference can be drawn on these projects if they are eliminated).

For example, if functional code is of primary interest, then all projects should be grouped by functional code, and the sample drawn irrespective of the industry code. In the selection process, if size of project (as determined by dollar amount of expenditure) is used as a proxy for impact, then projects could be drawn proportional to the total expenditures in each functional code, and their projects within each functional code grouping could be drawn randomly (again proportional to the expenditure for each project). To illustrate, assume there are four functional codes, and three industry codes, with a varying number of projects of different expenditures in each cross tabulation, as shown:

Industry Code	Functional Code				Sub-Total
	1	2	3	4	
1	3		1	1	5
2	1	4	2		7
3		7		1	8
Sub-Total	4	11	3	2	20

The example illustrates that there are a total of 4 projects under functional code 1, that 3 of these are in industry code 1, and 1 is industry code 2. There are no projects in functional code 1 and industry code 3.

Corresponding results for expenditures might be as follows:

Industry Code	Functional Code				Sub-Total
	1	2	3	4	
1	$2		$1	$7	$10
2	$10	$3	$6	$9	$28
3		$5			$5
Sub-Total	$12	$8	$7	$16	$43

Assuming that a total of 4 projects are to be chosen, proportioning these to functional code sub-group totals might indicate that 2 would be chosen from 4, 1 from 1, and 1 from either 2 or 3. Or, if the constraint that one project be chosen from each sub-group then one would be chosen from each.

Within each functional code subgroup, projects must be randomly selected. If we consider sampling one project from functional code 1 then the project level detail is required, as shown:

Functional Code 1

Industry Code			
	1	Project A	$0.4
		Project B	$0.7
		Project C	$0.9
	2	Project D	$10.0

It is quite clear from the example that project D has the highest probability of being chosen (10/12) to represent the projects A-D. However, projects A to C have probabilities of 4/120, 7/120, and 9/120 of being drawn. One technique for actually choosing the project is to "line up" the expenditures, assigning 1-4 to A, 5-11 to B, 12-20 to C, and 21 to 120 to D. A random number between 1 and 120 is generated, and the project corresponding to that number is the sampled project.

The above discussion applies equally if industry codes are used, where 1 project from industry code 1, 2 or 3 from 2, and 1 or 0 from 3 would be drawn, using the same procedure.

However, if both functional and industry codes are considered important, then the allocation of the 4 projects must be done at the cell total level. Here random allocation might produce a variety of configurations and sub-totals by each functional code. The procedure, while more complex, is the same,sampling first the cells (combination of functional and industry code) and then within each cell. Or, if both allocation and selection are proportional, the process can be reduced to one step, lining up all projects,assigning numbers corresponding to each project expenditure, and generating four random numbers to identify the four selected projects. Alternately, allocation can be constrained so that no more than one project from each cell is sampled.

4.4 Analytical Techniques

4.4.1 Descriptive Analysis

The term, Descriptive Analysis, applies to a broad range of non-complex techniques. Generally these techniques rely on descriptive statistical measures (totals, means, etc.), data presented in tabular format, organized collections of qualitative information, and rely upon logical presentation of arguments. While often critized for lack of analytical sophistication, descriptive analyses are applicable for addressing most evaluation issues (especially when data sources are limited or incomplete) and can provide provisional results with a minimum of effort.

4.4.2 Impact (Input/Output)

Input/output techniques, the commonly recognized form of Impact analysis, assess the gross economic effects, in terms of output, income, and employment, of expenditures on projects arising from a new initiative or expansion of a current situation.

Input/output models are specifically utilized to trace the inter-relationships which exist between the various sectors of an economy. They accummulate and estimate the incremental effects of rounds of respending generated by project expenditures until the income created in each instance has finally "leaked" out of the local economy.

In a typical economic impact analysis, the level of expenditure (inputs) and production (outputs) of a project are the key items of concern. The input characteristics of the project are examined with respect to their relative size, the sources of supply of the inputs (local or imported) input commodity types, and primary input types (for example, wages and salaries, profit, depreciation). The output characteristics are defined in terms of the sales pattern. Input/output models also look beyond the direct effects of the initial expenditure effects of a project in order to estimate the indirect and induced effects (i.e., multiplier impact) that a project has on the economy.

Growth effects caused by the increased demand for intermediate inputs are considered "indirect" effects. Expansion effects caused by household respending of income are called "induced" effects. "Extended" impacts are created when governments respend taxes collected.

There are two types of impact analysis readily available in most input/output systems: A "simple" and a "general" impact formulation. If the project being studied affects an industry already modelled in the equations of an Input/-Output model, then it is possible to complete a "simple impact analysis" for that project. However, if the project affects an industry which is not represented in the tables, then a "general impact" analysis is called for. (General Impact analysis requires the formulation of additional

equations and data to the existing model.) Specific multipliers are created for each through the "general impact" analysis procedures. Considerably more time and resources are required to undertake a general impact analysis and accordingly the expense of doing so is much higher.

In any balanced input/output system, an industry's inputs must always equal its outputs. In the Canadian and Maritime systems, inputs and outputs are classified by commodity (versus the "principal producing industry" approach used in the United States and other countries). Hence, each industry can be shown as producing a variety of commodities.

In the Canadian and Maritime (working versions) systems the number of commodities exceeds the number of industries. The Maritime tables have subsequently been squared (i.e., they have the same number of industries as commodities) but retain the unique feature of multi-commodity producing industries.

An input/output model is basically a blend of statistical and econometric analysis. It is, in essence, an econometric model that completely describes the entire pattern of flows of real resources in an economy (at the time of model building). Each economic sector is assigned a linear "production function" that uniquely describes the fashion in which it produces its output and how the output is distributed throughout the economy.

Input/output as an impact technique is a static analytic approach requiring high quality data input in order to generate dependable output results. The extent to which reliable input is available and "simple" impact formulation can be undertaken, has a substantial bearing on the costs and time involved in utilizing this technique.

94

4.4.3 Benefit/Cost

Benefit/cost techniques are used primarily to translate into dollar terms, the benefits and costs of a particular initiative over time. This technique permits analysts to determine which initiatives offer the greatest difference between the dollar value of those benefits and costs identified. The value of this particular technique lies in its ability to provide a common denominator through which alternative projects can be compared.

In a somewhat restricted sense, this technique can also be employed to determine whether any single project in itself offers a benefit greater than its costs. In this instance the alternative would constitute not proceeding with the project at all.

The costs and resources necessary to undertake a benefit/cost analysis can be significant and may vary substantially in accordance with the complexity of the project being studied.

4.4.4 Econometric

Econometric techniques are fundamentally concerned with measuring and testing relationships among economic variables. Three principal purposes of econometrics are structural analysis, forecasting and policy evaluation, all of which are related. Econometric techniques employed in the measurement of performance indicators, represent a relatively sophisticated approach normally requiring a high level of effort (primarily due to data needs), and a commensurate dedication of resources. The decision to utilize this technique in generating performance indicators should therefore be carefully viewed in the context of possible evaluation resource constraints.

4.4.5 Simulation

Simulation techniques are utilized when a constraint exists in the availability of data from which a partricular performance indicator must be generated. Through this technique, known logical linkages and relationships are used in conjunction with the available data base to generate that data which is unknown. The quality of the results of this technique is directly related to the strength and legitimacy of the assumptions employed in its development. The resources required to undertake simulation techniques vary in accordance with the nature and complexity of the relationships being simulated, as well as the severity of the data constraint which exists.

4.4.6 Statistical Analysis

This terminology describes a broad range of statistical methods which are employed to render a large data base into useful and meaningful information. By assuming a random series of observations, statistical theory can be used to identify data trends, cyclical effects, probable solutions and indicators reflective of the relationships which exist between variables.

The level of effort in utilizing statistical techniques can vary widely and will depend upon the degree of analytical precision required, as well as the condition of the data base from which the analysis must be conducted.

4.4.7 Profit/Loss

This technique, which is largely of a simulative nature, alludes to the process of generating for a Company a set of financial statements portraying changes to the profit/loss position of that Company emanating from an exogeneous

impact, in this case GDA programming. The data input to this type of analysis would conform to the traditional components of a Company's Profit/Loss statement. These components in turn might however, be generated by other simulative techniques described elsewhere in this Section.

4.4.8 Cost Effectiveness

Cost effectiveness analysis is another financially oriented technique. It is the technique which identifies all the costs associated with one method of program delivery and thereby provides a measure of delivery cost per unit output. The analysis is therefore best employed when there is a need to compare more than one way of delivering programs. Cost effectiveness analysis is therefore an important information input to comparing different program delivery options; it provides information on the relative cost of delivering equal levels of service.

4.4.9 Discounted Cash Flow

Discounted cash flow analysis is a means of financial analysis whereby a set of financial accounts is established representing the operations of an establishment over time (usually 10 to 15 years). The bottom line calculation becomes a cash flow steam for the operation and this cash flow stream is discounted appropriately. Discounted cash flow analysis, by focusing on money flows, is therefore primarily of use in projects where incentives are made to companies and in industrial sectors where the implications of government programs can be viewed on an annual basis. (It should be noted that the profit/loss statement is different from, although part of, a discounted cash flow analysis. Whereas an entity may have a profit or loss in any one year, the cash which it has available to finance its operations can vary substantially).

4.5 Measuring Incrementality

4.5.1 Defining the Concept

The measurement of incrementality is one of the most complicated and difficult tasks faced by evaluators. Not only is incrementality difficult to measure, but there exists no consensus as to the definition of the concept. For the purposes of this discussion however, and preferably for any evaluation of the GDA programs, we suggest the following broad definition in determining whether a project should be considered incremental:

1) the outcomes or activities resulting from project expenditures would not have transpired without the expenditure; or

2) the outcomes or activities would not have taken place until a later date.

In other words, if the evaluator can determine definitively that an outcome or activity would not have occurred, or would have been delayed several years, then the project can be considered incremental.

Given the diverse nature of the activities conducted under the GDA, the application of the concept of incrementality can become even more complex. Incrementality, for example, may be considered from the public perspective of either the provincial or the federal government: "Would the province have gone ahead with a capital project without the federal portion of the GDA funds"; or, conversely, "Would the federal government have gone ahead without provincial support?" It is suggested that for the purposes of the GDA evaluation, this perspective of incrementality should not be considered.

The concept of incrementality, in its strictest sense, deals with inducing or influencing decisions taken outside the public sector (i.e., influencing a company to locate in a designated region, etc.). Therefore, it is suggested that the direct impacts of public sector infrastructure projects (e.g. employment and income) not be considered incremental. However, the outcomes or activities influenced by these projects should be subjected to the measurement of incrementality (i.e, the firm which located in an industrial park constructed with GDA funds) as should other GDA projects which directly influence private sector decisions.

4.5.2 Methodology for Measuring Incrementality

The methodological problem faced by evaluators is to determine what portion of outcomes or activities associated with GDA projects could be attributed to the effects of the GDA program. In other words -- "What real difference did the GDA expenditures make?"

In most cases, the universally acceptable solution to the problem is to take the "probability" approach. Would a particular outcome or activity have proceeded without GDA support? The only individual who really knows the answer to this question is the executive officer or decision maker of a company. It is therefore incumbent on the evaluator to ask the question and rely upon the executive officer to give a frank and truthful "best estimate" of whether the outcome or activity would have proceeded without public support.

The measurement suggested here therefore, is "one-of-degree"; on a project by project basis (i.e., 0% incremental to 100% incremental). In order to verify these results it is sometimes best to get a second opinion on incrementality. From a methodological perspective, this is accomplished by

comparison or control group analysis. An activity or event similar to the one being analysed for incrementality, but not affected by GDA programming would be studied to determine the factors that influenced the decision-making process. This approach is difficult, both from a methodological and practical viewpoint. It is often difficult to define a pure "control group" and, once defined, it is difficult to control for similar public programs or other exogenous factors which influence private sector decisions.

In summary, the measurement of incrementality of GDA programs (such as highway construction) should be restricted to those aspects of programs which directly or indirectly influence private decision-making. Further, since the necessary information generally has to be collected face-to-face methods, statistically correct procedures can be quite expensive.

4.6 Pilot Evaluation

A pilot evaluation of selected projects was undertaken as a component of the overall evaluation assessment study. The purpose of the pilot evaluation was to test the causal linkages model (logic model) developed during the course of this study. This test was designed to provide insight into the underlying hypothesis of the model and uncover any methodological (especially related to performance indicators and analytical techniques) and data constraints which would inhibit the application of the model in a full scale formal evaluation.

In addition to the testing of causal relationships, the pilot evaluation is designed to demonstrate the process which should be followed in the evaluation of the GDA programs. The pilot evaluation relates the questions to be answered in the evaluation study to the performance

indicators which have been developed through the course of this assessment. These elements are then related to the data collection and analytical techniques which were also identified in the assessment. Overall, the pilot evaluation links all the elements which come into play in the proposed GDA evaluation study.

In conducting the pilot evaluation consideration was given to examining a broad range of projects from various economic sectors and functions (See section 2.3 for details on the sectoral and functional classifications) and subjecting these projects to a review process developed for this task. Questions and corresponding performance indicators which apply to the projects referred to above and which will be answered during the course of the evaluation studies were also selected for review.

The paragraphs below describe the selection process for projects and the corresponding questions which were applied to these projects for the pilot evaluation on a province by province basis.

For Nova Scotia, projects from the manufacturing and industrial parks sector and assistance to business (industrial infrastructure) function were selected.

The hypothesis which was tested was as follows:

Sectoral Capital Activities		Immediate Impacts		Long Term Impacts
Incentives (Manufacturing)	→	Expand and Diversify Manufacturing Industries	→	Increased Employment

The question selected to be answered in relation to the test of the hypothesis is as follows:

What are the economic effects and impacts of the projects on employment, income and output?

The indicators relating to this question, as identified earlier in this report are:

Direct, Indirect and Induced

- employment
- income (household income)
- industrial output (sectors)

For Newfoundland, projects from the transportation sector and infrastructure function were selected.

The hypothesis which was tested was as follows:

Activities	Immediate and Intermediate Impacts	Long Term Impacts
(Capital Expenditures) Infrastructure ⟶	Reduced Barriers to Development ⟶	Assist in Spatial Economic Development
	Sub-Provincial Socio-Economic Development	

The question selected to be answered in relation to the test of the hypothesis is:

Do infrastructure expenditures reduce or eliminate constraints to development?

The indicators relating to this question is:

- distance of manufacturing plants to 1st class highways
- improved time and cost to market
- increased road communication between localities (reduce isolation)
- development of a provincial level market

For New Brunswick, projects from the agriculture sector and capital and financial assistance function were selected.

The hypothesis which was tested was as follows:

Activities		Immediate Impact	Long Term Impact
Capital Financial Assistance	——→	Increased Public and Private Capital Development	Increased Productivity
		——→ Expansion and Diversification of Agriculture Sector	Increased Income Per Capita
			Increased Employment

The question selected to be answered in relation to the test of the hypothesis is as follows:

What are the economic impacts and effects of GDA programming on private investment, output, employment, income and productivity.

The indicators which relate to this question are:

- intended direct, indirect and induced
  - investment
  - output
  - employment
  - income

- increased output per person year

- marginal change in output/marginal change in input

In Prince Edward Island, projects from the tourism and commercial sector and marketing function were selected.

The hypothesis which was tested was:

Activities	Immediate Impacts	Intermediate Impact	Long Term Impact
Market Development →	Expansion and Diversification of Tourism, Primary Industries and Manufacturing →	Increased Employment Increased Earned Income Per Capita →	Strengthening of Economic Enterprise

The question to be answered in relation to the test of the hypothesis is:

What is the impact of GDA programming on output, employment and income.

The indicators which relate to this question are:

- intended direct, indirect and induced

  - output
  - employment
  - income

The review criteria utilized in the pilot evaluation were as follows:

1.	Causal Model	- Integrity - Strength of Relationship
2.	Indicators	- Comprehensiveness - Reliability - Suitability
3.	Data Sources	
	Secondary	- Statistics Canada - Provincial Government - Others
	Files	- DREE - Provincial Government
	Survey	- Target population - Design - Implementation Procedures
4.	Costs	- Data collection - Analysis
5.	Time Frame	- Start - Completion date
6.	Expected Results	- Impact - Objectives achievement - Others

The results of the review process for each Province are contained in Appendix 8 of this Report.

5. Evaluation Options

5.1 Rationale for the Formulation of Options

Rationale were identified to guide the formulation of evaluation options. These criteria reflected the priorities and interests of Senior Departmental Management for evaluation as emunciated by them throughout the study process. The rationale prescribed the essential attributes which should characterize each option and set of option as follows:

i) Options must be derived in a manner which enables separate evaluation reviews to be undertaken in each Province at different points in time.

ii) Evaluation techniques must satisfy the need to measure the incremental impacts and effects of GDA programming in the Atlantic Region.

iii) Options should reflect the priorities for evaluation assigned by Senior Management in each Province.

iv) Options for each Province should be generated which portray a range of alternatives reflecting minimum requirements to those of a more comprehensive nature.

v) Options must represent a reasonable cost and be capable of being completed within a reasonable period of time.

vi) Options must address, with varying degrees of emphasis, issues related both to impacts and effects as well as to objectives achievement.

5.2 Classes of Evaluation Options

In Section 3, the questions for which evaluation methodologies were required were characterized as falling into one of three basic classes: impacts and effects, objectives achievement, and policy/program formulation. For each question the focus of the analysis to be undertaken was also identified.

Specific evaluation options can similarily be characterized by the class of questions addressed and the focus of the analysis predominant in its formulation. That is, an option would be typified by the following classes:

i) Aggregate Impacts and Effects
ii) Sectoral Impacts and Effects
iii) Spatial Impacts and Effects
iv) Functional Impacts and Effects
v) Objectives Achievement

Options incorporating a blend of different classes of questions and focus could be described as portraying one or more of the above attributes at the same time. For example, options could be developed with an Aggregate Impacts and Effects/Objectives Achievement focus. Alternatively an option could be classified as having a Sectoral Impacts and Effects/Objectives Achievement focus. The focus of the analysis would reflect the priorities for evaluation in each Province.

5.3 An Overview of the Evaluation Options for each Province

Three basic evaluation options were developed for each Province according to the priority assigned to them by DREE Senior Management. Detailed presentations of each option are provided in Appendix 7 to this Report.

Drawing from these detailed presentations, costs and the projected number of man-weeks required to undertake the respective options were then estimated. Summary specification sheets were then prepared for each Province portraying on a comparative basis, the human and resource requirements to be weighed in selecting a preferred evaluation option (see Exhibits 5.4.1 to 5.7.1).

The three basic options generated for each Province are presented in order of their breadth and focus of analysis.

The "first" in each case is a "basic" option which essentially addresses the aggregate economic impacts and effects for each Province and the achievement of objectives aligned with these economic indicators. In this first series of options the emphasis was directed to assessing the accountability of GDA programming by measuring the general impact achieved relative to the cost of the program.

The questions and performance indicators selected for each Province in developing the "basic" series of options reflect the priorities of senior management as conveyed by the Steering Committee and through the interview process. The "basic" option therefore presents the minimum number of highest priority questions for each Province at a minimum evaluation cost.

While this "basic" option is substantially the same for all provinces, some variation exists in question choice and focus, again reflective of specific GDA program initiatives and priorities in each Province.

The second option derived for each Province essentially builds upon this basic alternative, devoting even greater attention to the focus of GDA programming in each Province.

This "second" option derived for each Province was considered by the Steering Committee to represent the "intermediate" option for evaluation in all cases.

The "third" option for each Province is designed to reflect a "comprehensive" approach to GDA program evaluation further embracing in whole, or in part, the questions and focus inherent in the first two series of options, and supplementing this coverage with additional questions, a broader review of objectives achievement, or more specific analysis of priority sectors in the economy.

Estimated costs for each option are derived in accordance with the following common criteria:

i) Estimated time requirements were derived, in most cases, for each performance indicator identified in the Province's Summary Specification sheet. This detail was provided to enable the adjustment of options both in question detail and in respect of their coincident evaluation costs if necessary, at a later date.

ii) Where appropriate, a range of time requirements is provided for deriving specific performance indicators, indicative of the various levels of effort which might be employed in undertaking the techniques recommended. For example, in the most obvious case of conducting a file review, a considerable variation of work effort may be employed depending upon the use to which the outcome of the review will be put as well as alternative supplementary sources of information available. Similarily, in the employment of a survey technique, the complexity of the questionnaire and as well as its coverage, will influence substantially the costs involved.

iii) An estimated average per diem rate of $350 or $1750 per week was assumed reflecting the employment of both government and private sector personnel.

iv) Other expenses including travel costs and administrative expenses were assumed to represent 20% of project fees in each case.

v) A 20% saving was assumed to accrue from an analysis of all of the questions specified in the option prescribed. That is, in answering many of the questions addressed in the provincial Basic evaluation options, both the data collected and the performance indicators derived in respect of these questions, can be used as inputs to other questions. Furthermore, with minor adjustments, a technique can be formulated to derive performance indicators which address several questions at once (i.e. Sectoral disaggregation of input/output assessment of employment, income and output effects).

EXHIBIT 5.3.1: SUMMARY DESCRIPTION OF PROVINCIAL EVALUATION OPTIONS

PROVINCE	OPTION TITLE	OPTION DESCRIPTION
New Brunswick	Option NB 1: Basic Evaluation	Assessment of economic impacts and objectives achievement with respect to employment, income, output and sub-provincial disparities.
	Option NB 2: Intermediate	Option NB 1 plus: Assessment of economic impacts on productivity, population distribution and program recipient and effectiveness analysis.

110

EXHIBIT 5.3.1: SUMMARY DESCRIPTION OF PROVINCIAL EVALUATION OPTIONS

Option NB 3:	Option NB 2 plus: Comprehensive Evaluation	Analysis of removal of barriers to industry viability a n d expansion.
Nova Scotia	Option NS 1: Basic Evaluation	Assessment of economic impacts and objectives achievement with respect to employment and income, and a GDA recipient analysis.
	Option NS 2: Preferred Intermediate	Option NS 1 plus: GDA programming impact and instrument analysis.
	Option NS 3: Comprehensive Evaluation	Option NS 2 plus: Assessment of economic impacts with respect to quality of life, labour and management skills, and the removal of barriers to industry viability and expansion.
Newfoundland	Option Nfld 1: Basic Evaluation	Assessment of economic impacts and objectives achievement with respect to employment and income, and structural impediments to development.

EXHIBIT 5.3.1: SUMMARY DESCRIPTION OF PROVINCIAL EVALUATION OPTIONS

	Option Nfld 2: Intermediate Evaluation	Option Nfld. 1 plus: Assessment of economic impacts with respect to resource utilization/management, population distribution, private investment, sub-provincial spatial effects and a GDA programming instrument analysis.
	Option Nfld 3: Comprehensive Evaluation	Option Nfld 2 plus: Assessment of economic impact with respect to quality of life, sectoral effects and barriers to industry viability and expansion.
Prince Edward Island	Option PEI 1: Basic Evaluation	Assessment of economic impacts and objectives achievement with respect to employment, income, output, and productivity as well as GDA recipient, and structural impediments to development analysis.
	Option PEI 2: Intermediate Evaluation	Option PEI 1 plus: Assessment of economic impacts on resource utilization/ management and sectoral analysis.
	Option PEI 3: Comprehensive Evaluation	Option PEI 2 plus: Private investment and subsidy dependency analysis.

Following is a summary description of the three options developed for each Province drawing from the information provided in Appendix 7.

5.4 Evaluation Options: New Brunswick

OPTION N.B. 1: BASIC EVALUATION - Assessment of economic impacts and objectives achievement with respect to employment, income, output, sectoral effects and sub-provincial disparities.

Characteristics of Option

The first or "basic" option for New Brunswick as indicated in Exhibit 5.4.1., addresses only those questions categorized as being of an Impacts and Effects or Objectives Achievement nature. The "focus" of the Impacts and Effects questions varies, however, in accordance with the priorities enunciated by Senior Management in New Brunswick. Questions 1(a), (b) and (c) for example, are viewed largely as having an "aggregate" economic focus whereas questions 4 and 5 are considered to be "sectorally" inclined and questions 1(k) and 6 to be of a "spatial" nature.

This option addresses incremental employment, income and output effects strictly of an "intended" nature. Construction or Incidental impacts were considered to have already been largely measured in Sub-Agreement Evaluations and in any event constitute little more than a transfer within the economy.

The spatial and sectoral focus reflected in Option 1 by questions 1(k), and 6 and questions 4 and 5 respectively, demonstrates the importance of this type of programming in New Brunswick and the necessity of its assessment being

incorporated into any "minimum" evaluation option. This evaluation priority is supported by the spatial and sectoral nature of the Province's GDA objectives at the strategic and sub-strategic programming level. As a "minimum" evaluation option, the questions pertaining to the sectoral focus have been restricted to an evaluation of the mining sector alone.

Questions 13, 14, and 15 are classified as "Objectives Achievement" in nature and focus, with one exception, at the aggregate level upon those indicators measured in questions 1(a), (b) and (c). The exception relates to question 1(k) which has a spatial focus, indicative of a specific strategic objective of highest priority in the Province of New Brunswick.

The "basic" option for New Brunswick can therefore be characterized as contemplating a minimum focus upon economic impacts and effects and their related objectives achievement. Reflective of the relative priorities of GDA programming in New Brunswick questions have also been included, some with a restricted application, to assess initiatives of a spatial and sectoral nature.

Estimated Cost

The "Basic" evaluation option for New Brunswick is estimated to require between 46 - 79 person weeks, depending upon the level of effort employed. Total option expenses are accordingly estimated to range between $77,280. to $132,720. when account is taken of the economies which result from undertaking all questions addressed in the option.

The greatest cost in this option arises from undertaking the economic impact and sectoral analysis proposed which, in both cases, require the use of Input/Output techniques.

OPTION N.B. 2: INTERMEDIATE EVALUATION -

Option N.B. 1 plus: Assessment of economic impacts on productivity, population distribution and program recipient and instruments effectiveness analysis.

Characteristics of Option

The second or "intermediate" option for New Brunswick includes those questions addressed in the first option adding to them four additional questions, three of an Impacts and Effects nature and one more aligned towards Policy/Program Formulation.

Two of the impacts and effects questions, 1(d) and (f) address intended economic impacts issues at the aggregate level. However, the third question of an impacts and effects nature included in this second option, question 10, while it similarily addresses intended impacts, it assesses the issue of private sector involvement in GDA programming in the Province envisaging a functional rather than aggregate analytical focus. These particular questions were selected to supplement the "basic" option for New Brunswick in view of the "ultimate" priority assigned to productivity and population migration objectives in GDA programming in the Province. Furthermore, the questions selected demonstrate the expressed interest of the Steering Committee in assessing the relative success of various GDA instruments, particularly as related to the involvement of the private sector in achieving those objectives in New Brunswick.

Finally, question 2 was added to the "basic" option for New Brunswick to supplement the assessment achieved through question 10 by specifically identifying who the ultimate

EXHIBIT 5A1: SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : New Brunswick

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
14. Does a great deal of the GDA impact fall in areas not set out in its objectives? To what extent do the impacts and effects of the GDA match with stated objectives?	-Impacts and effects indicators noted in Question 1 relative to specified GDA objectives.	-Journalistic Review	-Descriptive Analysis -Statistical Analysis -Impact (I/O)	2-3	$ 3,500- $ 5,250	$ 700- $1050	$ 4,200- $ 6,300
15. What have been the factors which affected the achievements of objectives (i.e., programming, financial commitments, implementation, planning, changing economic circumstances, other reasons)?*	-Correlation between international, national, provincial and sectoral economic growth to functional and sectoral GDA initiatives. -Size of GDA initiatives relative to the magnitude of the problem.	-Journalistic Review -File Review -Interviews -Case Studies	-Statistical Analysis -Descriptive Anlaysis	3-5	$ 5,250- $ 8,750	$1050- $1750	$ 6,300- $10,500
			TOTAL OPTION #1	46-79	$80,500- 138,250	$16100- 27650	$96,600- 165,900
			TOTAL LESS 20% COVERAGE ECONOMY				$77,280- 132,720
OPTION #2 (Intermediate Option) - Questions reviewed in Option #1 Plus							
1. In what manner and to what extent has GDA programming led to improvement of socio-economic circumstances?							
d) productivity	-Output per man year by sector compared to the industrial average	-Journalistic Review -Survey	-Statistical Analysis	8-13	$14,000- $22,750	$ 2,800- $ 4,550	$16,800- $27,300
	-Marginal change in output divided by the change in input	-Survey -Case Studies	-Econometric -Statistical Analysis				
f) population distribution	-Review of inter- and intra-provincial census data	-Journalistic Review	-Descriptive Analysis -Simulation	2-5	$ 3,500- 8,750	$ 700- $ 1,750	$ 4,200- $10,500
2. Who have been the ultimate recipients of GDA programming by category of recipients? (provincial governments, businesses, communities, individuals, non-profit).	-Direct and indirect expenditure analysis by sector to labour, to individuals, to industry, to government, and to various income components.	-Journalistic Review -Interviews -Survey -Case Studies	-Descriptive Analysis -Impact (I/O) -Statistical Analysis	2-3	$ 3,500- $ 5,250	$ 700- $ 1,050	$ 4,200- $ 6,300

* Reference Section 3.2 of the Report for explanation of restricted focus of evaluation in respect of this question.

EXHIBIT 5A1 : SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : New Brunswick

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
10. What types of GDA program instruments (e.g., infrastructure, incentives) have been most effective in terms of achieving GDA objectives?	-Indicators aligned with Question 1 but input in accordance with program instrument expenditure classification	-File Review -Interviews -Survey -Case Studies	-Impact (I/O) -Statistical Analysis	3-5	$ 5,250- $ 8,750	$ 1050- $ 1750	$ 6,300- $10,500
			TOTAL OPTION #2	15-26	$26,250- $45,500	$ 5250- $ 9100	$31,500- $54,600
			TOTAL OPTIONS # 1, 2	61-105	106,750- 183,750	$21,350- $36,750	$128,100 $220,500
			TOTAL LESS 20% COVERAGE ECONOMY				$102,480 $176,400
OPTION #3 (Comprehensive Option) - Questions reviewed in Options #1 and 2 Plus							
3. Has GDA programming supported the positive changes which have occurred within the provincial economy?	-Positive changes in the economy identified chronologically and by sector.	-Journalistic Review -Structural Seminars	-Descriptive Analysis -Statistical Analysis	12-16	$21,000- $28,000	$ 4,200- $ 5,600	$25,200- $33,600
	-Incidence of GDA expenditures over time, by sector, with the above changes.	-File Review -Survey -Case Studies	-Descriptive Analysis -Econometric -Statistical Analysis				
9. Has the amount of infrastructure investment under the GDA been sufficient to remove the barriers to industry viability and expansion?	-Number of particular firms in representative areas locating/expanding in the Atlantic Region essentially, moderately, marginally, not at all, as a result of GDA.	-Journalistic Review -File Review -Survey -Case Studies	-Descriptive Analysis -Statistical Analysis	12-16	$21,000- $28,000	$ 4,200- $ 5,600	$25,200- $33,600
	-Lower costs to the firms as a result of GDA infrastructure investment.	-Journalistic Review -Survey -Case Studies	-Profit/Loss -Discounted Cash Flow	12-16	$21,000- $28,000	$ 4,200- $ 5,600	$25,200- $33,600
			TOTAL OPTION #3	36-48	$63,000- $84,000	$12,600- $16,800	$ 75,600 $100,800
			TOTAL OPTIONS #1, 2, 3	97-153	$169,750 $267,750	$33,950 $53,550	$203,700 $321,300
			TOTAL LESS 20% COVERAGE ECONOMY				$162,960 $257,040

Estimated Cost

The "Intermediate" evaluation option for Nova Scotia involves an incremental estimated expense of $37,800 to $56,700. The total option is therefore expected to require 45 - 64 person weeks to complete and a budget of $75,600 to $107,520 when adjusted for economies available through full option coverage. The question which addresses the support of GDA programming of changes in the economy represents the most significant cost factor of the additional questions proposed in this option.

OPTION N.S. 3: COMPREHENSIVE OPTION

OPTION N.S. 2 PLUS: Assessment of economic impacts with respect to quality of life, labour and management skills and the removal of barriers to industry viability and expansion.

Characteristics of Option

The third or "comprehensive" option for Nova Scotia incorporates three additional questions into the evaluation one of which is of an impacts and effects nature and the remaining two primarily related to program/policy formulation.

The question of an impacts and effects nature relates to the intended economic impacts issue of GDA programming, employing a spatial analytical focus. This question, 1(g), relates to one of the ultimate objectives of GDA programming in Nova Scotia which is to promote the optimum quality of life in the Province.

The two policy/program formulation questions both apply a functional focus to their analysis. The first question, 1(i), relates to the intended economic impacts issue which addresses the impact of GDA programming on increased labour and management skills in Nova Scotia. This in turn relates to the sub-strategic level objective pertaining to Industrial Development in the Province.

The second of the two policy/program questions, question 9, addresses on a functional basis, the sufficiency of the considerable infrastructure investment which has taken place pursuant to the GDA program in Nova Scotia, in removing the barriers to industry viability and expansion.

sector involvement in the GDA program process. The questions added to the basic option further reflect the type of initiatives characteristic of GDA programming in Newfoundland and the consequent priority for their evaluation.

Finally, the intermediate option for the Province of Newfoundland addresses through question 10, the intended impacts and effects of GDA programming on private sector involvement. This question assesses with a functional focus, which types of GDA program instruments have been most effective in terms of achieving related GDA objectives. The assessment of this question is of particular interest in the evaluation of GDA programming in Newfoundland by virtue of the considerable attention which has been paid to infrastructure in the Province. It is proposed that this question focus on one or two resource sectors of the Province's economy (i.e. fisheries and forestry).

Estimated Cost

The "Intermediate" option for Newfoundland incorporates a number of additional questions into the basic option requiring a further allocation of 13 - 30 person weeks to the evaluation. Expenses for undertaking this complete option are expected to range between $97,440 to $161,280, depending upon the level of effort exercised in utilizing the techniques employed. The incremental expense of this option is spread somewhat evenly over four of the additional five questions addressed.

OPTION NFLD. 3: COMPREHENSIVE EVALUATION

OPTION NFLD. 2 PLUS: Assessment of economic impacts with respect to quality of life, sectoral effects and barriers to industry viability and expansion.

Characteristics of Option

The second or intermediate evaluation option for Newfoundland encompasses eleven questions of varied focus and nature. The third or "comprehensive" option supplements the second option with a further three questions of a spatial, sectoral and aggregate focus.

Question 1(g) assesses with a spatial focus, the intended impact of GDA programming on the quality of life in Newfoundland. Although not as clearly prescribed in its Provincial heirarchy of objectives as is the case in Nova Scotia, this question nevertheless embraces an appreciation of living standards which are, for the Province, embodied in its objectives heirarchy at both the ultimate and strategic level.

Question 4 was added to the preferred option to give a better appreciation of the intended sectoral impacts of GDA programming on agricultural sector of the Provincial economy.

Finally, question 9 was addressed to further assess the intended impact on private sector involvement of GDA infrastructure investment in Newfoundland. This question, which is considered to be of a policy/program formulation nature, supplements the information attained in answering question 1(j) pursuant to Option 1.

In the case of Newfoundland, the third or "comprehensive" option therefore addresses fourteen questions largely of an impacts and effects nature focusing at an aggregate level of analysis. The third option varies from the intermediate option through its supplementary attention to the assessment of GDA objectives and program initiatives in Newfoundland.

Estimated Cost

The "Comprehensive" evaluation option for Newfoundland is estimated to cost between $112,560 to $196,560 on the basis of full option coverage and the economies which consequently accrue. The additional focus on sectoral and infrastructure questions represents a significant portion of this option's incremental expense reflective of the sophisticated analytical techniques which must consequently be employed. This option is expected to involve an additional 9 - 21 person weeks, or a total of 67 - 117 person weeks for completion.

EXHIBIT 561: SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : Newfoundland

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
OPTION #1 (Basic Option)							
1. In what manner and to what extent has GDA programming led to improvement of socio-economic circumstances?							
a) employment (creation/ maintenance)	-Intended employment (direct, indirect and induced)	-File Review -Survey	-Descriptive Analysis -Impact (I/O)	10-12	$17,500-$21,000	$ 3,500-$ 4,200	$21,000-$25,200
b) income (earned)	-Intended earned income (direct, indirect and induced)	-File Review -Survey	-Descriptive Analysis -Impact (I/O)				
j) reduce or eliminate structural impediments to development (negative impacts of structural change)	-Capital and labour stock availability	-Journalistic Review -Interviews -Survey -Case Studies	-Statistical Analysis	3-5	$ 5,250-$ 8,750	$ 1,050-$ 1,750	$ 6,300-$10,500
	-Distance of manufacturing/ industrial plants to first class highways	-Journalistic Review -File Review -Survey -Case Studies	-Descriptive Analysis	5-7	$ 8,750-$12,250	$ 1,750-$ 2,450	$10,500-$14,700
	-Improved time and cost to market of selected industry	-Journalistic Review -File Review -Interviews -Survey -Case Studies	-Simulation -Profit/Loss	8-12	$14,000-$21,000	$2800-$4200	$16,800-$25,200
	-Indicators of the creation of a Provincial market	-Journalistic Review -Interviews -Survey	-Descriptive Analysis	3-4	$ 5,250-$ 7,000	$1050-$1400	$6,300-$8,400
	-Increased attractiveness of cities (St. John's) to business	-Journalistic Review -Interviews -Survey	-Descriptive Analysis	3-4	$ 5,250-$ 7,000	$1050-$1400	$ 6,300-$ 8,400
13. To what degree have the objectives laid out in the GDA been met? Compare impacts and effects with objectives	-Employment and earned income indicators which are identifiable with the Province's GDA objectives relative to national and provincial indicators on a pre- and post-GDA basis	-Journalistic Review -Interviews	-Descriptive Analysis -Simulation -Statistical Analysis	6-12	$10,500-$21,000	$2100-$4200	$12,600-$25,200
14. Does a great deal of the GDA impact fall in areas not set out in its objectives? To what extent do the impacts and effects of the GDA match with stated objectives?	-Impacts and effects indicators noted in Question 1 relative to specific GDA objectives	-Journalistic Review	-Descriptive Analysis -Statistical Analysis -Impact (I/O)	3-4	$ 5,250-$ 7,000	$1050-$1400	$ 6,300-$ 8,400

EXHIBIT561: SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : Newfoundland

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
15. What have been the factors which affected the achievement of objectives (i.e., programming) financial commitments, implementation, planning, changing economic circumstances, other reasons)*	-Correlation between international, national, provincial and sectoral economic growth to functional and sectoral GDA initiatives. -Size of GDA initiatives relative to the magnitude of the problem	-Journalistic Review -File Review -Interviews -Case Studies	-Statistical Analysis -Descriptive Anlaysis	4-6	$ 7,000-$10,500	$1400-$2100	$ 8,400-$12,600
			TOTAL OPTION #1	45-66	$ 78,750-$115,500	$15,750-$23,100	$ 94,500-$138,600
			TOTAL LESS 20% COVERAGE ECONOMY				$ 75,600-$110,880
OPTION #2 (Intermediate Option) - Questions reviewed in Option #1 (Following questions limited to one or two resource sectors, i.e., fisheries and forestry.) Plus 1. In what manner and to what extent has GDA programming led to improvement of socio-economic circumstances?							
e) resource utilization/management	-Current harvestible rate and mix of utilization by sector (each use of resource) -New harvestibles	-Journalistic Review -Interviews -Survey	-Descriptive Analysis	3-4	$5,250-$7,000	$1050-$1400	$6,300-$8,400
f) population distribution	-Review of inter- and intra-provincial census data	-Journalistic Review	-Descriptive Analysis -Simulation	2-6	$ 3,500-$10,500	$ 700-$2100	$ 4,200-$12,600
h) private investment	-Direct private investment requirements by sector	-Journalistic Review -File Review -Case Studies	-Descriptive Analysis -Impact (I/O) -Simulation	2-8	$ 3,500-$14,000	$ 700-$2800	$ 4,200-$16,800
	-Indirect private investment requirements by sector	-Outputs from direct analysis above	-Impact (I/O) -Simulation				
	-Induced private investment by sector						

* Reference Section 3.2 of the Report for explanation of restricted focus of evaluation in respect of this question.

EXHIBIT561: SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : Newfoundland

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
6. What has been the economic impact of GDA programming on a sub-provincial spatial basis?	-All or some of the indicators noted in Question 1 on a sub-provincial spatial basis	-File Review -Survey	-Descriptive Analysis -Statistical Analysis	3-6	$ 5,250-$10,500	$1050-$2100	$ 6,300-$12,600
10. What types of GDA program instruments (i.e., infrastructure, incentives) have been most effective in terms of achieving GDA objectives?	-Indicators aligned with Question 1, but input in accordance with program instrument expenditure classification	-File Review -Interviews -Survey -Case Studies	-Impact (I/O) -Statistical Analysis	3-6	$ 5,250-$10,500	$1050-$2100	$ 6,300-$12,600
			TOTAL OPTION #2	13-30	$22,750-$52,500	$ 4,550-$10,500	$27,300-$63,000
			TOTAL OPTIONS #1, 2	58-96	$101,500-$168,000	$20,300-$33,600	$121,800-$201,600
OPTION #3 (Comprehensive Option)			TOTAL LESS 20% COVERAGE ECONOMY				$ 97,440-$161,280
- Questions reviewed in Options #1 and 2 Plus							
1. In what manner and to what extent has GDA programming led to improvement of socio-economic circumstances?							
g) quality of life	-Level and distribution of earned income per capita and consumption of public goods and services on a pre- and post-GDA basis	-Journalistic Review -Interviews -Survey	-Descriptive Analysis -Impact (I/O) -Statistical Analysis	3-6	$ 5,250-$10,500	$1050-$2100	$ 6,300-$12,600
4. What has been the impact of GDA programming on a sectoral basis	-Restricted to agricultural sector -Intended employment (creation/maintenance) and earned income of a direct, indirect and induced nature by sector	-Journalistic Review -File Review -Interviews -Case Studies	-Impact (I/O) -Statistical Analysis	3-6	$ 5,250-$10,500	$1050-$2100	$ 6,300-$12,600
9. Has the amount of infrastructure investment under the GDA been sufficient to remove the barriers to industry viability and expansion?	-Number of particular firms in representative areas locating/expanding in the Atlantic Region essentially, moderately, marginally, not at all, as a result of GDA.	-Journalistic Review -File Review -Survey -Case Studies	-Descriptive Analysis -Statistical Analysis	1-3	$ 1,750-$ 5,250	$ 350-$1050	$ 2,100-$ 6,300
	-Lower costs to the above firms as a result of GDA infrastructure investment.	-Journalistic Review -Survey -Case Studies	-Profit/Loss -Discounted Cash Flow	2-6	$ 3,500-$10,500	$ 700-$2100	$ 4,200-$12,600
			TOTAL OPTION #3	9-21	$15,750-$36,750	$3150-$7350	$18,900-$44,100
			TOTAL OPTIONS #1,2,3	67-117	$117,250-$204,750	$23,450-$40,950	$140,700-$245,700
			TOTAL LESS 20% COVERAGE ECONOMY				$112,560-$196,560

5.7 EVALUATION OPTIONS: PRINCE EDWARD ISLAND

OPTION P.E.I. 1: BASIC EVALUATION - Assessment of economic impacts and objectives achievement with respect to employment, income, output and productivity, and GDA recipients and structural impediments to development analysis.

Characteristics of Option

A more complete basic option was envisaged for Prince Edward Island in light of the Treasury Board mandate to conduct an evaluation of the Development Plan. Nevertheless the basic option formulated for the Province involved fewer questions than that preferred by the Steering Committee for the Province of New Brunswick.

The "basic" P.E.I. option, in some respects, reflects an amalgamation of the first options prescribed for Newfoundland and Nova Scotia. It encompasses a review of questions 1 (a), (b) and (c) focusing of an aggregate level on the intended employment, earned income and output effects of GDA programming in the Province, as well as questions assessing the achievement of objectives related to those effects. The option also poses questions 2 and 1(j) which for Nova Scotia and Newfoundland respectively, were the single questions addressed in their basic option, aside from the basic economic impacts noted above. In addition to these similarities however, the basic P.E.I. option also questions the intended impact of GDA programming upon productivity in the Province.

This basic option therefore poses four questions of an impacts and effects nature and two of a policy/program formulation nature. Question 1 (j) addresses on an aggregate basis structural impediments to development in

P.E.I. while question 2 focuses upon an identification of the ultimate recipients of GDA programming again at an aggregate level, by category of recipient.

Questions 13, 14 and 15 are of an objectives achievement nature restricted to an assessment of program objectives which align with indicators measured in question 1.

The basic option for P.E.I. therefore exclusively addresses the intended economic impacts and effects issue of GDA programming with the focus being conducted in all cases at the aggregate level of analysis.

Estimated Cost:

This "Basic" evaluation option for Prince Edward Island, is expected to involve a total of 40 - 54 person weeks to completion, at a full coverage expense of between $67,200 to $90,720. Once again the predominant expense in this option relates to the use of Input/Ouput techniques in measuring the economic impacts and effects of GDA programming in the Province.

OPTION P.E.I. 2: INTERMEDIATE OPTION

OPTION P.E.I. 1 PLUS: Assessment of economic impacts on resource utilization/management and sectoral analysis.

Characteristics of Option

The second or "intermediate" option for Prince Edward Island supplements the "basic" option by including four more questions which focus exclusively at a sectoral level of analysis. This sectoral emphasis relects the priority to develop and manage the resource sectors of the Province in an effort to lead Prince Edward Island to greater self-sufficiency. Three of the questions added, (3, 4 and 5), are of an impacts and effects nature while 1 (e) is more related to policy/program formulation. All questions in the intermediate option, aside from the three related to objectives achievement, address the intended economic impacts and effects issue and align closely with the resource sector priorities evident in the Province's objectives heirarchy at the strategic and sub-strategic level.

Estimated Cost

The "Intermediate" evaluation option for Prince Edward Island involves an additional 19 - 27 person weeks of effort representing a total option budget expense of between $99,120 to $136,080 for completion. The incremental expense of this option principally reflects the additional resource utilization and sectoral analysis encompassed, and the consequent employment of surveys, case studies and Input/Output analysis.

140

OPTION P.E.I: 3: COMPREHENSIVE OPTION

OPTION P.E.I. 2 PLUS: Private investment and subsidy dependency analysis.

Characteristics of Option

The third or "comprehensive" option for P.E.I. expands further upon the intermediate option by addressing two additional questions; question 8 which focuses upon the issue of the intended impacts of GDA programming on private sector involvement; and question 11 respecting the issue of unintended impacts and effects of GDA programs and initiatives. Both questions are considered to be policy/program formulation in nature. Both questions broaden the resource emphasis evident in the earlier options and relate to the ultimate and strategic objectives which promote development and self-sufficiency in Prince Edward Island.

Estimated Cost

The "Comprehensive" evaluation option for Prince Edward Island is estimated to involve an additional manpower requirement of 18 - 24 person weeks. A total budget expense for this option is estimated to range between $129,3[illegible] to $176,400, reflective of the economy derived from unde[illegible]aking the full option proposed. The incremental manpower requirement for Prince Edward Island's third option is substantially reflected in the 12 - 16 person weeks required to answer the additional question concerning the possible encouragement by the P.E.I. Development Plan of development which is subsidy dependent.

EXHIBIT 5Z1: SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : Prince Edward Island

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
OPTION #1 (Basic Option)							
1. In what manner and to what extent has GDA programming led to improvement of socio-economic circumstances?							
a) employment (creation/ maintenance)	-Intended employment (direct, indirect and induced)	-File Review -Survey	-Descriptive Analysis -Impact (I/O)				
b) income (earned)	-Intended earned income (direct, indirect and induced)	-File Review -Survey	-Descriptive Analysis -Impact (I/O)	10-12	$17,500-$21,000	$ 3,500-$ 4,200	$21,000-$25,200
c) output	-Incidental earned income (direct, indirect and induced)	-File Review	-Descriptive Analysis -Impact (I/O)				
d) productivity	-Output per man year by sector compared to the industrial average.	-Journalistic Review -Survey	-Statistical Analysis	4-6	$ 7,000-$10,500	$1400-$2100	$ 8,400-$12,600
	-Marginal change in output divided by the change in input.	-Survey -Case Studies	-Econometrics -Statistical Analysis				
j) Reduce or eliminate structural impediments to development (negative impacts of structural change).	-Quality, level and retention of graduates from training and educational institutions.	-Journalistic Review -Interviews -Survey -Case Studies	-Descriptive Analysis -Statistical Analysis	8-10	$14,000-$17,500	$ 2800-$ 3500	$16,800-$21,000
	-Capital and labour stock availability	-Journalistic Review -Interviews -Survey -Case Studies	-Statistical Analysis				
	-Improved time and cost to market of selected industry.	-Journalistic Review -File Review -Interviews -Survey -Case Studies	-Simulation -Profit/Loss				
	-Reduced travel time within the Province.	-Journalistic Review -Interviews -Survey -Case Studies	-Descriptive Analysis				

EXHIBIT 5.7.1: SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : Prince Edward Island

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
OPTION #1 (Continued)							
2. Who have been the ultimate recipients of GDA programming by category of recipients? (provincial governments, businesses, communities, individuals, non-profit)	-Direct and indirect expenditure analysis by sector to labour, to individuals, to industry, to government and to various income components.	-Journalistic Review -Interviews -Survey -Case Studies	-Descriptive Analysis -Impact (I/O) -Statistical Analysis	4-6	$ 7,000-$10,500	$1400-$2100	$ 8,400-$12,600
13. To what degree have the objectives laid out in the GDA been met? Compare impact and effects with objectives.	-Employment, earned income, output, productivity and reduced structural impediments to development indicators which are identifiable with the Province's GDA objectives, relative to national and provincial indicators on a pre- and post-GDA basis.	-Journalistic Review -Interviews	-Descriptive Analysis -Simulation -Statistical Analysis	5-7	$ 8,750-$12,250	$1750-$2450	$10,500-$14,700
14. Does a great deal of the GDA impact fall in areas not set out in its objectives? To what extent do the impacts and effects of the GDA match with stated objectives?	-Impacts and effects indicators noted in Question 1 relative to specific GDA objectives.	-Journalistic Review	-Descriptive Analysis -Statistical Analysis -Impact (I/O)	5-7	$ 8,750-$12,250	$1750-$2450	$10,500-$14,700
15. What have been the factors which affected the achievement of objectives (i.e., programming, financial commitments, implementation, planning, changing economic circumstances, other reasons)*	-Correlation between international, national, provincial and sectoral economic growth to functional and sectoral GDA initiatives. -Size of GDA initiatives relative to the magnitude of the problem.	-Journalistic Review -File Review -Interviews -Case Studies	-Statistical Analysis	4-6	$ 7,000-$10,500	$1400-$2100	$ 8,400-$12,600
			TOTAL OPTION #1	40-54	$70,000-$94,500	$14,000-$18,900	$ 84,000-$113,400
			TOTAL LESS 20% COVERAGE ECONOMY				$67,200-$90,720

* Reference Section 3.2 of the Report for explanation of restricted forms of evaluation in respect of this question.

EXHIBIT 571: SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : Prince Edward Island

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
OPTION #2 (Intermediate Option)							
- Questions reviewed in Option #1. Plus:							
1. In what manner and to what extent has GDA programming led to improvements in socio-economic circumstances?							
e) resource utilization/management	-Current harvestible rate and mix of utilization by sector (each use of land) -New harvestibles	-Journalistic Review -Interviews -Survey	-Descriptive Analysis	6-8	$10,500-$14,00	$2100-$2800	$12,600-$16,800
3. Has GDA programming supported the positive changes which have occurred within the provincial economy?	-Positive changes in the economy identified chronologically and by sector.	-Journalistic Review -Structured Seminars -Longitudinal Surveys	-Descriptive Analysis -Statistical Analysis	3-5	$ 5,250-$ 8,750	$1050-$1750	$ 6,300-$10,500
	-Incidence of GDA expenditures over time, by sector, with the above changes	-File Review -Survey -Case Studies	-Descriptive Analysis -Econometric -Statistical Analysis				
4. What has been the impact of GDA programming on a sectoral basis?	-Intended employment (creation/maintenance), earned income and output of a direct, indirect, and induced nature and productivity by sector.	-Journalistic Review -File Review -Interviews -Case Studies	-Impact(I/O) -Statistical Analysis	4-6	$ 7,000-$10,500	$1400-$2100	$ 8,400-$12,600
5. How does the impact in the resource sectors compare with the impact in other sectors?	-Comparative sectoral impacts noted in Question 4.	-Case Studies	-Statistical Analysis -Impact (I/O)	6-8	$10,500-$14,00	$2100-$2800	$12,600-$16,800
			TOTAL OPTION #2	19-27	$33,250-$47,250	$6650-$9450	$ 39,900-$ 56,700
OPTION #3 (Comprehensive Option)			TOTAL OPTIONS # 1, 2	59-81	$103,250-$141,750	$20650-$28350	$123,900-$170,100
- Questions reviewed in Options 1 and 2. Plus			TOTAL LESS 20% COVERAGE ECONOMY				$ 99,120-$136,080
8. What is the potential for further private investment (restricted to areas in which the greatest amount of investment has been	-Changes in investment intentions and levels of business confidence as a result of GDA initiatives.	-Journalistic Review -Interviews -Survey -Case Studies	-Descriptive Analysis -Simulation	6-8	$10,500-$14,00	$2100-$2800	$12,600-$16,800

EXHIBIT 571: SUMMARY SPECIFICATION OF EVALUATION OPTIONS
PROVINCE : Prince Edward Island

QUESTION NUMBER AND NAME	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES	ANALYTICAL TECHNIQUES	TIME (WEEKS)	COST	OTHER EXPENSES	TOTAL
OPTION #3 (Continued)							
made resulting from direct GDA investment?	-Take up rates	-Journalistic Review -Interviews -Survey	-Descriptive Analysis				
11. Has GDA encouraged the creation of development which is subsidy-dependent?	-Number of firms that have grown and matured as a result of GDA	-Journalistic Review -File Review -Survey -Case Studies	-Descriptive Analysis	12-16	$21,000-$28,000	$4200-$5600	$25,200-$33,600
	-Number of repeat applications for GDA funding and/or other government programs.						
	-Degree to which subsidies have reduced costs and made firms competitive.	-Survey -Case Studies	-Descriptive Analysis -Profit/Loss -Discounted Cash Flow				
			TOTAL OPTION #3	18-24	$31,500-$42,000	$6300-$8400	$36,800-$50,400
			TOTAL OPTIONS #1, 2, 3	77-105	$134,750-$183,750	$26950-$36750	$161,700-$220,500
			TOTAL LESS 20%				$129,360-$176,400

6. TERMS OF REFERENCE

INTRODUCTION

The Government of Canada is conducting an evaluation study of the General Development Agreement between Canada/(Province).

BACKGROUND

The General Development Agreement (GDA) between Canada and (Province) was signed in 1974. The GDA is an "enabling" framework through which the federal and provincial governments are able to enter into cost shared ("Sub Agreements") programs to jointly plan and execute programs of mutual priority in regional economic expansion and social adjustment.

An evaluation assessment has been conducted which has identified the key issues and questions to be addressed in the evaluation study.

PURPOSE AND SCOPE

The purpose and scope of this study is to evaluate the economic impacts and effects, private sector involvement and objectives achievement of the Agreement since its inception in 1974. The questions to be addressed in the evaluation study, including the approaches, analytical techniques and budget of conducting the evaluation study are attached to these Terms of Reference. (Attachment #1) Although approaches and techniques have been outlined, it is expected that a clear assessment of the level of effort to be made in applying these approaches and techniques will preceed the evaluation study.

196

OBJECTIVES

The objectives of this study are:

1) To assess the intended and unintended impacts and effects of the GDA on the economic structure, industrial development and standards of living in the province.

2) To determine if and to what extent the objectives of the GDA have been achieved, and determine the most effective GDA instruments in meeting these objectives.

3) To identify the ultimate recipients of GDA programming.

WORK PROGRAM

As indicated in the attached Schedule, a number of issues, questions and performance indicators are to be addressed in this evaluation. In order to ensure that project scheduling and costs are in accordance with the budget, a schedule of work activities which integrate the questions and techniques must be developed.

ADMINISTRATIVE MATTERS

(This section should include standard items such as level of effort, copies of proposal, time frame, project management, participation of DREE staff, etc.)

APPENDIX 1

STEERING COMMITTEE MEMBERS

STEERING COMMITTEE MEMBERS

Mr. T. Thomas, Manager, Evaluation Division, DREE (Atlantic)

Mr. P.Y. Chiasson, Senior Evaluation Officer, Evaluation Division DREE (Atlantic)

Mr. K. Draper, Senior Development Analyst, DREE (New Brunswick)

Mr. S. Shepherd, Senior Development Analyst, DREE (Prince Edward Island)

Ms. B. MacDonald, Senior Development Analyst, DREE (Nova Scotia)

Mr. B. Dick, Senior Development Analyst, DREE (Newfoundland)

Dr. A. Barbarie, Office of the Comptroller General, Ottawa

APPENDIX 2

LIST OF OFFICIALS INTERVIEWED

OFFICIALS INTERVIEWED

DREE Atlantic

Mr. R.H. McGee, Assistant Deputy Minister
Mr. M.D. Ross, Director General, Planning & Coordination

DREE New Brunswick

Mr. Gilles E. Chiasson, Director General
Mr. D. Izzard, Manager, Development and Analysis
Mr. H.W. Shephard, Manager, Program Implementation

DREE Prince Edward Island

Mr. W.A. Reid, Director General
Mr. W.S. MacFarlane, Director, Operations

DREE Nova Scotia

Mr. Michael Lane, Director General
Mr. R.F. Harper, Director, Development

DREE Newfoundland

Mr. H.I. McGonigal, Director General
Mr. F.M. Street, Manager, Development and Analysis
Mr. R.B. Heeney, Manager, Implementation

DREE Hull

Mr. D.I. McDonald, Acting Director General, Analysis & Liaison Branch

Ministry of State for Economic Development

Mr. I. Clark, Deputy Secretary
Mr. R. Bilodeau, Assistant Director, Resource Development

Treasury Board of Canada - Program Branch

Mr. A. Kyffin, Industry and Regional Development Group
Ms. A. McAskil, Industry and Regional Development Group

Treasury Board of Canada - Office of the Comptroller General

Mr. J. Brophy, Deputy Comptroller General, Program Evaluation Branch
Mr. G. Westland, Senior Evaluation Analyst

APPENDIX 3.1

SCHEDULE OF INTERVIEW QUESTIONS
REGIONAL & PROVINCIAL OFFICE
INTERVIEWS

APPENDIX 3.1: REGIONAL AND PROVINCIAL OFFICE INTERVIEWS INTERVIEW PROCESS

I. Introduction

(i) Purpose and intent of an evaluation assessment.

(ii) Scope of the evaluation assessment project (Table 1).

(iii) Purpose and intent of interviews in the Evaluation Assessment process.

II. Project Interview

A. (i) Review objectives heirarchy

a) Do they agree with the objectives as portrayed?

b) Are there other objectives not shown?

c) Which sub strategic objective(s) is of highest priority?

(ii) Review issues and questions re: Objectives Achievement

1. (a) Which questions are most important and why?

(b) Do you agree with inclusion of sub-provincial objectives for Newfoundland and New Brunswick?

2. Has there been a change in objectives or their priority over time? If so, is this reflected in the Sub-Agreements in the past 3-4 years?

3. Which of these strategic objectives have the greatest priority for evaluation?

4. Is there a necessary relationship between the objectives priority and the dollars spent?

5. Have obstacles been encountered in meeting the objectives - if so, please specify.

6. In retrospect, were the objectives specified reasonable? Why?

7. How flexible is the GDA system to change?

8. Have the tools available through the GDA Program been sufficient to achieve the objectives?

9. How helpful has the prescription of program objectives been in developing programs and program design?

10. Has the thinking of this office changed over the years?

11. Are these questions satisfactory to an assessment of the GDA program? If not, why not?

12. Are there questions not shown which should be included in an evaluation assessment of the program? If so, which ones?

B. Intended impacts and effects

(i) Economic impacts and effects

1. What does the improvement of socio-economic circumstance mean?

2. Has GDA focussed on social adjustment as well as economic development?

3. What is the most important impact or effect of this program?

4. What type of success criteria would be best suited to measuring the impacts of the GDA?

5. Are there trade-offs between objectives i.e. productivity/employment?

6. Is the size of the initiative adequate relative to the size of the problem?

7. Would the desired economic impacts and effects likely have taken place anyway?

8. Who are the "target group - prime beneficiaries" of the GDA?

9. How aware are recipients of federal involvement in GDA programming?

10. The question of incrementality is difficult to measure. Was preserving jobs in the economy as high a priority as creating new ones in certain sectors?

11. Has the program been generally one of identifying and maximizing opportunities or of shoring up, converting, or making more efficient existing situations? Does the flow of funds support this?

12. If there are "spatial objectives"

    (a) Is there a trade-off between a spatial focus and provincial economic growth?

    (b) Has the balance between spatial and sectoral been appropriate?

    - If there are no spatial objective

      (a) Is it important to look at spatial effects?

151

3. Could the GDA program have been more effective with greater private sector involvement?

4. Has the GDA Program been an effective and efficient means of influencing the private sector. How do you know?

5. What are the most effective means of inducing private sector investment?

6. Has the amount of infrastructure investment been sufficient to remove the barriers to industry viability and expansion?

7. Has the private sector expanded into the sectors and regions of greatest need?

8. Are the questions and issues satisfactory and comprehensive enough for an evaluation of the aspects of the GDA Program? If not, why not?

9. Are there questions not shown which should be included in our evaluation assessment of the program? If so, which ones?

10. Which questions are most important and why?

C. Unintended Impacts and Effects

1. Has the GDA funding had a significant leverage effect on provincial economic development spending? Has it increased the priority assigned to economic development by provinces?

2. Has GDA programming supported business activities with no reasonable chance of long-term viability?

3. How has the GDA affected the degree of cooperation between provincial governments?

4. Has the GDA programming (e.g. a large number of like activities in each province led to inefficiencies? Should there be more regional initiatives?

5. Does GDA programming result in activities taking place where they are likely to produce the greatest economic benefits? How does this occur?

6. Do you feel that GDA programming has resulted in the provinces being left with operation and maintenance costs which they cannot afford to defray from their own resources?

7. Are effective cost-sharing ratios an important issue?

8. Do the regional economic development objectives of the GDA often come into conflict with the sectoral objectives of line departments? How is this conflict resolved?

9. Can the GDA be an effective means of implementing Federal Government priorities?

10. Does the great number of individual programs (e.g. financial assistant) pose problems of duplication or confusion on part of private sector?

11. Is it important to address the question on visibility?

12. Are the questions satisfactory and comprehensive to an evaluation of this aspect of the GDA Program? If not, why not?

13. Are there questions not shown which should be included (barring process and rationale)? If so, which ones?

14. Which question or aspect is most important?

III. Concluding Remarks

(i) Summary of major impressions by interviewer.

(ii) Seek concurrence of summary of impressions from interviewer.

(iii) Identify areas where additional information or action is required.

TABLE 1

CLASSES OF EVALUATION ISSUES

I. Program rationale.

II. Impacts and Effects.

A. Intended Impacts and Effects

(a) Economic impacts and effects. (1)

(b) Private sector involvements. (1)

(c) Coordination of Federal-Provincial policies and programs.

(d) Coordination of Federal policies and programs.

B. Unintended Impacts and Effects (1)

III. Objectives Achievements (1)

IV. Alternatives

---

(1) Designated component of the GDA Evaluation Assessment project. Issues not so designated lay beyond the terms of reference of this Evaluation Assessment.

APPENDIX 3.2

SCHEDULE OF INTERVIEW QUESTIONS

OTTAWA INTERVIEWS

APPENDIX 3.2: OTTAWA INTERVIEWS

INTERVIEW PROCESS

I. Introduction

(i) Purpose and intent of an evaluation assessment.
(ii) Scope of the evaluation assessment project (Table 1).
(iii) Purpose and intent of interviews in the Evaluation Assessment process.

II. Project Interview

A. (i) Review objectives heirarchy

a) Do they agree with the objectives as portrayed?
b) Are there other objectives not shown?
c) Which objective(s) is of highest priority?

(ii) Review issues and questions re: objectives achievement

a) Are these questions satisfactory to an assessment of the GDA program? If not, why not?

b) Are there questions not shown which should be included in an evaluation assessment of the program? If so, which ones?

c) Which questions are most important and why?

d) Have obstacles been encountered in meeting the objectives - if so, please specify.

e) In retrospect, were the objectives specified reasonable? Why?

f) Has there been a change in objectives over time? If so, is this reflected in the Sub-Agreements in the past 3 - 4 years?

(g) How flexible is the GDA system to change?

(h) Is there a necessary relationship between the objectives priority and the dollars spent?

(i) Have the tools available through the GDA Program been sufficient to achieve the objectives?

(j) How helpful has the prescription of program objectives been in developing programs and program design?

(k) Has the thinking of this office changed over the years?

B. Intended impacts and effects

(i) Economic impacts and effects.

(a) Are the questions and issues satisfactory and comprehensive enough to an assessment of this aspect of the GDA Program? If not, why not?

(b) Are there other questions which should be addressed? If so, which ones?

(c) Are there some questions which are more important than others? If so, which ones?

(d) What is the most important impact or effect of this program?

(e) What type of criteria would be best suited to measuring the impacts of the GDA?

(f) Would the desired economic impacts and effects likely have taken place anyway?

168

(g) The question of incrementality is difficult to measure. Was preserving jobs in the economy as high a priority as creating new ones in certain sectors?

(h) Has the program been generally one of identifying and maximizing opportunities or of shoring up, converting, or making more efficient existing situations? Does the flow of funds support this?

(i) Does the functional expenditure series reflect the general thrust of the program?

(j) What priority would you give the various functions of expenditure?

B. (ii) Private Sector Involvement.

(a) Are the questions and issues satisfactory and comprehensive enough for an evaluation of the aspects of the GDA Program? If not, why not?

(b) Are there questions not shown which should be included in our evaluation assessment of the program? If so, which ones?

(c) Which questions are most important and why?

(d) Has the private sector been influenced in other than a direct expenditure manner?
(ie.) direct dollar impact as opposed to structural change.

(e) To what extent and how has the private sector been influenced by the GDA Program? How does one reach such a conclusion?

169

(f) Has the private sector expanded into the sectors and regions of greatest need?

(g) Has there been a change in the take-up rate in GDA sponsored programs? How do you know?

(h) Has the GDA Program been an effective and efficient means of influencing the private sector? How measured?

C. Unintended Impacts and Effects

(a) Are the questions satisfactory and comprehensive to an evaluation of this aspect of the GDA Program? If not, why not?

(b) Are there questions not shown which should be included (barring process and rationale)? If so, which ones?

(c) Which question or aspect is most important?

(d) In the program planning stage are precautions taken to reduce unintended impacts and effects?

III. Concluding Remarks

(i) Summary of major impressions by interviewer.
(ii) Seek concurrence of summary of impressions from interviewer.
(iii) Identify areas where additional information or action is required.

TABLE 1

CLASSES OF EVALUATION ISSUES

I. Program rationale.

II. Impacts and Effects.

A. Intended Impacts and Effects

a. Economic impacts and effects. (1)
b. Private sector involvements. (1)
c. Coordination of Federal-provincial policies and programs.
d. Coordination of Federal policies and programs.

B. Unintended Impacts and Effects (1)

III. Objectives Achievements (1)

IV. Alternatives

---

(1) Designated component of the GDA Evaluation Assessment project. Issues not so designated lay beyond the terms of reference of this Evaluation Assessment.

APPENDIX 4

LIST OF SUB-AGREEMENT EVALUATION STUDIES REVIEWED

PROGRAM EVALUATIONS COMPLETED PRIOR TO FISCAL 1980-81

ATLANTIC REGION

(AS OF OCTOBER 15, 1981)

Responsible Office and Program Evaluation Component	Type of Evaluation	Date Completed
Newfoundland		
Rural Development	Interim	In progress
F.E.S.P.	Interim	
Forestry	Interim (2) (Final Draft)	1977-1978
Gros Morne Park (Final in progress)	Interim	1976
NORDCO	Final	1979
Agriculture	Interim	1981
St. John's Urban Region	Interim, Final	1979
Labrador Interim	Interim	1979
Inshore Fisheries	Interim	1979
Highways (Final in progress)	Interim	1979
Fisheries Marine Service Centers	Final	1980
Nova Scotia		
Minerals	Final	1980
Strait of Canso	Interim	1978
Sysco Capital Works	Final	1980
Industrial Development	Final	1981
Venture Founders	Final	1980
Energy	Interim	1980
Agriculture	Final	1981
Forestry	Final	1981
Halifax-Dartmouth (in progress)		
Tourism Dept. (in progress)		
Planning	Final	1981

APPENDIX 4, continued

Responsible Office and Program Evaluation Component	Type of Evaluation	Date Completed
New Brunswick		
Highways (data collected)		
Northeast N.B.	(in progress	
Agriculture Development I	Final	1978
Agriculture II	Interim	1980
Forestry	Final	1979
Industrial Development	Final	1978
Kent County Pilot Project	Final	1979 (Updated 1981)
Tourism Development	Final	1980
Minerals & Fuels	Final	1981
Prince Edward Island		
Comprehensive Development Plan	Final	1978
Atlantic Region		
Surveying Mapping and Land Registration (LRIS)	Final	1977
Physical Distribution Advisory Services	Final (2)	1978, 1981
Atlantic Management Institute	Final	1977
Regional Silviculture	Final	1981
Atlantic Management Training Institute		

APPENDIX 5

REVIEW CRITERIA FOR SUB-AGREEMENT EVALUATION STUDIES

175

REVIEW OF SUB-AGREEMENT EVALUATIONS

1. Name of Agreement

2. Type of Agreement:

   a) Resource Management and Development

   b) Human Resource Development/Social Developments

   c) Assistance to Business

   d) Marketing and Distribution

   e) Infrastructure

   f) Planning

   g) Transfer and development of Technology

   * If sub-agreement covers more than one of the above, show approximate percentage distribution amongst various types.

3. Date and Status (interim or final) of Evaluation.

4. Comment on evaluability and approaches (Table 1).

5. Have the data sources listed under Question 4 been kept current since evaluation?

6. Comment on evaluation results (Table 2).

7. Was the question of incrementality addressed? For which programs and projects? How?

8. Were problems encountered on measuring economic development impact? If so, please specify.

9. If not all programs/projects were evaluated, list those excluded and why.

10. Comment on whether, and if so how, the evaluation addressed the following issues?

ISSUE

1. Economic Impacts and Effects

   i) intended

   ii) unintended

2. Objectives Achievement

3. Private Sector Involvement

4. Federal Coordination

5. Federal-Provincial Coordination

6. Alternatives

TABLE 1

4. EVALUABILITY

AGREEMENT/PROGRAM PROJECT	CAUSAL LINKAGES* (Plausibility of linkages between outputs and economic effects)	APPROACHES*	METHODOLOGY USED (For attributing effects to activities)*	DATA AVAILABILITY/ SOURCE*

*See Table 1 (Attachment) for footnotes

TABLE 1 (ATTACHMENT)

Note: The following comments are intended to clarify and assist in the completion of Table 1.

1) Causal Linkages:

   a) Strong linkage
   b) Weak linkage

2) Approaches - Categorize as follows:

   a) Case Study
   b) Interviews (Management)
   c) Interviews (Recipient Population)
   d) Expert opinion
   e) Surveys
   f) Quantitative Analysis
   g) Qualitative Analysis
   h) Journalistic Review
   i) Combinations of above

3) Methodology used:

   (ie.)
   a) Input/Output Analysis
   b) Impact Analysis
   c) Regression Analysis
   d) Multiplier Analysis
   e) Financial Analysis
   f) Other

4) Data Availability/Source:

   Classify source as:
   a) Primary (internal data collection)
   b) Secondary (other sources, ie. Stats Canada)
      - source
      - level of aggregation
      - availability (ie. regional, sub-provincial, etc.)
   c) Time Series
   d) Reliability
   e) Validity (ie. did it measure what it was intended to measure?)

TABLE 2

*6. EVALUATION RESULTS - Success criteria, performance indicators, effects should be limited to economic impact (employment, income, investment). Where this is not available, use intermediate output indicator (eg. increased sales)

AGREEMENT/PROGRAM PROJECT	SUCCESS CRITERIA (to what extent have we achieved what we set out to achieve)	SUCCESS CRITERIA INDICATORS	RESULTS (ECONOMIC IMPACTS AND EFFECTS)

APPENDIX 6

FUNCTIONAL AND SECTORAL CLASSIFICATION

NEW BRUNSWICK GENERAL DEVELOPMENT AGREEMENT EXPENDITURES BY SECTOR AND FUNCTIONS
($'000) (1974-1982)

SECTORS		100 Resource Management	200 Planning	300 Administration	400 Human Resources	500 Infrastructure	510 Roads to Resources	520 Highways	530 Bridges	540 Community Infrastructure	550 Institutional Infrastructure	560 Tourism	570 Power Lines	580 Airports	600 Assistance to Business	610 Financial grants to business	620 Industrial Infrastructure	630 Business Software	631 Management Development	632 Technology Transfers	633 Marketing	634 Business Studies	635 Other Business	640 Tourism Marketing	700 N. E. S.	Total
Primary Industry	100																									
Agriculture	101		945	2,781	24											17,151	3,851		463	1,686	757		575			28,237
Fisheries	102		995	272	21						79					829	1,325		35							3,558
Mining	103	8,534	1,018	180	71		1,418													122						11,406
Forestry	104	43,198	2,193	1,406	805		9,202									6,310	1,221			260	111					64,709
Tourism	200		558	273	38						168	21,503				2,696				174		25				25,441
Transportation	300		770		10		4,752	1,273														3				6,809
Primary & Secondary Mfg.	400																									
Agriculture	401		139													1,093				12	120					1,275
Fisheries	402		80														325					8				414
Mining	403		2,489		30																					2,519
Forestry	404		136	4,851												5,275			150	3	29	285				5,885
Manufacturing	405		279	129												5,424	2,000		130	2,566	548	1,325		22		12,427
Commercial Activities	500		264							35						3,288	961		37							4,587
Community Development	600																									
Water & Sewer	601		88	383						10,060												4				10,536
Street Improvements	602		22							34,651																34,673
Social Infrastructure	603		48	2	14						9,580															9,645
Industrial Parks	604		746	390						80							14,850									16,067
Housing	605		19	26																					971	1,016
Community Dev. - Gen.	609		673	154	1,286					99	1,171	2				139				14						3,541
Energy	700		42										182			100			3	95		2				426
N.E.S.	900																									
N.E.S.	950		373	9,287	2														2		4	160				9,830
	Total	51,732	11,947	15,293	2,304		15,374	1,273		44,926	10,999	21,506	182			42,219	24,535		823	4,936	1,572	1,815	575	22	971	253,011

NOVA SCOTIA GENERAL DEVELOPMENT AGREEMENT EXPENDITURES BY SECTOR AND FUNCTIONS
($'000) (1974-1982)

SECTORS		100 Resource Management	200 Planning	300 Administration	400 Human Resources	500 Infrastructure	510 Roads to Resources	520 Highways	530 Bridges	540 Community Infrastructure	550 Institutional Infrastructure	560 Tourism	570 Power Lines	580 Airports	600 Assistance to Business	610 Financial grants to business	620 Industrial Infrastructure	630 Business Software	631 Management Development	632 Technology Transfers	633 Marketing	634 Business Studies	635 Other Business	640 Tourism Marketing	700 N. E. S.	Total
Primary Industry	100																									
Agriculture	101	17,499														10,272	1,040			879		10				29,702
Fisheries	102																									
Mining	103	15,135	48	512																		8	173			15,879
Forestry	104	15,620	4	335												9,227			84				1,361			26,634
Tourism	200		17	128								5,713				2,114			60			28		314		8,377
Transportation	300		628				290	11,968		6,130				958		2,380						35				22,390
Primary & Secondary Mfg.	400																									
Agriculture	401																									687
Fisheries	402		25														662									253
Mining	403																253									510
Forestry	404		152													358										40,809
Manufacturing	405		526	15												37,770	1,369				274	821	30			25,254
Commercial Activities	500		2,588							10,294							12,372									24,835
Community Development	600																									
Water & Sewer	601		341							24,411													83			22,248
Street Improvements	602									22,248																64
Social Infrastructure	603		64																							11,481
Industrial Parks	604		95							1,557							9,828									
Housing	605																									
Community Dev. - Gen.	609																									3,567
Energy	700		1,710	340									213							1,281		22				
N.E.S.	900																									4,502
N.E.S.	950		3,144	1,358																						
	Total	48,255	9,348	2,692			290	11,968		64,641		5,713	213	958		62,122	25,525		145	2,161	274	926	1,648	314		237,200

Totals may not add due to rounding.

NEWFOUNDLAND GENRAL DEVELOPMENT AGREEMENT EXPENDITURES BY SECTOR AND FUNCTIONS
($'000) (1974-1982)

SECTORS		100 Resource Management	200 Planning	300 Administration	400 Human Resources	500 Infrastructure	510 Roads to Resources	520 Highways	530 Bridges	540 Community Infrastructure	550 Institutional Infrastructure	560 Tourism	570 Power Lines	580 Airports	600 Assistance to Business	610 Financial grants to business	620 Industrial Infrastructure	630 Business Software	631 Management Development	632 Technology Transfers	633 Marketing	634 Business Studies	635 Other Business	640 Tourism Marketing	700 N. E. S.	Total
Primary Industry	100																									
Agriculture	101	305	1,102	40			745									1,388			242	524	223		387			5,000
Fisheries	102		401														15,881									16,282
Mining	103	4,555	790	90																						5,436
Forestry	104	31,630	710	132	166		16,791									8,571	437									58,440
Tourism	200		233	336	54							2,429				2,355							51	709		6,251
Transportation	300		1,301	425				134,701	6,995			466														143,891
Primary & Secondary Mfg.	400																									
Agriculture	401															728				2						730
Fisheries	402																10,443									10,443
Mining	403																									
Forestry	404																									
Manufacturing	405		188													15,333					505					16,028
Commercial Activities	500																									
Community Development	600																									
Water & Sewer	601		411							17,386																17,798
Street Improvements	602		138	43						52,387																52,570
Social Infrastructure	603		111								1,272															1,384
Industrial Parks	604		41														4,337									4,378
Housing	605																									
Community Dev. - Gen.	609																									
Energy	700		47										4													52
N.E.S.	900																			4,419						4,419
N.E.S.	950		247	6,894																			301			7,443
	Total	36,492	5,767	7,953	221		17,536	134,701	6,995	69,774	1,272	2,896	4			28,378	31,099		242	4,946	729		740	789		350,551

PRINCE EDWARD ISLAND COMPREHENSIVE DEVELOPMENT PLAN EXPENDITURES BY SECTOR AND FUNCTIONS
($' 000) (1974-1982)

SECTORS		100 Resource Management	200 Planning	300 Administration	400 Human Resources	500 Infrastructure	510 Roads to Resources	520 Highways	530 Bridges	540 Community Infrastructure	550 Institutional Infrastructure	560 Tourism	570 Power Lines	580 Airports	600 Assistance to Business	610 Financial grants to business	620 Industrial Infrastructure	630 Business Software	631 Management Development	632 Technology Transfers	633 Marketing	634 Business Studies	635 Other Business	640 Tourism Marketing	700 N. E. S.	Total
Primary Industry	100																									
Agriculture	101	1,897	2,477	1,070	1,005											24,957	4,599		13,474	314	137		1,211			51,145
Fisheries	102	786	573													591	1,703		532	4,441			54			8,684
Mining	103																									
Forestry	104	6,351	123				355									75			40				295			7,241
Tourism	200	1,259	1,742					495				5,262												1,232		9,992
Transportation	300			60				22,879	1,645																	24,584
Primary & Secondary Mfg.	400																									
Agriculture	401																									
Fisheries	402																									
Mining	403																									
Forestry	404																									
Manufacturing	405		123													6,129					197					6,449
Commercial Activities	500															953	273				3,917		601			5,746
Community Development	600																									
Water & Sewer	601		514							9,661																10,175
Street Improvements	602																									
Social Infrastructure	603										19,056															19,856
Industrial Parks	604															2,206	3,156									5,363
Housing	605		166	52																					4,099	4,317
Community Dev. - Gen.	609																									
Energy	700		13										18,359							726						19,098
N.E.S.	900																									
N.E.S.	950	1,738	1,880	5,357	5,023					498													3,152			17,651
	Total	12,034	7,613	6,541	6,028		355	23,374	1,645	10,159	19,056	5,262	18,359			34,914	9,733		14,047	5,482	4,252		5,315	1,232	4,099	190,306

Totals may not add due to rounding.

APPENDIX 7

PROVINCIAL EVALUATION OPTION SPECIFICATION SHEETS

Evaluation Option Specification Sheet Legend

186

Normal Level of Effort	●	Aggregate	■
		Spatial	▲
High Level of Effort	◑	Functional	○
Option Numbers	1	Sectoral	□

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NEW BRUNSWICK

187

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact(Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
ISSUES A. IMPACTS AND EFFECTS 1. INTENDED IMPACTS AND EFFECTS i. Economic impacts and effects 1. In what manner and to what extent has GDA programming led to improvement of socio-economic circumstances?																					
1a. employment (creation/maintenance) construction/ incidental	direct Jobs Created																				
	indirect Jobs Created																				
	induced Jobs Created																				
intended	direct Jobs Created		●			●				●	●								1	■	
	indirect Jobs Created										●								1	■	
	induced Jobs Created										●								1	■	
1b. income(earned) construction/ incidental	direct Income Created																				
	indirect Income Created																				
	induced Income Created																				
intended	direct Income Created		●			●				●	●								1	■	
	indirect Income Created										●								1	■	
	induced Income Created										●								1	■	
1c. output construction/ incidental	direct output created																				
	indirect output created																				
	induced output created																				
intended	direct output created		●							●	●								1	■	
	indirect output created										●								1	■	
	induced output created										●								1	■	
1d. productivity	wage rates of assisted sector relative to other comparable wage rates																				
	output per man year by sector compared to the industrial average	●				●								●					2	■	
	change in value-added per employee																				
	change in average total output per man hour																				
	marginal change in output divided by change in input					●		●				●		●					2	■	
1e. resource utilization/ management	current harvestible rate and mix of utilization by sector (each use of land)																				
	new harvestibles																				
1f. population dissemination	review of inter- and intra- provincial census data	●								●					●				2	■	

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NEW BRUNSWICK

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact(Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
1g. quality of life	income distribution																				
	change in personal consumption																				
	earned income/capita																				
	consumption of public goods. (a) health housing education																				
1h. private investment	direct private investment requirements																				
	indirect private investment requirements																				
	induced private investment																				
1i. increased labour and management skills	productivity measures																				
	profitability in affected sectors																				
	other special indicators (a) listing of labour classifications																				
1j. reduce or eliminate structural impediments to development (negative impacts of structural change)	quality, level and retention of graduates from training & education institutions																				
	capital availability																				
	labour stock availability																				
	distance of manufacturing/industrial plants to 1st class highways																				
	improved time and cost to market of selected industry																				
	reduce travel time within the Province																				
	indicators of the creation of a Provincial market																				
	increased communication between localities																				
	increased attractiveness of cities to business																				
1k. sub-provincial disparities	all or some of the measures noted above depending upon access to data at sub-prov. level	●	●	●		●		●		●				●	●					1	▲
2. Who have been the ultimate recipients of CDA programming by category of recipients? (provincial government, businesses, communities, individuals, non-profit)	A. direct expenditure analysis by sectors individuals, labour, industry profits, gov't taxes to labour to individuals by sector to industry to government to various income components	●		●		●		●		●					●					2	■ □
	B. indirect analysis by sectors individuals, labour, industry profits, gov't taxes to labour to individuals to industry to government to various income components		Data Source 2A								●				●					2	■ □

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NEW BRUNSWICK

18-1

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact (Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
3. Has CDA programming supported the positive changes which have occurred within the provincial economy?	positive changes in the economy identified chronologically and by sector	●			●				●					●				3	□		
	incidence of CDA expenditures over time, by sector, with the above, changes		●			●		●	●			●		●				3	□		
4. What has been the impact of CDA programming on a sectoral basis?	indicators as in question 1 on a sectoral basis	●	●	●				●			●				●				1	□		Mining
5. How does the impact in the resource sectors compare with the impact in other sectors?	comparative sectoral impacts identified in question 4							●			●				●				1	□		Mining
6. What has been the economic impact of CDA programming on a sub-provincial spatial basis?	indicators identified in question 1 on a prescribed spatial basis		●			●			●						●				1	▲		
7. What has been the participation of the private sector in the CDA process, both in terms of financial contribution and involvement in the planning process? (a. private sector involvement)	amount and degree of participation by the private sector in feasibility studies																				
	number of planning meetings attended by the private sector																				
	number of grant programs, voluntary planning exercises and boards established																				
	quality of board discussions, turnover rates																				
8. What is the potential for further private investment? (Restricted to areas in which the greatest amount of investment has been made resulting from direct CDA investment)	changes in investment intentions and levels of business confidence as a result of CDA initiatives																				
	take-up rates																				
9. Has the amount of infrastructure investment under CDA been sufficient to remove the barriers to industry visibility and expansion?	number of particular firms in representative areas locating/ expanding in the Atlantic region: - essentially - moderately - marginally - not at all as a result of CDA	●	●			●		●		●					●				3	○		
	lower costs to the above firms as a result of CDA infrastructure investment	●				●		●								●		●	3	○		
10. What types of CDA program instruments (e.g., infrastructure, incentives) have been most effective in terms of achieving CDA objectives?	indicators aligned with question 1, but input in accordance with program instrument expenditure classification		●	●		●		●		●					●				2	○		

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET

PROVINCE OF NEW BRUNSWICK

190

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact (Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAILS: Option Number	Focus of Analysis	Focus Detail
2. UNINTENDED IMPACTS AND EFFECTS																					
11. Has GDA encouraged the creation of development which is subsidy dependent?	number of firms that have grown and matured as a result of GDA																				
	number of repeat applications for GDA funding and/or other government programs																				
	difference between 1st, 2nd and 3rd applicants for DREE assistance																				
	dependency index within the business community																				
	degree to which subsidies have reduced costs and made firms competitive																				
12. Has the GDA programming encouraged inefficiencies or efficiencies with respect to regional economic development in the Atlantic region?	change in employment, productivity and income																				
	comparison of a select series of economic indicators with and without GDA programming																				
	competition artificially created (net effect in Atlantic region)																				
13. OBJECTIVES ACHIEVEMENT																					
13. To what degree have the objectives laid out in the GDA been met?	indicators assessed in question 1 which are identifiable with the Province's GDA objectives relative to national and provincial indicators on a pre- and post-GDA basis	●		●					●				●	●					1	■	Ques. 1
14. Does a great deal of the GDA impact fall in areas not set out in its objectives? To what extent do the impacts and effects of the GDA match with stated objectives?	indicators assessed in question 1 relative to specific GDA objectives	●							●	●				●					1	■	Ques. 1
15. What have been the factors which affected the achievement of objectives (i.e., programming? Financial commitments? Implementation? Planning? Changing economic circumstances? Other reasons?	correlation between international, national provincial and sectoral economic growth to functional and sectoral GDA initiatives	●	●	●				●	●					●					1	■	Ques. 1
	size of GDA initiatives relative to the magnitude of the problem	●	●	●				●	●					●					1	■	Ques. 1

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NOVA SCOTIA

191

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact (Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
ISSUES A. IMPACTS AND EFFECTS 1. INTENDED IMPACTS AND EFFECTS i. Economic impacts and effects 1. In what manner and to what extent has CDA programming led to improvement of socio-economic circumstances?																					
1a. employment (creation/maintenance) construction/ incidental	direct Jobs Created																				
	indirect Jobs Created																				
	induced Jobs Created																				
intended	direct Jobs Created		●			●				●	●								1	■	
	indirect Jobs Created										●								1	■	
	induced Jobs Created										●								1	■	
1b. income(earned) construction/ incidental	direct Income Created																				
	indirect Income Created																				
	induced Income Created																				
intended	direct Income Created		●			●				●	●								1	■	
	indirect Income Created										●								1	■	
	induced Income Created										●								1	■	
1c. output construction/ incidental	direct output created																				
	indirect output created																				
	induced output created																				
intended	direct output created																				
	indirect output created																				
	induced output created																				
1d. productivity	wage rates of assisted sector relative to other comparable wage rates																				
	output per man year by sector compared to the industrial average																				
	change in value-added per employee																				
	change in average total output per man hour																				
	marginal change in output divided by change in input																				
1e. resource utilization/ management	current harvestible rate and mix of utilization by sector (each use of land)																				
	new harvestibles																				
1f. population distribution	review of inter- and intra- provincial census data																				

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NOVA SCOTIA

192-

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact(Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	OPTION DETAIL: Discounted Cash Flow	Option Number	Focus of Analysis	Focus Detail
1g. quality of life	income distribution	●								●	●				●				3	▲	
	change in personal consumption																				
	earned income/capita	●								●	●				●				3	▲	
	consumption of public goods. ie) health housing education	●		●		●				●	●				●				3	▲	
1h. private investment	direct private investment requirements																				
	indirect private investment requirements																				
	induced private investment																				
1i. increased labour and management skills	productivity measures					●		●		●			●		●				3	○	
	profitability in affected sectors					●		●							●	●			3	○	
	other special indicators ie) listing of labour classifications	●		●				●							●				3	○	
1j. reduce or eliminate structural impediments to development (negative impacts of structural change)	quality, level and retention of graduates from training & education institutions																				
	capital availability																				
	labour stock availability																				
	distance of manufacturing/industrial plants to 1st class highways																				
	improved time and cost to market of selected industry																				
	reduce travel time within the Province																				
	indicators of the creation of a Provincial market																				
	increased communication between localities																				
	increased attractiveness of cities to business																				
1k. sub-provincial disparities	all or some of the measures noted above depending upon access to data at sub-prov. level																				
2. Who have been the ultimate recipients of CBA programming by category of recipients? (provincial governments, businesses, communities, individuals, non-profit)	A. direct expenditure analysis by sector: individuals, labour, industry profits, gov't taxes to labour to individuals by cents/$ to industry to government to various income components	●		●		●		●		●					●				1	■	
	B. indirect analysis by sector: individuals, labour, industry profits, gov't taxes to labour to individuals to industry to government to various income components		Data Source 2a								●				●				1	■	

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NOVA SCOTIA

193

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact (Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
3. Has CDA programming supported the positive changes which have occurred within the provincial economy?	positive changes in the economy identified chronologically and by sector	●			●					●					●				2	□	Ind. Dev.
	incidence of CDA expenditures over time, by sector, with the above, changes		●			●		●		●			●		●				2	□	Ind. Dev.
4. What has been the impact of CDA programming on a sectoral basis?	indicators as in question 1 on a sectoral basis	●	●	●				●			●				●				2	□	Ind. Dev.
5. How does the impact in the resource sectors compare with the impact in other sectors?	comparative sectoral impacts identified in question 4																				
6. What has been the economic impact of CDA programming on a sub-provincial spatial basis?	indicators identified in question 1 on a prescribed spatial basis																				
ii. private sector involvement																					
7. What has been the participation of the private sector in the CDA process, both in terms of financial contribution and involvement in the planning process?	amount and degree of participation by the private sector in feasibility studies																				
	number of planning meetings attended by the private sector																				
	number of grant programs, voluntary planning exercises and boards established																				
	quality of board discussions, turnover rates																				
8. What is the potential for further private investment? (Restricted to areas in which the greatest amount of investment has been made resulting from direct CDA investment)	changes in investment intentions and levels of business confidence as a result of CDA initiatives																				
	take-up rates																				
9. Has the amount of infrastructure investment under CDA been sufficient to remove the barriers to industry viability and expansion?	number of particular firms in representative areas locating/ expanding in the Atlantic region: - essentially - moderately - marginally - not at all as a result of CDA	●	●			●		●		●					●				3	○	
	lower costs to the above firms as a result of CDA infrastructure investment	●				●		●								●		●	3	○	
10. What types of CDA program instruments (e.g., infrastructure, incentives) have been most effective in terms of achieving CDA objectives?	indicators aligned with question 1, but input in accordance with program instrument expenditure classification		●	●		●		●		●					●				2	○	Ind. Dev.

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NOVA SCOTIA

194

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact(Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
2. UNINTENDED IMPACTS AND EFFECTS																					
11. Has EDA encouraged the creation of development which is subsidy dependent?	number of firms that have grown and matured as a result of EDA																				
	number of repeat applications for EDA funding and/or other government programs																				
	difference between 1st, 2nd and 3rd applicants for DREE assistance																				
	dependency index within the business community																				
	degree to which subsidies have reduced costs and made firms competitive																				
12. Has the EDA programming encouraged inefficiencies or efficiencies with respect to regional economic development in the Atlantic region?	change in employment, productivity and income																				
	comparison of a select series of economic indicators with and without EDA programming																				
	competition artificially created (not effect in Atlantic region)																				
3. OBJECTIVES ACHIEVEMENT																					
13. To what degree have the objectives laid out in the EDA been met?	indicators assessed in question 1 which are identifiable with the Province's EDA objectives relative to national and provincial indicators on a pre- and post-EDA basis	●		●					●				●	●					1	■	Ques. 1
14. Does a great deal of the EDA impact fall in areas not set out in its objectives? To what extent do the impacts and effects of the EDA match with stated objectives?	indicators assessed in question 1 relative to specific EDA objectives	●							●	●				●					1	■	Ques. 1
15. What have been the factors which affected the achievement of objectives (i.e., programming? Financial commitments? Implementation? Planning? Changing economic circumstances? Other reasons?	correlation between international, national provincial and sectoral economic growth to functional and sectoral EDA initiatives	●	●	●				●	●					●					1	■	Ques. 1
	size of EDA initiatives relative to the magnitude of the problem	●	●	●				●	●					●					1	■	Ques. 1

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NEWFOUNDLAND

195

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact (Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: [illegible] Number	Focus of Analysis	Focus Detail
Issues A. IMPACTS AND EFFECTS 1. INTENDED IMPACTS AND EFFECTS a. Economic impacts and effects 1. In what manner and to what extent has ADA programming led to improvement of socio-economic circumstances?																					
1a. employment (creation/maintenance) construction/ incidental	direct Jobs Created																				
	indirect Jobs Created																				
	induced Jobs Created																				
intended	direct Jobs Created		●							●	●							1	■		
	indirect Jobs Created										●							1	■		
	induced Jobs Created										●							1	■		
1b. income(earned) construction/ incidental	direct Income Created																				
	indirect Income Created																				
	induced Income Created																				
intended	direct Income Created		●							●	●							1	■		
	indirect Income Created										●							1	■		
	induced Income Created										●							1	■		
1c. output construction/ incidental	direct output created																				
	indirect output created																				
	induced output created																				
intended	direct output created																				
	indirect output created																				
	induced output created																				
1d. productivity	wage rates of assisted sector relative to other comparable wage rates																				
	output per man year by sector compared to the industrial average																				
	change in value-added per employee																				
	change in average total output per man hour																				
	marginal change in output divided by change in input																				
1e. resource utilization/ management	current harvestible rate and mix of utilization by sector (each use of land)	●		●		●				●								2	□		fish. forest
	new harvestibles	●		●		●				●								2	□		fish. forest
1f. population distribution	review of inter- and intra- provincial census data	●								●				●				2	■		

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NEWFOUNDLAND

196

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact(Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
1g. quality of life	income distribution	●								●	●				●				3	▲	
	change in personal consumption																				
	earned income/capita	●								●	●				●				3	▲	
	consumption of public goods. ie) health housing education	●		●		●				●	●				●				3	▲	
1h. private investment	direct private investment requirements	●	●							●	●			●					2	■	Fish. Forest
	indirect private investment requirements									●	●			●					2	■	Fish. Forest
	induced private investment										●			●					2	■	Fish. Forest
1i. increased labour and management skills	productivity measures																				
	profitability in affected sectors																				
	other special indicators ie) listing of labour classifications																				
1j. reduce or eliminate structural impediments to development (negative impacts of structural change)	quality, level and retention of graduates from training & education institutions																				
	capital availability	●		●		●		●							●				1	■	
	labour stock availability	●		●		●		●							●				1	■	
	distance of manufacturing/industrial plants to 1st class highways	●	●			●		●		●									1	■	
	improved time and cost to market of selected industry	●	●	●		●		●						●		●			1	■	
	reduce travel time within the Province																				
	indicators of the creation of a Provincial market	●		●		●			●										1	■	
	increased communication between localities																				
	increased attractiveness of cities to business	●		●		●			●										1	■	
1k. sub-provincial disparities	all or some of the measures noted above depending upon access to data at sub-prov. level																				
2. Who have been the ultimate recipients of GDA programming by category of recipients? (provincial government, businesses, communities, individuals, non-profit)	A. direct expenditure analysis by sector: individuals, labour, industry profits, gov't taxes to labour to individuals by centile to industry to government to various income components																				
	B. indirect analysis by sector: individuals, labour, industry profits, gov't taxes to labour to individuals to industry to government to various income components																				

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF NEWFOUNDLAND

197

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact (Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profile/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
3. Has CDA programming supported the positive changes which have occurred within the provincial economy?	positive changes in the economy identified chronologically and by sector																				
	incidence of CDA expenditures over time, by sector, with the above changes																				
4. What has been the impact of CDA programming on a sectoral basis?	indicators as in question 1 on a sectoral basis	●	●	●				●			●				●				3	□	
5. How does the impact in the resource sectors compare with the impact in other sectors?	comparative sectoral impacts identified in question 4																				
6. What has been the economic impact of CDA programming on a sub-provincial spatial basis?	indicators identified in question 1 on a prescribed spatial basis		●			●				●					●				2	▲	
ii. private sector involvement 7. What has been the participation of the private sector in the CDA process, both in terms of financial contribution and involvement in the planning process?	amount and degree of participation by the private sector in feasibility studies																				
	number of planning meetings attended by the private sector																				
	number of grant programs, voluntary planning exercises and boards established																				
	quality of board discussions, turnover rates																				
8. What is the potential for further private investment? (Restricted to areas in which the greatest amount of investment has been made resulting from direct CDA investment)	changes in investment intentions and levels of business confidence as a result of CDA initiatives																				
	take-up rates																				
9. Has the amount of infrastructure investment under CDA been sufficient to remove the barriers to industry viability and expansion?	number of particular firms in representative areas locating/expanding in the Atlantic region: - essentially - moderately - marginally - not at all as a result of CDA	●	●			●		●		●					●				3	○	
	lower costs to the above firms as a result of CDA infrastructure investment	●				●		●								●		●	3	○	
10. What types of CDA program instruments (e.g., infrastructure, incentives) have been most effective in terms of achieving CDA objectives?	indicators aligned with question 1, but input in accordance with program instrument expenditure classification		●	●		●		●		●					●				2	○	

EXHIBIT : EVLAUATION OPTION SPECIFICATION SHEET
PROVINCE OF NEWFOUNDLAND

198

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact(Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
2. UNINTENDED IMPACTS AND EFFECTS																					
11. Has CDA encouraged the creation of development which is unduly dependent?	number of firms that have grown and matured as a result of CDA																				
	number of repeat applications for CDA funding and/or other government programs																				
	difference between 1st, 2nd and 3rd applicants for DREE assistance																				
	dependency index within the business community																				
	degree to which subsidies have reduced costs and made firms competitive																				
12. Has the CDA programming encouraged inefficiencies or efficiencies with respect to regional economic development in the Atlantic region?	change in employment, productivity and income																				
	comparison of a select series of economic indicators with and without CDA programming																				
	competition artificially created (net effect in Atlantic region)																				
3. OBJECTIVES ACHIEVEMENT																					
13. To what degree have the objectives laid out in the CDA been met?	indicators assessed in question 1 which are identifiable with the Province's CDA objectives relative to National and provincial indicators on a pre- and post-CDA basis	●		●						●			●	●					1	■	Ques. 1
14. Does a great deal of the CDA impact fall in areas not set out in its objectives? To what extent do the impacts and effects of the CDA match with stated objectives?	indicators assessed in question 1 relative to specific CDA objectives	●								●	●			●					1	■	Ques. 1
15. What have been the factors which affected the achievement of objectives (i.e., programming? financial constraints? implementation? Planning? Changing economic circumstances? Other reasons?	correlation between international, national provincial and sectoral economic growth to functional and sectoral CDA initiatives	●	●	●				●		●				●					1	■	Ques. 1
	size of CDA initiatives relative to the magnitude of the problem	●	●	●				●		●				●					1	■	Ques. 1

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF PRINCE EDWARD ISLAND

19

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact (Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
ISSUES A. IMPACTS AND EFFECTS 1. INTENDED IMPACTS AND EFFECTS i. Economic Impacts and effects 1. In what manner and to what extent has UDA programming led to improvement of socio-economic circumstances?																					
1a. employment (creation/maintenance) construction/ incidental	direct Jobs Created																				
	indirect Jobs Created																				
	induced Jobs Created																				
intended	direct Jobs Created		●			●				●	●								1	■	
	indirect Jobs Created										●								1	■	
	induced Jobs Created										●								1	■	
1b. income(earned) construction/ incidental	direct Income Created																				
	indirect Income Created																				
	induced Income Created																				
intended	direct Income Created		●			●				●	●								1	■	
	indirect Income Created										●								1	■	
	induced Income Created										●								1	■	
1c. output construction/ incidental	direct output created																				
	indirect output created																				
	induced output created																				
intended	direct output created		●							●	●								1	■	
	indirect output created										●								1	■	
	induced output created										●								1	■	
1d. productivity	wage rates of assisted sector relative to other comparable wage rates																				
	output per man year by sector compared to the industrial average	●				●								●					1	■	
	change in value-added per employee																				
	change in average total output per man hour																				
	marginal change in output divided by change in input					●		●					●	●					1	■	
1e. resource utilization/ management	current harvestible rate and mix of utilization by sector (each use of land)	●		●		●				●									2	□	
	new harvestibles	●		●		●				●									2	□	
1f. population distribution	review of inter- and intra- provincial census data																				

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROVINCE OF PRINCE EDWARD ISLAND

206

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact(Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
1g. quality of life	income distribution																				
	change in personal consumption																				
	earned income/capita																				
	consumption of public goods. ie) health housing education																				
1h. private investment	direct private investment requirements																				
	indirect private investment requirements																				
	induced private investment																				
1i. increased labour and management skills	productivity measures																				
	profitability in affected sectors																				
	other special indicators ie) listing of labour classifications																				
1j. reduce or eliminate structural impediments to development (negative impacts of structural change)	quality, level and retention of graduates from training & education institutions	●		●		●		●		●					●				1	■	
	capital availability	●		●		●		●		●					●				1	■	
	labour stock availability	●		●		●		●		●					●				1	■	
	distance of manufacturing/industrial plants to 1st class highways																				
	improved time and cost to market of selected industry	●	●	●		●		●						●		●			1	■	
	reduce travel time within the Province	●		●		●		●		●									1	■	
	indicators of the creation of a Provincial market																				
	increased communication between localities																				
	increased attractiveness of cities to business																				
1k. sub-provincial disparities	all or some of the measures noted above depending upon access to data at sub-prov. level																				
2. who have been the ultimate recipients of CDA programming by category of recipients? (provincial governments, businesses, communities, individuals, non-profit)	A. direct expenditure analysis by sector: individuals, labour, industry profits, gov't taxes to labour to individuals by centile to industry to government to various income components	●		●		●		●		●					●				1	■□	
	B. indirect analysis by sector: individuals, labour, industry profits, gov't taxes to labour to individuals to industry to government to various income components		Data Source 2A							●					●				1	■□	

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET

PROVINCE OF PRINCE EDWARD ISLAND

201

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact (Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
3. Has CDA programming supported the positive changes which have occurred within the provincial economy?	positive changes in the economy identified chronologically and by sector	●			●					●					●				2	□	
	incidence of CDA expenditures over time, by sector, with the above, changes		●			●		●		●			●		●				2	□	
4. What has been the impact of CDA programming on a sectoral basis?	indicators as in question 1 on a sectoral basis	●	●	●				●			●				●				2	□	ques. 1
5. How does the impact in the resource sectors compare with the impact in other sectors?	comparative sectoral impacts identified in question 4							●			●				●				2	□	ques. 1
6. What has been the economic impact of CDA programming on a sub-provincial spatial basis?	indicators identified in question 1 on a prescribed spatial basis																				
ii. private sector involvement 7. What has been the participation of the private sector in the CDA process, both in terms of financial contribution and involvement in the planning process?	amount and degree of participation by the private sector in feasibility studies																				
	number of planning meetings attended by the private sector																				
	number of grant programs, voluntary planning exercises and boards established																				
	quality of board discussions, turnover rates																				
8. What is the potential for further private investment? (Restricted to areas in which the greatest amount of investment has been made resulting from direct CDA investment)	changes in investment intentions and levels of business confidence as a result of CDA initiatives	●		●		●		●		●				●					3	□	
	take-up rates	●		●		●				●									3	□	
9. Has the amount of infrastructure investment under CDA been sufficient to remove the barriers to industry viability and expansion?	number of particular firms in representative areas locating/ expanding in the Atlantic region: - essentially - moderately - marginally - not at all as a result of CDA																				
	lower costs to the above firms as a result of CDA infrastructure investment																				
10. What types of CDA program instruments (e.g., infrastructure, incentives) have been most effective in terms of achieving CDA objectives?	indicators aligned with question 1, but input in accordance with program instrument expenditure classification																				

EXHIBIT : EVALUATION OPTION SPECIFICATION SHEET
PROprovince OF PRINCE EDWARD ISLAND

QUESTIONS AND ISSUES FOR WHICH EVALUATION METHODOLOGIES ARE REQUIRED	PERFORMANCE INDICATORS	DATA COLLECTION TECHNIQUES: Journalistic Review	File Review	Interviews	Structured Seminars	Survey	Longitudinal Surveys	Case Studies	Pilot Projects	ANALYTICAL TECHNIQUES: Descriptive Analysis	Impact(Input/Output)	Benefit/Cost	Econometric	Simulation	Statistical Analysis	Profit/Loss	Cost Effectiveness	Discounted Cash Flow	OPTION DETAIL: Option Number	Focus of Analysis	Focus Detail
2. UNINTENDED IMPACTS AND EFFECTS																					
11. Has GDA encouraged the creation of development which is subsidy dependent?	number of firms that have grown and matured as a result of GDA	●	●			●		●		●									3	■	
	number of repeat applications for GDA funding and/or other government programs	●	●			●		●		●									3	■	
	difference between 1st, 2nd and 3rd applicants for DREE assistance																				
	dependency index within the business community																				
	degree to which subsidies have reduced costs and made firms competitive					●		●		●						●		●	3	■	
12. Has the GDA programming encouraged inefficiencies or efficiencies with respect to regional economic development in the Atlantic region?	change in employment, productivity and income																				
	comparison of a select series of economic indicators with and without GDA programming																				
	competition artificially created (net effect in Atlantic region)																				
8. OBJECTIVES ACHIEVEMENT																					
13. To what degree have the objectives laid out in the GDA been met?	indicators assessed in question 1 which are identifiable with the Province's GDA objectives relative to national and provincial indicators on a pre- and post-GDA basis	●		●					●				●	●					1	■	Ques. 1
14. Does a great deal of the GDA impact fall in areas not set out in its objectives? To what extent do the impacts and effects of the GDA match with stated objectives?	indicators assessed in question 1 relative to specific GDA objectives	●							●	●				●					1	■	Ques. 1
15. What have been the factors which affected the achievement of objectives (i.e., programming? Financial commitments? Implementation? Planning? Changing economic circumstances? Other reasons?	correlation between international, national provincial and sectoral economic growth to functional and sectoral GDA initiatives	●	●	●				●	●					●					1	■	Ques. 1
	size of GDA initiatives relative to the magnitude of the problem	●	●	●				●	●					●					1	■	Ques. 1

APPENDIX 8

RESULTS OF THE PILOT EVALUATIONS

PILOT EVALUATION
NEW BRUNSWICK

I. Selection of Project

1. Apple industry project

Contributions to stimulate orchard renovation and establishment of storage facilities. Financial contribution consist of 40% of cost to a maximum of $4,000.

Expenditure:

DREE	$508,036
PROVINCE	$127,009
TOTAL	$635,045

No of assisted farmers:

Orchard development:	52
Apple storage:	9

2. Sheep industry project

To increase production of sheep and lambs in New Brunswick and to encourage contruction and/or modernization of buildings and other facilities for more efficient sheep production. Financial contributions consist of $15 per ewe to a maximum of $7,500 and 30% of capital costs to a maximum of $4,000.

Expenditure:

DREE	$46,254
PROVINCE	$11,563
TOTAL	$57,817

No of assisted farmers:

Sheep and lamb production:	137
Modernization of facilties:	16

3. Financial incentives for production of fruits and vegetables

Assistance to fruit and vegetables producers. Rate of assistance is 50% for land development and 25% on other developments to a combined maximum of $25,000.

Expenditure:

DREE	$1,243,013
PROVINCE	$ 244,753
TOTAL	$1,487,766

No of assisted farmers:

4. Incentives for farm development - general

Farms are eligible for assistance of 25% of cost of expansion and improvement of their operations to a maximum of $25,000.

Expenditure:

DREE	$2,077,160
PROVINCE	$ 508,290
TOTAL	$2,585,450

No of assisted farmers:

II. Causal Model

The causal model of the four projects described above may be summarized as follows:

Activity	Immediate Impact	Ultimate Impact
Financial Assistance	increase in public & private capital	increase in earned income per capita
	expansion and diversification of agricultural sector	increase in employment
		increase in productivity

The first two projects come under the first agriculture subsidiary agreement signed February 17, 1975, and the two latter projects under the second agriculture subsidiary agreement signed March 27, 1978.

In general, the causal relationship between the activity and intended impacts and effects is strong. The grants are contingent upon assisted farmers providing a substantial portion of investment from own equity. The grants, thus, have an immediate impact on private sector investment. The grants have also an immediate impact on increased production except in the case of the construction and modernization of buildings and facilities in the sheep industry project and the construction of storage facilities in the apple industry project. Increased production should also lead to the desired impacts on employment and, barring detrimental fluctuations in market price and increased operation costs, the increase in output should also result in higher revenues and incomes. These investments should also have a positive

effect on productivity as a greater proportion of available land is being put to productive use. The achievement of the desired impact on the diversification of the agricultural sector is more tenuous. The attainment of this objective is more plausible in the first subsidiary agreement where specific produce were supported. This was not so in the second agreement where grants were made available to producers of most commodities.

III. Question to be addressed

In what manner and to what extent has the programming led to the improvement of socio-economic circumstances?

IV. Indicators

The following variables are used to assess the measure of success in achieving an improvement in the socio-economic circumstances:

- private investment
- output
- employment
- income
- productivity

The exercise consists in measuring intended direct, indirect and induced investment, output, employment, and income. In the case of productivity measurement, two indicators are considered:

- changes in output per man-year for assisted farmers compared to the provincial average

- marginal change in output divided by change in input

V. Evaluation Approaches

1. Data collection

In the case of the first agreement or the first two projects there is a gap in required information. Only expenditures data has been collected. No data was monitored on output, employment and income and, therefore, it would also be impossible to assess the improvement in productivity resulting from these two projects. An evaluation of this agreement was conducted in 1977 and provide an estimate of the contribution of the overall apple industry and sheep industry to the

provincial economy for the period 1971 to 1976. In particular, this evaluation provides estimates of farm cash receipts, accrued net farm income, wages and salaries, capital consumption allowances and gross domestic products of these two commodities and their contribution to the provincial economy. The impact of these two projects was not isolated.

In the case of second agricultural agreement numerous indicators have been collected and stored in a computerized system. In particular, data has been kept on financial assistance, production (volume and value), other farm income, expenses, net farm income, value of building and equipment, salaries and wages paid, number of employees (full-time and part-time), number of farms reporting. The data file is updated on an annual basis and data is given for the base year and the projected year. One problem area is that not all farmers have been reporting.

Other pertinent information is also available from Statistics Canada.

- farm cash receipts, by main commodities and provinces
- farm wages in Canada, by province
- farm net income, by province; includes information on operating expenses, cash receipts, income, debts, capital investment
- fruit and vegetables production, by province
- farm input price indexes; indexes of prices of commodities and services used in Canadian farming operations for Eastern Canada.

General Assessment

The data file monitored for the second agreement is sufficiently comprehensive, reliable and suitable to assess the impact of financial incentives for the two project selected under the second agreement. A survey of assisted farmers could be undertaken to better assess the question of incrementality.

The data monitored for the two selected project in the first agreement is not comprehensive and suitable to do an effectiveness evaluation. Any attempt to evaluate these two projects would require a survey of farmers

assisted. The provincial government has a list of assisted farmers from which a sample survey could be drawn. The survey should attempt to gather information on:

- production
- income
- employment
- productivity.

and should address the question of incrementality.

2. Evaluation techniques

The following techniques for evaluation are suggested:

- descriptive analysis
- impact (I/O).

The descriptive analysis would study changes in selected indicators for assisted farmers as compared for changes in similar indicators for the province as a whole. Given the numerous factors that influences these indicators, the use of a sample survey would permit a better assessment of incrementality.

The use of input-output model is also suggested to assess the indirect and induced impact of the project on output, income and employment.

The use of econometric and simulation methods could also be used. However, additional data would have to be collected on employment, output and income of assisted farmers for a number of years prior to the implementation of the program. The reliability of such information may be questionable.

VI. Others

1. Sample survey

a. Target population: random sample of assisted farmers.

b. Design: First agreement - should address the question of incrementality for the following:
- output
- income
- employment.

Second Agreement: should focus on incrementality.

c. Implementation: Questionnaire, with follow-up by phone.

2. Costs

a. Data collection

i)	file review	2 man-days
ii)	survey	7 man-days
iii)	secondary	3 man-days

b. Analysis 5 man-days

c. Time frame: Start -
Completion -

3. Expected results

The analysis should provide a good appreciation of the impact of these projects on the selected indicators and a fair assessment of the question of incrementality.

PILOT EVALUATION

NOVA SCOTIA

1. Selection of Projects for Evaluation

For the Nova Scotia Pilot Evaluation projects were selected from the manufacturing and industrial park sector and the assistance to business - industrial infrastructure functional classification. Based on these criteria two projects were selected. The first was a road constructed in the Debert Industrial Park, and the second was also a road constructed in the Bridgewater Industrial Park. Both projects were initiated to provide access roads for new industrial plants which were being developed in each of these parks. The first, Debert, was a small highway connecting the manufacturing facility with a main arterial link and in the case of Bridgewater project a road was constructed from a new shipbuilding facility to a launching ramp nearby. The two MIS numbers for these projects are as follows:

1. 505102020010000
2. 505102080001000

It should be noted that only two projects were chosen in Nova Scotia for the pilot evaluation. This is due, in part, to the fact that in Nova Scotia all completed subagreements have been evaluated. It was, therefore, felt that very little new information could be obtained through this process.

2. Causal Linkages Model

Hypotheses

The portion of the Nova Scotia logic model which was selected for testing through this pilot evaluation process dealt with capital incentive and the relation to the diversification and expansion of manufacturing facilities which in turn led to increased employment opportunities in the Province. This is described below:

Activities		Intermediate Impacts		Ultimate Impacts
Sectoral Capital Incentives (Manufacturing)	⇨	Expand and Diversify (Manufacturing)	⇨	Increased Employment

These projects both fall under the Industrial Development Subsidiary Agreement. This agreement is designed to support the development of new employment opportunities in the secondary and tirtuary sectors of the Nova Scotia economy. Both projects are currently completed and it is therefore possible to obtain income and employment benefits generated by each.

In general, the causal relationship between the activities, the intermediate impacts and the ultimate impacts of these expenditures is strong. These industrial infrastructure projects were directly related to the start up of new manufacturing industries. In both cases the projects were necessary in order to provide the new manufacturing facilities with the needed related infrastructure facilities. This in turn led to increases in employment in each of the cases noted above. In both cases the new manufacturing operations are manufacturing products which have

economic benefits. In terms of incrementality it is important to analyze the economic output and employment and income of the manufacturing facilities in attempting to attribute the portion of the new output, employment and income generated by these infrastructure projects.

The question that has been chosen for review in this pilot evaluation relates to the economic impacts and effects of the project on employment, income and output. From the list of indicators developed the indicators of indirect and induced employment, income (household), and industrial output selected sectors are the indicators chosen to test the problem model identified above. Because of the nature of the indicators it is felt that the standard input/output type analysis would be possible to determine the impacts and effects of these projects.

3. Evaluation Approaches

For both of these projects the data collection required to conduct the evaluation would be related to the employment and income levels of the employees in each of the manufacturing facilities and the output of each of these new operations and its impact on the provincial economy. A survey of both plants would have to be undertaken through the course of the evaluation exercise. Information on the amount of the expenditure for each of the projects is available through departmental files at Department of Development and the DREE Nova Scotia office.

The evaluation of the Industrial Development Agreement income and employment levels for these projects were not quantified. If a full scale evaluation of manufacturing facilities and in particular industrial infrastructure grants was undertaken these two projects would constitute only a very small part of the overall sample. For this

reason a major survey of a number of industrial plants that have been assisted through infrastructure grants would be undertaken throughout the Province. A standard questionnaire designed to collect information required to operationalize an input/output analysis have to be developed and tested. It is possible that through the ongoing evaluation activities of the DREE Nova Scotia office part of this information may already be collected.

4. Evaluation Techniques

As indicated earlier an input/output type of analysis would be required to conduct an evaluation of these projects. In addition a descriptive analysis would study changes in similar industries throughout the Province and also be of assistance in determining the level of incrementality of the expenditures.

5. Costs

The costs of conducting the evaluation proposed above fall under the data collection and analysis categories. Since these projects would be evaluated in conjunction with a larger sample of similar projects, with a statistically valid sample, this exercise would require approximately 10 - 12 person weeks and $3,500 to $4,200 in computer and related costs to complete.

6. Expected Results

The analysis outlined above should provide a good appreciation of the impact of these projects on the indicators which have been selected. This being, the impact of infrastructure projects in the manufacturing and industrial parks sector and relating these incentives to the impact on indirect and induced employment, income, and industrial output. This type of analysis is very commonplace with respect to GDA expenditure activities in the

Province of Nova Scotia. It is anticipated that very little difficulty should be foreseen in evaluating these projects and also in assessing the degree of incrementality in each case.

PILOT EVALUATION

NEWFOUNDLAND

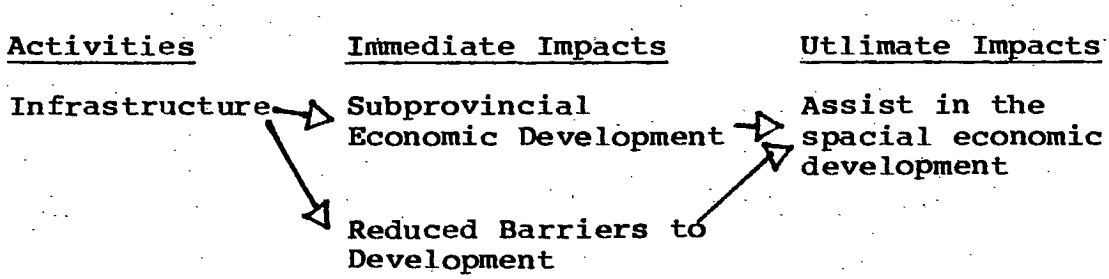
1. Selection of Projects for Evaluation

Due to the predominance of infrastructure and transportation related GDA expenditures in the Province of Newfoundland it was felt that the pilot evaluation should concentrate on the approaches to evaluating infrastructure programs in this Province. Infrastructure projects in the transportation sector are difficult to evaluate in terms of their true economic benefits to the economy. It is possible to determine the amount of expenditures directly related to development of a highway link, for example, however it is not a simple task to determine the second round benefits from these types of expenditures. The project that has been chosen for this evaluation is the Northern Peninsula Highway, in particular the part of the highway extending from Deer Lake to the tip of the Northern Peninsula.

2. Causal Linkages Model

The portion of the Newfoundland causal model which applies is:

Hypotheses



The interpretation of this model is as follows. It is assumed that infrastructure projects that are spatial in

nature (ie. in selected regions of the Province) have the impact of reducing barriers to development. This in turn leads to economic development of the geographic area in which the expenditure has taken place.

From development perspective it has been argued that in the case of Newfoundland it was virtually impossible to develop areas of the Province due to the lack of infrastructure, in particular highways, in certain regions of the Province. It was felt that a highway system was required to link the major population centers of the Province and in turn develop a provincial level market. Whereas the highway does facilitate the improved flow of goods and people in an area it is difficult to relate this highway to other events or developments which take place. In a strictly economic sense the highway has no impact beyond the initial construction phase and this is a distributional type impact.

For this reason both social and economic objectives come into play. The social objectives are related to reducing isolation and increasing communication linkages between centers of population is important. The economic objectives related to improving in time and costs to markets for manufacturing facilities and the development of provincial markets. These are relatively "soft" indicators and therefore the relationship between the elements and the model outlined above are weak. Notwithstanding this fact, it is important to attempt an evaluation of these highway expenditures on the social and economic variables.

3. Question to be Addressed

The evaluation question that has been chosen in conjunction with the causal linkages model is: Reduce or eliminate constraints to development? This question is attempting to uncover the underlying factors which stimulate development

(economic) in the Province. Having identified development constraints it is possible that programming can be directed at their reduction or potentially elimination. In the case of the pilot evaluation it is possible to relate this question to the infrastructure projects. Since it is assumed that isolation or the lack of a good transportation system is a constraint to development which must be eliminated before manufacturing and other types of related activites take place. It is important to determine what amount of infrastructure spending is necessary to achieve these objectives.

4. Indicators

The indicators that have been developed through the course of this evaluation assessment to address the question outlined above are as follows:

1. distance of manufacturing plants to first-class highways;

2. improved time and costs to market;

3. increased road communication between localities (reduced isolation); and

4. development of a provincial level market.

Three of the above indicators fall into the economic objective classification. The distance to manufacturing plants is considered an essential criteria for the development of new manufacturing industries. If a plant is to be competitive it must be able to access markets in a reasonable period of time and without exorbitant costs which add to the price of manufactured products. In addition, in the

case of Newfoundland, a provincial level market was not possible because there were no good transportation linkages between the major centers. Goods and services were shipped from the mainland to the far regions of the Island. The development of the highway system is considered to be the first step in the development of a provincial level market.

From the social perspective it is important to reduce the isolation between communities. This provides access for people to move with relative ease from one community to another for employment and other related activities.

5. Evaluation Approaches

The data collection techniques that have been identified for answering the question outlined above involve both review of existing files and surveys of communities and industries that have developed along the highway network. It is essential to collect this type of data in order to determine the benefits and costs of highway construction and also to detemine the relationship between highway construction and the development process.

6. Evaluation Techniques and Data Collection Procedures

As indicated above analytical techniques including cost/benefit analysis and statistical analysis should be employed in the assessment of the impact of highway expenditures. In terms of data collection, the number of secondary sources of data on the social and economic structures of the communities is available. In addition it would be necessary to undertake an extensive survey of all communities and industries located along the highway, to collect data on recent developments which are related to the new or improved highway system.

7. Costs

To undertake an evaluation of this nature extensive data collection and analysis would have to be undertaken. Approximately 10 person weeks and $3000 in survey expenses would be incurred in conducting this evaluation.

8. Expected Results

The analysis outlined above should provide a good indication for the impact of highway construction and in relation to the social and economic objective of GDA programming. While the data collection and statistical procedures are rigourous and time consuming the results would provide the essential information on the impact of infrastructure expenditures on the development of the industrial base in Newfoundland.

220

PILOT EVALUATION
PRINCE EDWARD ISLAND

I. Selection of Project

1. Market Development Centre

The Market Development Centre is a provincial crown corporation that was established to strengthen domestic markets for agriculture, fisheries and manufactured products originating in Prince Edward Island. Most activities involve the private sector and are cost-shared. The sharing ratios vary from one project to another and depend on the firms ability to pay. Major services include sales assistance, product development, market research and information advertising and promotion, trade shows, product design, market education, and marketing plans.

Expenditure:

DREE	$4,564,625
PROVINCE	$ 575,771
TOTAL	$5,140,397

2. Farm Vacation Development

This project provides assistance to farm operators to do necessary renovations and expansion to their houses so as to provide accommodation to tourist and guests during the tourist season. The purpose is to increase revenues to farm operations.

II. Causal Model

1. Market Development Centre

Activity	Immediate Impact	Utlimate Impact
Market development activities - sales assistance - product development - market research & information - advertising and promotion - trade shows - product design - market education - marketing plans	(Expansion and diversification of (- agriculture (- fisheries (- forestry (- manufacturing	(- increased sales (- increased incomes (- increased employment

In general, the causal relationship between the activities pursued under the Market Development Centre and intended impact and effects is fairly strong although it is not always a direct one nor are the effects and impacts always easy to quantify. Moreover, extraneous factors affecting sales and outputs are numerous and the extent of their influence on sales and outputs may be very difficult to assess.

2. Farm Vacation Development

Activity	Immediate Impact	Ultimate Impact
Assistance to farm operators	(renovation and/or (expansion of farm (houses to accommo- (date guests	(- increase farm (revenues ((- increase farm (employment

The causal relationship between the activities under the farm vacation development is strong. Assisted farm operators are required to disburse a portion of capital investment. Ultimately, if proper advertising is done, there should be an increase in revenues and employment.

III. Question to be addressed

In what manner and to what extent has the programming led to the improvement of socio-economic circumstances?

IV. Indicators

In both projects, the Market Development Centre and the Farm Vacation Development project the following variables are used to assess the degree of success in achieving an improvement in the socio-economic circumstances:

- output (sales)
- employment
- income

An attempt will be made to measure the intended, direct, indirect and induced change in output, income and employment resulting from the activities pursued.

V. Evaluation Approaches

1. Data Collection

In the case of the Farm Vacation Development, only data on expenditures is being kept. The provincial government

keeps records on farm operators assisted on expenditures only. Any attempt to measure the impact of assistance on farm income and employment would require a survey of farmers assisted.

In the case of the Market Development Centre, data on expenditures is being recorded. In latter years, this data is also tabulated by activities and by sector. The data could also be tabulated in a similar fashion for previous years, using the information recorded for each individual project on the project form. Once a project is completed, a notation at the bottom of the project form provides comments about the output of the project, but as a general rule it does not provide an assessment of impact. One exception, is in "sales assistance" where comment on direct sales achieved is noted.

Statistics Canada also provides data on export and shipments of manufactured goods, by commodity, and destination areas. MDC has obtained special tabulations from Stat. Can. on exports.

General Assessment

The data file monitored by MDC is sufficiently comprehensive, reliable and suitable for evaluation purposes. Moreover, two evaluations have been conducted and one comprehensive audit was undertaken by provincial auditors. The questions of effectiveness and incrementality, however, was not adequately addressed. To undertake a comprehensive evaluation, a survey of assisted firms should be undertaken. This survey, supplementing data available on file and Stat. Can. data on export and manufacturing shipments, should provide sufficient information to address impacts and the question of incrementality. The latter, however, may be difficult to quantify given the number of extraneous factors affecting sales, particularly export sales.

In the case of the Farm Vacation Development project, expenditures are minimal and no attempt should be made to measure the total impact on the economy as a whole. The impact of farm revenues and employment should be adequate to measure the effectiveness of the program. A sample survey should provide the necessary information for this purpose.

223

2. Evaluation Techniques

The following techniques for evaluation are suggested:

- descriptive analysis
- impact (I/O)
- cost benefit.

In the case of the Farm Vacation Development project only a descriptive analysis is recommended. Using the expenditures data and the data collected on income and employment (man-days) should provide a sufficient appreciation of the direct impact of the project.

In the case of the MDC, all techniques mentionned above are proposed. Given the numerous projects undertaken by the MDC it is proposed that only a number of projects selected randomly should be evaluated. A descriptive analysis, using expenditures data, data collected from the survey and Stat. Can. data should permit a fair assessment on the impact of the projects on income employment and output. The use of input-output would provide a measure of indirect and induced impact on the same indicators. The use of cost-benefit technique is suggested to assess the efficiency of the program. Again data collected from the sample survey should supplement expenditures data.

VI. Others

1. Sample survey

a. Target population: random sample of assisted firms

b. Design: should address the question of incrementality for the following:

- output & benefits
- income
- employment

c. Implementation: Questionnaire, with follow-up by phone

2. Costs

a. Data collection

- Farm Vacation Project

i) file review	½ man-days
ii) survey	3 man-days

- MDC

i)	file review	4 man-days
ii)	survey	14 man-days
iii)	secondary	3 man-days

b. Analysis

- Farm Vacation Project	1 man-day
- MDC	14 man-days

3. Expected results

i) Farm Vacation Project

The analysis should provide good appreciation of the direct impact of the project on assisted farm operators' income and employment.

ii) MDC

The analysis should provide a good appreciation of total impact (direct, indirect and induced). The cost-benefit analysis should provide some appreciation of the efficiency of the program. While the question of incrementality will be addressed, some problems will arise as to the extent of influence of external factors on output.