

INDIAN & ESKIMO AFFAIRS PROGRAM
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OTTAWA, CANADA

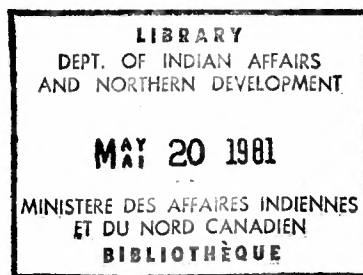
INDIAN PROGRAM MIS PROJECT

PHASE 2 PLAN

November 30, 1977.

E92
C3565

INDIAN & ESKIMO AFFAIRS PROGRAM
DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OTTAWA, CANADA



INDIAN PROGRAM MIS PROJECT

PHASE 2 PLAN

November 30, 1977.

INTRODUCTION

The overall objective of the Program MIS Project is to develop information systems that provide consistent information to support planning and control of the Indian and Eskimo Affairs Program, both nationally and locally. This document outlines the plan for the second phase of the project.

The objectives of the second phase are:

- a) To decide on and to document the approach and decision-making processes to be followed in managing the Program.
- b) To plan for the development of certain high priority information systems.

The emphasis will be placed initially on developing these structures at the national Program management level. But to do this, input will be needed from all geographic and organization parts of the Program, and from Bands and Associations.

While the benefits of the work described in this plan are likely to be long-term, the need for greater accountability means that this project must be assigned a high priority.

We request full cooperation with this project, from all managers in the Indian and Eskimo Affairs Program. You are also asked to ensure that the systems developed are integrated with the overall management and financial systems of the Department as a whole.

R. D. Brown,
Assistant Deputy Minister -
Programs,
(Indian and Eskimo Affairs)

TABLE OF CONTENTS

<u>CHAPTER</u>	<u>TITLE</u>	<u>PAGE</u>
1	BACKGROUND	1
2	PROJECT OBJECTIVES AND PRIORITIES	4
3	PROJECT ORGANIZATION AND ROLES	5
4	MANAGEMENT SYSTEMS ACTIVITIES	7
5	INFORMATION SYSTEMS ACTIVITIES	11
6	PROJECT SCHEDULES	14
7	PROJECT REPORTING	18
APPENDIX A	ACTIVITY DESCRIPTIONS	
APPENDIX B	ROLE STATEMENTS	
APPENDIX C	WHY DEFINE A MANAGEMENT APPROACH?	
APPENDIX D	PRIORITY ASSIGNMENT re INFORMATION SYSTEMS	

CHAPTER 1BACKGROUND

The Indian and Eskimo Affairs Program has recognized that information needed to make management decisions has been inadequate in the past. This has been caused by several factors, but an important problem has been that the management system (the managerial framework for planning, organizing and controlling operations) has been ill-defined. This conclusion has been supported by various studies and audits completed in the past two years.

The need to organize better and to define managerial roles better has already resulted in major organizational changes in the Ottawa headquarters and in several regions. Several regions have worked recently on defining their planning and control processes at both operational and regional-corporate levels.

At the national level (and in some regions and districts) while progress has been made in defining organization - who will manage or support various activities - much remains to be done. The questions of what will be managed, and how it will be managed (or supported) must be answered. Specifically the Deputy Minister and Assistant Deputy Ministers in Ottawa wish to define their level of involvement and approach in planning, organizing, leading and controlling the Program. Definitions of the national management system in this way will permit regions and Indian organizations to interact with Ottawa in an understood and planned fashion, rather than looking upon Ottawa as part of the "unknown environment".

A necessary adjunct to the definition of the management system is a definition of the services provided by the Program, with relevant objectives and goals.

Better definition of the management system at the national level (and at local levels) should lead to:

- a) a team approach by the managers
- b) integrated decisions that are consistent and take account of relevant information
- c) greater continuity of understanding of objectives and decision processes during people and organizational changes
- d) better relations between Indian people and the Program, produced by Indian and Program understanding of the managerial processes
- e) better designs and results from information systems, because information system designers working with managers will be able to predict many of the information needs, based on defined decision-criteria.

Appendix C discusses why it is necessary to define a management system.

The benefits from a project that defines the management system will be long term, because a large amount of work is required to define the management system of any large organization delivering (or funding the delivery of) a diverse range of services in a decentralized environment.

There are short term needs for better information that must be met, and short term benefits available from improvement of existing information systems. On the other hand, immediate development of information systems entails a risk that the systems will end up being incompatible with evolving managerial needs, and that they may be incompatible with the evolving Departmental Information Systems Policies, Procedures and Standards or with financial information systems. However, it is felt that limited development of non-financial systems will be beneficial in increasing accountability and in justifying needed allocations of resources.

During the Fall of 1977 it was decided to organize a project to produce results in both definition of the management system, and in design of high priority information systems.

It is anticipated that a third phase of the Program MIS Project will follow the second phase. Its likely objective will be to ensure the integration of all information systems (financial and managerial and operational) so as to be compatible with the agreed (although necessarily dynamic and changing) management system of the Indian and Eskimo Affairs Program.

CHAPTER 2PROJECT OBJECTIVES & PRIORITIES

The objectives of the Program MIS Project Phase 2 are in order of priority:

- a) *To decide on and to document the approach and decision-making processes to be followed in managing the Program.*

- b) *To plan for the development of certain high priority information systems. The systems to be considered, in order of priority, are:*
 - i) Economic Development Information System
 - ii) Continuing Education Services
 - iii) Membership Registration
 - iv) Housing Assistance
 - v) Employment Generating Activities
 - vi) Social Services

The priorities assigned to the part (b) objective above have been determined on an ad hoc basis. Justification is found in Appendix E. (At the completion of the Project, decision criteria for such prioritization should exist on a formal basis.)

CHAPTER 3

PROJECT ORGANIZATION AND ROLES

The objectives of the project will be achieved using an appropriate combination of the human, financial and information resources of the Indian Program and Indian organizations.

For Part A of the Project (Management System development) the following key organizational elements will be involved:

- a) Management Systems Policy Committee
- b) Management Systems Working Group
- c) Full time MIS Coordinator
- d) Consultants
- e) National Indian Brotherhood

It is expected that both committee work and private interviewing techniques will be employed. The personal involvement of ADM and DG level managers is expected to be high, since the main thrust is to define the national management system. However, wide consultation will also be needed.

For Part B of the project (development of particular information systems) the following key organizational elements will be involved:

- a) Program management

- b) Information Systems Working Group
- c) Staff managers in Ottawa and the field
- d) Consultants
- e) National Indian Brotherhood

For each information system, a Steering Committee will be formed to guide the work of the consultants. In the case of proposals for computerized systems, all key decisions will be referred to the Management Systems Policy Committee.

Consultants from Quasar Systems Ltd. have been retained for Parts A and B of the Project.

Appendix B contains descriptions of the roles of each of the major participating individuals or committees. Indications of the amount of time that should be devoted to the Project are included.

CHAPTER 4MANAGEMENT SYSTEMS ACTIVITIESSTYLE OF THE PROJECT - PART A

The objective of Part A of the Project is to decide on and document the management system of the Program. Before referring to the activities needed to do this, the style of this Part of the Project should be discussed; there are several important factors.

Project participants should strive to achieve common understanding. This implies the need to define agreed terminology.

An educative approach must be adopted. All managers must understand the products of the Project. Project participants should educate and explain concepts to their fellow managers and to Indian organizations. A series of workshops will be planned: objectives of these workshops will be to further the educative process, and to obtain valuable inputs to the development of the management system.

The Program and Indian organizations must be kept regularly informed of the progress of the Project.

Project participants, and the products that they create, must be responsive to changing organizations, and to evolving program objectives.

Links between the national, regional and local (band and district) management systems must be clearly defined.

PRODUCTS DESIRED FROM THE PROJECT

The final products of Part A of the Project should be:

- a) A document titled -
"Indian Program National Management Plan".
This Plan will describe the "management system" to be established to plan and control the Program. The management system is the network of managers and the communications channels which link them. They should function together using connected planning and control processes to achieve Program Objectives. The Management Plan will describe the components and the workings of the desired management system. The Plan will also identify the development necessary to establish this system, including the MIS development required.
- b) Wide understanding in the Department and in the Indian community of how the Program is managed nationally, and what the management processes and decision criteria are.

To obtain these products, several intermediate products will be needed:

- c) Description and agreement on a model of the Indian and Eskimo Affairs Program as a System in its objectives and measures of performance, its environment, its resources, and its components and workings. This description will include a classification of the services rendered by the various regions of the Program.
- d) Description of and agreement on a model of the Indian and Eskimo Affairs management system and communications flows.

- e) A dictionary of terms used to describe the Program and the management system, so that everyone can have a common understanding of the words and concepts used.
- f) An educational package to convey to managers and Indian organizations the concepts needed to permit them to influence the shaping of the management system.
- g) A document titled -
"MIS Policies, Procedures and Standards for the Department of Indian and Northern Affairs".

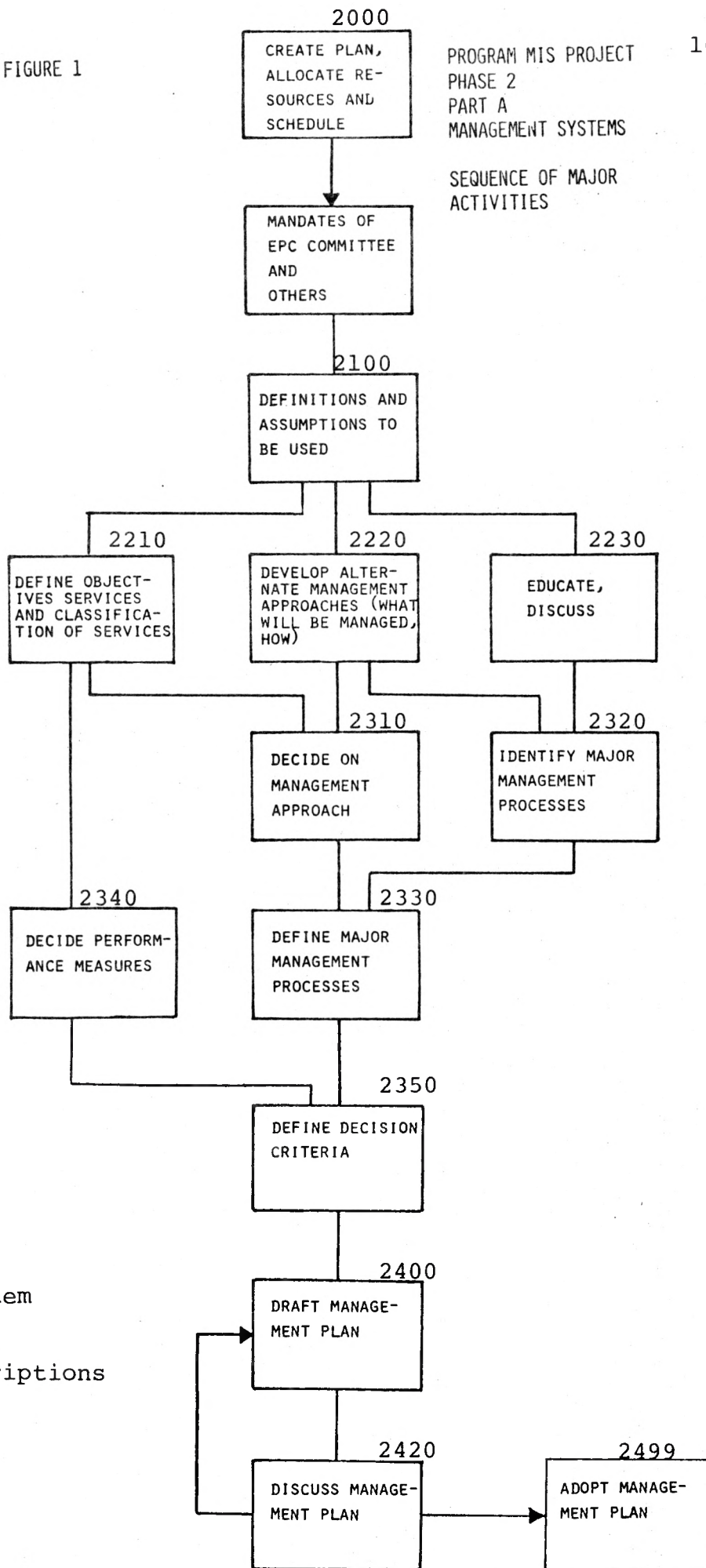
Figure 1 shows the logical relationship and chronological sequencing of the activities of the project. Activities are described in detail, by written activity objectives and goals in Appendix A.

Specific tasking of the Project staff to the various activities will be decided by the Working Group.

FIGURE 1

PROGRAM MIS PROJECT
PHASE 2
PART A
MANAGEMENT SYSTEMS

SEQUENCE OF MAJOR
ACTIVITIES



Four Digit
Delta Chart Item
(DCI) numbers
correspond to
activity descriptions
in Appendix A

CHAPTER 5INFORMATION SYSTEMS ACTIVITIESSTYLE OF THE PROJECT - PART B

The objective of Part B of the Project is to plan for the development of certain high priority operational and management information systems. There are several factors relevant to the style of this Part of the Project.

Because the management system is not defined, most of the information systems developed will be operational information systems, not management information systems; clear benefits must be provided by these systems to operational decision processes. Information system designers must consult closely with operations personnel in the Department and Bands.

The information systems must be compatible with the evolving financial system and financial information systems; care should be taken not to duplicate services provided by the financial organization.

The information resources management process and decision criteria of the Department as a whole (all Programs) are being defined in a related project. This project is titled DINA MIS Policies, Procedures and Standards. Information systems being developed in the Indian Program should be compatible with the evolving rules for information management.

The other points made under the heading of "style" in Chapter 4 are also relevant to the Information Systems part of the Project.

PRODUCTS DESIRED FROM THE PROJECT

The final products of Part B of the Project should be, for each of the information systems identified, documents titled:

- a) Identification of Requirement and Feasibility Study
- b) Program Management Decision on System
- c) User Requirements Definition

Subsequent phases of the development of information systems will proceed within the normal organizational process (as modified by the DINA MIS Policy, Procedures and Standards).

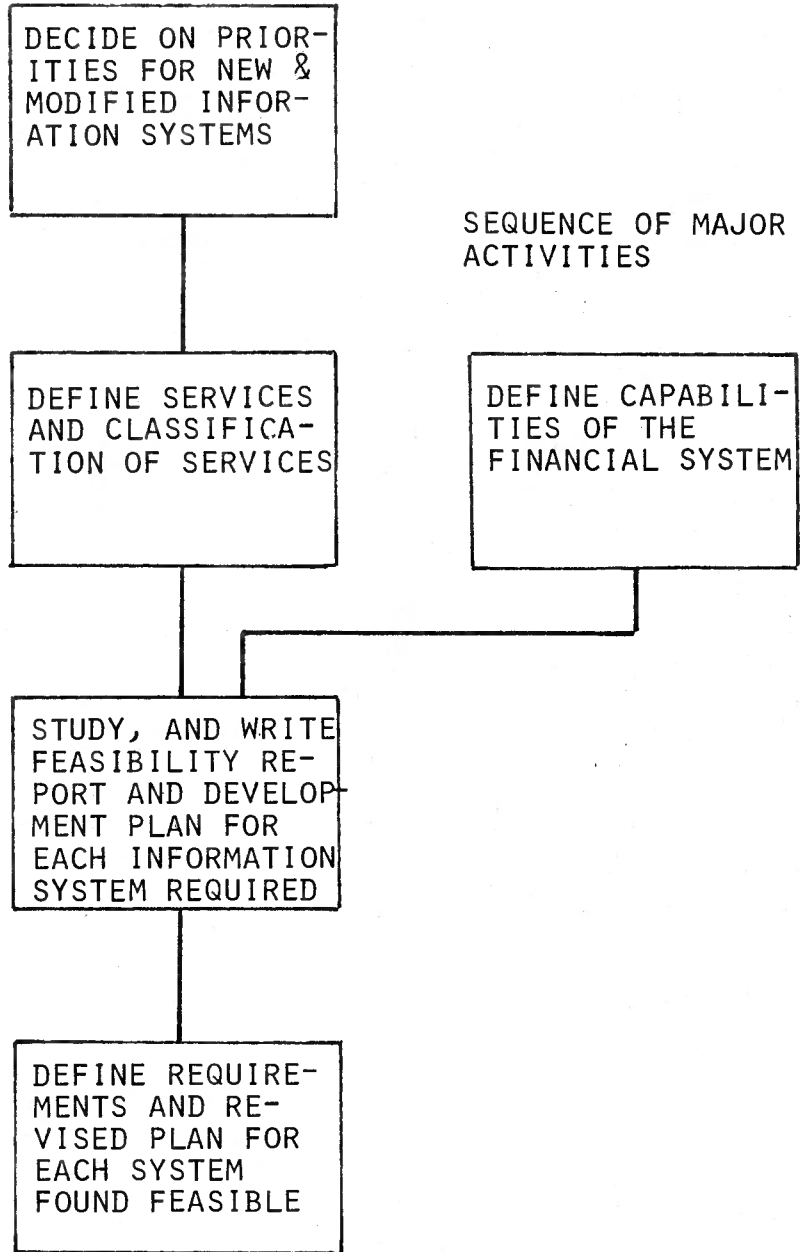
In addition, in the case of the Economic Development Information System, detailed specifications and implementation plans will be prepared as part of the project.

ACTIVITIES OF THE PROJECT

Figure 2 shows the logical relationship of the activities required to develop each information system undertaken as part of the work. The final page of Appendix A summarizes the information systems life cycle. Information systems will be developed within the context of this life cycle philosophy.

FIGURE 2

PROGRAM MIS PROJECT
PHASE 2
PART B
INFORMATION SYSTEMS



CHAPTER 6PROJECT SCHEDULES

While the activities of a project can be logically ordered, the schedules attached to the work are dependent on the level of human resources applied.

Both Parts A and B of the project have been scheduled on GANTT charts on subsequent pages of this chapter. The schedule has been developed assuming that: the levels of resources suggested in Appendix B are applied; products of the project are acceptable to senior management; and that decision making takes place in the time frames indicated on the schedule.

Planning for the project started in October 1977 and should be complete by 29 November 1977.

Part A of the project will start in November 1977 and should be complete by August 1978.

Part B of the project started in August 1977 and should expire by June 1978. It is noted that this Part of the project is resource limited in so far as consultant days are concerned (i.e. not all activities can be completed).

PROJECT SCHEDULE CHART

(MAJOR ACTIVITIES)

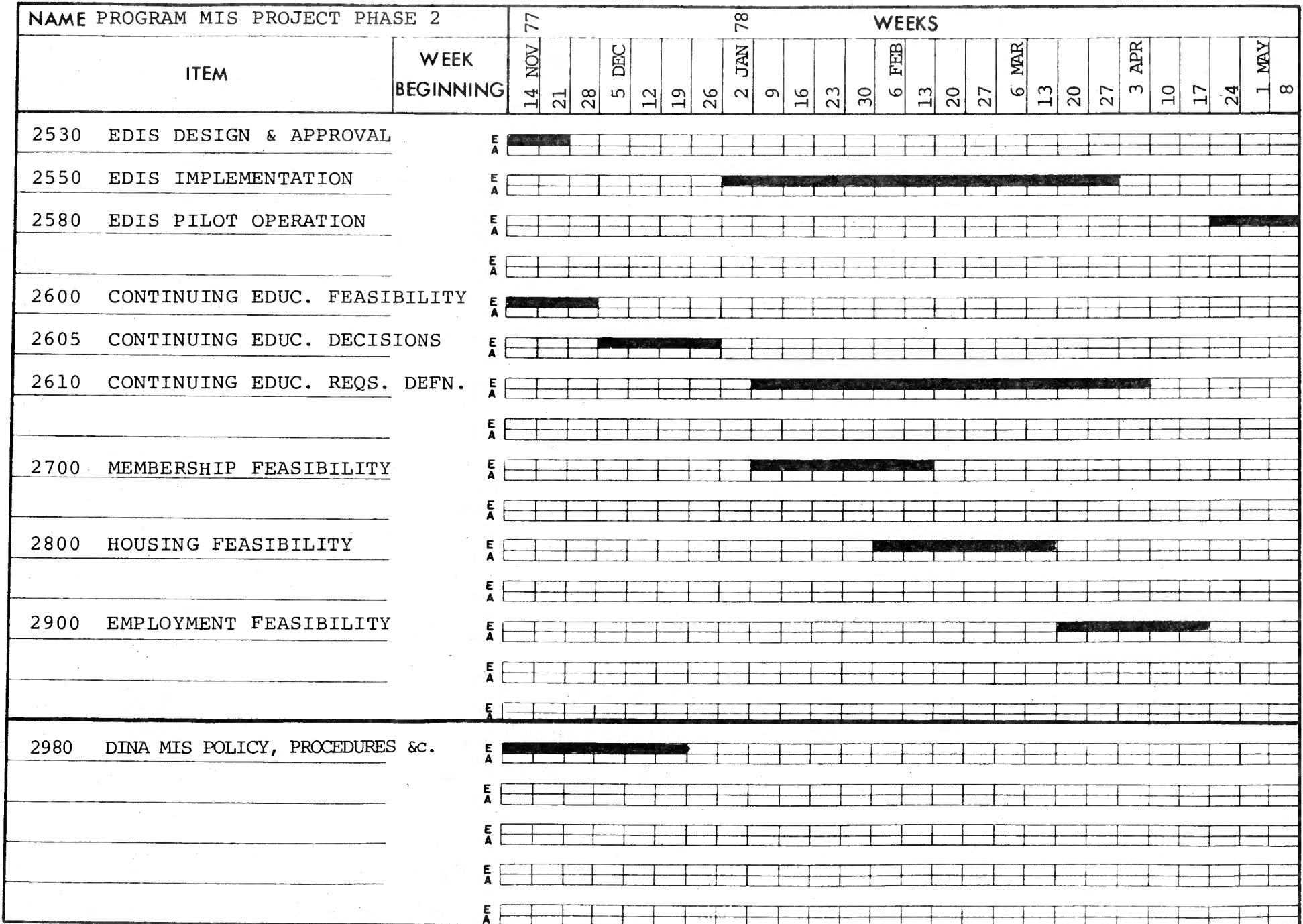
NAME	PROGRAM MIS PROJECT PHASE 2	WEEK BEGINNING	WEEKS																											
			77	14 NOV	21	28	5 DEC	12	19	26	78	2 JAN	9	16	23	30	6 FEB	13	20	27	6 MAR	13	20	27	3 APR	10	17	24	1 MAY	8
2000	PLANNING	E A	█																											
2100	DEFINITIONS	E A	█	█	█																									
2210	DEFINE SERVICES	E A			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
2220	ALTERNATE APPROACHES	E A			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
2230	EDUCATION, DISCUSSIONS	E A			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
2310	DECIDE APPROACH	E A																												
2320	IDENTIFY PROCESSES	E A																												
2330	DEFINE PROCESSES	E A																												
2340	PERFORMANCE MEASURES	E A																												
2350	DECISION CRITERIA	E A																												
2400	DRAFT MGT PLAN	E A																												
2420	DISCUSS MGT PLAN	E A																												
2499	ADOPT MGT PLAN	E A																												
		E A																												
		E A																												
		E A																												
		E A																												
		E A																												
		E A																												
		E A																												
		E A																												

(MAJOR ACTIVITIES)

NAME		PROGRAM MIS PROJECT PHASE 2		WEEKS																	
ITEM	WEEK BEGINNING	78																			
		15 MAY	22	29	5 JUN	12	19	26	3 JUL	10	17	24	7 AUG	14	21	28	4 SEP	11	18	25	
2000	PLANNING	E																			
2100	DEFINITIONS	E																			
2210	DEFINE SERVICES	E																			
2220	ALTERNATE APPROACHES	E																			
2230	EDUCATION	E																			
2310	DECIDE APPROACH	E																			
2320	IDENTIFY PROCESSES	E																			
2330	DEFINE PROCESSES	E																			
2340	PERFORMANCE MEASURES	E																			
2350	DECISION CRITERIA	E																			
2400	DRAFT MGT PLAN	E																			
2420	DISCUSS MGT PLAN	E																			
2499	ADOPT MGT PLAN	E																			
		E																			
		E																			
		E																			
		E																			
		E																			
		E																			
		E																			
		E																			

PROJECT SCHEDULE CHART

(MAJOR ACTIVITIES)



CHAPTER 7PROJECT REPORTING

Project reporting in the broad sense is required for several reasons. It is needed to disseminate information about the reasons for and objectives of the project. It is needed to develop understanding of the management concepts being evolved. It is needed to coordinate the effort of managers throughout the organization who are working on related tasks not under the aegis of the project. Finally, it is needed by management to evaluate the results and progress of the project, and to permit senior management to provide direction in response to the control information they receive.

The following routine project letters or progress reports will be required:

a) Letter from ADM Programs

This letter will be a general review of the state of the project. First in the series is the project announcement. Subsequent letters will be sent at one month intervals. Letters will be sent to all RDG, DG and NIB, and all project participants.

b) Project Progress Report

This report will be a textual memo describing work completed since the last report, results

achieved, problems being encountered and action being taken to resolve problems. The report will make a specific statement about project schedule and indicate the likely project completion date for Part A of the project. Updated GANTT charts will be appended to the report. The report will be produced every two weeks, jointly by the MIS Coordinator and the consultant. The report will be sent to all RDG, DG, NIB and all project participants.

c) Consultant Resources Use Report

This report will be a quantitative statement of consultant day utilization versus budget allocations in the Quasar contract. The report will be produced monthly. It will be sent to the DINA contract administrator.

APPENDIX A

ACTIVITY DESCRIPTIONS

Part A: Management Systems

Part B: Information Systems

ACTIVITY: Project Planning and Scheduling

OBJECTIVE: To write and obtain approval for a project plan for Parts A and B of the project. To monitor progress against the plan.

GOALS:

1. To develop a concept plan and present it to EPC.
2. To identify major activities required and sequence them logically.
3. To identify resources needed to conduct the work and to negotiate to make them available.
4. To prepare a draft schedule.
5. To write a project plan, schedule it, and discuss it with EPC and the Working Group.
6. To finalize the plan, obtain ADM signature and to disseminate the plan.
7. To update the plan as needed throughout the project.
8. To report every two weeks on progress against the plan.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

Plan by Quasar October 1977.

ACTIVITY: Definition of Terms

OBJECTIVE: To decide upon suitable models for the Indian Program and the Management System and to explain them in a "dictionary of terms and assumptions" for the Indian Program.

GOALS:

1. To research and discuss suitable models that fit the multi-service decentralized high environmental contact needs of the Indian Program.
2. To prepare a discussion paper that explains the models.
3. To prepare a discussion paper that lists and defines all the key terms to be used in both Part A and Part B of the project.
4. Working group to meet to discuss and change and ratify the model.
5. Disseminate an "approved" discussion paper on this topic.
6. Ensure all terminology used in the project from this point on is consistent with product of this activity.
7. Prepare a discussion paper outlining a framework for developing alternate management approaches.

NOTES ON METHODOLOGY:

1. Simplified Stafford Beer model may be used.
2. Part B of the project - use terminology being developed in the DINA MIS Policies, Procedures and Standards Project.
3. A Manual of Assumptions will be produced (similar document already exists in Ontario).

NOTES ON RESOURCES AND SCHEDULES:

ACTIVITY: Definition of Program Services (or Outputs)

OBJECTIVE: To define an acceptable national classification of the services rendered by the Indian Program, based on field actualities.

GOALS:

1. To write a discussion paper that provides the region with guidance on a framework within which they should classify the services being provided or planned to be provided in the next five years.
2. To discuss the paper in session of Working Group.
3. To amend the paper and send it to regions, with letter asking regions to classify services provided.
4. To expedite regional reply.
5. To analyze regional replies and develop a national roll up.
6. To write a discussion paper on classification of services.
7. To verify with senior management that the proposed classification is acceptable.
8. To provide the product of this activity to the Chart of Accounts sub project of the Financial Management Review.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

The activity has major regional involvement. Previous experience indicates that this activity can take up to six months.

ACTIVITY: Develop Alternate Management Approaches

OBJECTIVE: To propose to the Program Manager two or three feasible options for management of the Indian Program. The options are to answer the questions what will be managed nationally, who will be managed, and how will management take place.

GOALS:

1. Determine the minimum central agency and Departmental requirements that must be met (i.e. what is outside the discretion of the ADM).
2. Relate these minimum requirements to the management model chosen at DCI 2100.
3. Define the minimum and maximum realistic levels of detail for national Program Management.
4. Write discussion paper on the above goals' products.
5. Discuss topic with relevant members of DMC, and EPC.
6. Define three options and write discussion paper.

NOTES ON METHODOLOGY:

The objective will be achieved in a qualitative sense only at this stage.

NOTES ON RESOURCES AND SCHEDULES:

ACTIVITY: Education and Discussions

OBJECTIVE: To ensure that the concepts being developed by the Project, and the terminology used is understood as widely as possible in the Department and the Indian community.

GOALS:

1. To prepare a packaged seminar kit that identifies the reasons for and objectives of the Project Part A, the management model being used, and the terminological definitions.
2. To present this seminar to the Working Group for review.
3. To have members of the Working Group give the services to people in the Department.
4. To conduct a Band/Association/Department workshop on MIS, using the seminar materials.
5. To collect, collate and analyse feedback from the seminars and to advise the EPC Management Systems Sub-Committee.
6. To have informal discussions with each RDG on the thrust and proposed content of the Indian Program National Management Plan.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

ACTIVITY: Decide on Management Approach

OBJECTIVE: To obtain the ADM decision on which option for managing the Indian Program will be adopted.

GOALS:

1. To prepare a presentation to accompany the discussion paper written in DCI 2220.
2. To present to the ADM and receive feedback.
3. To present revised presentation to EPC for discussion.
4. To obtain ADM decision and advise EPC.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

Requires full EPC meeting?

ACTIVITY: Identify Major Management Processes

OBJECTIVE: To identify and name all the major national management processes (and national operational decision making processes.)

GOALS:

1. To identify, name and state objectives for each major management process of the Indian Program.
2. To review all Departmental material on management processes and Departmental plans to define processes.
3. To write a discussion paper on the methodology and plan to be followed for DCI 2330.
4. To add relevant material created in this activity to the product of the Definitions activity (DCI 2100).
5. To review regional management processes as time permits.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

ACTIVITY: Define Management Processes

OBJECTIVE: To define the objectives and sequences of activities and information flows in each of the major management processes. And to show how the processes are related to each other.

GOALS:

1. To chart each of the activities and decisions of each process, as they are at present.
2. To modify the process charts to reflect the desired management approach.
3. To develop a general level integrated graphic description of the major processes as they act together to achieve national program management.
4. To prepare a discussion paper explaining the above products.
5. To discuss with the Working Group and EPC M.S. Sub-Committee.
6. To initiate activity in the organization to prepare policy and procedures for implementing or revising management processes.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

ACTIVITY: Decide Performance Measures

OBJECTIVE: Given the Management Approach to be adopted, to decide the quantitative and qualitative measures to be used in assessing and accounting for Program performance at the national level.

GOALS:

1. To review the definition of services, the desired management approach and the defined management processes with the Working Group and EPC MS Committee to identify the level of detail required for national decision making in each process.
2. To consider whether any appropriate quantitative measures are available for the likely non-detailed management decision making.
3. To suggest and analyze qualitative measures of performance.
4. To itemize available and potentially available detailed measures of operational and managerial performance.
5. To prepare a paper on the Department's position regarding Band accountability for performance.
6. To write a discussion paper on performance measures.

NOTES ON METHODOLOGY:

The above goals are incomplete.

NOTES ON RESOURCES AND SCHEDULES:

This activity usually takes several months. High risk of not maintaining schedule.

ACTIVITY: Define Decision Criteria

OBJECTIVE: To define the factors that will be considered in each of the decisions indicated in the definitions of the major management processes.

GOALS:

1. Drawing on the results of DCI 2340 to write a discussion paper for each management process, listing the decision criteria for each decision, and indicating whether the decision information is qualitative or quantitative, available, potentially available or impossible to get.
2. To collate the results of the above into a list of information needs for national Program management.
3. To discuss with the Working Group and EPC M.S. Committee.
4. To hold a Band/Association/Department MIS Workshop to review the products of the project to date, and to discuss priorities for information needs.
5. To write a discussion paper on priorities for information needs.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

ACTIVITY: Draft Management Plan

OBJECTIVE: To produce a final draft of a management plan for discussion at EPC level.

GOALS:

1. To produce a Table of Contents and Chapter outlines for discussion with the Working Group.
2. To write a first draft and discuss it with the Working Group and the EPC M.S. Sub-Committee.
3. To write a second draft and have it approved for release to EPC (as a discussion document) by the ADM.
4. To obtain feedback on the document.
5. To write a final draft for presentation to EPC, and discussion.
- 6.etc.

NOTES ON METHODOLOGY:

See text of Chapter 4 for description of Management Plan.

NOTES ON RESOURCES AND SCHEDULES:

Time allocated is probably insufficient for more than 2 drafts.

ACTIVITY: Discuss Management Plan

OBJECTIVE: To ensure that the management plan reflects the wishes of Program managers and the constraints imposed from outside the Program.

GOALS:

1. To conduct EPC and Working Group discussions. This activity will require iterations to the previous activity DCI 2400.
2. To develop an organizational capability to keep the Management Plan current, and to present a proposal to management.
3. To develop an organizational ability to monitor adherence to the Management Plan, and to present a proposal to management.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

ACTIVITY: Adoption of the Management Plan

OBJECTIVE: To adopt the Management Plan and to explain its contents, significance and implications widely through the Department and in the Indian community.

GOALS:

1. To have the Management Plan signed as approved by the ADM.
2. To prepare briefing material on the Management Plan.
3. To brief DMC on the Plan.
4. To hold a series of seminars on the Plan throughout the country.
5. To hold a Band/Association/Department MIS Workshop.
6. To prepare a post-project report documenting the history of the project and the lessons learned from it.

NOTES ON METHODOLOGY:

NOTES ON RESOURCES AND SCHEDULES:

APPENDIX A - CONTINUED

SYSTEM LIFE CYCLE SUMMARY

DRAFT

SYSTEM LIFE CYCLE SUMMARY

<u>STAGE</u>	<u>PHASE</u>
1. Initiation	1.1 Project Requirement Identification 1.2 Orientation Study 1.3 Feasibility Study 1.4 Establishment of Project Review Committee (PRC) 1.5 PRC Review of Feasibility Study 1.6 Project Planning 1.7 Project Approval
2. Requirement Definition	2.1 Data Collection 2.2 Analysis of Requirements 2.3 Requirements Documentation 2.4 Approval of Statement of Requirements
3. Design	3.1 Design Development Planning 3.2 Approval for Design Development 3.3 General Design 3.4 Detailed Design 3.5 Design Approval
4. Development	4.1 Detailed Development Planning 4.2 Development Preparation 4.3 Detailed Procedures Development 4.4 Testing 4.5 Documentation 4.6 Design and Development Review
5. Implementation	5.1 Detailed Implementation Planning 5.2 Approval for Implementation 5.3 Preparation of User Instructions 5.4 User Training 5.5 Acceptance Testing 5.6 Conversion 5.7 Production 5.8 Post Implementation Evaluation
6. Operation	6.1 Routine Operation 6.2 Non-routine Operation
7. Evaluation	7.1 Initiation of Evaluation 7.2 Identification of Evaluation Criteria 7.3 System Evaluation 7.4 Identification of Opportunities/ Requirements for Change 7.5 Audit Committee Review
8. Maintenance	8.1 Routine Maintenance 8.2 Non-routine Maintenance

APPENDIX B

ROLE STATEMENTS

PROGRAM MIS PROJECT: ROLE STATEMENT

ORGANIZATION: Management Systems Policy Committee

PERSONS:

Rod Brown (Chairman)	Bob Knox
Ron Albert	Owen Anderson
Ron Fournier	Jim Wright
RDG Atlantic	Brian Veinot

ROLE re PROGRAM MIS

1. Acts as the Indian Program policy-making and decision-taking body (or advisory body for ADM or DM decisions) in following areas:
 - a) national management approach (what will be managed and how?)
 - b) management decision-making processes and decision making roles
 - c) decision-making criteria
 - d) information flows and management communications network
 - e) information resources management process
 - f) the Program's Management System (which is the ensemble of the above)
2. Directs the production of, and content of, a National Management Plan, which will document the desired Management System and show how to attain it.
3. Sets objectives and goals and allocates resources and priorities for all management systems improvement work.
4. Directs activities of the Management Systems Working Group, other management improvement projects, and consultants.
5. Decides on all national, regional and district proposals to establish, significantly modify or discontinue computerized data processing systems.

AMOUNT OF WORK-TIME ALLOCATED TO PROGRAM MIS PROJECT

The sub-committee meets approximately every eight weeks for up to 3 hours per meeting. Additional time for reading, working on Management System about 2 hours per week.

Average time required per person: 3 hours per week (1 Nov 77 - 15 Jul 78).

PROGRAM MIS PROJECT: ROLE STATEMENT

ORGANIZATION: Management Systems Working Group

PERSONS:

Jim Wright (Chairman)	Brent Sabeau
Owen Anderson	Peter Legg
Brian Veinot	Gregor MacIntosh
Bruce Pope	

ROLE re PROGRAM MIS

1. Discusses concepts and approaches to creating Management Plan; reviews and redrafts discussion papers and chapters of the Plan. Tasks consultants, and the MIS Coordinator to prepare written material, to carry out interviews, etc.
2. Ensures that the evolving Management System is compatible with the departmental management system.
3. Makes recommendations to the Management Systems Committee regarding adoption of management approaches, processes, policies, decision criteria.
4. Communicates progress and results of project both informally (verbally to home organization) and by written media, throughout districts, regions and headquarters, and in Indian Bands and political organizations, and in the Finance and Administration Program of the Department.
5. Develops and maintains work plan and schedule for the Program MIS Project.

AMOUNT OF WORK-TIME ALLOCATED TO PROGRAM MIS PROJECT

The working group meets every 4 weeks for 6 hours per meeting. Additional time for reading, interviewing, researching and working on the Management System, 4 hours per week.

Average time required per person: 5 hours per week (1 Nov 77 to 15 Jul 78).

Note: people in right hand column above have greater involvement:
See appropriate Role Statement.

PROGRAM MIS PROJECT: ROLE STATEMENT

ORGANIZATION: Information Systems Working Group

PERSONS:

Jim Wright (Chairman)	Richard Maracle
Alan Gratiias	Gregor MacIntosh
Bruce Pope	Terence Curtis
Tom Abbott	Nancy Mitchell

ROLE re PROGRAM MIS

1. Reviews all proposals to establish significantly modify or discontinue computerized information and data processing systems, and makes recommendations thereon to the Management Systems Policy Committee.
2. Ensures that the implementation of new information systems is consistent with the objectives and priorities of the evolving Program MIS philosophy.
3. Provides advice as required to Steering Committees for development of particular information systems.

AMOUNT OF WORK-TIME ALLOCATED TO PROGRAM MIS PROJECT

Meets weekly.

PROGRAM MIS PROJECT: ROLE STATEMENT

ORGANIZATION: Program MIS Coordinator,

PERSONS: Gregor MacIntosh

ROLE re PROGRAM MIS

1. Personally responsible for keeping the ADM Programs in close contact with the Program MIS Project, and organizational reactions to it.
2. Write discussion papers and drafts of the Management Plan.
3. Conducts interviews and research to support attainment of project goals.
4. Negotiates for allocations of human resources needed to meet agreed Project goals and schedules.
5. In consultation with the consultants, drafts modifications to the Project work plan for discussion by Working Group and approval by the Management Systems Policy Committee.
6. Approves (or recommends for approval) and distributes project meeting agenda.
7. Writes and distributes project progress reports, both within the Department and to the Indian community.
8. Organizes departmental aspects of Band/Association/Department MIS Project Workshops.
9. Coordinates description of Program services.

AMOUNT OF WORK-TIME ALLOCATED TO PROGRAM MIS PROJECT

Full time.

PROGRAM MIS PROJECT: ROLE STATEMENT

ORGANIZATION: Quasar Systems Ltd. (Consulting Division)

PERSONS: Brent Sabean
Jeremy Butler

ROLE re PROGRAM MIS

1. Suggests concepts and approaches for creating Management Plan and acts as resource person to the Project.
2. Writes project discussion papers and drafts of the Management Plan.
3. Conducts interviews, research and information meetings to support attainment of project goals.
4. Provides advice to ADM Programs on organization for effective management systems and management information systems.
5. Drafts Project Plan (objectives, goals, methodology, resources, progress reporting, schedule).
6. Advises Program MIS Coordinator on resource requirements and scheduling.
7. Ensures that, as far as possible, specific information systems being developed during the Project are compatible with the evolving Program MIS philosophy and with the evolving financial management and information systems.

AMOUNT OF WORK-TIME ALLOCATED TO PROGRAM MIS PROJECT

J. Butler	3 days per week
B. Sabean	3 days per week

PROGRAM MIS PROJECT: ROLE STATEMENT

ORGANIZATION: Quasar Systems Ltd. (Systems Development Division)

PERSONS: Terry Curtis (EDIS)
Gordon Harris (Continuing Education)
Keith Ogilvie (MIS Policy Procedures and Standards)
Jeremy Butler

ROLE re PROGRAM MIS

- *1. To develop for the Department a process oriented description of the information systems life cycle and to define requirements for Policies, Procedures and Standards for all aspects of information resources management.
2. To support the Indian Program by investigating and reporting on the requirements for feasibility of information systems that support:
 - a) economic development projects
 - b) continuing education services
 - c) membership registration
 - d) housing assistance
 - e) employment generating activities
 - f) social services
3. Where nationally based information systems are found to be appropriate, to define detailed user requirements for such systems, and to provide plans for developing and implementing the systems.

AMOUNT OF WORK-TIME ALLOCATED TO PROGRAM MIS PROJECT

For MIS Policies, etc.	73 consultant days *
For economic development	102 consultant days
For continuing education	97 consultant days
For other information systems	74 consultant days

* This work is being done under separate contract for the ADM Finance and Administration, on a Departmental basis.

PROGRAM MIS PROJECT: ROLE STATEMENT

ORGANIZATION: Finance and Management Branch

PERSONS: Brian Veinot (Director)
Jim Wright (Associate Director, Management Services)

ROLE re PROGRAM MIS

1. Chairs the Program Management Systems Working Group and the Information Systems Working Group.
2. Coordinates the development of a framework to describe the services provided by the Program.
3. Ensures that the management system, and the departmental and program financial system, are developed as an integrated package.
4. Ensures that management and operational information systems, and financial information systems, are integrated.
5. Acts as contract administration officer for Quasar Systems.
6. Responsible for interim definition of national management processes and planning and monitoring adherence to the processes.

AMOUNT OF WORK-TIME ALLOCATED TO PROGRAM MIS PROJECT

12 hours per week.

PROGRAM MIS PROJECT: ROLE STATEMENT

ORGANIZATION: H.Q. Groups

PERSONS: John McGilp
Hugette Labelle
Bob Knox

ROLE re PROGRAM MIS

1. Participates in the development of a framework for defining and classifying services provided by the Indian Program.
2. Identifies and defines the services provided throughout the Indian Program using the framework developed above.
3. Maintains the operational policies that define services provided by the Program.

AMOUNT OF WORK-TIME ALLOCATED TO PROGRAM MIS PROJECT

APPENDIX C

INDIAN PROGRAM MIS PROJECT PHASE TWO
DISCUSSION PAPER NUMBER 1

WHY DEFINE A PROGRAM MANAGEMENT
APPROACH AND DECISION-MAKING PROCESSES

Quasar Systems Ltd.
Ottawa, Ontario

9 September 1977

INTRODUCTION

The major thrust recommended for the second phase of the Indian and Eskimo Program MIS is the definition of the processes by which decisions are made and implemented. As a first step, the Program ADMs have been asked to describe their overall management approach. The objective of this paper is to clarify some of the concepts introduced and to clarify the reasons for making explicit the preferred management approach and for subsequently defining management (i.e. decision-making) processes.

DEFINITION OF MANAGEMENT APPROACH

The term "management approach" is used here to mean the way in which the ADMs as overall Program Managers intend to involve their managers in planning and controlling the Indian and Eskimo Affairs Program. The management approach can be considered to be a set of policies (either implicit or explicit), addressing the following:

- a) responsibility/authority - who will make decisions; who will participate; how.
- b) accountability - how will managerial performance be assessed.
- c) motivation - how will managers be encouraged to participate in managing the Program so as to achieve common objectives.

This management approach should take into account factors internal to the Program, such as desire on the part of managers to participate, and factors external to the Program, such as the nature of the Indian organizations in different regions, as well as factors imposed by operation as a government department (central agencies, etc.).

DEFINITION OF MANAGEMENT PROCESSES

Management processes are defined here as the steps involved in making and implementing decisions in planning and controlling the Indian and Eskimo Affairs Program. For the key management functions and related decisions, the description of these processes should include an identification of:

- a) the place of the specific management process in the overall Program management process
- b) the activities and decisions in each process, their sequence and timing, their relation to the activities and decisions of other processes
- c) the managers involved and their roles and responsibilities
- d) the factors triggering the need for a decision (e.g. information; an event, time)
- e) the methods for identifying and evaluating alternatives (the information used and its sources, the criteria and decision rules applied)
- f) the methods for implementing and monitoring decisions

THE NEED TO DEFINE THE MANAGEMENT APPROACH AND PROCESSES

The end result of the Indian and Eskimo Affairs Program MIS project (Phase III) will be a series of designs for a "network" of management information systems. To be used effectively once they are implemented, these systems must be understood in the broad context of the decision-making processes they are intended to support. The information needs of managers and the flow of information through the organization will depend on decision-making responsibilities. The management approach adopted will determine these responsibilities. Therefore the design of effective management information systems requires an understanding by all managers of their roles and responsibilities, and the decision-making processes.

The general management approach should be clearly understood before management processes and supporting information systems are designed. This should help to avoid inconsistencies. As an example of how the lack of a management approach can affect the design of information systems, consider the following case.

The desired management approach is to have each Regional Director-General propose goals for his region; once goals are agreed, each RDG is expected to "run his own show"; overall performance of RDGs is to be assessed on the basis of a number of factors.

In this situation, the ADM wants certain quantitative information in sufficient detail to assess performance in various areas; however, he does not require the same detail as the RDG who must analyze performance problems and exercise control. Without a clear understanding of the desired approach, it is quite possible that one of the functional headquarters branches could feel that it must have the capability to provide the ADM with detailed control information. In fact, the branch may feel that it must control regional operations in its functional area on behalf of the ADM. As a result the management process perceived and the information "needs" presented to the system designers will not be consistent. Not only can such a situation lead to higher MIS development and operating costs, but it can undermine the basic management approach.

THE ROLE OF "THE CONSULTANTS"

According to its pending contract with the Department, Quasar Systems will (among other things) assist the Indian and Eskimo Affairs Program to define and develop adequate management processes. The choice of a management approach and the design of management processes are managerial responsibilities. The

. . . /4

role of Quasar Systems will be to introduce relevant concepts, to ask questions, to make observations and recommendations, to propose alternative management approaches and to document results; Quasar's role will be to act as catalyst to the achievement of a management approach and processes that are visible and understood by Indian organizations, Departmental employees and the central agencies of government.

However, this is not a passive role: the onus is on Quasar Systems to keep the design process moving. The time for criticism of the status quo is past. It will be incumbent on both Quasar Systems and Departmental managers to be creative in defining the needed management processes, and to show frequently during the project the positive benefits flowing from well defined national (and local) management processes.

APPENDIX D

PRIORITY ASSIGNMENT re INFORMATION SYSTEMS



OTTAWA, Ontario K1A 0H4
November 29, 1977.

Your file Votre référence

Our file Notre référence

Mr. R.D. Brown
Assistant Deputy Minister -
Programs,
(Indian and Eskimo Affairs).

Priorities for Information Systems Development

1. Because of limited resources, it is necessary to assign priorities to the information systems to be planned and/or developed during the second phase of the Program MIS Project. Priorities have been assigned on the basis of three items:

- i) quality of existing systems
- ii) need for a new or modified system
- iii) chances of success in developing a new system

2. The following systems should receive attention, in order of priority:

- i) Economic Development Information System
Assigned the highest priority over a year ago, this system is now being implemented.
- ii) Continuing Education Information System
This system is assigned second priority because better information is needed to obtain funding; and because operational processes are well defined, which permits relatively easy information system development.
- iii) Membership Information System
Indian people are a most basic and most important resource: information on registered Indians is vital for day-to-day operations, for program planning and for policy formulation. The Indian Register has no interface to the financial system, which simplifies information system development

iv) Housing Information

Housing and infrastructure information is badly needed, but information system design is constrained by many complex interfaces to bands, other government agencies, the financial system, and other administrative systems.

v) Employment Information

Employment is a serious problem upon which better information is needed. However, definition of employment and data collection are both difficult.

vi) Social Services Information

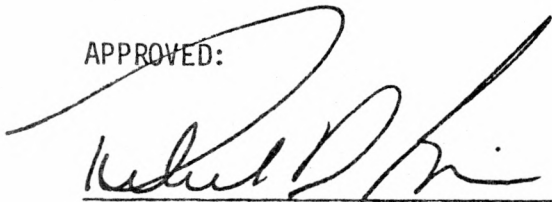
An existing information system provides some data in this field. Redesign of this information system would be a very large and complex project which would require more resources than are presently available.

3. Work on the second phase of the Program MIS Project has been planned and scheduled using these priorities. However, only the Economic Development Information System will be implemented during phase 2; the other systems will be the subjects of feasibility studies or design effort only.



G. MacIntosh
Program MIS Coordinator.

APPROVED:



R. D. Brown