



Canada Mortgage
and Housing Corporation

Société canadienne
d'hypothèques et de logement

FINAL REPORT
MUNICIPAL INFRASTRUCTURE PROGRAM
(1961 - 1978)
NATIONAL HOUSING ACT

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CANADA MORTGAGE & HOUSING CORPORATION
LAND AND INFRASTRUCTURE DIVISION
DECEMBER 1979

FOREWARD

December 31, 1978 marked the termination date for commitments under the Municipal Infrastructure Program. This followed 18 years during which loans and grants totalling \$2.0 billion were provided under the National Housing Act to some 1 500 municipalities to assist in the planning, construction and expansion of sewerage and water supply systems. The Program has been replaced by the Community Services Contribution Program which provides grants to municipalities for a wide range of projects. This report represents a review of the Municipal Infrastructure Program during its 18 year history.

MUNICIPAL INFRASTRUCTURE PROGRAM

A. PROGRAM PURPOSE

(I) Program History

By 1956, Central Mortgage and Housing Corporation, which had become involved in a large share of the post-war residential construction, became concerned with the development of large suburban areas disposing of sewage into septic tanks. The problem had become a threat to health as well as a nuisance in many communities. As a result, the Corporation undertook a survey in the Summer of 1956 in 295 municipalities with a total population of more than eight million. The enquiry covered the existing sewage systems of municipalities, the extent to which septic tanks were being used, pollution of surrounding waters and plans to improve the situation.

The study established that 32% of the population of the communities surveyed lived in municipalities where large areas of septic tanks existed. Of the 295 municipalities only 51 had sewage treatment facilities and these were mostly primary treatment. Sixty-four percent of the surveyed population lived in municipalities where water pollution was reported as serious.

The main reasons for the widespread use of septic tanks were lack of financial resources and absence of municipal planning and control of land use. The study revealed that active planning was taking place mostly in the metropolitan and major urban areas. Little evidence of such activity was seen in the smaller communities. There was evidence of a move to transfer the responsibility for providing services from the municipality to the land developer, with the home purchasers eventually bearing the cost of services.

Some of the provinces were becoming involved in the control of water pollution by means of restrictions and the provision of aid to municipalities in overcoming pollution problems. The Corporation had been involved in the provision of services only to the extent that Corporation programs such as Land Assembly and Public Housing had been involved. In the Fall of 1958 a conference was held with the Canadian Federation of Mayors and Municipalities. At this conference a brief was submitted by the Federation requesting Federal aid to municipalities for the installation of trunk services.

As a result of these factors and considerations, the Government developed its program of assistance in the construction of sewage treatment projects. The legislation covering this assistance was passed by Parliament in December 1960 and became Part VI (B) of the National Housing Act. This Act was

considered an appropriate vehicle in view of the relationship of overall anti-pollution measures to community planning and urban development. It was also felt that the Corporation with its nation-wide field office coverage would be an effective body to administer the legislation.

The Part VI (B) program met with wide acceptance across Canada. Projects considered eligible for assistance were those comprising construction or expansion of sewage treatment facilities as well as the installation of trunk collector sewers. Internal street sewers which could be assisted under other parts of the Act were generally excluded. The Corporation could, with the approval of the Governor-in-Council, make a loan of up to two-thirds of the cost of an eligible project with one-quarter of the loan being forgiven. Loan could be made to provinces, municipalities or municipal sewerage corporations.

All sizes of municipalities benefitted, with populations ranging upwards from 200 persons. The size of loan varied from \$3 000 to over \$10 million. Following introduction of the legislation, a number of provinces also passed legislation providing for assistance to municipalities.

The Corporation was also engaged in research activities related to improved sanitation and the reduction of pollution. The activities were carried out under Part V of the National Housing Act.

(II) Seaden Report

Towards the end of 1969, after almost a decade of experience with the Program, it was felt that an in-depth study of the objectives, achievements and pitfalls of the Program was required in order to plan the direction of the Program into the seventies. In 1970, the Corporation set up a Task Force on Municipal Sewage Disposal, headed by Mr. George Seaden, technical consultant, under the following terms of reference:

- (1) To examine the rationale and review the cost effectiveness of the program carried out under Part VI (B) of the National Housing Act.
- (2) To determine the total present and projected cost of municipal sewage systems as a function of different levels of environmental quality.
- (3) To derive a realistic range of annual spending and establish a system of priorities.

- (4) To examine the implications of federal lending activities under Part VI (B) on provincial and municipal financing.
- (5) To develop policy alternatives for federal funding of municipal sewage disposal projects (trunks or treatment plants) via loan or grant programs.

The Task Force did an exhaustive study of the "Trends, Problems and Solutions" and published its report in December 1970. This report evaluated the Program performance in light of its objectives and goals and tried to gauge how far they were being achieved. Even though the actual changes to the program structure and administration were left open, the report did reach some conclusions and based on them, it suggested what could be the future direction of the Program. These conclusions and suggestions can be summarized as follows:

- (1) The threat posed to national survival from indiscriminate and uncontrolled waste disposal is of national importance and is therefore of concern to the Federal Government.
- (2) The Federal Government should provide leadership in solving the problems of urban environment, including financial help if necessary.

- (3) Without increased expenditure in the area of municipal sewage disposal, no significant environmental improvement is possible, and in order to bring about efficient investment of public funds, control and monitoring measures will have to be implemented.
- (4) The Federal policy for funding municipal sewage disposal projects should incorporate the existing legislative and institutional arrangements.
- (5) The federal policy for funding municipal sewage disposal projects should recognize the multi-objective nature of the problem.
- (6) The Federal policy for funding municipal sewage disposal projects should contain provisions for proper cost/effectiveness evaluation.
- (7) The federal policy for funding municipal sewage disposal projects should be conditional on the operation of facilities being properly monitored and carried out by skilled personnel.

The Federal Government should initiate and coordinate research and development in the field of municipal sewage disposal and facilitate the dissemination of information.

- (8) The federal policy for funding municipal sewage disposal projects should incorporate contingency provisions.
- (9) The federal policy for funding municipal sewage disposal projects should consist of a broad loan fund in association with conditional grant fund(s).
- (10) The federal policy for funding municipal sewage disposal projects should contain an allocative process governed by either a complex set of regulations, or by a continuous evaluation process.
- (11) Part VI (B) of the National Housing Act should be allowed to terminate in its present form by 1975 and the activity under this legislation should be passed out.

A new effective federal policy for funding municipal sewage disposal projects should be introduced.

- (12) The federal policy for funding municipal sewage disposal projects should be considered within the context of a comprehensive national urban policy.

In July 1971, following a meeting of the Cabinet Committee on Federal/Provincial Relations an Inter-departmental Committee was set up to review the CMHC Sewage Treatment Program, in an effort to translate the findings of the Seaden Report into a modified program action plan.

(III) Interdepartmental Report

In the course of its work, the Interdepartmental Committee held discussions with the author of the Seaden Report, conducted a fact-finding tour of all ten provincial capitals and reviewed a number of working papers prepared by the various departments represented on the Committee.

Based on its findings, the Committee developed four main policy options in regard to the level of Federal assistance provided for sewage facilities, each with successively larger financial implications. In addition, the Committee made recommendations for the improvement of Federal sewage treatment assistance regardless of which level of support was chosen. The options were as follows:

- (1) A level of assistance to achieve a basic standard of treatment across Canada.

- (2) Assistance to achieve a basic standard plus assistance for upgrading of treatment facilities.
- (3) Use of sewage treatment assistance as a strategic tool for residential land development.
- (4) Full range of Federal sewage treatment assistance measures.

In addition to these options, the Interdepartmental Committee suggested a restructuring of the program along the following lines:

- (1) The committee recommended that a statement of program objectives be included in the legislation.
- (2) Members of the Committee believed that definite targets should be set for the Program, and that these, together with a plan of action to achieve them, should be embodied in a series of agreements with the provinces, setting out the maximum allocation of Federal funds available to each province for its plan of action. These agreements would include program termination dates, possibly ranging from 1978 to 1985, depending on the province involved.

- (3) Although the Committee recognized that sewage collection and treatment was only a part of the total water/sewer package, they recommended that the scope of the program be limited to assistance for sewage treatment facilities in the form of trunks of all sizes and treatment plants. It was recommended in this regard that the current restrictions on trunk size as they applied to smaller communities be relaxed as local circumstances indicate.
- (4) The Committee recommended that the basic level of capital assistance under the program be retained at 66 2/3% of project costs.
- (5) The Committee recommended that the current level of forgiveness be retained as the "basic" level of support for achievement of Federal objectives.
- (6) To provide greater assistance to smaller and slow growth centres, Members of the Committee recommended the provision of further Federal capital and forgiveness to the extent necessary to hold per household carrying charges in smaller centres to some agreed ceiling along the lines of programs employed in Alberta, Ontario, Nova Scotia and British Columbia. This would have the effect of aiding declining or stable centres in the Prairies, Quebec, and the Maritimes, and centres in the North. Additional capital requirements would be small. Members of the Committee

recommend that where a provincial program of assistance along these lines was currently in effect using equivalent terms and conditions to the Federal program, the additional Federal assistance be made available to the province. A detailed design for this feature was to be developed and its full financial implications calculated.

- (7) The Committee recommended a provision that where a municipality obtained funds elsewhere for a sewerage project which would have been eligible and acceptable under the NHA, the forgiveness may be made in the form of a grant as if a loan had been made by CMHC.

- (8) Members of the Committee recommended that technological equivalents to conventional methods of treatment be eligible for capital financing under the new program.

(IV) NHA Revision - 1975

As a direct result of the Committee's recommendations, the National Housing Act was revised in 1975 and the following are the highlights of these amendments:

- (1) Introduction of a second objective. This was the encouragement of comprehensive land management and residential development in previously underdeveloped areas. To help

effect this, storm trunk sewer systems and water supply projects for new development were added to sewage treatment projects as being eligible for NHA assistance.

- (2) Provision of a grant in lieu of loan forgiveness for municipalities that chose to finance its project elsewhere.
- (3) Provision of High Cost grant for municipalities where capital costs were excessive.
- (4) The provision of fifty percent grants to assist in the preparation of Regional Sewerage/Water plans.

B. PROGRAM POLICY

(I) Eligibility and Nature of Assistance

In the sixties when the program was limited to sanitary sewerage projects, the following projects were generally eligible for a NHA loan:

- (1) Construction or expansion of facilities for treatment and disposal of sanitary sewage.

- (2) Construction of sanitary trunk collector sewers.

Definitions were established for determining which sewers can be deemed trunk collectors for the purpose of this program.

Loan assistance was available up to 2/3 of the cost of the eligible work with 25% of the loan being forgiven.

When the NHA was amended in 1975 to broaden the program to include storm and water projects, the following were added to the above list of eligible projects:

- (1) Construction of storm sewers which encourage comprehensive land use and residential development in previously undeveloped areas.
- (2) Construction or expansion of a water supply project which encourages comprehensive land use and residential development in previously undeveloped areas:
- (3) Development of regional sewerage/water plans.

The nature of assistance was amended as follows:

A loan up to 2/3 of the cost of the eligible work with 25% of the loan being forgiven; OR

A grant equal to 1/6 of the cost of the eligible works. This option was elected where the municipality obtained its loan from financing elsewhere - usually at a lower interest rate.

To assist municipalities where the eligible project per capita costs exceeded \$250, additional grants were available to offset up to 50% of the project costs exceeding the \$250 per capita figure. The purpose of this assistance was primarily to provide help to small, slow growth communities that, because of high costs, had not been able to afford services previously.

Another feature to help small communities was also introduced at about the same time. Municipalities with a population not exceeding 5 000 could elect to choose an option under which a certain portion (varying from 10% to 50%) of all sanitary sewers comprising the project, including forcemains and lift stations, with the exception of building connections, were considered trunk collector sewers and were thus eligible for financial assistance.

Regional sewerage/water plans received grants equal to 50% of the cost of preparing such plans.

(II) Municipal Infrastructure Agreements

When the National Housing Act was amended in 1975, the Federal Government felt that the provinces must have a bigger say in selecting the projects that received assistance under the Municipal Infrastructure Program. Hence, the Corporation was directed to negotiate and sign "Municipal Infrastructure Agreements" with all the provinces. These agreements outlined the general policy objectives of the program and contained the budget allocation for the province for each calendar year covered by the agreement. The term of the agreement was approximately five years, subject to annual renewal by both parties. Another important feature of these agreements was the establishment of Joint Federal/Provincial Committees.

(III) Joint Committees

The Joint Committees consisted of six (6) members, three (3) of whom were appointed by the province and three (3) by the Corporation. The Committee was responsible for:

- (1) The monitoring and evaluation of activities under the Municipal Infrastructure Agreement including the annual review of the plan of action for program delivery and the progress made in the carrying out of such plans.

- (2) The carrying out of such other matters with respect to the administration of this agreement as the Committee might undertake to carry out, and furnish to the Province and the Corporation written reports containing recommendations from time-to-time.
- (3) The establishment of one or more technical working committees with such duties and responsibilities which the Committee deemed appropriate.

(IV) Interdepartmental Committee on Infrastructure

In order to allow a continual liaison with other Federal departments that had an interest in the Municipal Infrastructure Program, a Federal Committee was set up by Cabinet direction. In addition to CMHC, it included the Department of Environment, MSUA (now disbanded), DREE, Finance and Treasury Board. Usually they met twice a year where the various agencies had an opportunity to consult on the Program with a view to having their concerns in community services matters considered. An example would be Environment Canada's concern with the environmental impact of projects funded by CMHC.

Following the termination of the Municipal Infrastructure Program in December 1978, a meeting of the Interdepartmental Committee was called in June 1979 to discuss the Committee's future. In light of the continued Federal presence in the field of Community Services via the Community Services Contribution Program, the members decided to retain the Committee with at least annual meetings. Also it was decided that the Corporation would retain its role as the Committee's Chairman.

(V) Technical Research

Since the 1975 amendments, the Corporation has launched a major thrust in technical research aimed at improving sewage collection and treatment processes. This program is initiated by an inter-departmental committee on Research and Development in Municipal Sewage Collection and Treatment. In spite of the termination of the Municipal Infrastructure Program, the Corporation has decided to continue its research efforts, with emphasis on collection and distribution rather than treatment of sewage and water.

The Corporation and Environment Canada are the principal members of this committee and in effect, manage the research program. Some of the subject areas probed to date by the Corporation are:

- (1) Improved collection systems.
- (2) Up-grading sewage treatment plant performance.
- (3) Ultimate sludge residue management.
- (4) Small sewage disposal systems.

An excellent example of the Corporation's research assistance program is the development of the Canwel Wastewater Treatment System. It was developed to treat domestic sewage to a point where discharge of the effluent would not exert an environmental load, that is to say, the environment would not be required to act further on this water. In order to achieve this, the process was developed to maximize known fundamentals of sewage treatment and when necessary, to develop new treatment methods.

In addition to this research program, the Corporation has collaborated with other Federal Departments on joint ventures aimed at improving our knowledge of the status of soil and water pollution in this country. An excellent example of this kind of interdepartmental collaboration is the "National Inventory of Municipal Water Works and Wastewater Systems in Canada". This inventory was undertaken to establish and maintain an accurate account of waterworks and wastewater systems in Canada. It is carried out jointly by Federal/Provincial and Municipal

government agencies with the assistance of the Federation of Associations on the Canadian Environment (FACE).

(VI) Joint Assistance with DREE and NCC

The Corporation had a special arrangement with the Department of Regional Economic Expansion (DREE) and the National Capital Commission (NCC) under which projects were funded jointly by their programs and the Municipal Infrastructure program of the Corporation.

Normally all other Federal assistance was subtracted from a project cost before calculating the eligible loan or grant under the Municipal Infrastructure program. However, under this special arrangement with DREE and NCC, a community would receive assistance under the National Housing Act on top of any assistance from DREE and NCC. In the case of DREE the rationale for special consideration was the fact that these communities were located in economically depressed areas and thus warranted preferential treatment. In the case of NCC, this was considered as another vehicle of equalizing federal assistance in lieu of property taxes.

C. PROGRAM ADMINISTRATION

(I) Decentralization

Since its inception in late 1960, the Municipal Infrastructure Program had been delivered and administered by the Engineering and Construction Division. In 1974, because of a major restructuring of the Program and the Corporation, this responsibility was delegated to a separate division called the Municipal Infrastructure Division.

Towards the end of 1974, as the program began to grow in size, a few things became apparent:

- (1) National Office, if tied up in program delivery, could not fully concentrate on policy and program development issues.
- (2) Local issues were sometimes overlooked if programs were delivered nationally from one point.
- (3) Provincial input into project prioritization and budget allocation was very difficult.
- (4) Individual communication with an ever increasing list of clients was very cumbersome at the national level.

The regional offices were given control over their budget and upon recommendation from the branch offices, financial commitments for individual projects could be approved without consulting the National Office. The exceptions were projects seeking funds under Section 52.2 (high cost grants) and Section 52.3 (regional sewerage/water plans), where National Office concurrence was required before committing any funds.

National Office was responsible for the distribution of the program budget into Regions and any subsequent reallocation between regions.

(II) Joint Federal/Provincial Committees

The Corporation, jointly with Environment Canada and the provinces had established joint committees, described in Section B (III), to facilitate the delivery of the program. Amongst other things, these committees:

- (1) Coordinated and evaluated forward planning;
- (2) Monitored and evaluated activities by reviewing progress made with respect to comprehensive planning;

- (3) Reviewed project priority criteria; and
- (4) Identified financial requirements within the region for following calendar years.

Any program delivery issues brought up during the working of these committees were referred to National Office for a ruling.

In addition to these Joint Committees, projects financed under Section 52.3 (Regional Sewerage/Water Plans) required special Steering Committees (members included consultant, municipality/ province and CMHC) to oversee the progress of these undertakings.

D. PROGRAM EXPENDITURES

The Municipal Infrastructure Program ran for 18 years and represents one of the Corporation's highly successful endeavours. From a relatively modest budget of \$40 million in 1961, the program grew to a budget of \$291 million (Section 51 - Loans) and \$70 million (Section 52 - Grants) in 1978. The potential for even further growth was evident. This steady growth gives some measure of the extent of the soil and water pollution problem existing in Canada. On the positive side, it means that the Federal Government has served as a catalyst in convincing the municipalities to implement their pollution abatement programs.

Tables I, II and III and figures I, II, III, IV and V attached as "Appendix" give a breakdown of the total financial commitment made to date under the Municipal Infrastructure Program. Almost 1 500 municipalities took advantage of this program covering at least 75% of the Canadian population. All major metropolitan areas received assistance for their treatment facilities through this program - for example, almost \$300 million were committed to the Montreal Urban Community's sewerage program covering the entire island of Montreal. Other major projects include the York-Durham Sewerage Scheme and the construction of major interceptors in Quebec City.

During the period of 1971-1975, additional loan funds of \$103 million were provided over and above the Program's normal budget allocation to help finance projects in the Great Lakes Basin area. This was pursuant to a Canada/Ontario Agreement dedicated to the restoration and protection of the water quality of the Great Lakes. The objectives for this program were established by an international agreement between Canada and the United States.

(I) Loans

Almost \$2 billion were committed in loans during the life of the program, with sewage treatment accounting for more than \$1.8 billion. Ontario, Quebec and British Columbia were the main beneficiaries of these loans, although all provinces took advantage of this immensely popular program. The Prairie

provinces and Newfoundland received less per capita in loans than the other provinces. Alberta's relatively low take up of loan funds in the latter years was due to the fact that the Province has a similar program under which loans for municipal projects are available at an interest rate lower than that of the Federal program. This low participation in the loan segment was offset by the level of grants extended for Alberta in lieu of forgiveness.

In Saskatchewan and Manitoba, the following reasons account for the comparatively weaker response to the program:

- (1) Slower high-density urban growth than is usually associated with large scale pollution abatement projects.
- (2) Easily available land that could be used for less expensive "lagoon" type sewage treatment rather than the more expensive mechanical treatment plants.

In Newfoundland, the reasons for a weaker response are probably related to fiscal capacity (tax base) of the municipalities to repay the loan amounts.

(II) Grants

The Grants per capita follow a very similar pattern to the loans. The only notable exception here is Alberta. The Grants per capita in Alberta are relatively high for the same reasons that the loans per capita are relatively low. Under Section 52.1 of the Municipal Infrastructure Program, municipalities could take advantage of the grant feature of our loans program even if they get their loans from a source other than CMHC. In the case of Alberta, municipalities were borrowing money from the Provincial Government at an interest rate lower than CMHC, but at the same time they were applying for and receiving grants for these same projects (1/6 of total cost) from CMHC which were provided in lieu of forgiveness.

E. PROGRAM RESULTS

The results of a program can perhaps be best evaluated in light of its objectives.

(I) Pollution Abatement

The prime objective of this program was of course the prevention or elimination of soil and water pollution. It is important to understand that the Corporation's role was limited to funding projects conceived and designed by the municipalities and approved by the province. Obviously then, the Corporation could not launch a systematic progressive plan for the elimination of soil and water pollution in Canada. However, through the Joint Committees with Environment Canada and the Provinces, and the obvious leverage of program funds, the Corporation did succeed in stimulating the activity in this field. Considering that about \$1.8 billion were disbursed for sewage treatment projects across Canada, the Corporation's contribution to the prevention and elimination of soil and water pollution must be considered substantial.

Certain aspects of this program were perhaps not as effective as the original intent. An example of this was the high cost grant feature of the program. These grants were intended for small municipalities where the per capita cost of sewage treatment was higher than "normal".

In order to facilitate the delivery of such a feature, this "normal cost" was fixed at \$250 per capita. However, no limit could be imposed on the size of a community seeking such grants. Also it was impossible for the Corporation to deny such grants to municipalities even if the following points were apparent:

- (1) Standards were substantially in excess of the norm.
- (2) The municipality's fiscal capacity (tax base) was strong enough to carry through the project on its own.
- (3) The average taxes in the community would not be excessively increased by the project.

Apparently then, some well-to-do and large municipalities received high cost grants, contrary to the spirit of the intent. Amendments to correct this situation were under consideration at the time of program termination.

(II) Residential Development

The second objective of the Municipal Infrastructure Program was the encouragement of comprehensive land management and residential development in previously undeveloped areas. Most of the loans for storm sewer collectors and water supply were made for this purpose. It is very difficult to assess whether CMHC loans were directly responsible for bringing lower cost

serviced land on the market for residential development but considering that almost \$162 million in loans were approved for storm trunks and water supply loans since 1975, the Corporation's presence was certainly visible in this field.

To a certain extent the program encouraged urban sprawl in that loans were not available for storm trunks and water supply projects in already developed areas. Hence, the inner cores of the cities could not benefit from this program. Then of course the greatest need for such infrastructure had been only in the suburbs until very recently when the planners started predicting a reversing of the suburban migration trends.

F. SUMMARY

To summarize, the Corporation, through the Municipal Infrastructure Program, has made a major contribution in overcoming water and soil pollution. In addition, it has provided the incentive for comprehensive land management and residential development in previously undeveloped areas. Termination of the Program and its replacement by the Community Services Contribution Program marks a major shift in the federal approach to providing assistance for community services. The federal presence and control on individual projects has largely disappeared, while responsibility for directing federal funding to appropriate projects has been transferred to the provinces.

APPENDIX

TABLE I

MUNICIPAL INFRASTRUCTURE PROGRAM-SUMMARY

(including Loan Commitments approved in the year 1978-Section 51)

Province	SEWAGE TREATMENT LOANS (commenced in 1961)			STORM TRUNK LOANS (commenced in 1975)			WATER SUPPLY LOANS (commenced in 1976)			1978 Total Capital Budget Commitments (Sewage, Storm & Water Loans) \$ Mill.	Estimated 25% Forgiveness \$ Mill.	
	#	Amount \$	1961 - 1978 Cumulative Total \$	#	Amount \$	1975 - 1978 Cumulative Total \$	#	Amount \$	1976 - 1978 Cumulative Total \$			
Newfoundland	32	6,826,314	135 25,049,534	—	—	7 217,509	12	1,162,457	24 7,650,835	44	7.99	2.00
P. E. I.	4	944,750	43 8,173,777	1	18,860	2 53,897	1	88,276	1 88,276	6	1.05	0.26
Nova Scotia	21	7,507,199	244 52,719,969	9	735,719	18 2,852,423	8	757,872	26 3,658,575	38	9.00	2.25
New Brunswick	25	4,468,177	117 47,974,852	—	—	3 107,429	2	1,025,880	7 2,100,537	27	5.50	1.38
Quebec	44	140,194,814	746 559,949,843	30	4,831,384	122 16,059,919	29	5,375,788	72 33,994,628	103	150.40	37.60
Ontario	83	65,572,669	1,359 771,680,233	3	174,617	12 1,733,712	48	19,228,160	98 48,711,162	134	84.98	21.25
Manitoba	8	6,008,151	247 56,070,991	—	—	2 3,109,018	2	991,849	10 7,358,534	10	7.00	1.75
Saskatchewan	9	2,711,276	373 26,531,804	—	—	4 956,666	4	347,517	9 2,641,180	13	3.06	0.76
Alberta	—	—	350 66,238,247	—	—	—	—	—	18 6,369,057	—	—	—
N.W. T.	—	—	6 523,745	—	—	—	—	—	—	—	—	—
British Columbia	17	14,982,477	384 207,749,651	2	136,192	4 293,467	20	6,854,829	55 23,215,794	39	21.97	5.49
Yukon	—	—	—	—	—	—	—	—	—	—	—	—
Canada	243	249,215,827	4,064 1,822,662,446	45	5,896,772	174 25,384,040	126	35,832,628	320 135,788,578	414	290.95	72.74

TABLE II

MUNICIPAL INFRASTRUCTURE PROGRAM-SUMMARY

(including Grant Commitments approved in the year 1978 - Section 52.1)

	SEWAGE TREATMENT GRANTS (commenced in 1975)			STORM TRUNK GRANTS (commenced in 1975)			WATER SUPPLY GRANTS (commenced in 1976)			1978 Total Section 52.1 Grand Commitment (Sewage, Storm and Water) \$ Mill.
	1978 #	Amount \$	1975 - 1978 Cumulative Total \$	1978 #	Amount \$	1975 - 1978 Cumulative Total \$	1978 #	Amount \$	1976 - 1978 Cumulative Total \$	
Newfoundland	-	-	1 27,100	-	-	-	-	-	-	-
P.E.I.	4	12,515	9 31,865	1	7,740	1 7,740	-	-	-	5 0.02
Nova Scotia	-	-	2 9,369	-	1,089	3 53,591	-	-	3 11,115	-
New Brunswick	1	39,782	2 72,349	-	-	-	-	-	-	1 0.04
Quebec	19	257,408	52 7,311,445	27	1,137,017	47 3,114,687	24	1,054,353	43 5,595,795	70 2.45
Ontario	50	14,547,507	104 26,479,529	41	1,477,262	92 4,191,446	48	4,469,805	163 15,926,649	139 20.49
Manitoba	5	59,915	10 244,669	2	96,503	6 384,459	1	64,062	4 186,366	8 0.22
Saskatchewan	50	4,408,600	118 5,200,557	13	283,240	23 805,371	8	606,196	16 1,109,169	71 5.30
Alberta	47	6,484,607	205 20,606,519	28	3,087,844	67 6,525,915	48	2,428,144	140 7,715,778	123 12.00
N.W.T.	-	-	1 29,675	-	-	-	-	-	-	-
British Columbia	27	4,396,771	59 7,777,424	8	214,382	30 1,863,750	36	1,659,254	74 5,029,427	71 6.27
Yukon	2	128,457	2 128,457	-	-	-	1	47,045	1 47,045	3 0.18
Canada	205	30,335,572	565 67,918,968	120	6,305,077	269 16,946,959	166	10,328,859	444 35,621,344	491 46.97

TABLE III

MUNICIPAL INFRASTRUCTURE PROGRAM-SUMMARY

Province	SECTION 52.2 HIGH COST GRANTS				SECTION 52.3 REGIONAL SEWERAGE/WATER PLANS				Population 1976 Census (000)	1961-1978 per capita (based on 1976 census)						
	1978		1975-1978 Cumulative		1978		1975-1978 Cumulative			Loan Amount \$/Cap.	25% Forgiveness \$/Cap.	Sect. 52.1 & 52.3 Grants \$/Cap.	Sect. 52.2 High Cost Grants \$/Cap.	25% Forgiveness \$/Cap.	Sect. 52.2 High Cost Grants \$/Cap.	Total Grants \$ per Cap.
	#	Amount \$	#	Total \$	#	Amount \$	#	Total \$								
Newfoundland	10	696,300	20	1,600,436	4	389,649	5	417,849	558	58.99	14.75	0.80	2.87		18.42	
P.E.I.	3	491,805	3	491,805	—	—	3	9,000	118	70.47	17.62	0.41	4.17		22.20	
Nova Scotia	11	1,470,000	34	4,243,462	2	154,890	9	410,790	828	71.53	17.88	0.59	5.13		23.59	
New Brunswick	9	810,923	29	5,378,874	—	—	—	—	677	74.13	18.53	0.11	7.95		26.58	
Quebec	6	627,271	32	4,738,373	10	643,467	15	738,417	6,234	97.85	24.46	2.69	0.76		27.91	
Ontario	22	7,535,365	86	27,125,500	9	357,043	15	655,745	8,264	99.48	24.87	5.72	3.28		33.87	
Manitoba	—	—	—	—	7	82,300	8	109,800	1,022	65.11	16.28	0.91	—		17.19	
Saskatchewan	3	205,975	3	205,975	—	—	—	—	921	32.71	8.18	7.73	0.22		16.13	
Alberta	19	2,273,521	81	8,870,827	3	272,597	7	714,267	1,838	39.50	9.88	8.35	4.83		34.05	
N.W.T.	—	—	—	—	—	—	—	—	43	12.18	3.05	0.69	—		3.74	
British Columbia	16	6,876,819	49	16,842,165	3	74,665	18	508,941	2,467	93.74	23.44	6.15	6.83		36.42	
Yukon	—	—	—	—	—	—	—	—	22	—	—	7.98	—		7.98	
Canada	99	20,987,979	337	69,497,417	38	1,974,611	80	3,565,809	22,992	86.28	21.57	5.40	3.02		29.99	

SECTION 51 LOANS

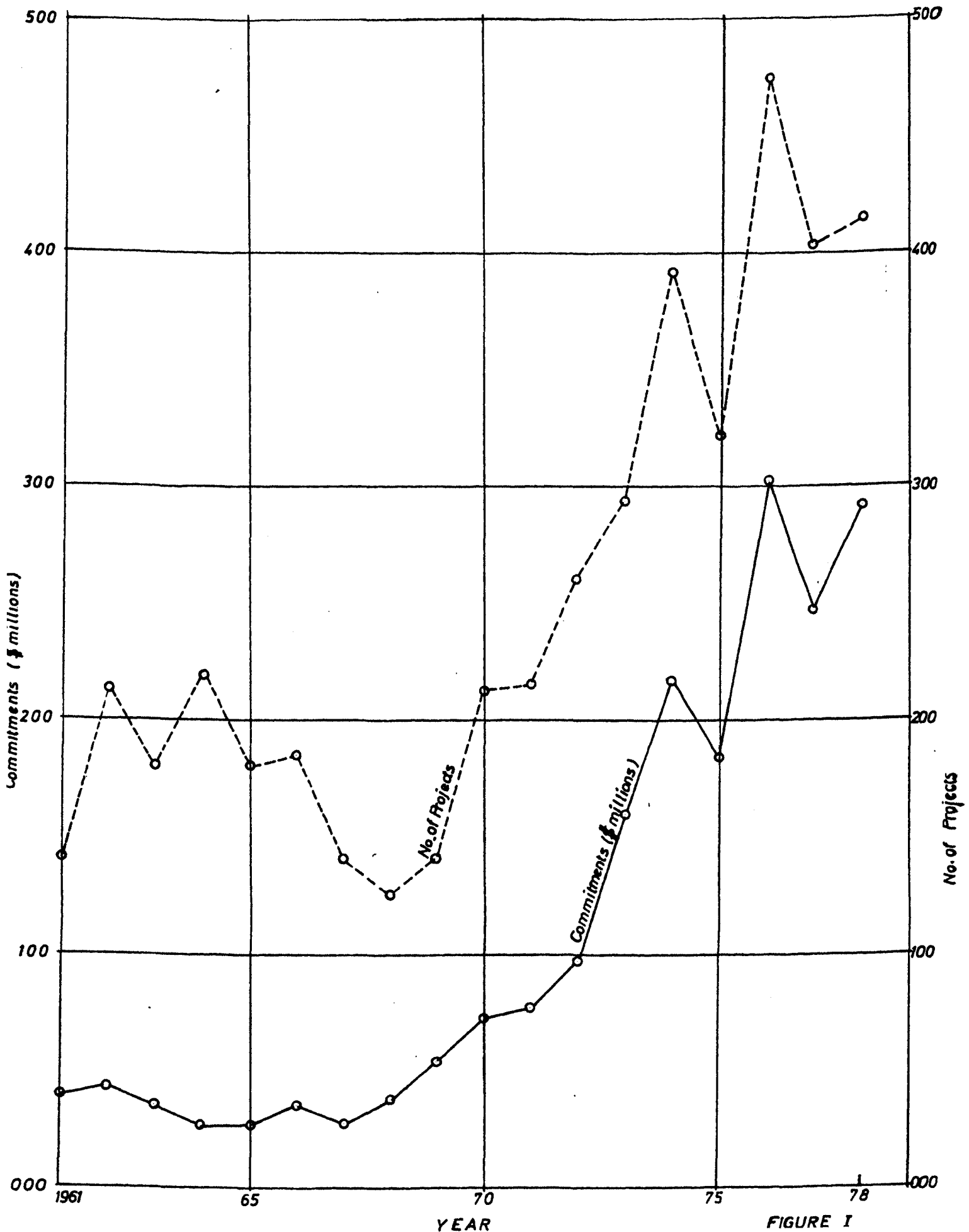


FIGURE I

SECTION 52.1 (PROJECTS FINANCED ELSEWHERE)

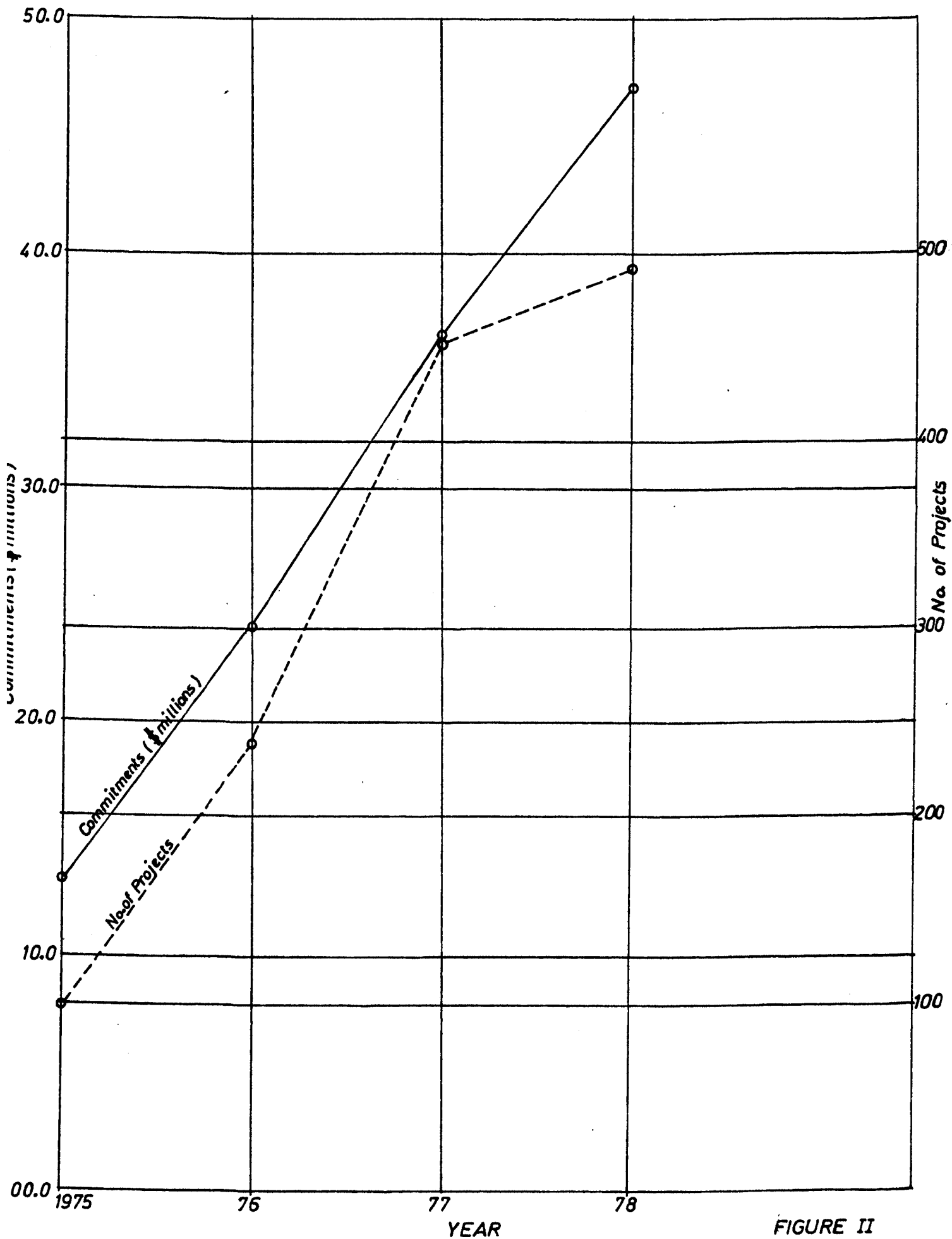


FIGURE II

SECTION 52.2 (HIGH COST GRANTS)

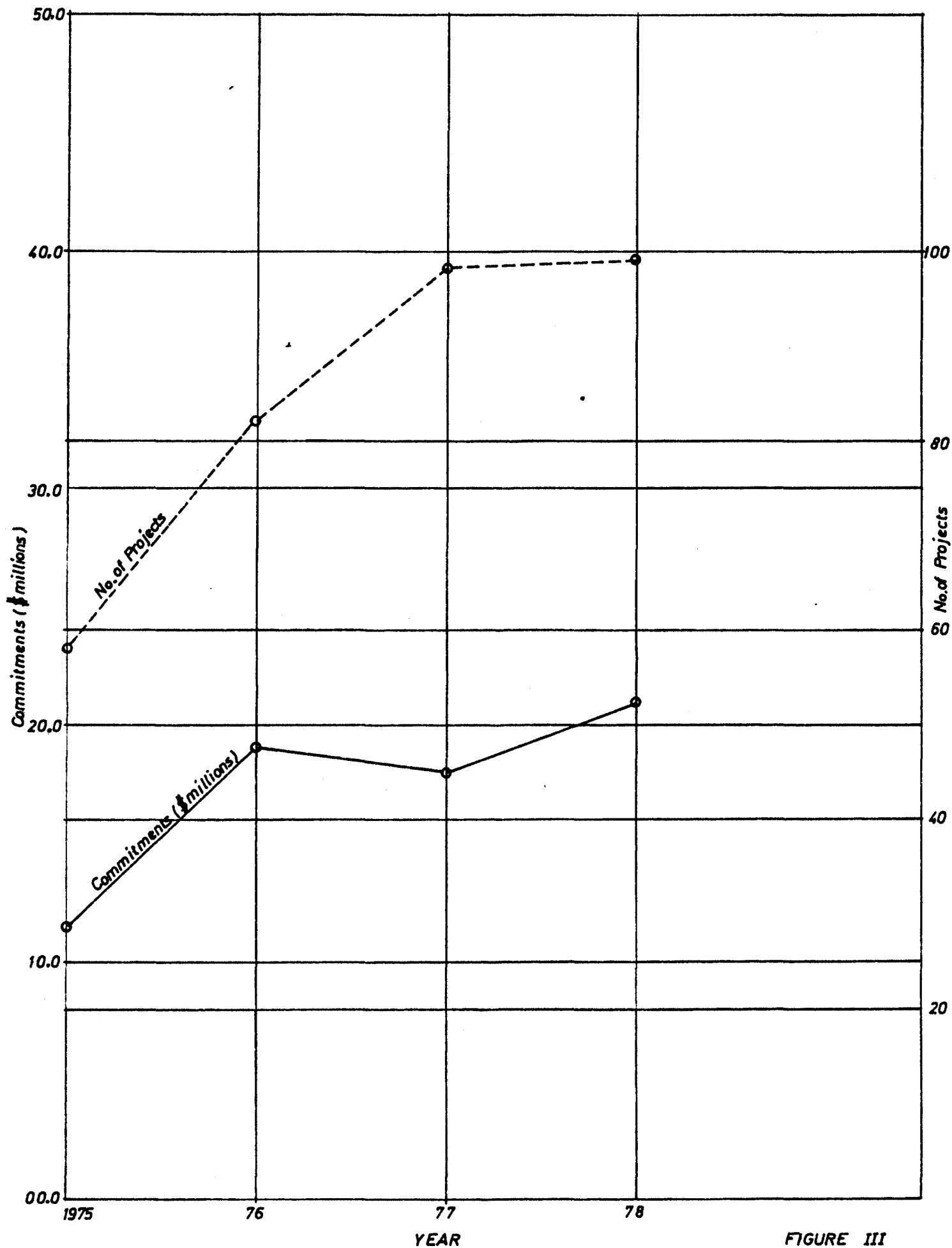


FIGURE III

SECTION 52.3 (REGIONAL SEWERAGE/WATER PLANS)

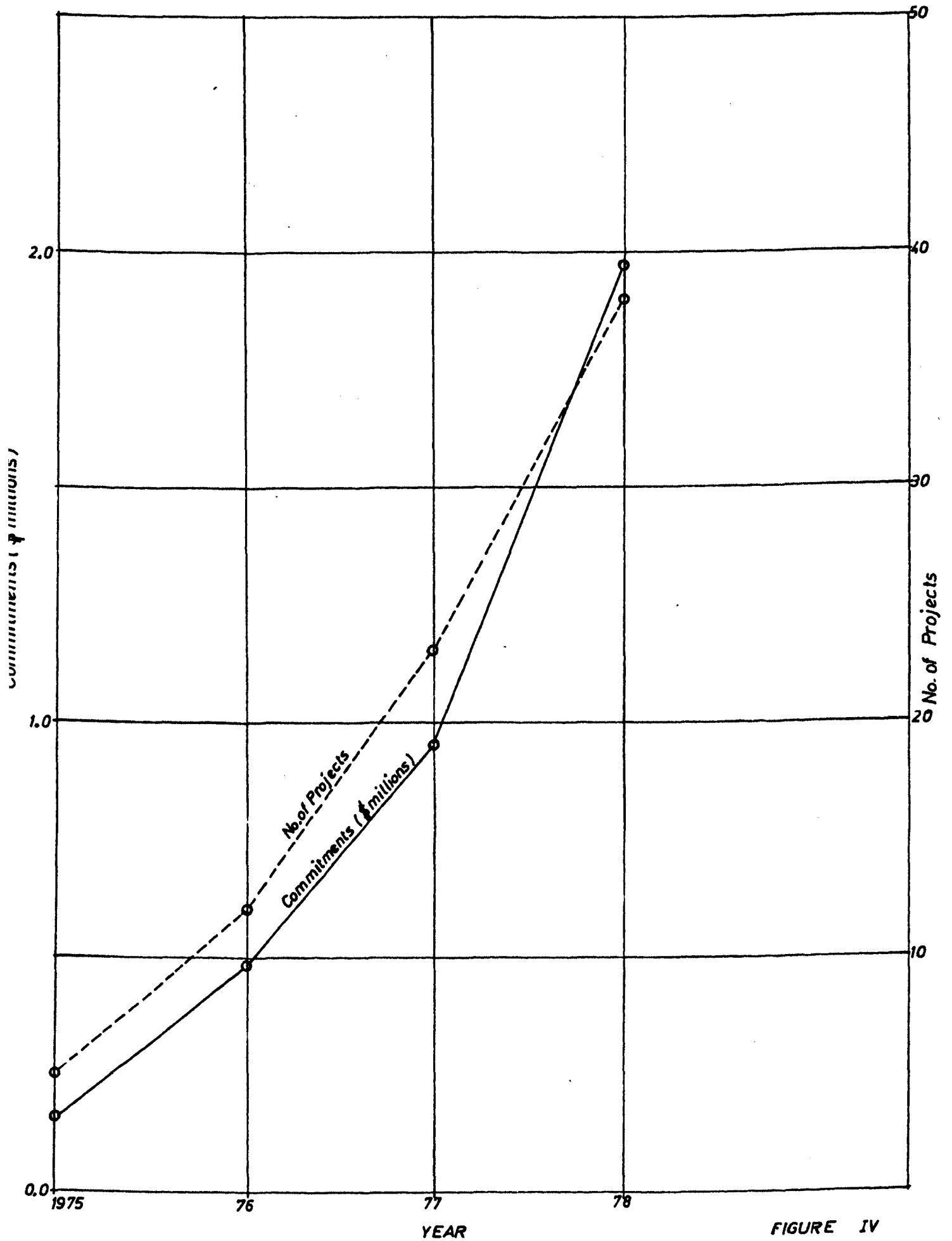


FIGURE IV

TOTAL EQUIVALENT LOANS (SECTION 51+4 * SECTION 52.1)

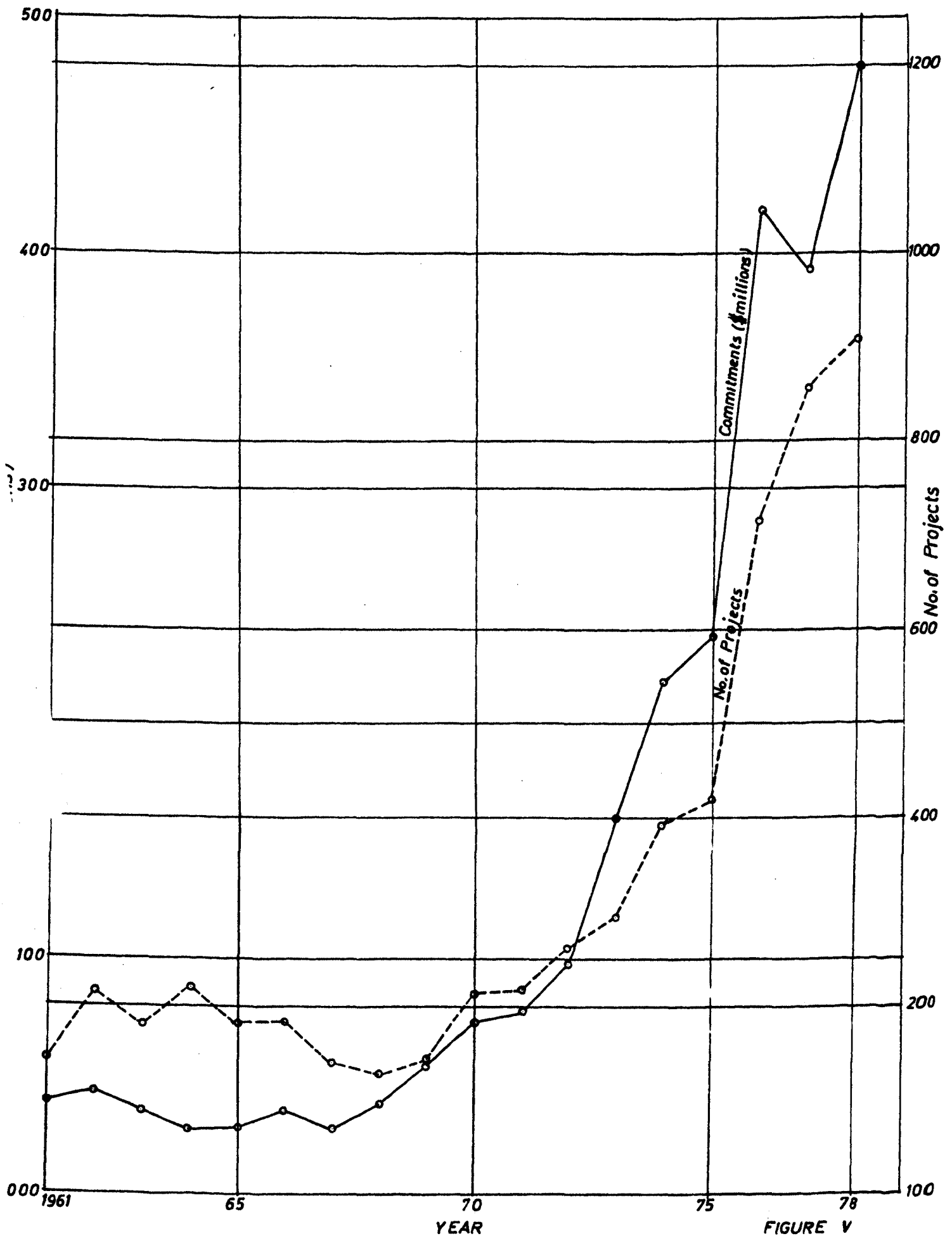


FIGURE V