

資料集

資料一 1 調査団員・氏名

【資料—1】 調査団員・氏名

第一次現地調査（期間：平成 11 年 9 月 8 日—平成 11 年 10 月 18 日）における調査団員の構成は以下の通りである。

担当	氏名	所属
総括	下田 透	国際協力事業団無償資金協力部準備室 業務第 4 グループ
技術参与	加藤 武留	水産庁漁港部建設課課長補佐
無償資金協力	松田 竜太	外務省経済協力局無償資金協力課
業務主任／海洋土木	大貫 輝雄	日本工営株式会社
自然条件調査	櫻井 秀哉	日本工営株式会社
自然条件調査	遠藤 秀文	日本工営株式会社

第二次現地調査（期間：平成 12 年 1 月 5 日—平成 12 年 2 月 3 日）における調査団員の構成は以下の通りである。

担当	氏名	所属
総括	下田 透	国際協力事業団無償資金協力部準備室 業務第 4 グループ
技術参与	加藤 武留	水産庁漁港部建設課課長補佐
業務主任／海洋土木	大貫 輝雄	日本工営株式会社
補助／海洋土木	櫻井 秀哉	日本工営株式会社
水産施設・設備計画	矢花 昭男	システム科学コンサルタンツ株式会社
土木施設計画	鹿島 孝和	日本工営株式会社
施工計画／積算	内藤 勝美	日本工営株式会社

ドラフトレポート説明（期間：平成 12 年 3 月 29 日—平成 12 年 4 月 10 日）における調査団員の構成は以下の通りである。

担当	氏名	所属
総括	濱川 格	国際協力事業団無償資金協力部準備室 業務第 4 グループ 課長代理
技術参与	加藤 武留	水産庁漁港部建設課課長補佐
業務主任／海洋土木	大貫 輝雄	日本工営株式会社
補助／港湾土木	遠藤 秀文	日本工営株式会社
水産施設・設備計画	矢花 昭男	システム科学コンサルタンツ株式会社

資料一 2 調查行程

資料—2 調査行程

第1次現地踏査

日順	日付	曜日	調査内容	
1	9月8日	水	下田団長、加藤技術参与(官団員)及び大貫(コンカ側団員)成田発、ロスアンゼルス着	
2	9月9日	木	ロスアンゼルス発マイアミ経由トリニダードトバゴ着	
3	9月10日	金	トリニダードトバゴ日本大使館表敬	
4	9月11日	土	トリニダードトバゴアリッシュタウン経由トミカ着 松田官団員 成田発、ロスアンゼルス経由ツファン着	櫻井、遠藤(コンカ側団員)成田発、ロスアンゼルス経由ツファン着
5	9月12日	日	松田官団員ツファン発トミカ着、マリョット漁港現地踏査	
6	9月13日	月	トミカ国首相、外務大臣、農業環境省大臣表敬、水産局で協議、計画対象水揚基地の現地踏査	現地調査
7	9月14日	火	水産局で協議	
8	9月15日	水	水産局で協議	
9	9月16日	木	水産局とミッツ案の協議 ミッツの署名 下田団長、加藤技術参与及び松田団員(官団員)トミカ発トリニダードトバゴ着	現地調査
10	9月17日	金	トリニダードトバゴ日本大使館で第一次現地調査の報告	漁業現況調査 現地調査
11	9月18日	土	トリニダードトバゴマイアミ経由ロスアンゼルス着	漁業現況調査 現地調査
12	9月19日	日	ロスアンゼルス発	漁業現況調査 現地調査
13	9月20日	月	成田着	漁業現況調査 現地調査
14	9月21日	火		漁民アンケート調査 現地調査
15	9月22日	水		漁民アンケート調査 現地調査
16	9月23日	木		漁民アンケート調査 現地調査
17	9月24日	金		積算資料収集 現地調査
18	9月25日	土		積算資料収集 現地調査
19	9月26日	日		積算資料収集 現地調査
20	9月27日	月		積算資料収集 現地調査
21	9月28日	火		積算資料収集 現地調査
22	9月29日	水		積算資料収集、漁民アンケート調査 現地調査
23	9月30日	木		波浪データ、波浪来襲状況のヒヤリング 現地調査
24	10月1日	金		波浪データ解析 現地調査
25	10月2日	土		波浪データ解析 現地調査
26	10月3日	日	コンカ団員の団内打ち合わせ 波浪データ解析 大貫団員 トミカ発セントルシア経由トリニダードトバゴ着	コンカ団員の団内打ち合わせ 現地調査
27	10月4日	月	トリニダードトバゴ日本大使館で第一次現地調査の報告	
28	10月5日	火	トリニダードトバゴマイアミ経由ロスアンゼルス着	
29	10月6日	水	ロスアンゼルス発	
30	10月7日	木	成田着	
31	10月8日	金		遠藤団員 トミカ発ツファン経由ロスアンゼルス着 現地調査
32	10月9日	土		ロスアンゼルス発 現地調査
33	10月10日	日		成田着 現地調査
34	10月11日	月		現地調査
35	10月12日	火		現地調査
36	10月13日	水		現地調査
37	10月14日	木		現地調査
38	10月15日	金		現地調査
39	10月16日	土		櫻井団員 トミカ発ツファン経由ロスアンゼルス着 現地調査
40	10月17日	日		ロスアンゼルス発 現地調査
41	10月18日	月		成田着

第二次現地調査

日順	日付	曜日	調査内容		
1	1月5日	水	下田団長 成田発、ロンドン着		
2	1月6日	木	ロンドン発マイアミ経由トリニダードトバゴ着		
3	1月7日	金	トリニダードトバゴ日本大使館表敬		
4	1月8日	土	トリニダードトバゴ発アリゾナ経由ドミニカ着	加藤技術参与(官団員)及び大貫、桜井、矢花団員(コンサル側団員)成田発、ロンドン着	
5	1月9日	日	マリゴット漁港現地踏査	ロンドン発オランダ経由ドミニカ着、マリゴット漁港現地踏査	
6	1月10日	月	農業環境省大臣表敬、水産局協議		
7	1月11日	火	水産局協議		
8	1月12日	水	水産局協議		
9	1月13日	木	水産局協議		
10	1月14日	金	水産局協議、水産局とのミツ案の協議		
11	1月15日	土	水産局協議、水産局とのミツ書名	鹿島、内藤(コンサル側団員)成田発、ロンドン着	
12	1月16日	日	下田団長、加藤技術参与(官団員)ドミニカ発トリニダードトバゴ着	現地調査	ロンドン発オランダ経由ドミニカ着、マリゴット漁港現地踏査
13	1月17日	月	トリニダードトバゴ日本大使館で第二次現地調査の報告	現地調査	現地調査
14	1月18日	火	トリニダードトバゴ発マイアミ経由オランダ着	現地調査	現地調査
15	1月19日	水	オランダ発	現地調査	現地調査
16	1月20日	木	成田着	現地調査	現地調査
17	1月21日	金		現地調査	現地調査
18	1月22日	土		水産局打合わせ	現地調査
19	1月23日	日		大貫、桜井団員ドミニカ発トリニダードトバゴ着	矢花団員水産局打合せ 現地調査
20	1月24日	月		トリニダードトバゴ日本大使館で第二次現地調査の報告	水産局打合せ 現地調査
21	1月25日	火		トリニダードトバゴ発マイアミ経由オランダ着	ドミニカ発オランダ経由ニューヨーク着 現地調査
22	1月26日	水		オランダ発	ニューヨーク発 現地調査
23	1月27日	木		成田着	成田着 現地調査
24	1月28日	金			現地調査
25	1月29日	土			現地調査
26	1月30日	日			現地調査
27	1月31日	月			現地調査
28	2月1日	火			ドミニカ発オランダ経由ニューヨーク着
29	2月2日	水			ニューヨーク発
30	2月3日	木			成田着

ドラフトレポート説明時

日順	日付	曜日	調査内容	
1	3月29日	水	濱川団長成田発、ニューヨーク着	加藤技術参与(官団員)及び大貫、矢花、遠藤団員(コンサル側団員)成田発、ロサンゼルス経由プノン着
2	3月30日	木	ニューヨーク発トリニダードトバゴ着	プノン発経由ドミニカ着
3	3月31日	金	トリニダードトバゴ日本大使館表敬	水産局ドラフト説明
4	4月1日	土	トリニダードトバゴ発アリツタツタツ経由ドミニカ着	水産局ドラフト説明
5	4月2日	日	アリツタツ漁港現地踏査、国内打合せ	
6	4月3日	月	ドミニカ国首相、農業環境・計画省次官、外務省次官表敬、水産局で協議	
7	4月4日	火	水産局で協議	
8	4月5日	水	水産局で協議、ミッツ署名	
9	4月6日	木	ドミニカ発トリニダードトバゴ着	
10	4月7日	金	トリニダードトバゴ日本大使館参事官にドラフトレポート説明の報告	
11	4月8日	土	トリニダードトバゴ発マイアミ経由ニューヨーク着	
12	4月9日	日	ニューヨーク発サントドミンゴ着	ニューヨーク発
13	4月10日	月		成田着

資料一3 関係者(面会者)リスト

資料—3 関係者(面会者)リスト

ドミニカ国関係者

Mr. HON EDISON C. JAMES	Prime Minister and Minister for Legal Affairs, Immigration and Labour
Mr. ROOSVELT DOUGLAS	Prime Minister
Mr. HON PELER CARBON	Minister for Agriculture and Environment
Mr. ANDREW MAQLOIRE	Fisheries Officer, Ministry of Agriculture, the Environment and Planning
Mr. HON NORRIS M. CHARLES	Minister of Foreign Affairs
Mr. LRWIN LAN RACQUE	Permanent Secretary Ministry of Foreign Affairs, Trade & Marketing
Mr. BRIAN BELLEVUE	Foreign Service Officer Ministry of Foreign Affairs, Trade & Marketing
Mr. H. NIGEL LAWRENCE	Chief Fisheries Officer Fisheries Development Division, Ministry of Agriculture & Environment
Mr. HAROLD GUISTE	Deputy Chief Fisheries Officer
Mr. ANDREW MAGLOIRE	Fisheries Officer
Mr. RIVIERE SEBASTIAN	Fisheries Officer
Mr. ALGANON PHILBERT	Fisheries Officer
Mr. NORMAN NORRIS	Fisheries Officer
Mr. JOHN ROBIN	Fisheries Officer
Mr. KYLE FORGEY	Advisor (EIA)
Mr. MARTIN MULLAN	Advisor (EIA)
Mr. L. ALGERNON J. SIMON	Chief Technical Officer Ministry of Communication, Works & Housing
Mr. ELIUD T. WILLIAMS	Permanent Secretary, Ministry of Agriculture, the Environment and Planning

在ドミニカ国日本大使館

山岸 祥朗氏	特命全権大使
諏訪 潔氏	参事官
矢澤 一幸氏	二等書記官

JICA 派遣専門家

植岡 龍太郎氏	水産開発コンサルタント
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資料一4 当該国の社会経済状況(国別基本情報抜粋)

国名	ドミニカ国
	Commonwealth of Dominica

一般指標					
政体	議会民主制	*1	首都	ロゾー	*1
元首	Pres. Crispin Anselm SORHAINDO	*1	主要都市名	ボーツマウス、マリゴット	*1
独立年月日	1978年11月3日	*1	経済活動人口	千人(年)	*4
人種(部族)構成	黒人、カリブインディアン	*1	義務教育年数	10年間(1997年)	*5
		*1	初等教育就学率		*5
言語・公用語	英語、仏語系言語	*1	初等教育終了率	% (年)	*6
宗教	ローマトリック77%、プロテスタント15%	*1	識字率	94%(1995年)	*7
国連加盟	1978年12月	*2	人口密度	110.57人/km ² (1996年)	*1
世銀加盟	1980年09月	*3	人口増加率	0.4%(1996年)	*1
IMF加盟	1979年12月	*3	平均寿命	平均77.2 男74.35 女80.2	*1
面積	0.75千km ²	*1	5歳児未満死亡率	20/1000(1996年)	*7
人口	82.926千人(1996年)	*1	カロリー供給量	2,982.0cal/日/人(1995年)	*7

経済指標					
通貨単位	東カリブ・ドル(ECドル)	*1	貿易量	(1997年)	*8
為替(1US\$)	1US\$=2.70(1998年06月)	*8	輸入	13.0百万ドル	*8
会計年度	7月~6月	*1	輸出	53.0百万ドル	*8
国家予算	(年)	*9	輸入カバー率	1.8月(1995年)	*10
歳入	百万ドル	*9	主要輸出品目	バナナ、石炭、ベイ油、野菜(1993年)	*1
歳出	百万ドル	*9	主要輸入品目	工業製品、機械機器、食品(1993年)	*1
国際収支	2.24百万ドル(1996年)	*9	日本への輸出	2.5百万ドル(1997年)	*11
ODA受取額	43.00百万ドル(1996年)	*7	日本からの輸入	13.2百万ドル(1997年)	*11
国内総生産(GDP)	百万ドル(年)	*4			
一人当たりGNP	ドル(年)	*4	外貨準備総額	24.8百万ドル(1998年3月)	*8
GDP産業別構成	農業 % (年)	*4	対外債務残高	6.9百万ドル(1996年)	*10
	鉱工業 % (年)		対外債務返済率	5.4%(1996年)	*10
	サービス業 % (年)		インフレ率	1.6%(1993年)	*7
産業別雇用	農業 % (年)	*7			
	鉱工業 % (年)				
	サービス業 % (年)		国家開発計画		*12
経済成長率	% (年)	*4			

気象(~ 年平均)		場所: Roseau											(標高 18 m)	
月	1	2	3	4	5	6	7	8	9	10	11	12	平均/計	
最高気温	29.0	29.0	31.0	32.0	32.0	32.0	32.0	32.0	32.0	32.0	31.0	31.0	31.2°C	
最低気温	20.0	19.0	20.0	21.0	22.0	23.0	22.0	23.0	23.0	22.0	22.0	21.0	21.5°C	
平均気温													°C	
降水量	132	74	74	61	97	196	274	262	226	198	224	163	1.981mm	
雨期乾期	雨						雨	雨	雨	雨	雨	雨		

*1 CIA World Fact Book 1997-1998

*2 Member States of United Nations

*3 The World Bank Public Information Center
International Financial Statistics Yearbook 1998

*4 World Development Report 1997

*5 UNESCO Statistical Yearbook 1997

*6 Status and Trends 1997

*7 Human Development Report 1998

*8 International Financial Statistics August 1998

*9 International Financial Statistics Yearbook 1997

*10 Global Development Finance 1998

*11 世界の国一覧表 1998年版

*12 最新世界各国概要 98年版

*13 The Times Book World Weather Guide, Update Edition

*14 理科年表、国立天文台(1997)

国名	ドミニカ国
	Commonwealth of Dominica

*15

我が国における ODA の実績		(資金協力は約束ベース、単位：億円)			
年度	項目	1993	1994	1995	1996
	技術協力	2,892.93	3,087.67	3,256.28	3,461.48
	無償資金協力	2,244.22	2,456.48	2,796.65	2,606.79
	有償資金協力	3,939.97	4,352.21	3,878.11	3,025.02
	総額	9,077.12	9,896.38	9,931.04	9,093.29

*15

当該国に対する我が国 ODA の実績					
年度	項目	1993	1994	1995	1996
	技術協力	0.08	0.80	0.36	1.08
	無償資金協力	0.00	2.68	7.15	5.24
	有償資金協力	0.00	0.00	0.00	0.00
	総額	0.08	3.48	7.51	6.32

*16

OECD 諸国の経済協力実績 (支出純額、単位：百万ドル)					
	贈与	有償資金協力	政府開発援助 (ODA)	その他政府資金 及び 民間資金	経済協力総額
	(1)	(2)	(1)+(2)=(3)	(4)	(3)+(4)
二国間援助 (主要供与国)	9.60	15.60	25.20		25.20
1. イギリス	0.00	15.20	15.20		15.20
2. 日本	6.30	0.00	6.30		6.30
3. フランス	1.70	1.00	2.70		2.70
4. カナダ	0.80	0.00	0.80		0.80
多国間援助 (主要援助機関)	18.10	-0.40	17.70		17.70
1. CEC	0.00	0.00	0.00		0.00
2. WFP					
その他	0.00	0.00	0.00		0.00
合計	27.70	15.20	42.90		42.90

*17


援助受入れ窓口機関	
技術	
無償	
協力隊	

*15 Japan's ODA Annual Report 1997

*16 Geographical Distribution of Financial Flows to Aid Recipients 1992-1996

*17 国別協力情報 (JICA)

資料—5 討議議事録 (M/D)



**MINUTES OF DISCUSSIONS
ON THE FIRST BASIC DESIGN STUDY
ON THE PROJECT FOR IMPROVEMENT
OF MARIGOT FISH LANDING FACILITIES
IN THE COMMONWEALTH OF DOMINICA**

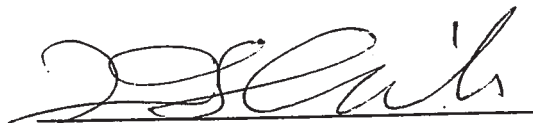
In response to a request from the Government of Dominica, the Government of Japan decided to conduct a Basic Design Study on the Project for Improvement of Marigot Fish Landing Facilities (hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

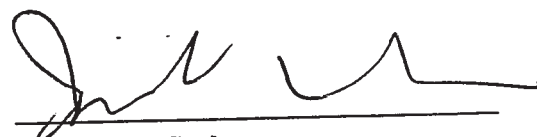
JICA sent to Dominica the First Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Toru Shimoda, Fourth Project Management Division, Grant Aid management Department, JICA and is scheduled to stay in the country from September 10, 1999 to September 16, 1999.

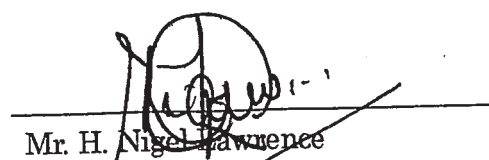
The Team held discussions with the officials concerned of the Government of Dominica and conducted a field survey at the study area.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the interim report.

Roseau, September 16, 1999


Mr. Toru Shimoda
Leader
First Basic Design Study Team
Japan International Cooperation Agency


Hon. Peter Carbon
Minister for Agriculture and the Environment


Mr. H. Nigel Lawrence
Chief Fisheries Officer
Fisheries Development Division
Ministry of Agriculture and the Environment

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve fish landing facilities at Marigot Bay so that the fishing operation can contribute to improvement of fish production and fishing boats can have a better anchoring and landing facility.

2. Project Site

The project site is Marigot Bay at the northeastern coast of Dominica.

3. Responsible and Implementing Agency

Ministry of Agriculture and the Environment is the Responsible and Implementing Agency of the Project.

4. Items requested by the Government of Dominica

Facilities proposed during the visit of the Preparatory Study and equipment listed in ANNEX-1 are requested to be components of the Project.

5. Japan's Grant Aid System

- 1) The Dominican side confirmed the Japan's Grant Aid Scheme explained by the Team.
- 2) The Dominican side will take the necessary measures, as described in ANNEX-2, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

6. Further Schedule of the Study

- 1) The consultants will proceed to further studies in Dominica until October 8, 1999.
- 2) JICA will prepare the interim report in English and dispatch the Second Basic Design Study Team in order to explain the report and to discuss the further matters.

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7. Other Relevant Issues

1) The fishing boats currently in operation at the landing sites of Woodford Hill, Wesley, Marigot, Pagua and Caribbean Territory (Atkinson, Sinekou, Salybia, Bataka, St. Cyr, Mahaut River, Majeanne, Cray Fishriver) will be identified by the Team in collaboration with the Dominican counterpart and used for the design of the facilities of the Project. This number of fishing boats must include all registered vessels within the landing sites at issues.

2) The Team will propose a design of the facilities to be constructed in the Project with their justification and will discuss with the Dominican side in the second survey.

3) The Project will address the issue of a pre-environmental impact study after consultation between the Team and the Fisheries Development Division of the Ministry of Agriculture and the Environment

4) An appropriate fisheries association within the areas of operation will manage the facilities to be constructed by the Project with assistance of the Fisheries Development Division of the Ministry of Agriculture and the Environment and the Cooperative Division of the Ministry of Community Development.

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ANNEX-1 LIST OF EQUIPMENT REQUESTED BY THE GOVERNMENT OF DOMINICA

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Refrigeration facilities

- Ice plant with generator
- Cold Storage and
- Chilled Room

Fishing Port

- Landing wharf
- Service/mooring wharf
- Break waters

Outer facilities

- slipway/boat ramp with winch
- gasolene station

Buildings

- Locker rooms
- Marine Mechanic Workshop with repair and servicing tools
- Net loft and boat repair loft
- Center/ administration office / meeting room
- market, handling and processing area
- Restrooms and showers

General facilities

- Water supply
- electricity
- water drainage
- garbage and fish waste treatment

Fish marketing Equipment

- Xatics (insulated) Boxes (680 litre., 230 litre., 500 litre.,)
- fish containers plastic (different sizes)
- balance, scales and carts
- vehicles for fish transportation and distribution
- fish processing equipment (band saw, vacuum pack, filleting)

Equipment

- water and fish quality inspection kits
- data processing and office
- education and training equipment

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ANNEX-2 UNDERTAKINGS REQUIRED OF THE GOVERNMENT OF DOMINICA

Following necessary measures shall be taken by the Government of Dominica on condition that the Grant Aid by the Government of Japan is extended to the Project.

1. to secure lands and to remove structures necessary for the implementation of the Project prior to commencement of the construction;
2. to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities outside the site;
3. to remove all boats in the site prior to the commencement of the Project;
4. to ensure fishing activities do not affect the construction during the Project;
5. to provide general furniture such as desks and tables necessary for the Project;
6. to construct necessary gates and fences in and around the site;
7. to secure a temporary construction yard during the construction of the Project;
8. to ensure tax exemption and to facilitate prompt execution for unloading, customs clearance at the ports of disembarkation and internal transportation of the products purchased under the Grant Aid;
9. to exempt Japanese nationals from customs duties, internal taxes and fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts;
10. to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such as facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their works;
11. to bear commissions to a Japanese bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and other payment commissions;
12. to provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary; and,
13. to bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities.

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MINUTES OF DISCUSSIONS
ON THE SECOND BASIC DESIGN STUDY
ON THE PROJECT FOR IMPROVEMENT
OF MARIGOT FISH LANDING FACILITIES
IN THE COMMONWEALTH OF DOMINICA

In response to a request from the Government of Dominica, the Government of Japan decided to conduct a Basic Design Study on the Project for Improvement of Marigot Fish Landing Facilities(hereinafter referred to as "the Project") and entrusted the study to the Japan International Cooperation Agency (hereinafter referred to as "JICA").


In September 1999, JICA dispatched the First Basic Design Study Team on the Project to Dominica, and through discussion, field survey and technical examination of the results in Japan, JICA prepared an interim report of the study.

JICA sent to Dominica the Second Basic Design Study Team (hereinafter referred to as "the Team"), which is headed by Toru Shimoda, Fourth Project Management Division, Grant Aid Management Department, JICA and is scheduled to stay in the country from January 9, 2000 to February 1, 2000 in order to explain the interim report and to do the further study.

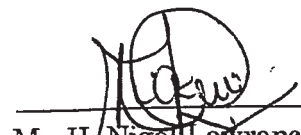
The Team held discussions with the officials concerned of the Government of Dominica and conducted a field survey again at the study area.

In the course of discussions and field survey, both parties confirmed the main items described on the attached sheets. The Team will proceed to further works and prepare the Basic Design Study Report.

Roseau, January 15, 2000



Mr. Toru Shimoda
Leader
Second Basic Design Study Team
Japan International Cooperation Agency



Mr. H. Nigel Lawrence
Chief Fisheries Officer
Fisheries Development Division
Ministry of Agriculture and the Environment

ATTACHMENT

1. Contents of the Interim Report

The Government of Dominica received the interim report and understood its contents. However, rectification about the fishery development policy and fisheries data are made in the report.

2. Undertakings Required of the Government of Dominica

The Government of Dominican will take the necessary measures in accordance with the Japanese Grant Aid Scheme, as described in ANNEX-1, for smooth implementation of the Project, as a condition for the Japanese Grant Aid to be implemented.

3. Further Schedule of the Study

- 1) The consultants will proceed to further studies in Dominica until February 1, 2000.
- 2) JICA will prepare the draft basic design study report in English and dispatch a mission to explain the draft report.

4. Other Relevant Issues

- 1) Both sides accepted the basic arrangement of breakwaters as the interim report shows and also following basic concepts for the design:

Breakwater

The breakwaters are designed under the two conditions of waves: the anomalous wave (fifty-years return-period probability wave) and the operational wave (one-year return-period probability wave).

The structural stability of the breakwaters is designed with the condition of the anomalous wave.

The breakwaters are designed so as to maintain the calmness in the basin under the operational wave condition.

When the wave condition exceeds the one-year return-period probability wave level, the operational calmness in the basin would not be secured in the basin. In this condition, all small and ordinal sizes (up to 7.7 m in length) boats except ones stationed in the existing mooring area (if it remains) shall be towed up to the new emergency boat storage area. However, large boats such as ones whose sizes are mentioned below shall be evacuated to other places instead of being towed up to the land because the emergency boat storage area for large boats is not provided.

Emergency Boat Storage Area

The emergency boat storage area must be opened at all times for boat refuge. Any structure, even though it is temporary one, is prohibited to be constructed. This area is also prohibited to be used as the car parking.

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Numbers of Fishing Boats

The numbers of fishing boats for which the Marigot fishing port is designed are as follows:

In the operational condition : 74 boats

(to be moored in the basin)

In the emergency condition : 105 boats

(to be towed up to the emergency boat storage area)

Largest Size of Fishing Boat

For the planning of the waterway and part of the berth in the basin, 56.6 feet in length and 7.2 feet in draft depth are used as the largest sizes of fishing boats operating in Dominica. The on-land facilities will not be provided for large size fishing boats.

Annual Fish Catch

The number of 160 tons/year is used as the annual fish catch for the design.

- 2) Dominican side requested with the attached letter, to reclaim and develop the existing mooring area located in the western corner of Marigot Bay to facilitate the location of the marine workshop area, the boat repair loft and the net loft.
- 3) Dominican side made special emphasis on the significant role locker rooms play in the development of fisheries landing sites, and importance of construction of fishermen's locker rooms as part of the Project. Dominican side provided proof and explanation of the management and legal regimes which are in place to certify effective functioning of existing locker rooms at other landing sites, to show community base management by fishermen and continuous government ownership of the said facilities. The Team noted the position of Dominican side.
- 4) The Fisheries Development Division will undertake a pre-environmental impact assessment survey on the impact of the work to be executed in order to check that the Project will not have a significant effect on the environment and to guarantee that permission of the Government of Dominica will be granted for the execution of the Project. The Environmental Coordinating Unit with the Fisheries Development Division will prepare the result of the survey and convey it to the next mission which will be dispatched by Japan to explain the draft report.

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5) Both sides made the classification among the Project components with priority as following list:

Priority	Japanese Side View	Dominican Side View
Highest Group	Wharf Breakwater Slipway/Boat ramp Public rest rooms Water supply Electricity Water drainage Folk lift Winch Speakers system Beacon lights	Wharf Breakwater Slipway/Boat ramp Public rest rooms Water supply Electricity Water drainage Folk lift Winch Speakers system Beacon lights Fishermen's locker rooms
Second Group	Mechanic Workshop with tools Boat repair loft Administration office with meeting rooms Rest rooms and showers Fish marketing/handling /processing area	Mechanic Workshop with tools Boat repair loft Administration office with meeting rooms Rest rooms and showers Fish marketing/handling /processing area Ice plat and storage Cold storage Generator Petrol Station Xactics(insulated) boxes
Third Group	Ice plat and storage Cold storage Chilled room Generator Petrol Station Net loft Fishermen's locker rooms Quality control laboratory Garbage and fish waste treatment Fish marketing equipment Water and fish quality inspection kits Data processing and office equipment Education and training equipment	Chilled room Net loft Quality control laboratory Garbage and fish waste treatment Fish marketing equipment Water and fish quality inspection kits Data processing and office equipment Education and training equipment

6) Taking the above classifications among the Project components into the consideration, Japanese side will review the components to be included in the Project within the budgetary limit. However, Dominican side requested to include as many items in the lower groupings as possible even though dimensions/capacities are to be reduced instead of eliminating items.

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ANNEX-1 UNDERTAKINGS REQUIRED OF THE GOVERNMENT OF DOMINICA

Following necessary measures shall be taken by the Government of Dominica on condition that the Grant Aid by the Government of Japan is extended to the Project.

1. to secure lands and to remove structures necessary for the implementation of the Project prior to commencement of the construction;
2. to provide facilities for distribution of electricity, water supply and drainage and other incidental facilities outside the site;
3. to remove all boats in the site prior to the commencement of the Project;
4. to ensure fishing activities do not affect the construction during the Project;
5. to provide general furniture such as desks and tables necessary for the Project;
6. to construct necessary gates and fences in and around the site;
7. to ensure tax exemption and to facilitate prompt execution for unloading, customs clearance at the ports of disembarkation and internal transportation of the products purchased under the Grant Aid;
8. to exempt Japanese nationals from customs duties, internal taxes and fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts;
9. to accord Japanese nationals whose services may be required in connection with the supply of the products and services under the Verified Contracts, such as facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their works;
10. to bear commissions to a Japanese bank for its banking services based upon the Banking Arrangement, namely the advising commission of the "Authorization to Pay" and other payment commissions;
11. to provide necessary permissions, licenses and other authorizations for implementing the Project, if necessary; and,
12. to bear all the expenses, other than those to be borne by the Grant Aid.

T.S



MINISTRY OF AGRICULTURE AND THE ENVIRONMENT
FISHERIES DEVELOPMENT DIVISION

Tel. 767-448-2401 (Ext. 3391/2, 3163)
Fax. 767-448-0140
Email: cfra@cwdom.dm

Roseau Fisheries Complex Building
Dame M.E. Charles Boulevard
Roseau
Commonwealth of Dominica, W.I

Our Ref.:
January 14, 2000

Japan International Co-operation Agency
Tokyo
Japan

Dear Sir,

Re. Development of the Marigot Fisheries Facility.

This is to inform you that in light of imminent government development projects in the north eastern part of the island, realignment of the main coastal road which borders the Marigot Fishing Landing Site will have to be effected and, consequently the existing expanse of the boat mooring enclosure will be affected. In addition it should be noted that Physical Planning Department requires that all construct along that route to be located at least fifteen (15) feet from the main road.

To this end, it is adviseable that due cognisance be given to the anticipated developments in the design phase of your Grant Aid Programme project and that said mooring area be used for the location of the Marine Mechanic Workshop, the Boat Repair Loft and the Net Loft

Thanking you for your kindest co-operation.


.....
NIGEL LAWRENCE
CHIEF FISHERIES OFFICER

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**MINUTES OF DISCUSSIONS ON
THE BASIC DESIGN STUDY ON
THE PROJECT FOR IMPROVEMENT OF
MARIGOT FISH LANDING FACILITIES IN
THE COMMONWEALTH OF DOMINICA
(EXPLANATION OF DRAFT REPORT)**

In September 1999 and January 2000, the Japan International Cooperation Agency (JICA) dispatched the Basic Design Study Teams on the Project for Improvement of Marigot Fish Landing Facilities (hereinafter referred to as "the Project") to the Commonwealth of Dominica, and through discussions, field surveys, and technical examination of the results in Japan, JICA has prepared a draft report of the study.

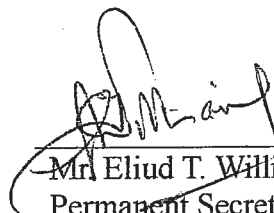
In order to explain and consult the Government of Dominica on the components of the draft report, JICA sent to Dominica the Draft Report Explanation Team (hereinafter referred to as "the Team"), which is headed by Mr. Itaru Hamakawa, Deputy Director, Fourth Project Management Division, Grant Aid Management Department, JICA, from March 30 to April 6, 2000.

As a result of discussions, both parties has confirmed the main items described on the attached sheet.


Roseau, April 5, 2000



Mr. Itaru Hamakawa
Leader
Draft Report Explanation Team
JICA



Mr. Eliud T. Williams
Permanent Secretary
Ministry of Agriculture, the
Environment and Planning



Mr. Andrew Maqloire
Fisheries Officer
Ministry of Agriculture, the Environment
and Planning

ATTACHMENT

1. Components of the Draft Report

1.1 The Government of Dominica agreed and accepted the components of the draft report explained by the Team.

1.2 The both parties agreed that the following items in the Draft Report shall be revised;

a) The west resting pier will be shifted to the west side in order to keep wider basin.

b) The layout of administration building shall be revised as follows.

The location will be interchanged between processing section and market section. And the processing section shall be separated by wall from the other section.

c) At the entrance of market section, a mesh type of the accordion door shall be installed.

d) The west side emergency boat lot shall be paved by concrete in order to avoid erosion by water splashing. And an asphalt pavement shall be applied to the inner road and the parking area for boats and cars to keep easy maintenance.

e) The both parties confirmed that the final project components are as follows and the detailed information is indicated in the Draft Report.

- Wharf
- Breakwater
- Slipway/Boat ramp
- Public rest rooms
- Water supply
- Electricity
- Water drainage
- Folk lift
- Winch
- Speakers system
- Beacon lights
- Fisherman's locker rooms
- Mechanic workshop with tools
- Boat repair loft
- Administration office with meeting room
- Rest rooms and showers
- Fish marketing/handling/processing area
- Ice storage/chilled storage
- Emergency Generator
- UHF Radio
- Net loft
- Fish marketing equipment



2. Japan's Grant Aid System

Dominican side understands the Japan's Grant Aid Scheme and the necessary measures to be taken by the Government of Dominica as explained by the Team and described in Annex-1.

3. Schedule of the Study

JICA will complete the Final Report in accordance with the confirmed items and send it to the Government of Dominica by the end of July 2000.

4. Other Relevant Issues

4.1 The Government of Dominica has to undertake a pre-environmental impact assessment, and where applicable take the necessary countermeasures, if required. On completion of the pre-environmental impact assessment, and that no significant impact will result from the execution of the Project, the Government of Dominica will issue a letter granting permission for the execution of the Project to the Japanese Government prior to the arrangement of the Exchange of Notes (E/N) for the Project.

4.2 The both parties confirmed the following items;


a) In order to clean out the project area, the existing structures such as the temporary fence and the existing toilet by the Dominican side.

b) In order to secure the area for the work shop and boat repair loft, the existing basin will be reclaimed. The necessary administrative arrangement will be under taken by the Dominican side.

c) The existing west side road along the Marigot Bay is planed to be widen to the existing revetment side by the Government of Dominica. In this regard the area of the existing west side revetment shall be excluded from the Project Area.

4.3 The both parties confirmed that the organization and budgetary arrangement for the Marigot Fishery Port, which are presented in the Draft Final Report, March 2000, Section 1.15 and 2.2 are accepted by the Government of Dominica. The organization will be established prior to implementation of the Project.

4.4 The Government of Dominica expressed the desire to rehabilitation the Roseau Fish Complex with immediate effect. With reference to the Marigot Project and request for Portsmouth Fishery Complex, a cabinet decision will be forwarded to the Government of Japan through diplomatic channels by end of April, 2000. The Team explained that as for the project of Portsmouth Fishery Complex the Government of Dominica should make the official request.



ANNEX 1
JAPAN'S GRANT AID SCHEME

1. Grant Aid Procedures

- 1) Japan's Aid Program is executed through the following procedures.

Application	(Request made by a recipient country)
Study	(Basic Design Study conducted by JICA)
Appraisal & Approval	(Appraisal by the Government of Japan and Approval by Cabinet)
Determination of Implementation	(The Notes exchanged between the Government of Japan and recipient country)

- 2) Firstly, the application or request for a Grant Aid project submitted by a recipient country is examined by the Government of Japan (the Ministry of Foreign Affairs) to determine whether or not it is eligible for Grant Aid. If the request is deemed appropriate, the Government of Japan assigns JICA (Japan International Cooperation Agency) to conduct a study on the request.

Secondly, JICA conducts the study (Basic Design Study), using (a) Japanese consulting firm(s).

Thirdly, the Government of Japan appraises the project to see whether or not it is suitable for Japan's Grant Aid Program, based on the Basic Design Study report prepared by JICA, and the result are then submitted to the Cabinet for approval.

Fourthly, the project, once approved by the Cabinet, becomes official with the Exchange of Notes signed by the Governments of Japan and the recipient country.

Finally, for the implementation of the project, JICA assists the recipient country in such matters as preparing tenders, contracts and so on.

2. Basic Design Study

- 1) Contents of the Study

The aim of the Basic Design Study (hereinafter referred to as "the Study") conducted by JICA on a requested project (hereinafter referred to as "the Project") is to provide a basic document necessary for the appraisal of the Project by the Japanese Government. The contents of the Study as follows:

- a) Confirmation of the background, objectives, and benefits of the requested project and also institutional capacity of agencies concerned of the recipient country necessary for the Project's implementation.
- b) Evaluation of the appropriateness of the Project to be implemented under the Grant Aid Scheme from a technical, social and economic point of view.

concluding contracts with (a) consultant firm(s) and (a) contractor(s) and final payment to them must be completed.

However in case of delays in delivery, installation or construction due to unforeseen factors such as weather, the period of the Grant Aid can be further extended for a maximum of one fiscal year at most by mutual agreement between the two Government.

- 4) Under the Grant Aid, in principle, Japanese products and services including transport or those of the recipient country are to be purchased.

When the two Governments deem it necessary, the Grant Aid may be used for the purchase of the products or services of the third country.

However the prime contractors, namely, consulting, contracting and procurement firms, are limited to "Japanese nationals". (The term "Japanese nationals" means persons of Japanese nationality or Japanese corporations controlled by persons or Japanese nationality.)

- 5) Necessity of "Verification"

The Government of recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be verified by the Government of Japan.

This "Verification" is deemed necessary to secure accountability to Japanese taxpayers.

- 6) Undertaking required of the Government of the Recipient Country

In the implementation of the Grant Aid project, the recipient country is required to undertake such necessary measures as the following:

- (1) To secure land necessary for the sites of the Project and to clear, level and reclaim the land prior to commencement of the construction.
- (2) To provide facilities for the distribution of electricity, water supply and drainage and other incidental facilities in and around the sites.
- (3) To secure buildings prior to the procurement in case the installation of the equipment.
- (4) To ensure all the expenses and prompt execution for unloading, customs clearance at the port of disembarkation and internal transportation of the products purchased under the Grant Aid.
- (5) To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which will be imposed in the recipient country with respect to the supply of the products and services under the Verified Contracts.
- (6) To accord Japanese nationals whose services may be required in connection with the

supply of the products and services under the Verified Contracts, such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.

(7) "Proper Use"

The recipient country is required to maintain and use the facilities constructed and equipment purchased under the Grant Aid properly and effectively and to assign staff necessary for this operation and maintenance as well as to bear all the expenses other than those covered by the Grant Aid.

(8) "Re-export"

The products purchased under the Grant Aid not be re-exported from the recipient country.

(9) Banking Arrangements(B/A)

a) The Government of the recipient country or its designated authority should open an account in the name of the Government of the recipient country in bank in Japan (hereinafter referred to as "the Bank"). The Government of Japan will execute the Grant Aid by making payments in Japanese yen to cover the obligations incurred by the Government of the recipient country or its designated authority under the Verified Contracts.

b) The payments will be made when payment requests are presented by the Bank of the Government of Japan under an authorization to pay issued by the Government of the recipient country or its designated authority.

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The Major Undertakings to be Taken by each Government

No.	Items	To be covered by Grant Aid	To be covered by Recipient Side
1	To secure land		●
2	To clear, level and reclaim the site when needed		●
3	To construct gates and fences in and around the site		●
4	To construct the parking lot	●	
5	To construct roads		
	1) Within the site	●	
	2) Outside the site		●
6	To construct the buildings	●	
7	To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities		
	1) Electricity		
	a. The distributing line to the site		●
	b. The drop wiring and internal wiring within the site	●	
	c. The main circuit breaker and transformer	●	
	2) Water Supply		
	a. The city water distribution main to the site		●
	b. The supply system within the site (receiving and elevated tanks)	●	
	3) Drainage		
	a. The city drainage main (for storm, sewer and others) to the site		●
	b. The drainage system (for toilet sewer, ordinary waste, storm drainage and others) within the site	●	
	4) Gas Supply		
	a. The city gas main to the site		●
	b. The gas supply system within the site	●	
	5) Telephone System		
	a. The telephone trunk line to the main distribution frame/panel (MDF) of the building		●
	b. The MDF and the extension after the frame/panel	●	
	6) Furniture and Equipment		
	a. General furniture		●
	b. Project equipment	●	
8	To bear the following commission to the Japanese bank for the banking services based upon the B/A		
	1) Advising commission of A/P		●
	2) Payment commission		●
9	To ensure unloading and customs clearance at port of disembarkation in recipient country		
	1) Marine (Air) transportation of the products from Japan to the recipient country	●	
	2) Tax exemption and custom clearance of the products at the port of disembarkation		●
	3) Internal transportation from the port of disembarkation to the project site		●
10	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services under the verified contract such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their works.		●
11	To exempt Japanese nationals from customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the supply of the products and services under the verified contracts.		●
12	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant.		●
13	To bear all the expenses, other than those to be borne by the Grant, necessary for construction of the facilities as well as for the transportation and installation of the equipment.		●

資料一6 参考資料／入手資料リスト

収 集 資 料 リ ス ト

1999年 10月 14日 作成

情報管理課長	図内登録係受付印
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主管部長	主管課長
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地域	中米	調査団	調査の種類	作成部課	納入予定日
国名	ドミニカ国	等名称	基本設計調査	交通技術部	
		ドミニカ国マリゴット漁港整備計画基本設計調査	現地調査期間	担当者氏名	遠藤 秀文
			1999年 9月 8日 - 1999年 10月 10日		

番号	資料の名称	形態	版型	ページ数	オリジナルコピーの別	部数	収集先名称又は発行機関	寄贈・購入(価格)の別	取敢区分	利用表示	利用者所属氏名	納入予定日	納入確認欄
1	Summary of Fishing Boat in Mirigot	仮綴	A4	1	コピー	1	Fisheries Division						
2	Summary of Fishing Boat in Woodford Hill	仮綴	A4	1	コピー	1	Fisheries Division						
3	Summary of Fishing Boat in Wesley	仮綴	A4	1	コピー	1	Fisheries Division						
4	Summary of Fishing Boat in Carib Reserve	仮綴	A4	1	コピー	1	Fisheries Division						
5	Revenue Collected for Services at the Complex for the Period Jan. - Sept., 1998	仮綴	A4	1	コピー	1	Fisheries Division						
6	Movement of Fish at the Roseau Fisheries Complex, Sept 1998 ~ Aug1999	仮綴	A4	1	コピー	1	Fisheries Division						
7	List of Facilities for Marigot Fisheries Complex	仮綴	A4	2	コピー	1	Fisheries Division						
8	Newtown Fisheries Cooperative L.I.D. Income an /expenditure Account for the New Ended June 30 1998	仮綴	A4	2	コピー	1	Newtown Fisheries Cooperative						
9	ドミニカ国地図(1974年)	仮綴	A1	5	コピー	1	the British Government's Ministry of Overseas Development						
10	ドミニカ国地図(1985年)	仮綴	A1	28	コピー	1	the British Government's Ministry of Overseas Development						
11	マリゴット周辺海岸空中写真(1991年)	仮綴	A4	12	コピー	1	Mel Vill Hall Airport						
12	マリゴット周辺海岸空中写真(1985年)	仮綴	A4	7	コピー	1	Mel Vill Hall Airport						
13	マリゴット周辺の気象データ(1980-1999)	仮綴	A4	730	コピー	1	Mel Vill Hall Airport						
14	マリゴット周辺の降雨データ(1973-1998)	仮綴	A4	27	コピー	1	Mel Vill Hall Airport						
15	Earthquake swarm in southern Dominica, Lesser Antilles. Update to 22 April 1999	仮綴	A4	10	コピー	1	Seismic Research Unit						
16	Laws of the Commonwealth of Dominica Labour Legislation 1990	製本	A4	117	オリジナル	1	L.R.O.						
17	Dominica World Heritage Site	製本	A4	28	オリジナル	1	Dominica NDC						
18	Fish Landing by Major Species Categories, 1993 to 1997	仮綴	A4		コピー	1	Fisheries Division						
19	Distribution of Fish Landings by Major Landing Sites, 1993 to 1997	製本	A4		コピー	1	Fisheries Division						
20	DOMLECS Rates of Electricity	製本	A4		コピー	1	DOMLEC						

収 集 資 料 リ ス ト

1999年 10月 14日 作成

主管部長	文書管理課長	主管課長	情報管理課長	図書資料課受付印

地域	中米	調査団	調査の種類	作成部課	交通技術部
国名	ドミニカ国	等名称	ドミニカ国マヨゴット漁港整備計画基本設計調査	現地調査期間	担当者氏名
				1999年 9月 8日 - 1999年 10月 10日	遠藤 秀文

番号	資料の名称	形態	ページ数	オリジナルコピーの別	部数	収集先名称又は発行機関	香贈・購入(価格)の別	取扱区分	利用表示	利用者所属氏名	納入予定日	納入確認欄
21	DOWASCO'S Current Tariff Structure	製本 A4		コピー	1	DOWASCO						
22	The Story of Drinking Water in Dominica	製本 A4		コピー	1	DOWASCO						
23	Standard of Septic Tanks	製本 A4		コピー	1	Ministry of Finance Industry and Planning						
24	Recommended Maximum Values for Treated Sewage Effluent	製本 A4		コピー	1	Ministry of Finance Industry and Planning						
25	Financial Estimate 1999/2000	製本 A4		コピー	1	Ministry of Finance Industry and Planning						
26												
27												
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36												
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39												
40												

資料一7 その他の資料・情報

Summary Of Fishing Boats Marigot

No. of Regd., Vessels : ..56 (1999): Landing Site Code:.(J700..MGT)

O P E R A T I N G S T A T U S
--

<u>Location</u>	<u>Currently Operating</u>	<u>Under Rehabilitation</u>	(Destroyed) <u>U n d e r Construction</u>	<u>Total</u>
1. At Landing sites	23	4	1	28
2. Within Villages		6	2	8
3. Refuge area away from site.	1	1		2
4. Other location				
(a). Calibishi		1	1	2
(b). Mahaut	3			3
(c). P'ville.....	1			1
(d). St. Joe.....	2			2
(e). Coulibistrie.....	4			4
(f). Salisbury.....	3			3
(g) Mero.....	2		1	3
4. Total	15	1	2	18
TOTAL	39	12	5	56

Comments:.....

Legend: **.....; #.....; ++.....

Summary Of Fishing Boats Woodfordhill

No. of Regd., Vessels : ...28.... (1999): Landing Site Code:.(J700..WFH)

O P E R A T I N G S T A T U S
--

<u>Location</u>	<u>Currently Operating</u>	<u>Under Rehabilitation</u>	(Destroyed) <u>U n d e r Construction</u>	<u>Total</u>
1. At Landing sites	10		1	11
2. Within Villages		2		2
3. Refuge area away from site.		3		3
4. Other location				
(a)...P'mouth....	4			4
(b)...St. Joe	3			3
(c)...Mero			1	1
(d).. ...				
(e)...Others...	3		1	4
4 Total	10		2	12
TOTAL	20	5	3	28

Comments:.....

Legend: **.....; #.....; ++.....

Summary Of Fishing Boats Wesley,

No. of Regd., Vessels :.....20..... (1999): Landing Site Code:.(J700..WSY.).

O P E R A T I N G S T A T U S
--

<u>Location</u>	<u>Currently Operating</u>	<u>Under Rehabilitation</u>	(Destroyed) <u>U n d e r Construction</u>	<u>Total</u>
1. At Landing site	4		1	5
2. Within Village				
3. Refuge area away from site.		1		1
4. Other location				
(a)..Marigot.....	5			5
(b)..Calibishi.	4			4
(c)..P'mouth.....	3			3
(d) St. Joseph....	2			2
(e).....				
4 Total	14			14
TOTAL	18	1	1	20

Comments:.....

Legend: **; #.....; ++.....

Summary Of Fishing Boats Carib Reserve

(Atkinson, Salybia, Sinecou, Bataka, St. Cyr,)

No. of Regd., Vessels : ..56.... (1999): Landing Site Codes:.(J700 AKN)
(J700 SBA)

O P E R A T I N G S T A T U S
--

<u>Location</u>	<u>Currently Operating</u>	<u>Under Rehabilitation</u>	(Destroyed) <u>U n d e r Construction</u>	<u>Total</u>
1. At Landing sites	12	.....	.....	12
2. Within Villages	10	6	7	23
3. Refuge area away from site.	6	.....	.....	6
4. Other location .....	.....	.....	.....	.....
(a)...Marigot.....	2	.....	.....	2
(b)...Tronto..	4	.....	.....	4
(c)...G.Hope.....	3	.....	.....	3
(d)...Rosalie.....	2	.....	1	3
(e)...Mero.....	2	.....	.....	2
(f) Colihaut	1	.....	.....	1
4. Total	14	.....	1	15
TOTAL	42	6	8	56

Comments:.....
.....
.....
.....
.....
.....
.....
.....

Legend: **.....; #.....; ++.....

Revenue collected for services at the complex for the period Jan - Sept.

Items	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Ice sales	122.50	1207.00	3432.50	968.75	1557.25	590.00	1293.00	933.00	1638.56
Cold storage	63.45	0	2248.55	115.00	139.15	13.20	75.71	2677.55	73.35
Band saw	0	150.00	225	222.25	255.50	235.20	335.75	872.18	359.98
User fees	1730	305	615	570	1675.00	785.00	1490.00	1170.00	730.00
Total	1915.95	1662.00	6521.05	1876.00	3626.90	1623.40	3194.46	5652.73	2801.89

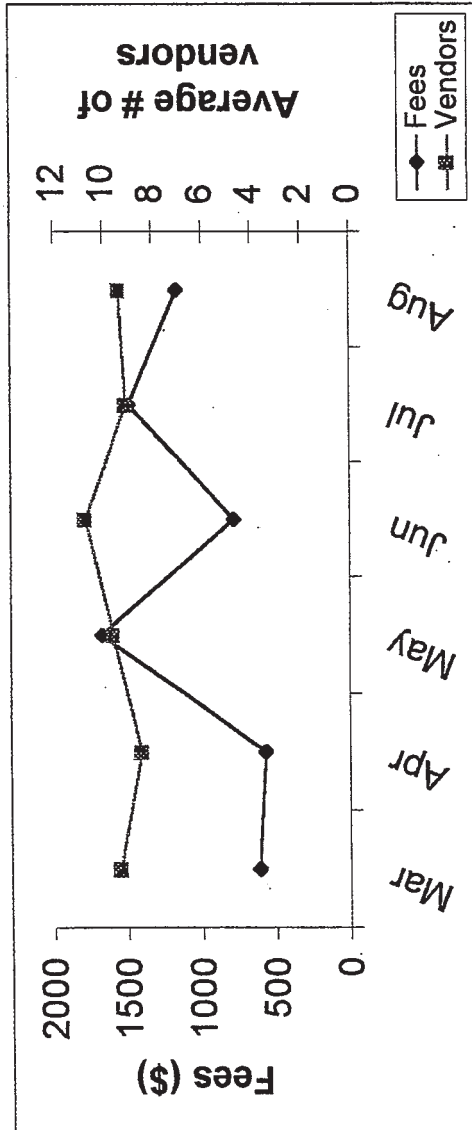


Table 1. Movement of fish at the Roseau Fisheries Complex

Months	Monthly expenditure	Monthly revenue	Difference	Purchase Weights	sales Weights	Trash	Dehy- dration	Fish in stock
Sep-98	\$ 28,537.00	\$ 17,914.20	\$ (10,622.80)	5769	2,330	767.5	288.45	2383
Oct-98	\$ 30,155.00	\$ 19,164.20	\$ (10,990.80)	6031	3,022	501.84	301.55	4588
Nov-98	\$ 5,825.00	\$ 26,700.13	\$ 20,875.13	1837	4,639	1275.21	91.85	419
Dec-98	\$ 36,690.70	\$ 37,275.25	\$ 584.55	9137	6,573	2438.71	456.85	88
Jan-99	\$ 37,351.00	\$ 35,022.25	\$ (2,328.75)	10739	5,585	1252.69	536.95	3452
Feb-99	\$ 54,855.90	\$ 49,909.00	\$ (4,946.90)	14367	8,268	1931.80	718.35	6901
Mar-99	\$ 45,558.75	\$ 42,059.25	\$ (3,499.50)	9770	6,956	1229.55	488.50	7998
Apr-99	\$ 36,266.25	\$ 42,223.88	\$ 5,957.63	9264	3,863	663.83	463.20	12271
May-99	\$ 18,868.25	\$ 10,787.00	\$ (8,081.25)	4443	1,635	433.00	222.15	14424
Jun-99	\$ 6,944.25	\$ 17,415.80	\$ 10,471.55	1605	2,893	1021.88	496.92	11618
Jul-99	\$ 3,633.75	\$ 30,991.75	\$ 27,358.00	765	5,355	2264.75	495.31	4268
Aug-99	\$ 16,277.65	\$ 3,890.00	\$ (12,387.65)	4859	559	702.35	194.36	7671
Sep-99			\$ -				0.00	7671
TOTALS	\$ 320,963.50	\$ 333,352.71	\$ 12,389.21	78586	51677.4	14483.11	4754.45	7671

LISTING OF FACILITIES

Refrigeration facilities:

Ice plant & storage

- Daily capacity - 4-5 tons/day,
- Ice type - flaked ice and shell
- Storage capacity - 30 cubic metres.

Cold Storage with generator

- Capacity - 20 tons
- Inner temperature - 20 degrees celcius
- Size of storage - 50 cubic metres

Chilled Room

- Storage capacity - 3 tons
- target fish - mixed catch (flying fish, halfbeaks, etc..)
- Inner temperature - -5 to - 8 degrees celcius
- Size of storage - 10 cubic metres

Fishing Port:

- Landing wharf - Berthing for boats of 6 feet draught and over
- Service/mooring wharf - Water, hurricane refuge area
- Break waters - Protections from swells and turbulent seas

Outer facilities

- Slipway/boat ramp - For boats to be hauled with winch, over 100 boats x 3m
- Petrol Station - Gasolene and diesel to service boats among others
- Boat Repair loft - For boat repairs and construction.
Average 6 boats at one time.
- Net loft - For repairs/mending and construction 20' x 40'
- Rest rooms -

Buildings:

- Locker rooms - One unit (2 ½ m x 2 ½ m) per fishing vessel
- Marine Mechanic Workshop
with repair and servicing tools - repair and servicing tools
- Central administration office]
and training / meeting room]---- 500 SQ. Metres
- Quality control/Laboratory, Fish marketing, handling]
and processing area]
- Restrooms and showers

General Facilities:

- Water supply
- electricity
- water drainage
- garbage and fish waste treatment - provision for fish meal processor

Fish marketing Equipment

- Xactics (insulated) Boxes (680 litre x 10.),
 - (230 litre.x 22)
 - (500 litre.x 12).
- fish containers plastic (different sizes)
- scales (platform and hanging), and carts
- vehicles for fish transportation and distribution w/ comm. units - 2 units (insulated)
 - - 1 unit (refrigerated)
 - - 1 extension & training
- fish processing equipment with spares
 - (band saw)
 - (vacuum pack)
 - (filleting tables, knives, gloves, attire, etc.)

Equipment:

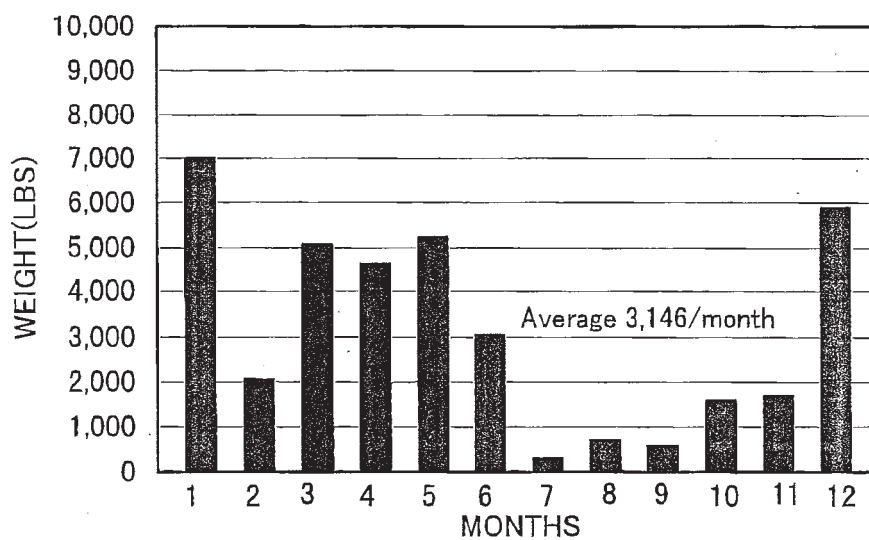
- water and fish quality inspection kits
- data processing and office equipment
- education and training equipment (audio visual aids, charts, OHP, Slide Projector, P.A. system, VCR, VHF Radios)

Safety Features

MONTHLY FISH CATCH RECORD BY SAMPLING METHOD IN MARIGOT - 1997.

MONTH	TLTAL	PELAGIC- PEAK SEASON	OFF- PELAGIC SEASON
JANUARY	7,005	7,005	-
FEBRUATY	2,051	2,051	-
MARCH	5,076	5,076	-
APPIL	4,610	4,610	-
MAY	5,221	5,221	-
JUNE	3,041	3,041	-
JULY	304	-	304
AUGUST	695	-	695
SEPTEMBER	568	-	568
OCTOBER	1,596	-	1,596
NOVEMBER	1,701	1,701	-
DECEMBER	5,886	5,886	-
	37,754 (100%)	34,591 (92%)	3,163 (8%)

TOTAL CATCH FOR MARIGOT - 1997



出典：水産局

file copy

FORM E
FBR 004C

GOVERNMENT OF THE COMMONWEALTH OF
DOMINICA

MINISTRY OF AGRICULTURE
FISHERIES DEVELOPMENT DIVISION
CERTIFICATE OF DOMINICAN

REGISTRY OF FISHING VESSELS

PARTICULARS OF SHIP/VESSEL

OFFICIAL REG. NO. J7A-005C	NAME OF SHIP NATURE ISLE	NO. YEAR & PORT PREVIOUS REGISTRY 609144 1990 U.S.	NO. YEAR AND PORT OF REGISTRY J7A-005C 1993 D'CA.
BUILT D/CA OR FOREIGN U.S.A.	WHEN BUILT 1979	HOW PROPELLED MOTOR/SAIL MOTOR	NAME & ADDRESS OF BUILDERS CUSTOM GALLIAND, LOUISIANA U.S.A.
No. OF CREWMEN		FIVE (5)	
NUMBER OF DECKS	1	LENGTH (LOA)	FEET 56.6
" " MASTS	1	MAIN BREADTH	20
RIGGED	YES	DEPTH IN HOLD	07.2
STEM	RAKED	DEPTH (U/D to K)	
STERN	TRANSOM	ROUND OF BEAM	
BUILD	STEEL	LENGTH OF ENGINE	15
FRAMEWORK & DESCRIPTION OF VESSEL:		ROOM (if any)	01
STEEL HULL SHRIMPER			
DESIGN / LONGLINER			
NUMBER OF BULKHEADS	TWO		
PARTICULARS OF PROPELLING ENGINE (if any) as supplied by engine makers			
NO. OF SETS OF ENGINE	DESCRIPTION OF ENGINES	NAME & ADDRESS OF MAKER	ESTIMATED SPEED OF SHIP
	YEAR: 1979 DD 8V-71	GENERAL MOTORS DETROIT DIESEL	
(1) two 270-HP GM-8V-71	SERIAL # # MODEL TWIN DISC HG-509	USA	08 KNTS.

PARTICULARS OF TONNAGE

GROSS TONNAGE		NO. OF TONS.	DEDUCTIONS ALLOWED	NO. OF TONS
UNDER TONNAGE DECK			Amount of space required for propelling power	
WHEEL HOUSE			Crew Accommodation. Navigation Space... Cabin locker/store. Steering Flat..... Engine Room.....	
COACH TOP				
OTHERS				
	Cubic met.			
<u>GROSS TON.</u>				
<u>DEDUCTIONS</u>				
REG. TON	<u>44.00</u>	65.00	TOTAL	21.00

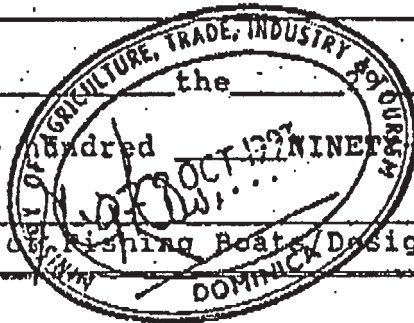
I, the undersigned Registrar/or Designate of Dominican Fishing Boats, at the port of DOMINICA hereby certify that the Ship, the Description of which is prefixed to this my Certificate, has been duly surveyed, and that the above Description is in accordance with the Register Book; that CECIL KNIGHT whose Certificate of Competency or Service is No. _____, is the Master of the said Ship; and that the Name _____, residence and description of the owner CASEY INC. and number of sixty-four shares held by SAME are as follows:

NAME, RESIDENCE & OCCUPATION OF OWNER <u>CASEY INC LTD</u> <u>ROSEAU, DOMINICA.</u>	NO. OF SIXTY-FOUR SHARES <u>64/64</u>
---	---

Dated at ROSEAU the _____ day of OCTOBER

One thousand, nine hundred _____ NINETEEN _____ THREE

Registrar of Fishing Boats/Designate





**MINISTRY OF AGRICULTURE AND THE ENVIRONMENT
FISHERIES DEVELOPMENT DIVISION**

Tel.: (767) 448 2401 (EXT 3391/2 & 3163)

FAX: (767) 448 0140

Email: cfra@cwdom.dm

ROSEAU FISHERIES COMPLEX BLDG.,

DAME EUGENIA CHARLES BLVD.,

ROSEAU

COMMONWEALTH OF DOMINICA

WEST INDIES

Our Ref: April 5, 2000

Japan International Cooperation Agency
Tokyo
Japan

Dear Sir,

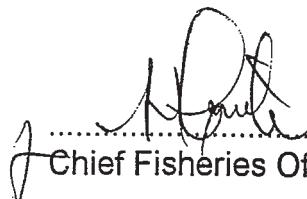
Re. Development of Fisheries Landing Site Facilities In Carib Territory.

In light of the development plan for the Fisheries sector, the Fisheries Division, in a review of the development needs of the islands' fish landing sites, have identified based on feasibility assessments, all of the potential sites deserving immediate structural improvement. Consequently, the fish landing locations within the Carib Territory were of particular importance since they were recognised as the most Treacherous through out the island.

These sites are characterised with little to no foreshore space and are extremely difficult to access by land or sea. Further it has been proven impractical to expend any further resources aimed at improving the usability of these sites. In light of this, the development of other sites such as Marigot, Castle Bruce and San Sauveur are air-marked with high priority so as to accommodate the fishing fleet of the Carib Territory.

In this regard, the Fisheries Development Division is promoting the relocation of boats from the Carib Territory to the Marigot Port upon completion.

Thanking you for your kindest consideration.


.....
Chief Fisheries Officer



資料一8 崖崩壊解析・検討

マリゴット漁港 湾東側崖部の崩壊度検討

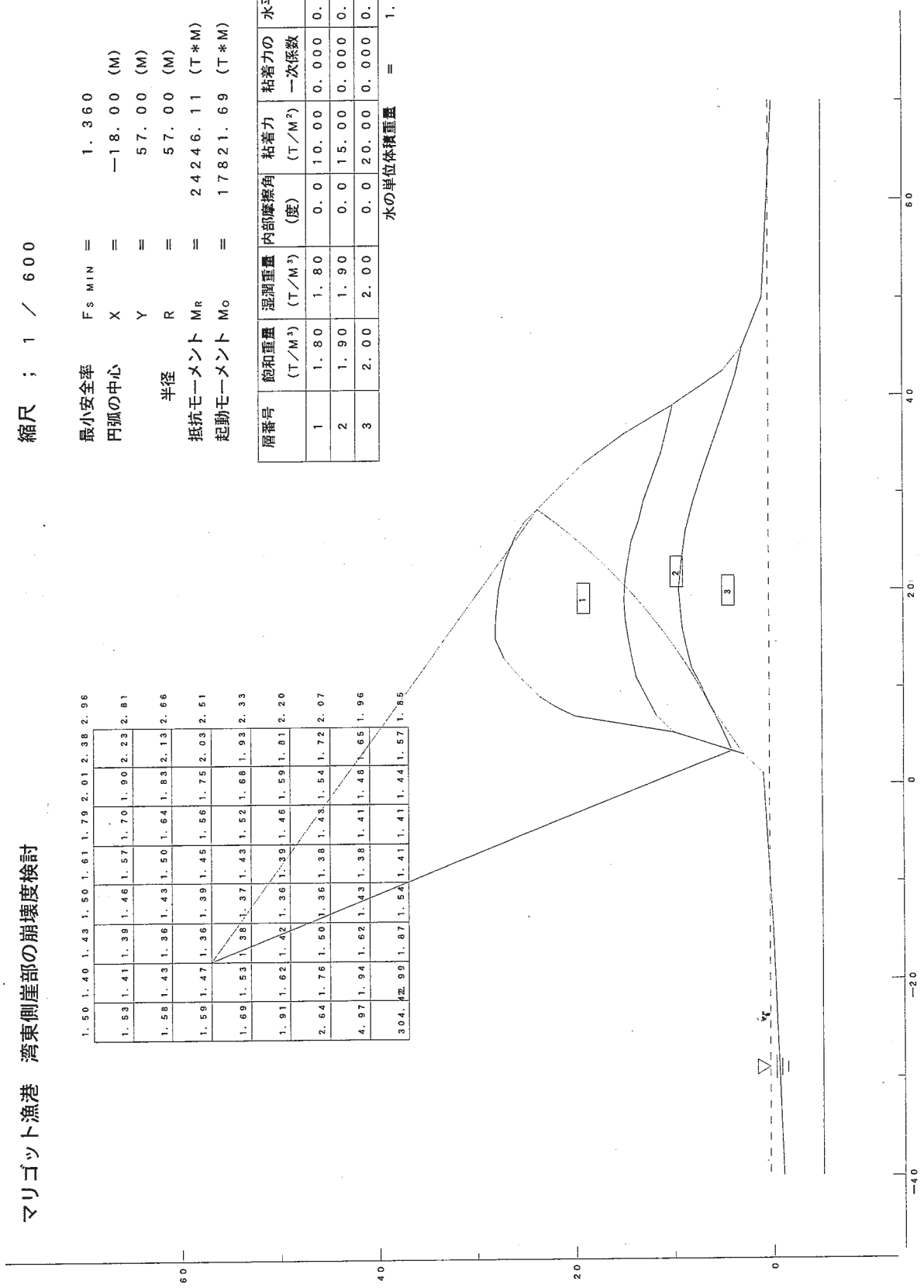
縮尺 ; 1 / 600

1.50	1.40	1.43	1.50	1.61	1.79	2.01	2.38	2.96
1.53	1.41	1.39	1.46	1.57	1.70	1.90	2.23	2.81
1.58	1.43	1.36	1.43	1.50	1.64	1.83	2.13	2.66
1.59	1.47	1.36	1.39	1.45	1.56	1.75	2.03	2.51
1.69	1.53	1.38	1.37	1.43	1.52	1.68	1.93	2.33
1.91	1.62	1.42	1.36	1.39	1.46	1.59	1.81	2.20
2.64	1.76	1.50	1.36	1.38	1.43	1.54	1.72	2.07
4.97	1.94	1.62	1.43	1.38	1.41	1.48	1.65	1.96
304.	42.99	1.87	1.54	1.41	1.41	1.44	1.57	1.85

最小安全率 $F_{s\min} = 1.360$
 円弧の中心 $X = -18.00 (M)$
 $Y = 57.00 (M)$
 半径 $R = 57.00 (M)$
 抵抗モーメント $M_R = 24246.11 (T \cdot M)$
 起動モーメント $M_o = 17821.69 (T \cdot M)$

層番号	飽和重量 (T/M^3)	湿潤重量 (T/M^3)	内部摩擦角 (度)	粘着力 (T/M^2)	粘着力の 一次係数	水平震度	鉛直震度
1	1.80	1.80	0.0	10.00	0.000	0.000	0.000
2	1.90	1.90	0.0	15.00	0.000	0.000	0.000
3	2.00	2.00	0.0	20.00	0.000	0.000	0.000

水の単位体積重量 = 1.030 (T/M^3)



円弧すべり結果(常時)

マリゴット漁港 湾東側崖部の崩壊度検討

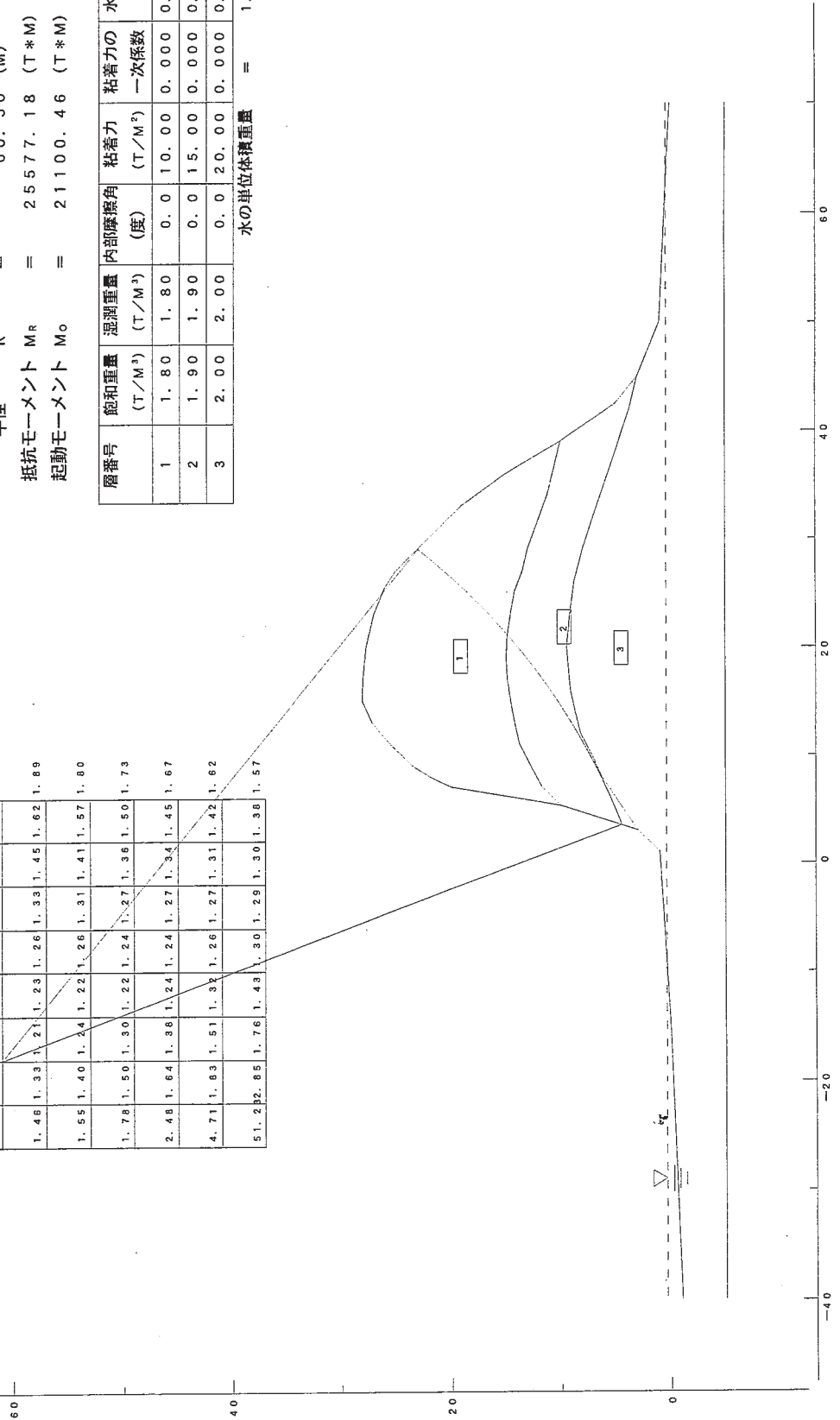
縮尺 ; 1 / 600

1.33	1.23	1.24	1.28	1.35	1.46	1.59	1.80	2.09
1.37	1.25	1.22	1.26	1.33	1.41	1.53	1.72	2.03
1.43	1.28	1.21	1.25	1.29	1.38	1.49	1.67	1.96
1.46	1.33	1.21	1.23	1.26	1.33	1.45	1.62	1.89
1.55	1.40	1.24	1.22	1.26	1.31	1.41	1.57	1.80
1.78	1.50	1.30	1.22	1.24	1.27	1.36	1.50	1.73
2.48	1.64	1.36	1.24	1.24	1.27	1.34	1.45	1.67
4.71	1.83	1.51	1.32	1.26	1.27	1.31	1.42	1.62
51.23	2.85	1.76	1.43	1.30	1.29	1.30	1.38	1.57

最小安全率 $F_{s\ MIN} = 1.212$
 円弧の中心 $X = -18.00 (M)$
 $Y = 61.00 (M)$
 半径 $R = 60.50 (M)$
 抵抗モーメント $M_R = 25577.18 (T \cdot M)$
 起動モーメント $M_o = 21100.46 (T \cdot M)$

層番号	飽和重量 (T/M^3)	湿潤重量 (T/M^3)	内部摩擦角 (度)	粘着力 (T/M^2)	粘着力の 一次係数	水平震度	鉛直震度
1	1.80	1.80	0.0	10.00	0.000	0.100	0.000
2	1.90	1.90	0.0	15.00	0.000	0.100	0.000
3	2.00	2.00	0.0	20.00	0.000	0.100	0.000

水の単位体積重量 = 1.030 (T/M^3)



円弧すべり結果(地震時)

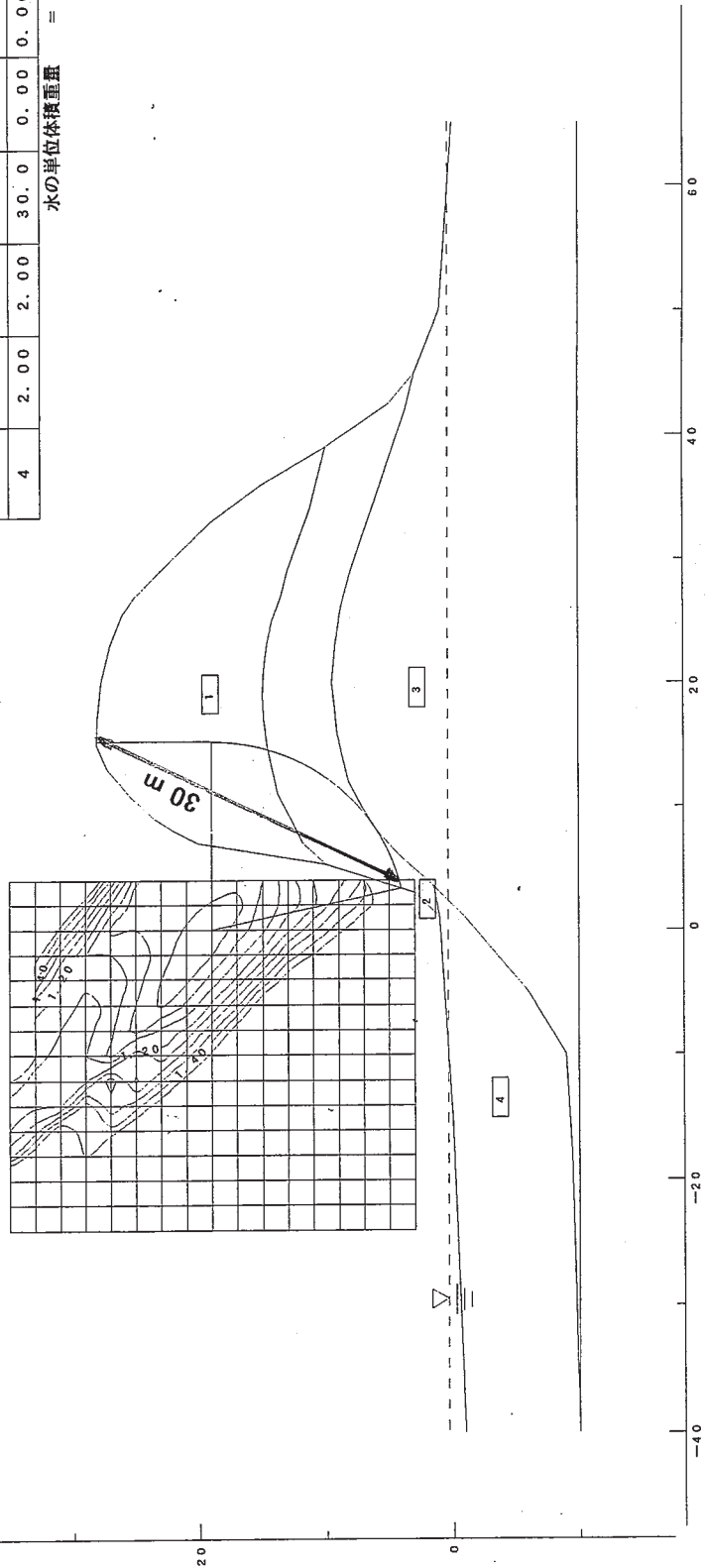
マリゴット漁港 湾東側崖部の崩壊度検討

縮尺 ; 1 / 600

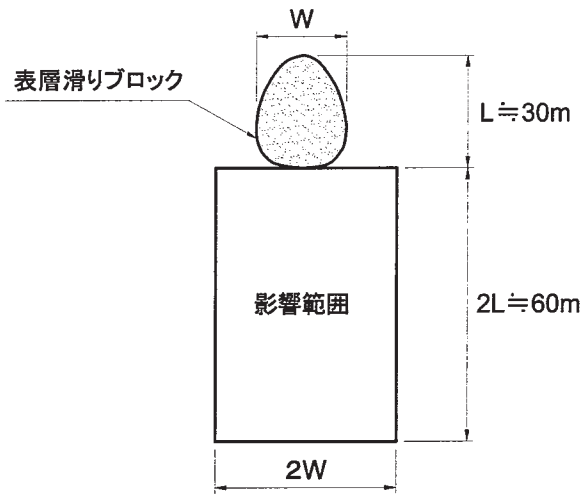
最小安全率 $F_{s\min} = 1.014$
 円弧の中心 $X = 0.00$ (M)
 $Y = 19.00$ (M)
 半径 $R = 15.27$ (M)
 抵抗モーメント $M_R = 3211.89$ (T*M)
 起動モーメント $M_o = 3165.54$ (T*M)

層番号	飽和重量 (T/M ³)	湿潤重量 (T/M ³)	内部摩擦角 (度)	粘着力 (T/M ²)	粘着力の 一次係数	水平露度	鉛直露度
1	2.00	2.00	0.0	10.00	0.000	0.000	0.000
2	2.00	2.00	0.0	15.00	0.000	0.000	0.000
3	2.00	2.00	0.0	20.00	0.000	0.000	0.000
4	2.00	2.00	30.0	0.00	0.000	0.000	0.000

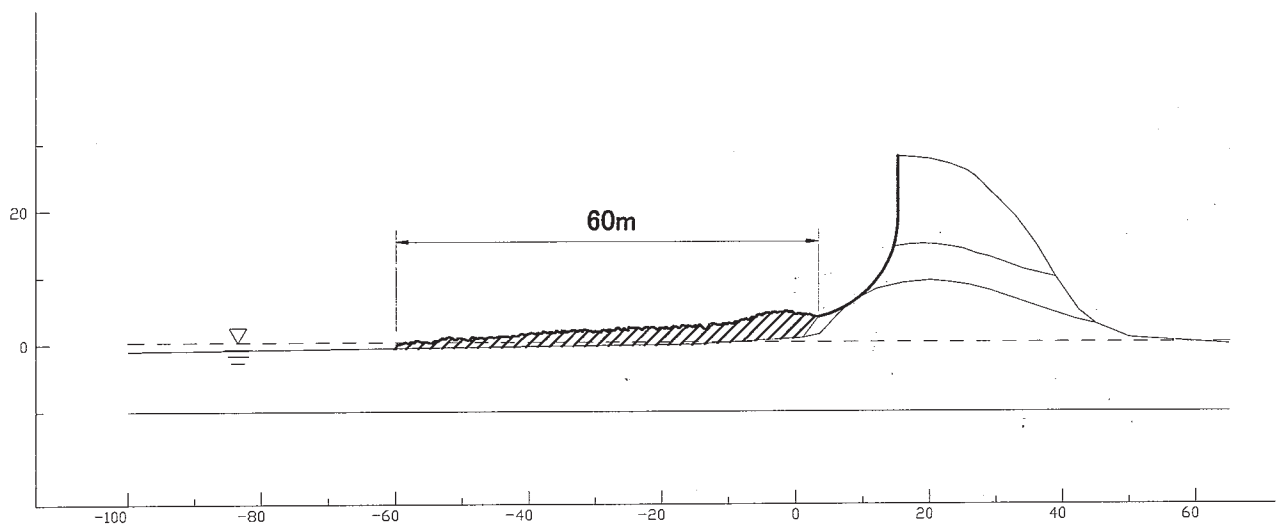
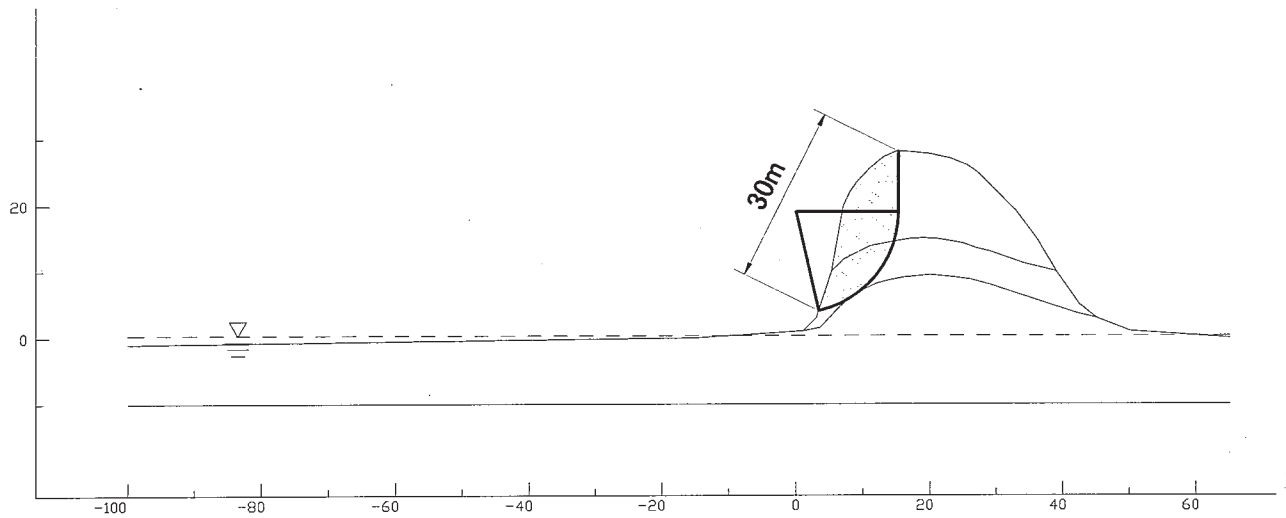
水の単位体積重量 = 1.030 (T/M³)



表層円弧すべり結果(常時)

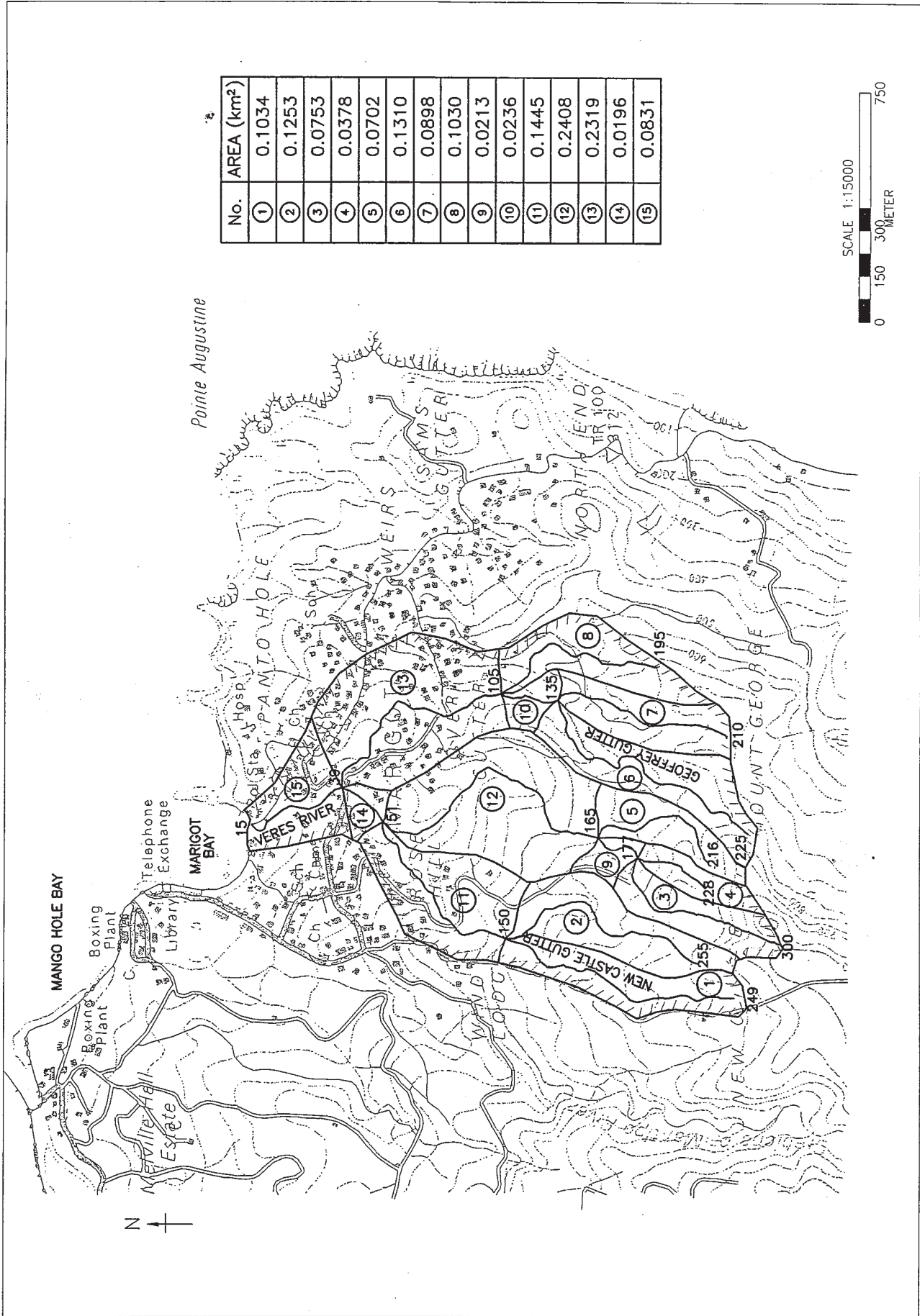


表層滑り影響範囲(平面図)



表層すべり模式図

資料—9 流入河川の検討



流域面積算定根拠

流出係数は、下表(“全建技術シリーズ20河川改修計画の実際”、page40、表2.7.1)により、0.80(山地河川の平均値)を採用する。

流出係数

急峻な山地	0.75~0.90
三紀層山岳	0.70~0.80
起伏のある土地及び樹林	0.50~0.75
平坦な耕地	0.45~0.60
かんがい中の水田	0.70~0.80
山地河川	0.75~0.85
平地小河川	0.45~0.75
流域の半ば以上が平地である大河川	0.50~0.75

R : T時間内の最大となる平均降雨強度

(到達時間)

洪水到達時間 T は、一般に降雨ピークから流量ピークまでの時間の約2倍と考えられている。しかし、地形的条件から設定する場合は、河川の最上流点より、ある地点までの水平距離を Lm、落差を Hmとすると、平均勾配は、 $I=H/L$ となる。

$$w = 20 (H / L)^{0.6} (\text{m/s})$$

一方、河川勾配と到達速度wの関係を示す値として、下記のクラークヘン(Kraven)の値がある。この値は経験式として提案されており、一般的にルチーハの式と比較すると到達速度が大きくなるとされている。従って、ここでは安全側を考慮し、クラークヘンの値を用いることとする。

クラークヘンの値

$$\begin{aligned} I > 1/100 & \quad w = 3.5\text{m/s} \\ 1/100 > I > 1/200 & \quad w = 3.0\text{m/s} \\ I < 1/200 & \quad w = 2.1\text{m/s} \end{aligned}$$

マリゴット湾内に流入する河川は、地形図から判読すると、標高差 300m、水平距離 2600m であり、河川勾配は以下の通りとなる。ここで、クラークヘンの値から到達速度 w を 3.5m/s と設定する。

$$I = h/l = 300/2600 = 1/9$$

到達時間は、次式より 10 分と設定する。

$$T = 2000 / 3.5 = 566 \text{ 秒} = 10 \text{ 分}$$

また、ここで山地から河川への流入時間を 30 分考慮(“全建技術シリーズ20 河川改修計画の実際”、page60)すると総到達時間は以下の通りとなる。

$$T = 10 \text{ min} + 30 \text{ min} = 40 \text{ min}$$

流入時間

山地流域	2 km ²	30 分
特に急傾斜面流域	2 km ²	20 分
下水道整備区域	2 km ²	20 分

到達時間は 40 分であるが、1 時間以内であれば若干の氾濫を許容するものとする。降雨強度は 50 年再現確率の 88.5mm/hr を用いる。さらに洪水のピーク流量は以下の通りである。

$$Q_p = 1/3.6 \times 0.8 \times 88.5 \times 1.50 = 29.5 \text{ m}^3/\text{秒}$$

(不等流の計算)

不等流の水面計算は常流または射流、漸変流ではエネルギー保存則によるベルヌイの定理により、急変流では運動量保存則によって展開された諸式によって、流況(水深、流速など)既知の点から出発して、一般に逐次法によって算出される。

急流河川では射流が卓越するものとし、当河川では射流として限界水深及び流速を算定した。但し、急勾配から緩勾配に変化する場合は、跳水が発生することを考慮し計算を行った。

不等流の計算結果を下表に示す。

不等流計算結果

測点	区間距離	水路底幅	水深	通水断面面積	流量	流速	流速水頭	潤辺長	径深		粗度係数	摩擦損失係数		底高		同左+hI	精度	
	Δl	b	d	A	Q	v	hv	p	R	$R^{2/3}$	sf	sf	hl=sf $\times\Delta l$	Elfl	Elfl+dv			
0.00	0.000	2.000	0.65700	1.114	2.600	2.334	0.278	3.114	0.358	0.254	0.045	0.0434		165.000	165.835			
105.82	105.820	2.000	0.28570	0.571	3.300	5.775	1.702	2.571	0.222	0.135	0.045	0.5018	0.2726	28.849	135.000	136.987	165.837	-0.002
105.82	0.000	2.000	1.25802	2.518	3.300	1.311	0.088	4.518	0.557	0.459	0.045	0.0076			135.000	136.347		
247.62	141.800	2.000	0.44990	0.900	4.200	4.668	1.112	2.900	0.310	0.210	0.045	0.2100	0.1088	15.428	120.000	121.562	136.990	-0.002
297.33	49.710	2.000	0.39450	0.789	4.600	5.830	1.734	2.789	0.283	0.186	0.045	0.3706	0.2903	14.432	105.000	107.129	121.561	-0.001
297.33	0.000	2.000	1.48874	2.937	4.600	1.586	0.125	4.937	0.595	0.500	0.045	0.0099			105.000	106.594		
426.49	129.160	2.000	0.62170	1.043	5.400	5.175	1.367	3.043	0.343	0.240	0.045	0.2260	0.1180	15.239	90.000	91.888	107.127	-0.002
426.49	129.160	2.000	1.44789	2.896	5.400	1.865	0.177	4.896	0.591	0.497	0.045	0.0142			90.000	91.625		流水
598.91	172.420	2.500	0.55730	1.393	6.600	4.717	1.145	3.615	0.385	0.281	0.045	0.1620	0.0881	15.188	75.000	76.702	91.890	-0.002
683.56	84.650	3.000	0.47830	1.435	7.100	4.948	1.249	3.957	0.363	0.259	0.045	0.1917	0.1768	14.970	60.000	61.727	76.698	-0.005
683.56	0.000	3.000	1.32517	3.975	7.100	1.786	0.163	5.650	0.704	0.626	0.045	0.0103			60.000	61.488		流水
936.29	252.730	3.500	0.70730	2.476	8.800	3.555	0.645	4.915	0.504	0.401	0.045	0.0638	0.0371	9.372	51.000	52.352	61.724	-0.003
1123.99	187.700	4.000	1.00350	4.014	16.500	4.111	0.862	6.007	0.668	0.584	0.045	0.0586	0.0612	11.489	39.000	40.866	52.354	-0.002
1319.95	195.960	5.000	0.86110	4.306	29.500	6.852	2.395	6.722	0.640	0.552	0.045	0.1722	0.1154	22.610	15.000	18.256	40.866	-0.001

(流速の算定)

ADI 法による流れ及び拡散の非定常計算により検討を行った。なお、ADI 法は、楕円形偏微分方式の境界値問題の差分近似解放にあたって現れる大型の連立1次方程式を解く方法である。

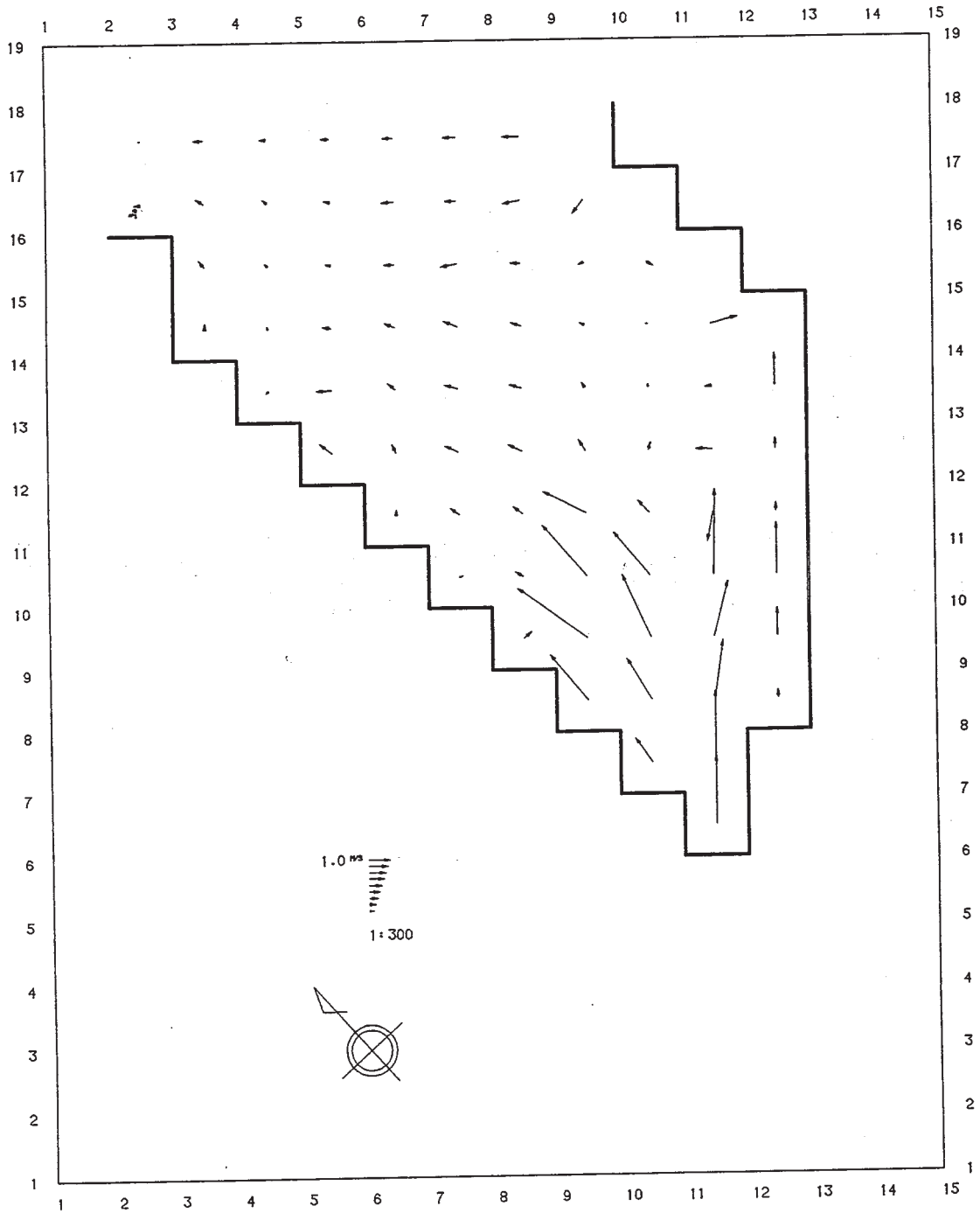
ADI 法は、次の3点が主な利点として挙げられる。

- a) x、y方向の変数がそれぞれ交互に1方向のみ含み的な差分で表現するため、計算方式が簡単になる。
- b) x、y方向で含み的と明白的な差分表現を交代して繰り返し計算するもので、誤差の増大が相殺されるため計算が安定になる。
- c) 計算に要する時間が比較的小さくて済む。

検討ケースは下記の通りである。尚、河川の流入口では、流量を与えるプログラムで、格子点間隔は、10mで計算している。

河川の流入口の水深を1.0m程度とする。

河川流が湾内に流入した40秒後の計算結果を下図に示す。



流速ベクトル図 (NST= 200 0 HOUR 0 MINUTE 40.0 SEC)

流速ベクトル図(流入 40 秒後)