

MULTI-LATERAL INTERNATIONAL ORGANIZATIONS
AN IWD PERSPECTIVE

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INTRODUCTION

In the past, decisions regarding Inland Waters Directorate involvement in the activities of multi-lateral international agencies have been made largely by reaction to individual requests or programs. While intuitive management decisions have generally been reasonable, more effective participation might be possible if a systematic view is taken periodically of our overall involvement. This paper is intended to serve as the first step towards developing such a systematic viewpoint.

Ideally, this type of exercise should be as broadly based as is practicable (it is possible that adjustments made at the Directorate level may be compensated for by other elements in the Department, and thus have little or no overall effect). On the other hand, progress at the Departmental level will likely be facilitated if individual Directorates take some initiative. Therefore, the report has been prepared with two objectives in mind: to provide an information base for broader analyses at the Service or Departmental levels; and to provide some guidance for internal decisions in the immediate future.

The paper includes a description of ongoing Departmental efforts along similar lines, summary statistics regarding IWD involvement, an attempt to develop an overall rationale regarding the nature of our future activities, and some recommendations regarding the level of our future involvement. It must be recognized that any conclusions reached can at best serve as guidelines, since day-to-day circumstances will undoubtedly override many of the considerations contained herein.

DEPARTMENTAL RATIONALIZATION

The Planning and Finance Service, through a Departmental Coordinating Committee, has for some time been attempting to match up the interests of the individual components of DOE with those of international agencies. The format for a matrix of interests has been developed, and all units of DOE (at approximately the Branch level) have been asked to indicate their general range of interests in the given format. A similar analysis is being carried out for international agencies. Individual responses have been slow and inconsistent, so the complete analysis is still some way off.

In parallel with this activity, a general inventory of the aims and activities of individual multi-lateral organizations is proceeding, and it is hoped that the Committee will eventually be able to integrate all the information, and move on to developing suitable criteria for making comparisons between projects. In a preliminary paper on this subject, some of the criteria suggested for discussion were: policy factors such as DOE policies, long term objectives, announced foreign policy, and resource requirements; and value judgements such as ubiquity, urgency, uniqueness, utility, likelihood of success, and spill-over effects.

It is suggested that every possible effort should be made to support the activities of the Departmental Coordinating Committee. However, until such time as considerably additional progress is made at that level, it is recommended that the Directorate develop interim procedures for its own use.

STATISTICS ON IWD INVOLVEMENT

This analysis includes only multi-nation arrangements - in other words, no attempt has been made to include bilateral situations. Also, since statistics of this nature are widely dispersed, the fiscal year 1974-75 was chosen as the base year, and projections are made for

1975-76 and 1976-77. Projections beyond 1976-77 would not be meaningful.

Although there are several additional agencies in which IWD has a peripheral interest, the analysis has been limited in the following:

1. European Economic Community (EEC)
2. International Association for Hydraulic Research (IAHR)
3. International Association of Hydrogeologists (IAH)
4. International Association of Hydrologic Sciences (IAHS)
5. International Association of Hydrologic Sciences - International Commission on Water Quality (IAHS/ICWQ)
6. International Association of Hydrologic Sciences - International Commission on Snow & Ice (IAHS/ICSI)
7. International Association for Water Pollution Research (IAWPR)
8. International Atomic Energy Agency (IAEA)
9. International Commission on Irrigation and Drainage (ICID)
10. International Commission on Large Dams (ICOLD)
11. International Organization on Standardization (IOS)
12. International Water Resources Association (IWRA)
13. North Atlantic Treaty Organization-Committee on the Challenges for Modern Society (NATO/CCMS)
14. Organization for Economic Cooperation and Development (OECD)
15. U.N. Economic and Social Council-Committee on Natural Resources (ECOSOC/CNR)
16. U.N. Economic and Social Council-Economic Commission for Europe (ECOSOC/ECE)
17. U.N. Educational, Scientific and Cultural Organization (UNESCO)
18. U.N. Environmental Program (UNEP)
19. U.N. Food and Agriculture Organization (FAO)
20. U.N. World Health Organization (WHO)
21. U.N. World Meteorological Organization (WMO)
22. U.N. Energy and Transport Division (ETD)
23. World Energy Conference (WEC)

These agencies fit into four broad categories as follows:

<u>U.N.*</u>	<u>Regional*</u>	<u>Independent</u>	<u>Scientific***</u>
ECOSOC/ECE**	ECOSOC/ECE**	ICID	IAH
ECOSOC/CNR	EEC	ICOLD	IAHR
ETD	NATO/CCMS	IOS	IAHS****
FAO	OECD	WEC	IAHS/ICWQ
IAEA			IAHS/ICSI
UNEP			IAWPR
UNESCO			IWRA
WHO			
WMO			

* U.N. and Regional agencies are intergovernmental.

** ECE is both part of the U.N., and a regional agency.

*** Even though involvement with international scientific agencies is on a personally invited basis, it is supported financially by the Department.

**** 6 component Commissions but IWD presently only active in the two listed.

Data on the first aspect of International involvement, i.e. actual attendance at meetings, is readily available. During 1974-75 the following meetings were attended by IWD personnel:

<u>Agency</u>	<u>Dates</u>	<u>No. of Delegates</u>	<u>Location</u>	<u>Man-days</u>
*IAHS	Aug. 29-Sept. 14	1	Paris	0
IAWPR	Sept. 9-14	3	Paris	24
ICID	May 18-June 1	1	Bonn	15
IOS	June 6-19	1	The Hague	14
NATO/CCMS	May 6-10	1	Turin	5
NATO/CCMS	June 11-14	1	Paris	4
NATO/CCMS	Oct. 20-24	1	Brussels	5
OECD	Apr. 23-27	2	Paris	10
OECD	July 2-6	1	Paris	5

<u>Agency</u>	<u>Dates</u>	<u>No. of Delegates</u>	<u>Location</u>	<u>Man-days</u>
OECD	Sept. 7-14	1	The Hague	8
OECD	Oct. 12-18	1	Paris	7
OECD	Oct. 14-18	1	Paris	5
OECD	Oct. 27-Nov. 1	1	Paris	6
OECD	Nov. 29-Dec. 6	2	Paris	14
U.N. ECOSOC/CNR	Mar. 21-Apr. 6	1	Tokyo	17
U.N. UNESCO/IHD	Aug. 29-Sept. 14	3	Paris	48
U.N. WHO	July 13-Aug. 2	1	Geneva	21
U.N. WHO	Nov. 16-Dec. 1	1	Geneva	16
U.N. WHO	Jan. 4-11	1	Coblentz	8
U.N. WMO	May 26-June 3	1	Geneva	9
U.N. WMO	Sept. 14-21	1	Geneva	7
U.N. WMO	Feb. 3	1	Buffalo	1
		28		249

*IAHS meetings held mornings, noon and evening while UNESCO/IHD meetings were on so no extra man-days involved. Many scientific business meetings are held this way to avoid extra travel and time.

Professional and secretarial support in pre and post meetings activities are considerably more difficult to define. These were estimated (a) through discussions with delegates and (b) through estimates given in the Departmental committee inventory. 106 man-days are estimated to have been spent on this aspect in 1974-75.

Time spent on projects for these agencies is much greater, and almost impossible to define with any degree of accuracy. This is because there is often a very fine line between national and multi-nation projects e.g. the OECD eutrophication program, which draws heavily upon the national research program, but has an additional international coordination aspect. Nevertheless, if reasonably rigid criteria are chosen for the analysis, comparisons from one year to the next have some validity. In this paper, only the time spent on projects, or partial projects, which

are a direct result of our involvement with international agencies is counted. Time spent on projects, or parts of projects which would have been conducted in Canada regardless of an international commitment are not included. Using this line of reasoning, and considerable subjective judgement, the following estimates have been made of IWD international project involvement for 1974-75:

<u>Agency</u>	<u>Project</u>	<u>Man-Years</u>	<u>Comments</u>
IAHS	Program planning	-	1 man-week
IAHS-ICSI	Planning International Symposium on Thermal Regime of Glaciers	-	1 man-week
IAHS-ICWQ	Planning International Symposium on Geochemistry of Natural Waters, CCIW	0.5	
IWRA	Program planning	-	2 man-days
NATO/CCMS	Monograph on River Basin Planning	1.0	some minor consulting costs were also involved.
OECD	Biodegradability Study	0.7	
OECD	Effluent Charge Schemes	0.1	
OECD	Eutrophication Study	0.2	only the international coordination aspect included
OECD	Thermal Discharge and other Energy Related Studies	0.2	
OECD	Water Management Policy Instrument	0.2	
U.N. UNESCO	Annual Summary of Information on Natural Disasters	0.3	
U.N. UNESCO	CNC/IHD/IHP Secretariat	1.1	
U.N. UNESCO	Hydrological Atlas of Canada	0.0	not counted; considered a national project
U.N. UNESCO	Hydrology Symposium	0.0	" " "
U.N. UNESCO	IHD Final Reports	0.6	
U.N. UNESCO	International Field Year on the Great Lakes	0.0	not counted; considered a bilateral research project
U.N. UNESCO	Water Balance of Lakes	0.6	

<u>Agency</u>	<u>Project</u>	<u>Man-Years</u>	<u>Comments</u>
U.N. WHO	Collaboration Centre	0.0	not counted since man years are provided by P&F
U.N. WHO	Guide to Water Quality Management	0.5	mostly prepared by consultants; funded by WHO
U.N. WMO	Guide to Hydrologic Practices	0.2	
U.N. WMO	World Weather Watch/Saint John Project	0.1	
U.N. WMO	Commission on Hydrology Fifth Session	0.3	
		6.6	

Recognizing the subjective nature of many of the above estimates, it is suggested that the total level of IWD involvement in multi-lateral international activities, including both meetings and projects for 1974/75 was in the order of 8½ man-years. Taking into account salaries, travel costs, and minor capital, consultings and printing expenditures, the financial outlay was probably in the order of \$200,000. The 8½ man-years are broken down as follows:

<u>Agency</u>	<u>No. of delegates</u>	<u>Meeting days</u>	<u>Man-days of support</u>	<u>Project man-year</u>	<u>Total man-years</u>
EEC	-	-	3	-	-
IAEA	-	-	1	-	-
IAH	-	-	2	-	-
IAHS	1	-	5	-	-
IAHS-ICSI	-	-	5	-	-
IAHS-ICWQ	-	-	-	0.5	0.5
IAWPR	3	24	-	-	0.1
ICID	1	15	5	-	0.1
ICOLD	-	-	1	-	-
IOS	1	14	3	-	0.1
IWD Coordination	-	-	-	0.5	0.5
IWRA	-	-	2	-	-

<u>Agency</u>	<u>No. of delegates</u>	<u>Meeting days</u>	<u>Man-days of support</u>	<u>Project man-year</u>	<u>Total man-years</u>
NATO/CCMS	3	14	5	1.0	1.1
OECD	9	55	30	1.4	1.8
U.N. ECOSOC/CNR	1	17	5	-	0.1
U.N. ECOSOC/ECE	-	-	2	-	-
U.N. FAO	-	-	2	-	-
U.N. UNEP	-	-	5	-	-
U.N. UNESCO	3	48	10	2.6	2.9
U.N. WHO	3	45	5	0.5	0.7
U.N. WMO	3	17	15	0.6	0.7
U.N. ETD	-	-	1	-	-
WEC	-	-	1	-	-
	<u>28</u>	<u>249</u>	<u>106</u>	<u>7.1</u>	<u>8.6</u>

Similar analyses are not available on a departmental basis, so it is difficult to make comparisons with other units of DOE. Partial data for OECD and NATO would suggest that IWD sent about 15% of the departmental delegates to OECD, and 30% to NATO/CCMS in 1974-75. When compared with our proportion of departmental personnel (10%) this would appear to be high. However, it should be noted that this would be misleading because both OECD and NATO/CCMS programs had a water emphasis during the past fiscal year.

RATIONALE FOR IWD INVOLVEMENT

At present, there is no formal statement of government policy regarding participation in international programs. The only relevant reference would appear to be the series of foreign policy papers put forth by External Affairs in 1970. These papers conclude that the Canadian posture in foreign affairs should essentially be an extension of national priorities. This general philosophy should form the basis of an IWD viewpoint i.e. the main criteria in rationalizing an involvement should be the extent to which international programs contribute to IWD and DOE objectives.

Substantial arguments can be generated to support this position, both in terms of fulfilling our national mandate, and in terms of meeting our obligation to less developed nations. It is likely that our capacity to assist these nations would be optimized by maximizing the development of an internal technical competence, and making it available through publications, CIDA, or other bilateral exchanges.

Other criterion such as the "ability to influence world opinion" are considered of lesser importance. It is often expressed that understandings reached in multi-lateral discussions become the basis for bilateral agreements regarding transfrontier movements of water and air. This is debatable in the Canadian context, where all of our transboundary inland water relations are with the same country and arrangements have evolved, and will continue to evolve almost entirely on a one-to-one basis. Influencing world opinion is also supported by some as an important criterion on economic grounds e.g. the "polluter pays" principle which theoretically has international equity implications. This argument has some validity, but is not a major consideration from the IWD viewpoint (more direct impact on EPS). Other cases where DOE must attempt to influence world opinion, e.g. resource management of the continental shelf, ocean dumping, etc. are only of peripheral interest to IWD.

Participation does allow input to program planning which can contribute to coordination and help avoid purely academic requests for surveys and studies which would involve large expenditures of funds and time. For example separate studies and requests on Environmental Effects of Man Made Lakes are now coordinated between COWAR, IAHS, UNEP, UNESCO at least partly due to Canadian initiative.

Based on the above considerations, the most important criteria from the IWD standpoint are considered to be those based on national consideration e.g. relation to Cabinet, DOE and IWD objectives, usefulness to Canada in improving knowledge and in developing specific expertise, and potential for improving federal-provincial cooperation in the water

field. Using these criteria, the agencies have been placed in three categories; category A representing those agencies where a reasonably high level of IWD involvement would appear to be warranted; category B where only a moderate level of involvement seems to be justified; and category C where only a minimal involvement should be supported.

<u>Category A</u>	<u>Category B</u>	<u>Category C</u>
IAHR	EEC	IAEA
IAHS (& 6 commissions)	IAH	ICID
IAWPR	IOS	ICOLD
OECD	U.N. ECOSOC/CNR	IWRA
U.N. ECOSOC/ECE	U.N. FAO	NATO/CCMS
U.N. UNESCO	U.N. UNEP	U.N. ETD
U.N. WHO		WEC
U.N. WMO		

When one compares this categorization with the estimated levels of 1974/75 involvement, two anomalies immediately show up 1) NATO/CCMS which had a high level of involvement, but which appears in category C and 2) ECOSOC/ECE which has virtually no IWD activity and appears in category A. The NATO situation is easily explained. Our involvement has been restricted to the Inland Waters Pollution Pilot Project which is now essentially completed. None of the current activities of CCMS are particularly relevant to IWD objectives. The fact that we have not been involved in ECE activities is surprising, since their activities appear on the surface to match the IWD range of interests better than any other international agency. (Arrangements are being made for a representative from IWD to attend the ECE Committee on Water Problems meeting in September, 1975 to investigate further).

Aside from categorizing agencies as to the coincidence of their aims and activities with those of IWD, the more important issue is what the level and nature of our involvement should be, even with those agencies in category A. If the logic at the beginning of this Section is

accepted, the primary objective of our involvement should be to assist us in fulfilling our national mandate. Therefore, the highest level of activity should be concentrated in areas:

- a) where our overall level of competence can be raised by coordinating national research projects with similar efforts in other countries (e.g. the OECD eutrophication project).
- b) where a Canadian research establishment provides the focal point for an international activity e.g. CCIW's role as the WHO's International Collaboration Centre for Surface and Groundwater Quality, or
- c) in those instances where participation by senior IWD managers and scientists is likely to improve our capability to manage Canada's water resources.

Conversely, the same logic would lead us to recommend a minimal level of activity in:

- a) projects which are merely a rehash of the state-of-the-art e.g. WHO recently asked IWD to review a report on eutrophication which was essentially a rewrite of the reviewer's research from several years earlier.
- b) Canadian preparation of how-to-do-it manuals - these tend to be very time consuming, and while providing handy references in Canada, are of most value to other countries. (e.g. the NATO/CCMS Monograph on Basin Planning and the WMO Guide for Network Planning).
- c) projects in which scientific knowledge in the various countries is accumulated, and summarized in a single publication e.g. the OECD report on phenols. There are much more

effective means of exchange through scientific and technical literature and participation in scientific symposia.

- d) Inventory exercises - Although it is recognized that the exchange of comparative water information is of some value, such exercises have the potential of drastically distorting our internal priorities.

The second type of project can be of considerable value to other countries who do not have access to the scientific or technical literature because of language or other difficulties and who depend on publications of international organizations. It is suggested that Canada can contribute adequately to these by providing available information at very little effort, e.g. the Canada Water Yearbook can be used to respond to many international questionnaires and the effort put into guide books could be better utilized by preparing national guidelines which would in turn provide easy input to international ones.

Another perceived problem which is often raised is that of overlap between the activities of different agencies. This aspect was considered briefly and it was concluded that it is not a serious problem at this time. The U.N. agencies appear to have this aspect sorted out reasonably well internally, e.g. UNESCO is primarily concerned with hydrologic research and WMO's primary interest is in operational hydrology. Although there would appear on the surface to be some overlap between water quality programs in the regional agencies i.e. OECD and NATO and the U.N. agencies it is difficult to pinpoint specific examples. Nevertheless, if as a result of reorganization in OECD, we are to shift some of our activity to ECE or EEC, we should be careful to do so in such a manner as to avoid duplication, particularly in the water quality area.

RECOMMENDED LEVELS OF INVOLVEMENT

Taking into account the level of IWD involvement in 1974-75 and

considerations developed in the previous section regarding the agencies and type of activities we should be concentrating on, the following are recommended levels of international involvement in 1975-76 and 1976-77:

<u>Agency</u>	<u>Man-Years</u>			<u>Comments</u>
	<u>74/75</u>	<u>75/76</u>	<u>76/77</u>	
EEC	-	0.3	0.3	probable increase in total Canadian involvement in EEC
IAEA	-	-	-	
IAH	-	-	-	
IAHS	-	-	-	maintain same level
IAHS-ICSI	-	-	-	
IAHS-ICWQ	0.5	0.1	0.1	drop off after 75 symposium
IAWPR	0.1	0.1	0.1	
ICID	0.1	0.1	0.1	
ICOLD	-	-	0.1	
IOS	0.1	0.1	0.1	
IWD Coordination	0.5	0.5	0.5	
IWRA	-	-	-	
NATO/CCMS	1.1	0.4	0.1	- drop off due to completion of Inland Waters Pollution Pilot Project
OECD	1.8	0.9	0.5	- drop off in activity likely due to reorganization of OECD
U.N. ECOSOC/CNR	0.1	0.1	0.1	
U.N. ECOSOC/ECE	-	0.3	0.5	- increase likely to be necessitated by World Water Conference
U.N. FAO	-	-	-	
U.N. UNEP	-	0.1	0.1	
U.N. UNESCO	2.9	1.7	0.8	- IHP likely to have much less activity than former IHD
U.N. WHO	0.7	0.5	0.5	- Collaboration Centre not included since man-years provided by P&F
U.N. WMO	0.7	1.5	1.0	- CHy-V in Canada in 1975-76
U.N. ETD	-	-	-	
WEC	-	-	-	

Agency	Man-years		
	74/75	75/76	76/77
Centralized Answering Service for Questionnaires	0.0	0.5	0.7
	<hr/>	<hr/>	<hr/>
	8.6	7.2	5.5

If the recommendations included herein are followed (recognizing that some variation will be required because of unforeseen circumstances) it is expected that the level of IWD involvement can be reduced without sacrificing either our own benefits, or our ability to contribute. This assumes that the reduction will be diverted into the production of national guidelines, and national information projects which will in turn form the basis for responding to international requests. A higher level of IWD coordination will also be required to avoid overlaps, to provide a centralized "answering service" for international questionnaires, and to continually update the rationale for our overall involvement. The "centralized answering service" will introduce overall efficiencies since many questionnaires are very similar, and can often be answered either with available information, or merely by changing the form of presentation.