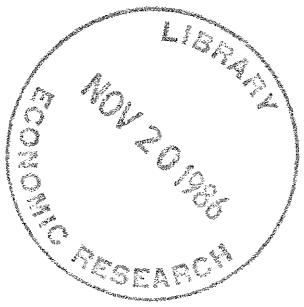
C.1

YUKON 2000

TRANSPORTATION



DRAFT DISCUSSION PAPER

Prepared for the Yukon Economic Development Strategy

Fall Conference

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I - INTRODUCTION

In 1986 the Yukon government initiated a planning process designed to provide a basis for sound economic development into the 1990's and beyond. "Yukon 2000" is to be a comprehensive Economic Development Strategy focussing primarily on economic issues but taking into consideration related social concerns.

At the present time a broad number of policy and planning initiatives are underway within the territorial and federal governments. Additionally, economic activities continue to be pursued independently by the private sector. The Economic Development Strategy is intended to bring coordination and cohesion to many of these activities thereby leading to a more efficient government which works in concert with the private sector and public interest groups toward common goals. When completed, the strategy will provide a basis for economic policies and actions that will facilitate positive and beneficial development to the year 2000 and beyond.

The first formal step of the process was a workshop held in Faro, June 1986. Participants included representatives from communities, bands, special interest groups and individual Yukoners. At the workshop, the overall goals and objectives of the Development Strategy were reviewed, key issues arising from that review were discussed, and an opportunity was provided for participation in developing the Strategy workplan. Workshop participants arrived at a broad statement of goals which they wished to be considered in the development of an overall strategy for economic development. These goals are summarized in Figure 1.

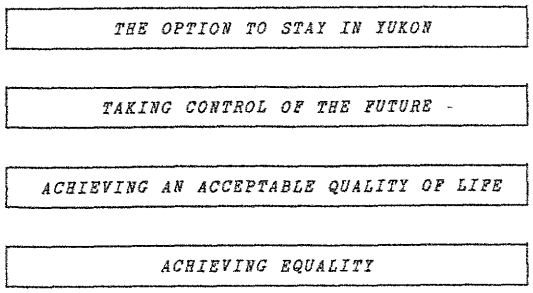

Figure 1. Overall Goals to be Reflected in Yukon Strategy for Economic Development

To ensure these goals are achieved, a three part approach was recommended to form the basic framework for the Strategy. It includes sectoral reviews, linkage studies and public consultation.

Sectoral reviews, which form the basis of most economic planning efforts, will examine options for enhancing development in each sector of the economy. Eleven sectors of the Yukon economy were identified for study (Figure 2).

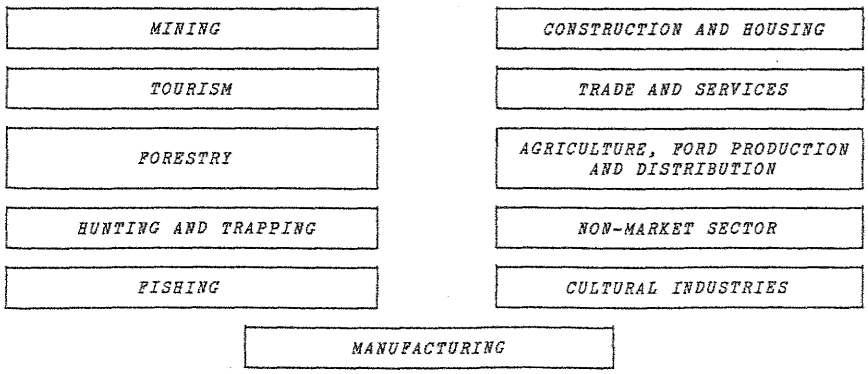

Figure 2. Sectors of the Yukon Economy Identified for Detailed Study

In addition to sectoral reviews, the need for a series of "linkage studies" was identified. The term "linkage studies" refers to those areas requiring study which can influence and assist development across a number of sectors. Sixteen "linkage studies" were identified for development. Figure 3 presents the eleven economic sectors and sixteen "linkages" and illustrates, in graphic form, the relationship of how linkage areas cut across sectoral boundaries to assist in the achievement of goals.

Transportation for example is a "linkage" or instrument which can make a significant contribution in achieving the goals identified at the Faro Workshop as well as forming a key element in the continuing quest for overall economic development.

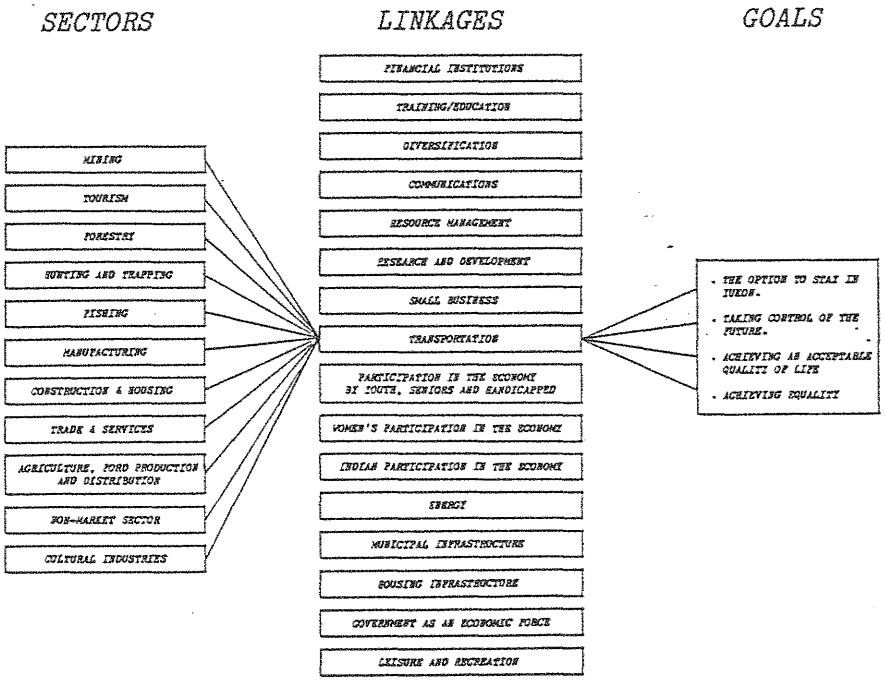

Figure 3. Components of the Yukon 2000 Economic Development Strategy

II - O B J E C T I V E

The overall objective of this document, as for the sister linkage studies, is to serve as a catalyst to promote informed discussion amongst Yukoners as to how they wish transportation to be utilized as a "linkage" or "instrument" of economic development. To assist in making these choices this document will:

1. Review the historical role of transportation in Yukon economic development;

2. Review the status of the present transportation system and outline specific modal and institutional issues;

3. Focus the role of transportation as a "linkage" in the achievement of the overall Yukon Economic Development Strategy.

III - HISTORICAL ROLE OF TRANSPORTATION IN YUKON

Transportation since the beginning of Yukon history has played a primary role in the development and growth of the territory. The Yukon remains as dependent on transportation as it was 144 years ago when Robert Campbell first established white presence in the territory. This dependence, a consequence of the region's remoteness and its climate, has outlasted what was once a total dependence on staple exploitation, making transportation the most persistent theme in Yukon history. Yukoners, unlike most other Canadians, have never been able to take transportation for granted: their dependence has always been conscious.

Attempts to overcome the Yukon's environmental and locational obstacles have invariably assumed the form of transportation. These attempts have passed through three distinct stages of development during the era of permanent white settlement. The first was marked by an exclusive dependence on the sternwheeler and the Yukon River. Used in concert, the sternwheeler and the river made possible the series of events which culminated in the discovery of gold on Bonanza Creek and the subsequent stampede to the Klondike. The gold rush, in turn, left as its legacy an interlocking transportation system based on the railroad and sternwheeler which sustained the region for the following half century (Figure 4). This phase lasted until 1950-55 when it was superseded by a combination of the railway and the highway.

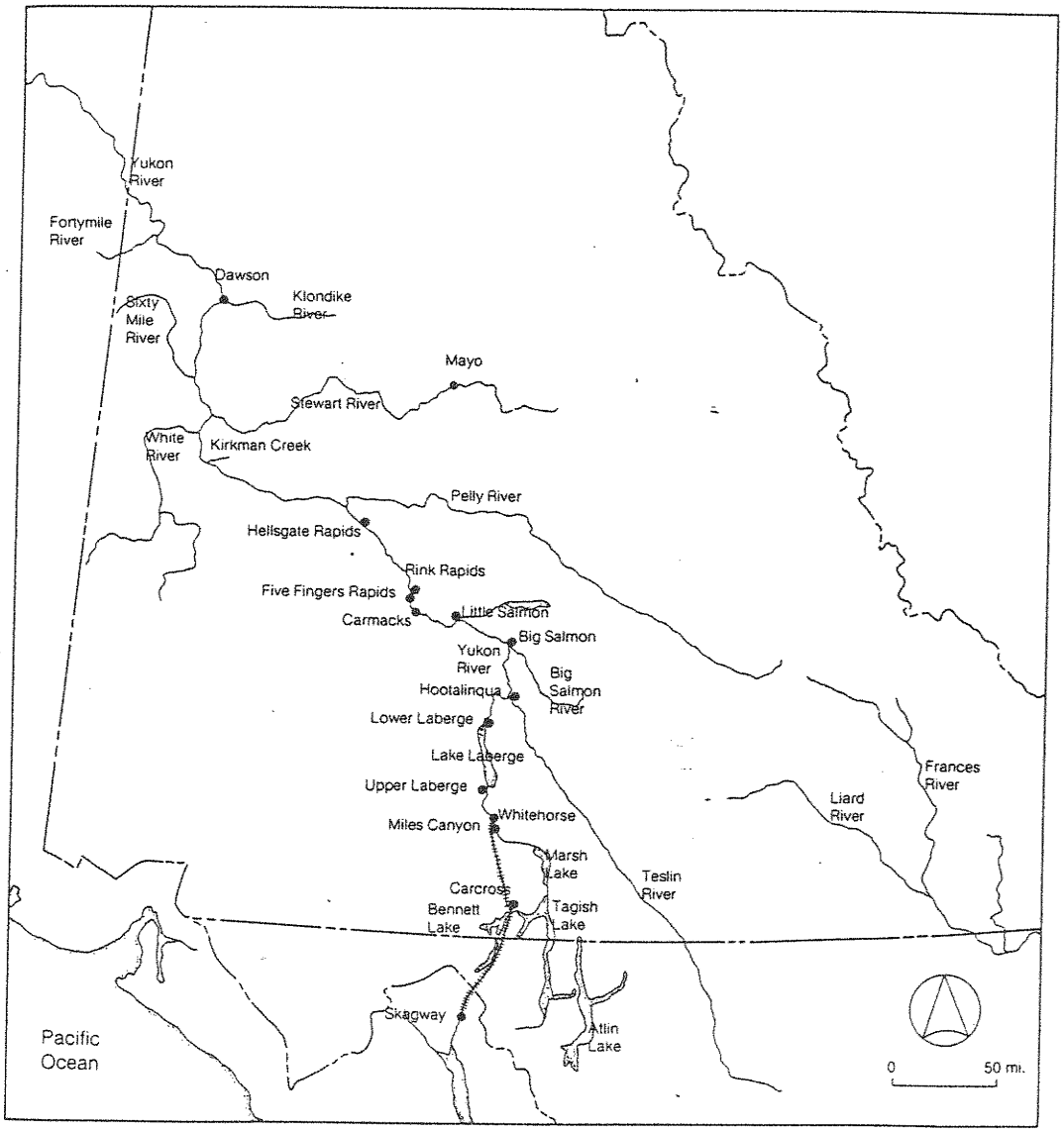

Figure 4. Interlocking Rail and River System in Yukon 1900-1955

The termination of sternwheeler operations symbolized more than the abandonment of a particular form of transport. It represented the passing of a way of life. For four generations the Yukon River and its navigable tributaries, the principal arteries of inland communication, had determined the nature of territorial existence. The seasonal rhythm that characterized every aspect of Yukon life before 1955 was a faithful reflection of the seasonal nature of the inland waterways. For over 80 years the Yukon knew only two seasons and the advent of each was signalled not by the calendar but by freeze-up and break-up.

The conversion to the use of highways changed this dependence. Seasonal transportation was eliminated and vast, previously inaccessible areas were opened to economic exploitation. A new pattern of settlement evolved based on the post-1945 network of highways (Figure 5). Communities like Fort Selkirk, left isolated after the termination of water transport, were virtually abandoned. Others like Dawson and Mayo, which owed their establishment to the exigencies of river transport, survived the loss of their transportation function, but ceased to have anything but a local importance. The process of urbanization was accelerated, thereby reversing a trend first evident in Dawson after 1900 when roads had facilitated population movement away from the city. Of even greater significance was the transformation in the traditional role played by transportation. Until 1955 transportation was the master of the Yukon's economic destiny. River transport governed every aspect of economic activity in the territory. Proximity to navigable water was the primary consideration of all enterprise. Except for minor improvements to navigation and

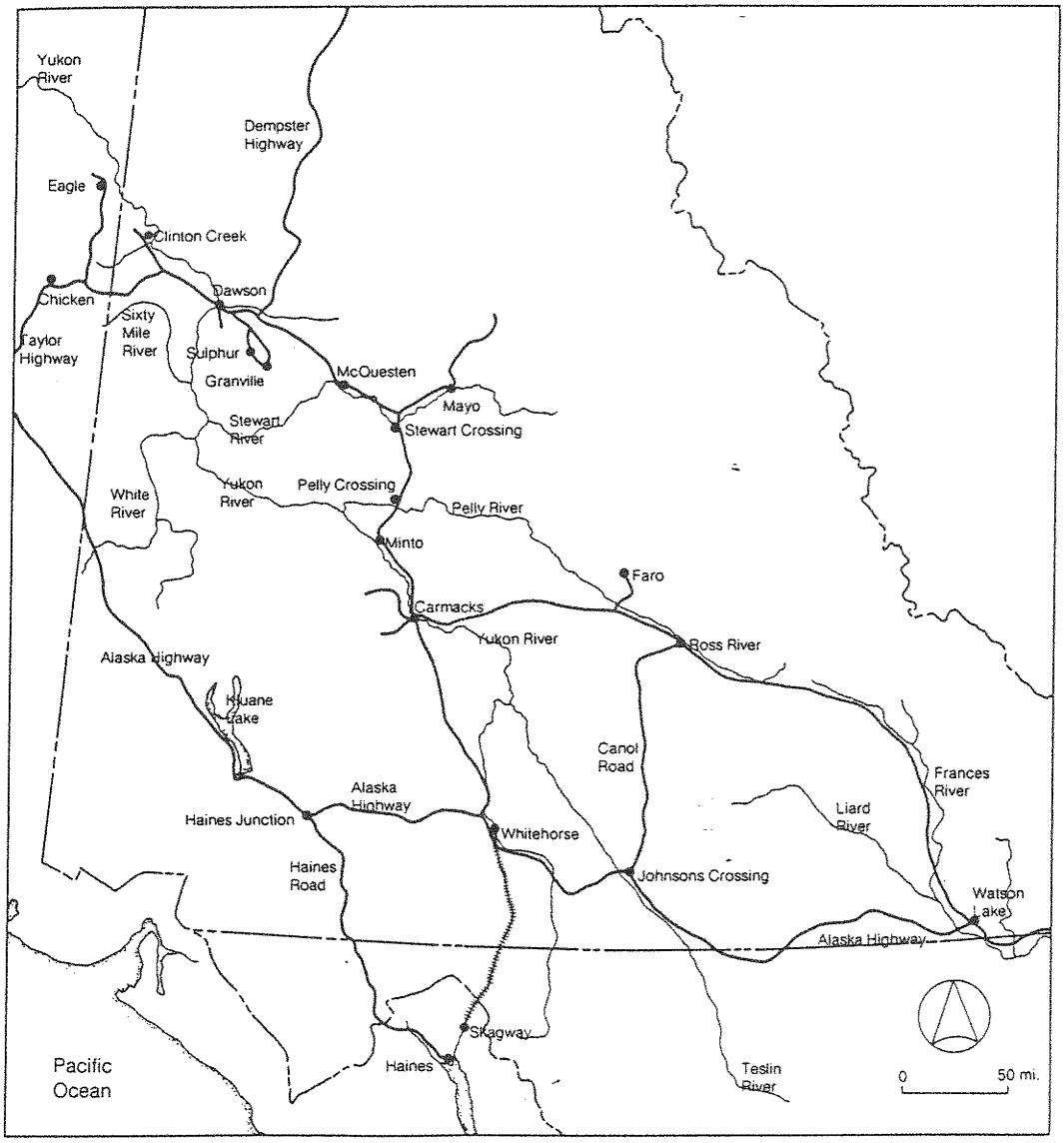

Figure 5. Post-1945 Road System

a measure of sternwheeler refinement, this form of transportation allowed very little in the way of flexibility. Rivers, unlike roads, could not be built to serve an economic purpose; instead, they defined the limits of all development. With the conversion to overland forms of communication, transportation assumed a different function: it became a servant rather than the master of the territory's destiny. Although unheralded, this profound alteration constituted the most important change in the history of the Yukon transportation system.

Old notions proved less susceptible to change than the transportation system, however. Northern development schemes demonstrated just how ingrained was the time-honoured equation that the absence of transportation equalled remoteness and that the solution was to provide more facilities. What was required instead was a wholesale re-examination of the almost universally held assumption that conventional transportation solutions - that is the provision of physical links - constituted the most effective answer to the problem. The lesson of the silver-lead industry was that the installation of a concentrator proved to be a far more effective answer to the problem than transportation itself. Another question that merited closer consideration was whether or not the provision of these physical links fostered or inhibited development. Put another way, had the emphasis on traditional transportation solutions obscured the fact that a lack of markets and the absence of conditions making for "economies of scale" were more significant, in certain instances at least, to the Yukon's remoteness than a dearth of transportation facilities? A major reason for the abandonment of the Canol pipeline, for example, was that an

ancillary system, the Skagway-Whitehorse pipeline, made it cheaper to import California oil for local consumption despite the fact that in purely spatial terms Norman Wells was much closer to Whitehorse. In this particular instance, the provision of a physical link not only inhibited development, but also underlined a lesson long appreciated by students of transportation but seldom applied to the northern scene: transportation frequently destroys local industry by making local markets more accessible to a metropolitan centre. Seen from this perspective, any attempt to make the Yukon less dependent economically with the aid of transportation may well self-defeating.

Until transportation ceases to be a scapegoat or panacea for all the Yukon's problems, those problems which have traditionally beset the territory will remain. It is too often ignored that transportation has historically had to operate within the same limitations of remoteness, small markets and climate as the primary producer. To assign to transportation a role which should properly be performed by another economic sector, as was the case with the Whitehorse copper industry where transportation was called upon to compensate for a marginal mineral deposit, or to expect transportation to function as a substitute for the absence of "economies of scale", is to demand too much from what is only one instrument, albeit a crucially important one, in the exploitation of the region's resources.

The workshop at Faro reflects much progress along these lines of thinking. Transportation has been identified as one of sixteen "linkages" or instruments to support sector development, and seems to have outgrown the syndrome of a "sector" to be developed for its own sake. This appreciation in addition to an understanding of the existing transportation system and specific modal issues will serve Yukoners well to understand how the system can be used most effectively to support sectoral development.

IV - THE YUKON TRANSPORTATION SYSTEM TODAY

Yukon is served at this point in time by two modes of transportation: road and air. In the not too distant past four modes were available: water, rail, road and air. This section will review the present status of the highway and air transportation systems in Yukon and will highlight specific modal issues which may require attention prior to the formulation of strategies for sectoral development.

THE HIGHWAY SYSTEM

The role of the Yukon highway system in contributing to the economic and social development of Yukon is unsurpassed by any other mode of transportation. From an economic perspective, roads facilitate exploitation of natural resources, both renewable and non-renewable, and are the critical factor in the development of tourism - the current major industry. The road system also plays an important role in the social structure, providing the strands that bind the scattered population into a Yukon community. Roads are the principal means of delivering health and educational services, providing for social intercharge between towns and carrying most of the essential goods required to maintain life.

The Yukon highway system consists of 4,662 km of road of which 3,799 km are trunk highways and 669 km are classified as "other roads". In addition there are uncounted kilometers of tote roads in the territory.

The present Yukon road system is presented in Figure 6.

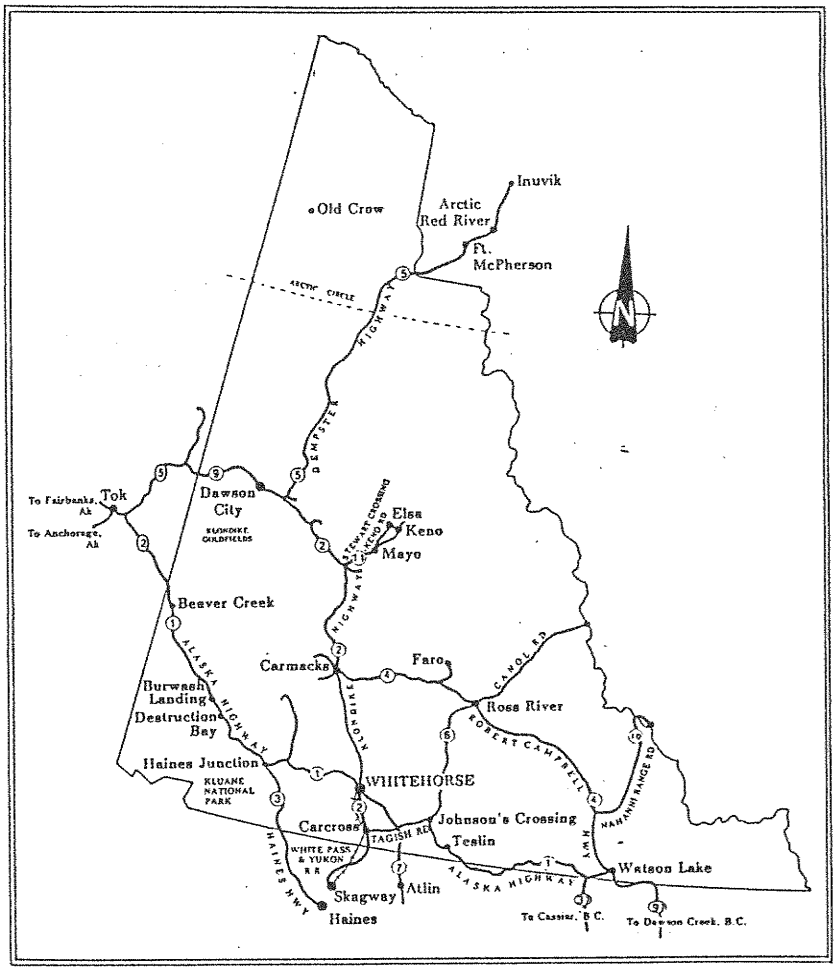

Figure 6. Yukon Highway System 1986

Six major issues can be identified as having an impact on current and future economic development. Many are inter-related.

ISSUE 1. COST

The major issue with respect to highway construction and maintenance in Yukon is cost. Great distances, sparse population, adverse climatic conditions, geology and topography are major factors resulting in extremely high construction and maintenance costs.

ISSUE 2. COMPLEXITY OF MANAGEMENT AND FUNDING

Highway, funding, planning and program management is extremely complex in Yukon. Under the present system Public Works Canada plans, designs and constructs the Alaska Highway and Haines Road, often referred to as the Northwest Highway System. Yukon, with PWC funding carries out the maintenance. DIAND, Northern Affairs Program plans and funds the construction of new development roads and some interjurisdictional roads, namely the Dempster, Carcross/Skagway and North Canol. In most cases Yukon designs and constructs these latter roads although PWC may act as agent for DIAND instead, which is currently the case on the North Canol. Yukon maintains and funds the maintenance of these and all other roads in the system. This multi-agency approach is further complicated by U.S. funding of the Shakwak Project. This includes the Haines Road and Alaska Highway north of Haines Junction.

Therefore, the territory ends up with three agencies planning roads and developing programs, and two designing and building. Standards vary and Yukon ends up maintaining and operating the system. It would be more economic and efficient to bring all of these functions under one agency.

ISSUE 3. DIVERSITY OF HIGHWAY STANDARDS

Due to the multi-agency involvement in highway construction and maintenance, a variety of standards exist. Thus the Yukon government does not have a single set of standards for highway construction and maintenance. This causes difficulties and inefficiences in planning, and budgeting both for capital construction and maintenance.

ISSUE 4. LACK OF POLICY ON PROVISION OF HIGHWAYS

At the present time there is no policy or criteria for the provision of highways. In the past this has caused significant problems particularly with respect to the public/private provision of roads. This issue is a significant one which must be dealt with particularly if future highway development will be used as an instrument to support sectoral goals for economic development.

ISSUE 5. ENVIRONMENTAL CONSIDERATIONS

The northern areas of Canada are characterized by a very fragile ecosystem. In the planning and construction of highways, environmental requirements have a price and often delay or cause projects to be stopped - projects designed to support economic growth and development. Although this is a federal mandate at present, the question of degree of environmental protection is the issue, not that environmental impacts should be ignored.

ISSUE 6. CONFLICTING DEMANDS

With the increasing use of the road transportation system by tourists and increasing industrial use, highway planners will be faced with conflicting demands. Mining traffic and recreational vehicles on the same road create hazards particularly where roads are substandard as to width and geometrics and where mining traffic may be extensive. The challenge is to determine what geometric standards are justified and to design an economic road system that will carry heavy traffic and provide safe and comfortable service to the travelling public.

SUMMARY - MAJOR HIGHWAY ISSUES

The major specific modal issues in highway transportation are depicted in Figure 7. Broader institutional issues, which impact on the entire system will be addressed later.

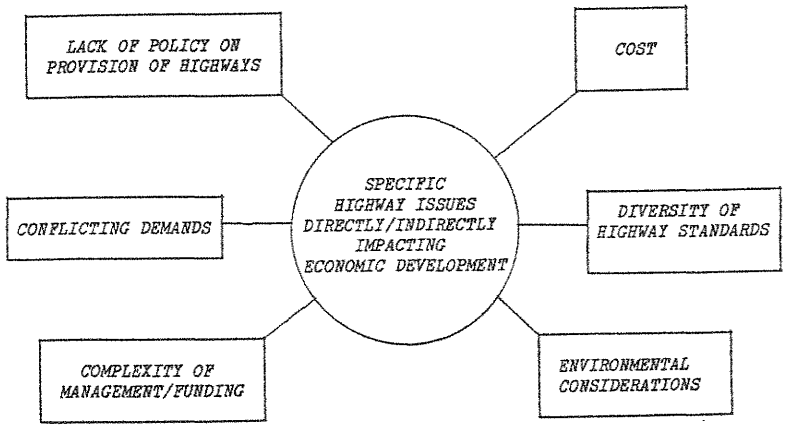

Figure 7. Specific Modal Issues - Highways

THE AIR TRANSPORTATION SYSTEM

The airport system in Yukon is made up of three broad categories of airports:

1. Transport Canada owned and operated airports;

2. Arctic "B" and "C" airports; and

3. "Emergency" airstrips.

Yukon, with Transport Canada funding, maintains ten airports under the Arctic Air Facilities Program[1] which was set up to ensure the provision of infrastructure for scheduled service to the communities, and to serve as a base for a fairly extensive charter operation vital to resource exploration and the support of small mining operations.

In addition, Yukon maintains twenty of approximately sixty "emergency" airstrips which are also used for support of the resource extraction industry. The list of airports by category appears in Table 1.

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[1] This policy has now expired.

Table 1. Categories of Airports in Yukon

TRANSPORT CANADA	ARCTIC "B" AND "C"		"EMERGENCY" AIRSTRIPS		
Whitehorse	Beaver Creek	"C"	Braeburn	Beloud Post (Dezadeash)	Hungry Creek
Watson Lake	Burwash	"C"	Carcross	Blackie	Ketza
	Carmacks	"C"	Cousins Strip	Blackstone	Komakuk Beach
	Dawson	"B"	Finlayson Lake	Blow River	Liard River, B.C.
	Faro	"C"	Kluane Sliver City	Bonnett Plume	Livingston Creek
	Haines Junction	"C"	McQuesten	Burnt Hill	Mount Nasen
	Mayo	"B"	Minto	Canyon City	Needlerock Creek
	Old Crow	"C"	Mule Creek	Carmacks Old Strip	North Hope, YT
	Ross River	"C"	Wiley Strip	Casino	Polarus
	Teslin	"C"	Chapman Lake	Cath	Proctor
			Mile 150	Chance #1	Shingle Point, YT
			Hyland River	Clear Creek	Silver Key
			Magundy	Clinton Creek	Snag
			McMillan Pass	Detour Lake	Snake River
			Pine Lake	Elsa	Stewart Crossing
			Sheldon Lake	Firth Flat	Tatonduk River
			Squanga Lake	G.E.	Tintina (Conwest)
			Aishihik	G.E. (Wind River)	White River
			Atlas #1 S. MacMillan Rd.	Godlin Lake	
			Bear River	Hart River	

The location of air carriers and general aviation bases are illustrated in Figure 8 and the existing scheduled air routes in Figure 9. The Airport Management organization within the territorial government has been very active in the identification of airport system needs and in the assessment of problems facing the system in the future. Six key issues are presented for discussion.

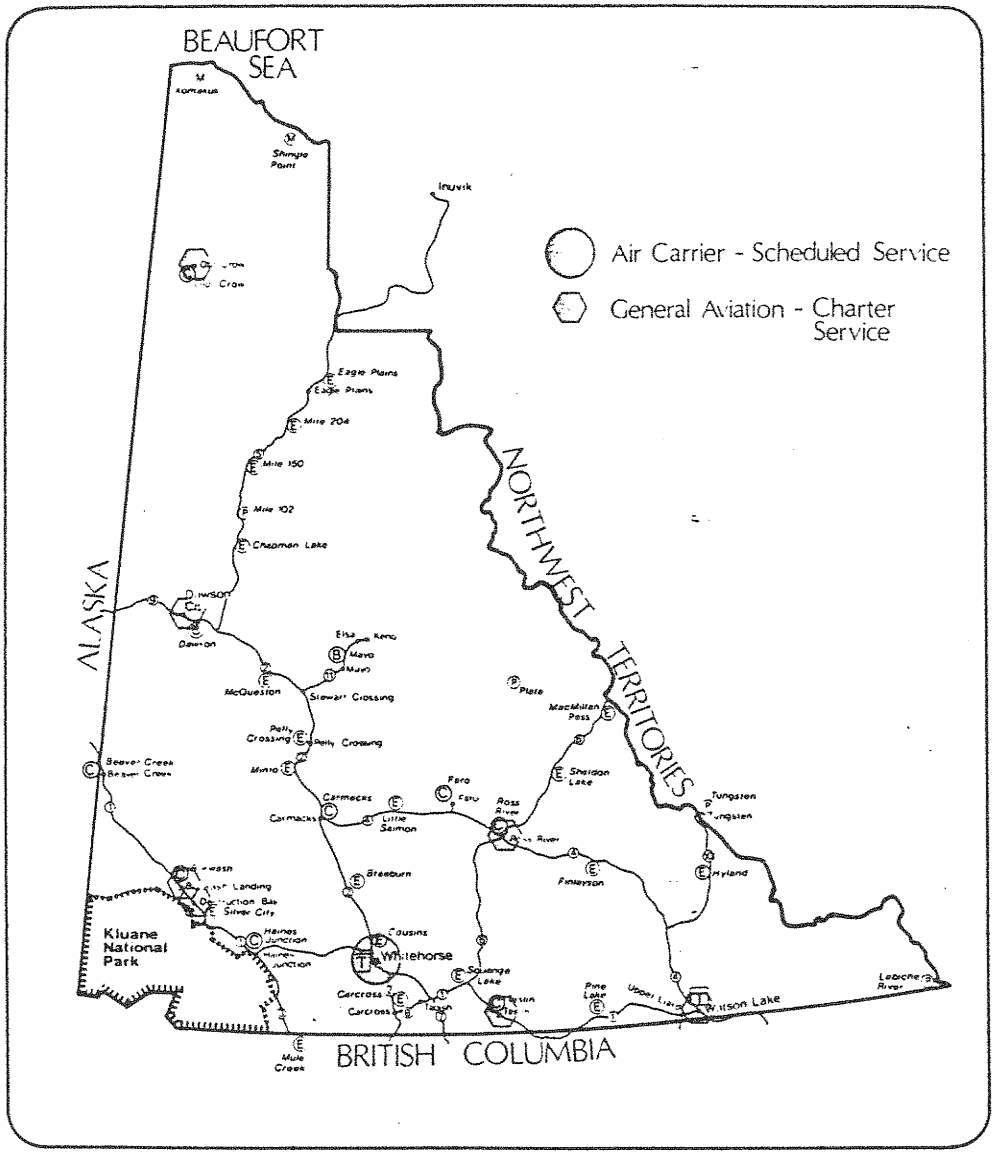

Figure 8. Air Carrier and General Aviation Bases

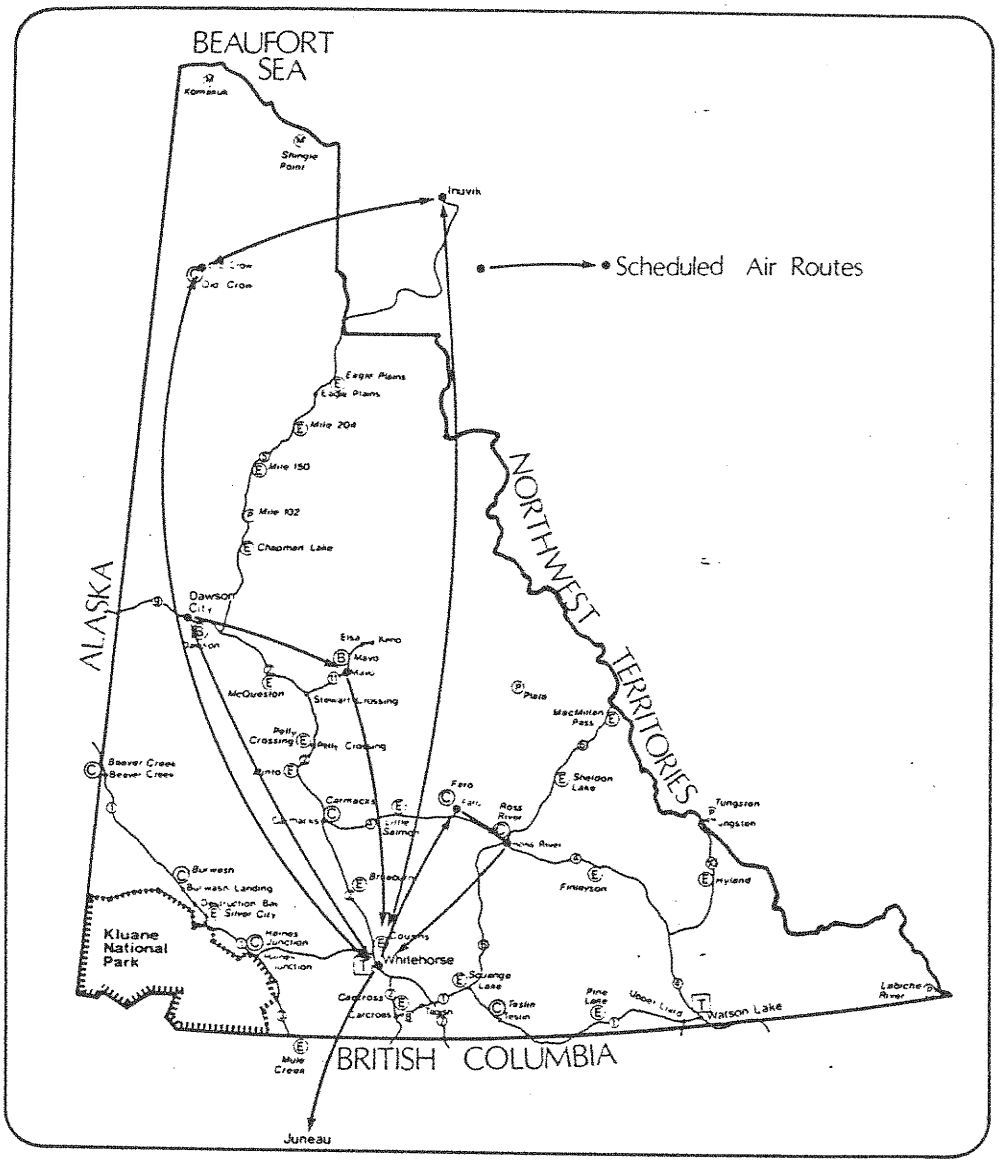

Figure 9. Current Scheduled Air Routes

ISSUE 1. LIMITED FINANCIAL RESOURCES

As with highway systems, airport system development will be faced with severe financial constraints to the year 2000. Future decision-making with respect to choices between sites to be developed in support of sectoral development will be influenced heavily by this issue.

ISSUE 2. MANAGEMENT AND FUNDING

In airports, as with highways, there are several levels of government and a mixed bag of government departments involved in the management and funding of Yukon airports. This problem has been further exacerbated by the lapsing of the Arctic Air Facilities Program. It is likely that this federal program will not be replaced.

Funding requirements for the "B" and "C" airport system in Yukon will be extensive over the next twenty years. The complex involvement of numerous agencies is expensive and does not foster efficiency in the management of limited resources.

A further internal aspect of the management issue is the fact that airport management is still contained within the Highways Branch of the territorial government. Although this situation has contributed to some efficiencies, it has often resulted in conflicting priorities with respect to programs and resources.

ISSUE 3. EXPIRATION OF ARCTIC AIR FACILITIES POLICY

This program has provided the funding for the construction and operation of ten important airports in Yukon. It has now lapsed. At issue is what will replace it.

ISSUE 4. LACK OF NAVIGATIONAL AND APPROACH AIDS

While the territory is reasonably well serviced with respect to airport facilities, safety and level of service could be improved by the provision of low level navigational and additional approach aids. From 1980 to 1984 there were twenty-seven aircraft accidents in Yukon, and an undeterminable number of aircraft delays, service disruptions and cancellations. Accessibility and reliability of air service is a very significant factor in economic development. Of significance to this issue is the recent emergence of new technologies for both low level navigational and approach aids. Such solutions are non-traditional and may provide cost effective real solutions to some Yukon airport access problems.

ISSUE 5. LACK OF UNIFORM AIRPORT STANDARDS

Airport construction, operational and maintenance standards vary by category of airport. While it is accepted in all countries that major airports such as Whitehorse and Watson Lake will have higher standards than "B" and "C" airports, airports in other categories should have comparable standards. This is not the case for two "B" and "C" airports in Yukon - Carmacks and Haines Junction.

ISSUE 6. NEED FOR SYSTEM INTEGRATION

There are currently four groups of airports in Yukon. Arctic "A's" , "B's", "C's" and the Yukon maintained emergency strips. To date, little effort has been extended to integrate the airports into a system or to produce a regional master plan. Consequently the "system" is not operating in as efficient or cost effective manner as possible, and optimum management of the "system" is not achieveable.

SUMMARY - MAJOR AIR TRANSPORTATION ISSUES

The major specific modal issues related to air transportation are summarized graphically in Figure 10.

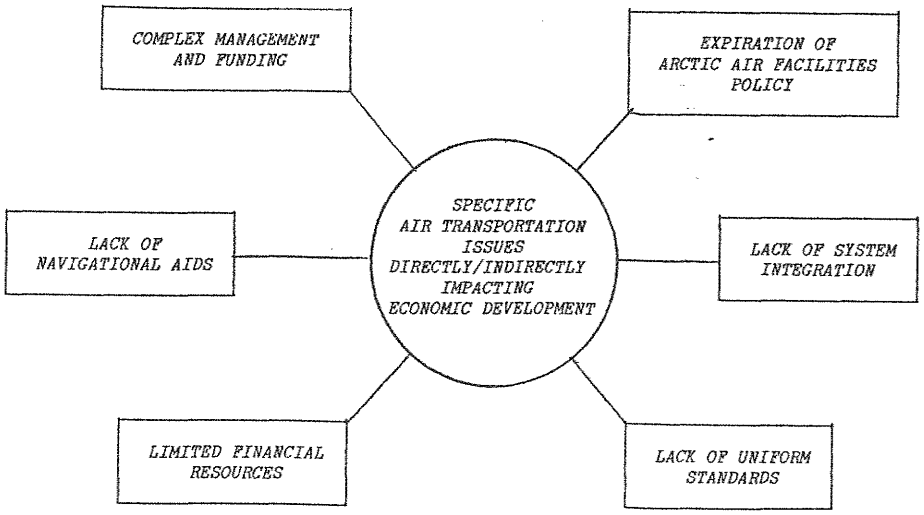

Figure 10.

INSTITUTIONAL ISSUES

In deciding to act on modal specific transportation issues for highways and air, Yukoners must be aware of several broader background institutional issues. The major institutional issues are regulatory reform (deregulation), devolution and the need to harmonize the Yukon transportation system with other jurisductions.

As Figure 11 shows, these issues emanate from current federal initiatives and although they do not enjoy legislative status in their present form, their ultimate implementation will have an impact on the resolution of some modal specific issues. This should not be interpreted to mean that decisions should not be taken to address modal specific issues right now, it only implies that when taking action the Yukon government should take into consideration intentions at a broader institutional level where they could have an impact.

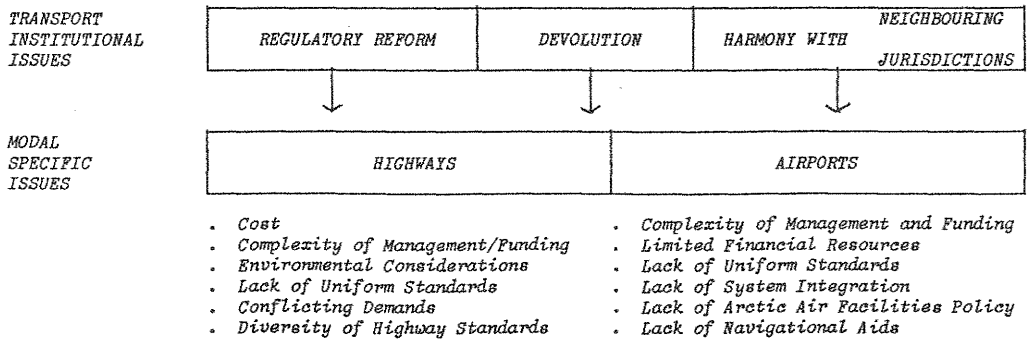

Figure 11. Relationship of Institutional and Modal Specific Transportation Issues

ISSUE 1. REGULATORY REFORM (DEREGULATION)

The recent wave of regulatory reform (deregulation) started in the U.S. in the mid 1970s in order to liberate the market economic forces, reduce inflation and the government deficit, and stimulate productivity and exports. In a succession of initiatives the U.S. government deregulated air, rail and road commercial transportation. Those initiatives were felt in Canada through demonstration and direct impact effects. The demonstration effect meant that Canadian shippers and passengers observing the lower rates in the U.S. as a result of deregulation demanded that the Canadian government also introduce deregulation domestically. Through the direct impact effect, railways, trucking companies and shippers were affected directly by the U.S. deregualtion through: loss of traffic from the Canadian to the U.S. railway carriers; infiltration of the U.S. market by Canadian truckers; ability of Canadian shippers to take advantage of lower U.S. rail rates and thus, shift their traffic to U.S. rail carriers at the border; Canadian passengers interlining with U.S. air carriers at the border in order to take advantage of the lower U.S. fares, etc. Consequently, the Minister of Transport undertook a number of initiatives and investigations through Transport Canada and the Canadian Transport Commission. The direction was becoming clear: a Canadian deregulated transportation system to evolve in a more orderly fashion than the one in the U.S., and subject to consultation among all interested parties in Canada, while allowing for the inclusion of safeguards for the safety, stability, level of service and Canadian control and ownership of Canadian transportation. The most significant stage in the regulatory reform in Canada has been

a series of proposals incorporated in the 1985 Freedom to Move paper by the Minister of Transport. The proposals on the air and trucking modes are of particular importance to Yukon.

AIR

For the air mode, Freedom to Move proposes that the general principle of "public convenience and necessity" be replaced by "fit, willing and able." This is expected to result in significant regulatory freedom for the air carriers in terms of pricing and entry. Such initiative is considered most appropriate for the mature parts of the Canadian transportation system and is expected to result in lower air fares with a level of service more suitable and responsibe to the needs of the market place and passengers. However, serious questions were raised with regard to the suitability of such proposals for areas of the country such as Yukon where there is low population density, and the transportation system is immature and an essential instrument in economic development.

The Standing Committee's most relevant recommendations for Yukon were as follows:

- That northern air services continue to be regulated on the basis of the 1984 policy statement until the Committee has had an opportunity to travel to the North to study the adequacy of air services there and to report back to Parliament.

- That the new Regulatory Agency be given a mandate to monitor the impact of air transportation deregulation, particularly on low-density routes, and that the law require the air carriers to provide to the Regulatory Agency such information as is necessary for it to carry out this monitoring function.

- That in the legislation to amend the National Transport Act, statutory recognition be given to the principle that transportation is a key to regional economic development.

An additional issue that should be considered by the Yukoners is the differentiation between air services linking Yukon with other regions and those providing services within Yukon. It is possible that a different set of criteria should be applied to each of the above requiring different regulations. On the surface it appears that air services to Whitehorse and Watson Lake are patronized throughout the year by visiting and business activities as well tourism in the summer. Therefore, a deregulated environmental for such air services might provide the users with the benefits of lower rates and differentiated services without necessarily the adverse impacts in stability of service, i.e., high entry and exit of carriers. Of course, if the number of carriers serving those airports are less than two or three, then some assurances might have to be given in terms of rates and level of service in order to avoid the adverse effects of monopoly power. With regard to the services within Yukon, the basic requirement would be for a minimum level of service throughout the year. The proposed essential air services subsidies program, depending on the criteria chosen, could be applicable to selective intra-and inter-regional air services.

TRUCKING

Freedom To Move has proposed that trucking regulation also be guided by the principle "fit, willing and able" replacing the "public convenience and necessity." It would appear that this change would have significant ramifications for highly regulated provinces such as Saskatchewan and Manitoba and less for others such as Ontario and Quebec. This new principle, however, may not be as radical for Yukon since trucking regulation in the last three years by the Yukon Transport Board under its present chairman, does in fact closely resembles the "fit, willing and able" regime. Other structural changes, however, which could impact on the trucking industry structure in Yukon may be in the offing. The results of trucking deregulation throughout Canada can very well result in more aggressive trucking congolmerates looking for new markets. The possibility is that Yukon will be faced with an influx of applications by "outsiders" wanting to serve the region. Those outside carriers may include both U.S. as well as Canadian congolmerates. The Transport Board will therefore be faced with the dilemma of further opening up Yukon to new applicants with a potential reduction in both rates and stability of services throughout the year, possibly at the expense of its own trucking industry which has smaller scale operations.

BUS

The Motor Transport Board may face similar challenges in the regulation of the bus indusrty, but to a smaller degree and over a longer time frame than trucking. The bus industry will most likely continue to be essentially a monopoly for each market segment and the board will continue to focus it's attention on the nature and stability of service. With regard to tourism during the summer season, while the domestic bus industry should be encouraged and promoted, the board should not stand in the way of outside bus carriers bringing tourists into the region. The government, however, should see that in addition to applying "fit, willing and able" principles to outside bus charter operators, the same operators should be required to pay sufficient compensation through licensing for the use of the transportation infrastructure.

ISSUE 2. DEVOLUTION

The devolution initiative with respect to transportation relates principally to the transfer of roads and Arctic "B" and "C" airports from the federal to the Yukon government. Prelimary discussions are currently underway between the Federal and Territorial government with respect to negotiations on the ground rules for transfer.

ISSUE 3. HARMONIZATION OF REGULATIONS AND STANDARDS

The Yukon's economy is primarily dependent on imports, exports and tourism. Also, Yukoners need to have a high degree of accessibility to other regions for business, entertainment and cultural purposes. The above call for reduction of transportation obstacles to the extent possible, which might impede traffic between Yukon and the outside. Therefore, it is most important that the Yukon transportation system, its regulatory standards, taxes and user charges be harmonious and consistent (but not necessarily identical) to other jurisdictions. It is also important when differences in user charges and standards become necessary between Yukon and other jurisdictions, Yukon officials should undertake to inform and explain such differences to shippers, passengers and carriers of other regions unfamiliar with the specific provision in Yukon.

V - TRANSPORTATION AS A LINKAGE IN THE ACHIEVEMENT OF THE YUKON ECONOMIC DEVELOPMENT STRATEGY

This paper has attempted to briefly review the historial role transportation has played in the economic development of the territory. It has highlighted the major modal issues of the existing highway and air transportation system and has outlined three broader "institutional" issues which must also be borne in mind throughout the process of strategy development.

Transportation now, as it always has been, is a crucial instrument or "linkage" of economic development. As history has witnessed it has not always been used in its proper capacity as a tool, but often mistakenly as an end to itself. The Yukon 2000 exercise has correctly identified transportation along with fifteen other linkages as "instruments" which will, if properly developed, serve to support economic development in the eleven sectors and utlimately serve to positively support the creation of overall strategy for economic development.

From the perspective of the transportation linkage one must decide how to "get there from here" in the most effective mannner. Several steps emerge as a logical progression to achieve this. These steps are depicted graphically in Figure 12 and are briefly described below.

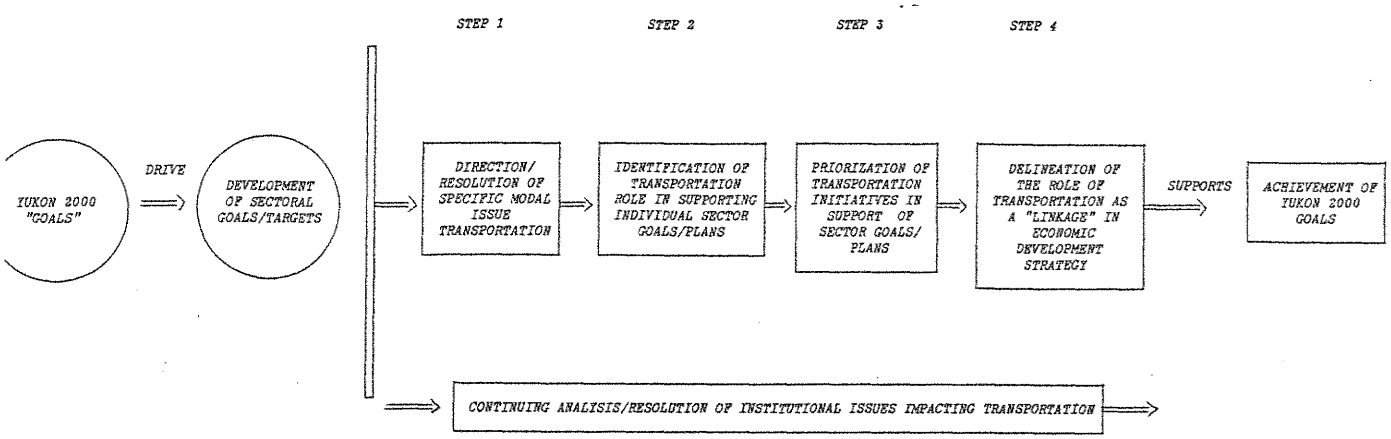

Figure 12. Steps in Delineating the Role of Transportation as a Linkage in the Economic Development Strategy

STEP 1. ADDRESS SPECIFIC MODAL ISSUES

As a first step in unburdening transportation so that it may best fulfill its role as a linkage in economic sectoral development, the specific modal issues should be addressed and resolved where possible. Resolution of some of the management/funding issues for both highways and airports for example will result in an increased ability for modal managers to support sectoral economic development goals, once identified.

STEP 2. IDENTIFICATION OF TRANSPORTATION'S ROLE IN INDIVIDUAL ECONOMIC SECTOR DEVELOPMENT GOALS/PLANS

Once the goals and plans of the eleven economic sectors have been clearly enunicated, the role of transportation in supporting each sector should be identified.

STEP 3. PRIORIZATION OF TRANSPORTATION INITIATIVES TO SUPPORT SECTORS DEVELOPMENT GOALS/PLANS

If funding limitations exist and/or conflicting priorities arise with respect to sequencing of implementation of economic sectoral plans, transportation initiatives should be priorized on a benefit/cost basis.

SEPT 4. DELINEATION OF THE ROLE OF TRANSPORTATION AS A LINKAGE IN OVERALL ECONOMIC DEVELOPMENT STRATEGY

Following the assessment of needed transportation initiatives for each sector, a comprehensive strategy to support all or some of the sector goals should be attempted. This "linkage" strategy should identify specific initiatives, timeframes and should be based on benefit cost considerations.