

第4章 プロジェクトの評価

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4-1 事業実施のための前提条件

本プロジェクト実施の前提条件として、「セ」国側が実施する必要がある主要事項は以下のとおりである。

- ① 環境社会配慮の実施及び環境許可証 (Environmental Authorization) の取得
環境に関する許可証の取得及び EIA 手続きの実施が必要である。EIA 報告書作成を行う第三者機関に掛かる経費の負担が必要である。本案件は前フェーズからの拡張工事であるため「セ」国では Class II に属するが、進捗状況を漁港利用者やステークホルダーに対して説明を行うことが求められる。
- ② 建設許可書の取得
建設工事・資機材調達に関して必要とされる許認可の取得、及び構造図審査や品質管理検査を行う第三者機関に掛かる経費の負担が必要である。
- ③ 建設サイト内障害物の撤去及び整地
プロジェクト用地内の障害物の撤去、プロジェクト用地の整地、サイト内への部外者の立入禁止措置が必要である。
- ④ プロジェクトの円滑な進捗に対応する措置
銀行取極め・支払授權書の速やかな発給、本プロジェクトの実施に関与する日本人及び第三人に対し、「セ」国入国及び滞在の許可、並びに滞在中の安全確保、建設工事・資機材調達及び役務を提供するに際して、「セ」国内での日本人及び日本法人に課せられるすべての税金の免除措置が必要である。
- ⑤ 「セ」国側の負担工事等
製氷棟周囲における囲い（フェンス）の建設、必要に応じた周辺アクセス道路の整備が必要である。
- ⑥ 日本政府による無償資金協力の範囲外の一切の費用負担

4-2 プロジェクト全体計画達成のために必要な相手方投入(負担)事項

本プロジェクトの効果を発現・持続するため、相手国が取り組むべき事項は、表 4-1 に示すとおりである。

表 4-1 「セ」国側負担事項

	時期	項目	実施期限
1	着工前	1 本プロジェクトに関する施設整備に係るEIAの実施と環境許可の取得及び建設許可の取得	G/A締結前
		2 プロジェクト実施にかかる費用の確保	GA締結1ヵ月以内
		3 銀行取決め (B/A) の発行処理	GA締結1ヵ月以内
		4 支払授權 (A/P) の発行処理	GA締結1ヵ月以内
		5 A/P発行に必要な費用負担	PQ公示前
		6 計画サイトの確保 (サイト、仮設ヤード)	PQ公示前
		7 計画サイトのサイトクリアランス 1) 工事中の仮設ヤードの確保と草木の伐採 2) 敷地の平地化	PQ公示前
		8 アクセス道路の確保	PQ公示前
2	施工時	1 A/P 及び契約書に基づく支払業務の認証	契約1ヵ月以内
		2 輸入資機材の免税処置 本プロジェクトの実施に必要な建設資機材等の免税措置	機材/資材/機器が到着する際
		3 輸入資機材の通関手続き プロジェクトに係わる建設資機材等の通関手続きとその費用	契約業者による書類を提出から1月以内
		4 プロジェクトに係わる日本人及び第三人に係わる就労許可及び免税措置	業者契約後
		5 プロジェクト実施に要する費用の確保(無償資金協力で担保されない費用)	
		6 プロジェクトサイトまでのインフラ設備の配電・配管 1) 電気 a. プロジェクトサイトまでの配電 b. 主回路・ブレーカー、トランス 2) 給水：水道管の配管 3) 排水：集中排水	施工業者との契約前まで
		7 ソフトコンポーネント実施時の C/P の配置	完工前
		8 PMR と環境モニタリング報告書の提出	3ヵ月毎
		9 プロジェクトの進捗に応じた追加予算 (第三四半期) の申請	
		10 製氷棟周囲における囲い (フェンス) の建設、周辺アクセス道路の整備	完工次
3	竣工後	1 日本の無償資金協力により建設した施設の適切かつ有効な利用と管理	
		2 施設設備運営に要する費用の確保 施設の運営と維持管理 無償資金協力によって整備された施設・機材の運営に必要な管理体制の維持	
		3 1) 維持管理費の確保 2) 運営管理組織と職員の維持 3) 定期的検査/定期的修理	
		4 環境モニタリング計画書(EMP)に基づく環境モニタリングの実施	EMPに記載された期間
		5 JICAが実施する事業評価への協力・支援	

4-3 外部条件

施設完成後のプロジェクトの効果を発現・持続するための外部条件は、以下に示す通りである。

- (a) 投資家（水産加工業者）による中小漁船の購入が予定通り行われる。
- (b) 製氷施設の運営維持に必要な要員が投入され、効率的な施設運用が適切に行われる。
- (c) SFA が販売する氷の販売価格が市場原理に基づいた価格設定で販売できるようになり、製氷施設が安定的に運用される。

4-4 プロジェクト評価

4-4-1 妥当性

本プロジェクトは以下の内容により、無償資金協力による協力対象事業としての実施が妥当であると判断される。

(1) 上位計画との整合性

本プロジェクトは「セ」国の水産開発計画に掲げられている、「持続可能な資源の利用」「雇用創出」「外貨獲得」「食品の安全」という上位計画の目標達成に資するものである。

(2) 運営・維持管理

本プロジェクトの施設・設備は「セ」国独自の資金と人材・技術で運営・維持管理が行えるものであり、過度に高度な技術は必要とされない。本プロジェクト運営はSFAが実施することになっており過去の実績を鑑みても管理・運営上の問題もなく、また収益性についても施設、設備の運営維持管理を円滑に行うことが期待できる程度の規模である。

(3) 環境社会配慮

本プロジェクトの実施は既存の施設、既存の設備の拡張であり負の影響は認められない。

(4) 裨益効果

本プロジェクトの裨益対象は中小零細漁民、小売人、水産加工業者などを含む一般国民である、その数が相当の多数である。

直接裨益者：漁港施設従事者、漁業関係者、魚市場関係者、数百人

間接裨益者：「セ」国全国民 約9万人

(5) 「セ」国に対する我が国の援助政策・方針との整合性

「セ」国にとって、外部経済の影響を受けやすい観光業だけに依存するのではなく、その豊富な水産資源をいかに利用するかが持続的な経済成長にとって重要である。そこで、「セ」国の経済多角化の努力をODAにより支援していくことは、ODA大綱の重点課題の一つである「持続的成長」の観点から意義が高い。

4-4-2 有効性

(1) 定量的効果

本プロジェクトの実施により、以下の定量的効果が期待できる。

① 岸壁混雑率の適正化

岸壁混雑率は実際の係留船隻数と計画利用隻数を比率で示したもので、100%に近い値を示すことが安全かつ適切に使用されている指標となる。2015年の基準調査では12隻の計画隻数に対し23隻が係留しており、極めて使用状態が悪い環境にあることを示す。本事業開始時には岸壁延長により計画隻数が増加(39隻)することにより港内混雑率が100%より低くなるが、事業完成後には100%に近づくことを目標値として設定する。

② 水産物陸揚げ量

マヘ島における零細漁船からの水産物の陸揚げは主にビクトリア、プロビデンス、ベル・オンブレの漁港で行われている。陸揚げ量は漁港機能を推定図る上で重要であり、民間が必要とする需要に応じられるかの指標とされる。本事業で港内係留計画数が現状の2倍と設定することを踏まえ、事業完成後3年目の陸揚げ量は倍増の年間292トンに設定する。

③ 漁業者に対する氷の販売量

零細漁船が漁獲した水産物の鮮度を維持するには纏った量の氷が必要になるため、漁港の氷販売量は漁業者の活動能力の向上を図る指標になる。本事業では基準値として氷の販売量を125トンに設定する。本事業では係留数は約2倍であるが、漁船自体が大型化していること、また販売価格が民間より安価であることを踏まえ、3倍の375トンに設定する。

表 4-2 定量的効果

指標名	基準値 (2015年実績値)	目標値 (2021年) 【事業完成3年後】
岸壁混雑率* (%)	191	100
水産物の陸揚げ量 (トン/年)	150	292
漁港での氷の販売量 (トン/月)	125	375

*岸壁混雑率 (目標値) = 在港隻数 (係留隻数) / 岸壁設計隻数 (39隻)

(2) 定性的効果

本プロジェクトの投入による定性的効果の成果項目は、以下に示すとおりである。

- ① 漁港施設利用の指導・管理が徹底されることで、漁港内の作業効率が向上する。
- ② プロビデンス港/ビクトリア港における岸壁混雑率の適正化により、船舶及び漁業関係者の安全性が向上する。
- ③ 製氷施設の運営維持管理および体制整備により、漁業者に対し適切な量の氷が提供される。
- ④ 製氷施設や陸揚げシュエッドにおける施設運営の向上により、水産物の品質が向上する。

以上の内容により、本案件の妥当性は高く、また有効性が見込まれると判断される。

資料編

【資料編】

資料－１ 調査団員・氏名

資料－２ 調査行程

資料－３ 関係者（面談者）リスト

資料－４ 討議議事録(M/D)

資料 4.1 2015年4月1日

資料 4.2 2015年7月2日

資料 4.3 2015年12月2日

資料－５ 参考資料

資料 5.1 ステークホルダーミーティング議事録

資料 5.2 SFAと投資家間の土地リース変更確同意書

資料－６ その他の資料・情報

資料 6.1 環境社会配慮

6.1.1 環境社会配慮チェックリスト

6.1.2 環境モニタリングフォーム

資料 6.2 要請岸壁に対する港内静穏度解析結果

資料 6.3 漁船タイプ別推定漁船利用隻(ビクトリア漁港)

資料 6.4 漁船タイプ別推定漁船利用隻(プロビデンス漁港)

資料 6.5 プロビデンス漁港からの氷供給（回数）

資料－７ ソフトコンポーネント計画書

資料－1 調査団員・氏名

1次調査団員・氏名

【官団員】

名前	所属	担当業務
甲谷 伊佐雄	JICA	総括
松本 賢一	JICA	調査企画

【コンサルタント団員】

名前	所属	担当業務
石本 亮	OAFIC 株式会社	業務主任／運営維持管理計画
黒木 賢二	株式会社エコー	土木施設計画・設計／自然条件
飯田 一寛	OAFIC 株式会社	漁業／水産物流通
中村 正典	OAFIC 株式会社	環境社会配慮

2次調査団員・氏名

【官団員】

名前	所属	担当業務
甲谷 伊佐雄	JICA	総括
丸尾 信	JICA	調査企画

【コンサルタント団員】

名前	所属	担当業務
石本 亮	OAFIC 株式会社	業務主任／運営維持管理計画
黒木 賢二	株式会社エコー	土木施設計画・設計／自然条件
花田 健義	OAFIC 株式会社	建築施設計画・設計
森 潤一郎	OAFIC 株式会社	機材計画／調達計画／積算
山本 雄平	株式会社エコー	施工計画／積算

3次調査団員・氏名

【官団員】

名前	所属	担当業務
甲谷 伊佐雄	JICA	総括
西山 健太郎	JICA	調査企画

【コンサルタント団員】

名前	所属	担当業務
石本 亮	OAFIC 株式会社	業務主任／運営維持管理計画
黒木 賢二	株式会社エコー	土木施設計画・設計／自然条件

資料－２ 調査行程

第１次現地調査

2015年3月7日－4月5日(30日間)

日 順	月 日	曜 日	活動内容(JICA 団員)	活動内容 (コンサルタント団員)
			①総括②調査企画	③業務主任/運営維持管理計画④土木施設計画/自然条件⑦漁業/水産物流通⑧環境社会配慮
1	3月7日	土	③④⑦成田発 EK319, EK707	
2	3月8日	日	③④⑦マヘ島着	
3	3月9日	月	③④⑦SFA 訪問、ワークプラン説明・協議	
4	3月10日	火	③④⑦サイト状況調査、施設利用状況調査 (プロビデンス漁港)	
5	3月11日	水	③④⑦同上 (ビクトリア漁港)	
6	3月12日	木	③④⑦同上 (バル・オンブレ漁港)	
7	3月13日	金	③④⑦水産流通調査 (漁業会社、水産加工場、市場等)	
8	3月14日	土	③④⑦現地再委託調査契約 (自然条件調査、ベースライン調査)	
9	3月15日	日	③⑦資料整理④係留状況調査 (プロビデンス)	
10	3月16日	月	③運営・維持管理状況調査④在港状況調査 (プロビデンス) ⑦漁船/漁民調査	
11	3月17日	火	③同上④在港状況調査 (ビクトリア) ⑦同上⑧成田発	
12	3月18日	水	③同上④自然条件調査⑦水産加工場調査⑧マヘ島着	
13	3月19日	木	③同上④同上⑦同上⑧SFA 訪問・打合せ	
14	3月20日	金	③同上④施工業者ヒア及び見積依頼⑦地元市場調査⑧環境局訪問・資料収集	
15	3月21日	土	③④⑦⑧調査結果のとりまとめ、現地中間報告作成	
16	3月22日	日	③⑦⑧同上④係留状況調査 (ビクトリア)	
17	3月23日	月	①②羽田発 マヘ島着③④⑦⑧ステーキホルダー会議 (プロビデンス漁港)	
18	3月24日	火	①②③SFA 訪問・協議④海洋土木関連調査⑦ベースライン調査⑧サイト周辺環境調査	
19	3月25日	水	①②③計画サイト視察、ステーキホルダー会議ステーキホルダー会議 (プロビデンス漁港) ④⑦⑧同上	
20	3月26日	木	①②③計画サイト視察④海底地質調査 (現地雇用) ⑦⑧同上	
21	3月27日	金	①②③漁業・流通調査④海底地質調査 (現地雇用) ⑦⑧同上	
22	3月28日	土	①②③ミニッツ案作成④海洋土木関連調査⑦⑧同上	
23	3月29日	日	①②③④⑦⑧団内ミーティング	
24	3月30日	月	①②③④SFA 協議⑦マヘ島発 EK706, EK318⑧EIA 関連調査	
25	3月31日	火	①②③④SFA 協議⑦成田着⑧同上	
26	4月1日	水	①②③ミニッツ調印④自然条件調査とりまとめ⑧同上	
27	4月2日	木	①②マヘ島発③SFA 打ち合わせ ④⑧同上	
28	4月3日	金	①②羽田着③④SFA 調査結果報告	
29	4月4日	土	③④⑧マヘ島発 EK706, EK318	
30	4月5日	日	③④⑧成田着	

①総括、②調査企画、③業務主任/運営維持管理計画、④土木施設計画、⑤建築施設計画・設計、⑥機材計画/調達計画/積算、⑦水産物流通、⑧環境社会配慮、⑨施工計画/積算

第２次現地調査

2015年5月19日－7月17日(60日間)

日 順	月 日	曜 日	活動内容(JICA 団員)	活動内容 (コンサルタント団員)
			①総括 ②調査企画	③業務主任/運営維持管理計画、④土木施設計画、⑤建築施設計画・設計、⑥機材計画/調達計画/積算、⑨施工計画/積算
1	5月19日	火	③東京発 EK319, EK707	
2	5月20日	水	③セーシェル着	
3	5月21日	木	③SFA 訪問、IC/R 説明・協議	
4	5月22日	金	③同上、サイト状況調査	
5	5月23日	土	③サイト状況調査・再確認	
6	5月24日	日	③同上	
7	5月25日	月	③SFA 訪問、協議④⑤⑥東京発	
8	5月26日	火	③SFA 訪問、協議④⑤⑥セーシェル着、団内打合せ	
9	5月27日	水	③水産物流通調査(補足)④⑤⑥SFA 表敬訪問・打合せ	
10	5月28日	木	③同上④現地再委託調査監理⑤⑥サイト調査、関連施設調査	
11	5月29日	金	③同上④漁港調査⑤関連漁業施設調査⑥既存関連機材調査	
12	5月30日	土	③④中央市場調査、現地再委託調査⑤既存施設調査⑥維持管理状況調査	
13	5月31日	日	③④⑤⑥サイト調査、団内ミーティング	
14	6月1日	月	③SFA 協議、評価指標(案)④自然条件調査⑤公共事業省訪問⑥調達事情調査	
15	6月2日	火	③水産物流通調査(補足)④係留状況調査⑤施設設計同上	
16	6月3日	水	③④⑤ステーキホルダーミーティング、流通調査係留状況調査⑥機材計画調査	
17	6月4日	木	③社会調査④土木設計調査⑤同上⑥	

18	6月5日	金	③④⑤⑥同上
19	6月6日	土	③④⑤⑥団内ミーティング及び資料整理
20	6月7日	日	③④⑤⑥同上
21	6月8日	月	③運営維持管理計画調査④再委託監理⑤施設設計調査⑥機材計画調査
22	6月9日	火	③④⑥同上⑤PUC 調査
23	6月10日	水	③④同上⑤消防署訪問⑥基本計画作成
24	6月11日	木	③⑥SFA 打ち合わせ④土木設計調査⑤建設業者調査
25	6月12日	金	③評価指標(案)の設定④土地利用省⑤同上⑥セーシェル発
26	6月13日	土	③④⑤市場調査、資料整理⑥東京着
27	6月14日	日	③④⑤団内ミーティング及び資料整理
28	6月15日	月	③⑤財務省、内務省④基本計画(土木施設)作成
29	6月16日	火	③⑤労働条件聞き取り調査④同上
30	6月17日	水	③労働関連調査④同上⑤消火設備調査
31	6月18日	木	③ベースライン調査監理④同上⑤資料整理⑨東京発
32	6月19日	金	③⑤SFA 打合せ、報告④同上⑨セーシェル着
33	6月20日	土	③④⑤⑨団内ミーティング及び資料整理
34	6月21日	日	③④⑤⑨資料整理、サイト調査
35	6月22日	月	③④SFA 打合せ・確認⑤セーシェル⑥発⑨施工計画積算調査
36	6月23日	火	③④中間報告作成⑤ドバイ⑨施工計画積算
37	6月24日	水	①東京発、セーシェル着③④団内打ち合わせ⑤同上⑨施工計画積算
38	6月25日	木	①③④SFA 表敬・協議⑤同上⑨施工計画積算
39	6月26日	金	①③④SFA 協議⑤同上⑨施工計画積算調査
40	6月27日	土	①③④サイト調査⑤ドバイ発東京着⑨資料整理
41	6月28日	日	②東京発①③④サイト調査、資料作成⑨資料整理
42	6月29日	月	②セーシェル到着①③ミニッツ案作成④資料収集⑨調達事情調査
43	6月30日	火	①②③団内協議、サイト調査④SFA との打合わせ⑨調達事情調査
44	7月1日	水	①②③水産農業大臣表敬/SFA との協議/財務省との協議、インド洋マグロ類委員会事務局との意見交換 ④SFA との打合わせ⑨調達事情調査
45	7月2日	木	①②③SFA との協議、漁港視察、財務次官表敬、ミニッツ調印④セーシェル EK706, EK318⑨調達事情調査
46	7月3日	金	①③SFA との打合わせ②セーシェル発④東京着⑨調達事情調査
47	7月4日	土	①③SFA との打合わせ、サイト確認調査②東京着⑨資料整理
48	7月5日	日	①③セーシェル発 KQ251、ナイロビ着⑨資料整理
49	7月6日	月	①③在ケニア日本大使館報告、ナイロビ発 EK722, EK312⑨調達事情調査
50	7月7日	火	①③東京着⑨調達事情調査
51	7月8日	水	⑨調達事情調査
52	7月9日	木	⑨同上
53	7月10日	金	⑨調達事情調査
54	7月11日	土	⑨資料整理
55	7月12日	日	⑨同上
56	7月13日	月	⑨補足調査
57	7月14日	火	⑨同上
58	7月15日	水	⑨SFA 結果報告
59	7月16日	木	⑨セーシェル発 EK706, EK318
60	7月17日	金	⑨東京着

第3次現地調査(概要説明)

2015年11月25日-12月5日(11日間)

日順	月日	曜日	活動内容(JICA 団員)	活動内容(コンサルタント団員)
			①総括、②調査企画	③業務主任/運営維持管理計画、④土木設計計画
1	11月25日	水	①②③④東京発 EK319, EK707	
2	11月26日	木	①②③④セーシェル着	
3	11月27日	金	①②③④SFA 訪問、DF/R 説明・協議	
4	11月28日	土	①②③ミニッツ案作成④資料整理	
5	11月29日	日	③④補足調査、①②③④資料整理	
6	11月30日	月	①②③④ミニッツ案協議、大臣表敬訪問 ④補足調査	
7	12月1日	火	①②③④ミニッツ案協議	
8	12月2日	水	①②③④ミニッツ調印	
9	12月3日	木	①②③④セーシェル発 KQ251、ナイロビ着	
10	12月4日	金	①②③④JICA ケニア事務所報告、在ケニア日本大使館報告、ナイロビ発 EK706, EK318	
11	12月5日	土	①②③④東京着	

資料－3 関係者（面談者）リスト

在ケニア日本国大使館

遠藤 智 二等書記官
酒井 翔平 二等書記官

Ministry of Fisheries & Agriculture (水産・農業省)

Hon. Wallace Cosgrow Minister (大臣)
Mr. Michael Nalletamby Principal Secretary(次官)
Mr. Finley Racombo Special Advisor to the Minister (大臣顧問)
Mr. Norlis Rose-Hoareau Personal Assistant to Minister

Board of Directors of Seychelles Fishing Authority(SFA)

Mr Philippe Michaud Chairman (理事長)

Seychelles Fishing Authority(SFA)

Mr. Vincent Lucas Ag.Chief Executive Officer
Mr. Roy Clarisse Deputy Chief Executive Officer
Mr. Clifford Toussaint Project Manager(プロジェクト部長)
Mr. Joan Morimba S. Project Officer
Mr. Michele A Marguerite Chief Economist
Ms. Cindy Assan Statistician
Ms. Christianne Sultan Ass. Port Administer
Ms. Dora Lesperance Fisheries Development Management
Mrs. Rona Arrisol Quality Control Officer
Mr. Aubrey Lesperance Principal Aquaculture Officer
Miss Elisa Socrate Principal Fisheries Officer
Ms. Juliette Lucas Consultant data, Management & Statistics
Mr. Dave Azemia Port Manager (漁港長)

Ministry of Environment, Energy and Climate Change (環境エネルギー気候変動省)

Ms. Nantte Laure Director Environment Assessment & permits
section

Ministry of Home Affairs

Immigration and civil status Department

Mr. Michel T. Marie 政策戦略局長
Mr. Ronald Fock-Tave Director General of Immigration
Mr. Paul Dilon (第一秘書)

Ministry of Finance, Trade and Blue Economy (財務・貿易・ブルーエコノミー省)

Mr. Patric Payet	次官
Mr Philippe Michaud	Special Advisor
Ms. Brenda Bastinne	Policy and strategy division

Seychelles Planning Authority

Mrs. Fanette Albert	Deputy CEO
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National Bureau of Statistics (統計局)

Mr. Michel Mellie	Principal Statistician
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Seychelles Bureau of Standard (基準局)

Mrs. Sreekala Nair	Manager
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Ministry of Land use & Housing (土地利用・居住省)

Mr. Ronald Fock-Tave	Director General of Immigration
Mr. Patrick Lablache	Project Planning & Implementation

Fishing Boat Owners Association (船主協会)

Mr. Keith Andre	Chairman
Mr. Paul Morin	Vice chairman (Morin Group)
Ms. Virginie Lagarde	Project Manager

IOTC (インド洋マグロ類委員会事務局)

Mr. Rondolph Payet	Executive Secretary
Mr. Koihi Sakonjy	IOTC-OFCE project Manager

SEAHARVEST

David Bentley	(シーハーベスト) Managing Director
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Oceana Fisheries

Mr. Danny Dominic Lowlam	(オシアナフィッシュリーズ) 代表
Mr. Pavel Puzakov	アドバイザー

資料－4 討議議事録(M/D)

資料 4.1	2015 年	4 月 1 日
資料 4.2	2015 年	7 月 2 日
資料 4.3	2015 年	1 2 月 2 日

**MINUTES OF DISCUSSIONS
ON
THE PREPARATORY SURVEY
ON
THE PROJECT FOR THE CONSTRUCTION OF FISHERIES FACILITIES AT
PROVIDENCE, ZONE 6
IN
THE REPUBLIC OF SEYCHELLES**

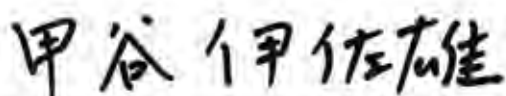
In response to a request from the Government of the Republic of Seychelles (hereinafter referred to as "GOS"), the Government of Japan (hereinafter referred to as "GOJ") decided to conduct the Preparatory Survey on the Project for The Construction of Fisheries Facilities at Providence, Zone 6 (hereinafter referred to as "the Project") and entrusted the survey to the Japan International Cooperation Agency (hereinafter referred to as "JICA").

JICA sent to the Republic of Seychelles (hereinafter referred to as "Seychelles") the Preparatory Survey Team (hereinafter referred to as "the Team") headed by Mr. Isao Koya, Senior Advisor to the Director General, JICA and is scheduled to stay in the country from 23 March to 2 April, 2015.

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

As a result of discussions and field survey, both parties confirmed the main points described in the attached minutes sheets. The Team will proceed with further works and prepare the Preparatory Survey Report.

Victoria, 1 April, 2015



Mr. Isao Koya
Leader
Preparatory Survey Team
Japan International Cooperation Agency
Japan



Mr. Vincent Lucas
Chief Executive Officer
Seychelles Fishing Authority
Seychelles

ATTACHMENT

1. Inception Report

The Team explained the objective of the Project and procedure of the Survey to be conducted in accordance with the Inception Report. After a series of discussions, the Team and GOS side (hereinafter referred to as "the both parties") agreed on the contents of the Inception Report in principle.

2. Objective of the Project

The objective of the Project is to expand and improve the facilities of Providence fishing port, intending safety mooring of fishing boats, smooth landing of fish and improvement of quality of fishery products.

3. Project Site

The site of the Project is located at Providence on Mahe Island of Seychelles as shown in Annex-1.

4. Responsible and Implementing Agency

- 4-1. The responsible organization is the Ministry of Fisheries and Agriculture.
- 4-2. The implementing organization is the Seychelles Fishing Authority (SFA).
- 4-3. The organization chart of SFA is shown in Annex 2.

5. Facilities and Equipment requested by GOS

- 5-1. After discussions between both parties, the facilities and equipment contents requested by GOS were prioritized as shown in Annex 3.
- 5-2. Both parties agreed that components of the Project will be decided through further examination in Japan.

6. Japan's Grant Aid Scheme

- 6-1. GOS side understood the Japan's Grant Aid Scheme explained by the Team, as described in Annex-4.
- 6-2. The Team explained major undertakings to be taken by each government as described in Annex-5, for smooth implementation of the Project, as a condition for the Japan's Grant Aid to be implemented. Both parties agreed that liabilities of taxes, duties and levies with respect to the Project will remain further discussion.

7. Environmental and Social Considerations

- 7-1. GOS side agreed to take necessary procedures for due environmental and social considerations for the implementation of the Project. Detailed procedures (items, responsible agencies, deadlines) will be clarified through the Preparatory Survey.
- 7-2. The Team explained that Initial Environmental Examination (IEE) needs to be done since the Project is classified into category B according to the JICA Guidelines for Environmental and Social Consideration (April, 2010). Both parties confirmed that IEE would be conducted according to Seychelle's law and regulation, and JICA's guideline above.
- 7-3. Both parties confirmed that land registration of Project site as presented in Annex-1 certifies exclusive land use and occupation by the SFA and the land plot is secured for the Project.

8. Stakeholder Meeting

- 8-1. SFA hold a stakeholder meeting on 25th March 2015, attended by representative of Fish Boat Owners Association, owners of processing company, fishermen and relevant government representatives, and explained outline and schedule of the

survey.

8-2. The team announced next stakeholder meeting will be held in middle of June, 2015.

9. Schedule of the Preparatory Survey

9-1. The Team will proceed with further surveys in Seychelles until 3rd April, 2015.

9-2. JICA will prepare the Draft Final Report in English and dispatch a mission in order to explain its contents in November 2015 at the earliest.

9-3. In case the contents of the report are accepted in principle by GOS side, JICA will finalize it as Final Report and send it to GOS.

10. Other Relevant Issues

10-1. Support for the Team

The Team explained the importance of security for persons concerned with the Project in order to implement the Preparatory Survey and the Project. GOS side understood that and agreed to take necessary measures for the subsequent surveys.

10-2. Permissions necessary for the Project

GOS side agreed to issue or to arrange permissions from relevant organizations necessary for the Project implementation prior to the construction of the proposed facilities.

10-3. Coordination with local authorities and others concerned

GOS side agreed that, with thorough understanding on the Project, activities and information of the Team would be appropriately disseminated to the relevant local authorities and communities, and meetings with stakeholders would be organized as required.

10-4. Maintenance of Facilities and Equipment

GOS side understood that operation and maintenance cost would have to be borne by GOS along with other responsibilities explained by the Team, if construction of facilities and procurement of equipment would be implemented under the Project. GOS committed to secure budget and personnel for proper maintenance of the facilities and equipment, if they would be proposed as a result of Preparatory Survey.

10-5. Soft Component

GOS requested technical service as a soft component for initial operation and maintenance of facilities and equipment to be procured under the Project. The Team would convey the request to the GOJ and GOS side agreed to make efforts for providing their staff for necessary arrangements, if the soft component would be proposed.

10-6. Approval of the Project

The both sides confirmed that the approval of the Project would be depended on the decision by the GOJ.

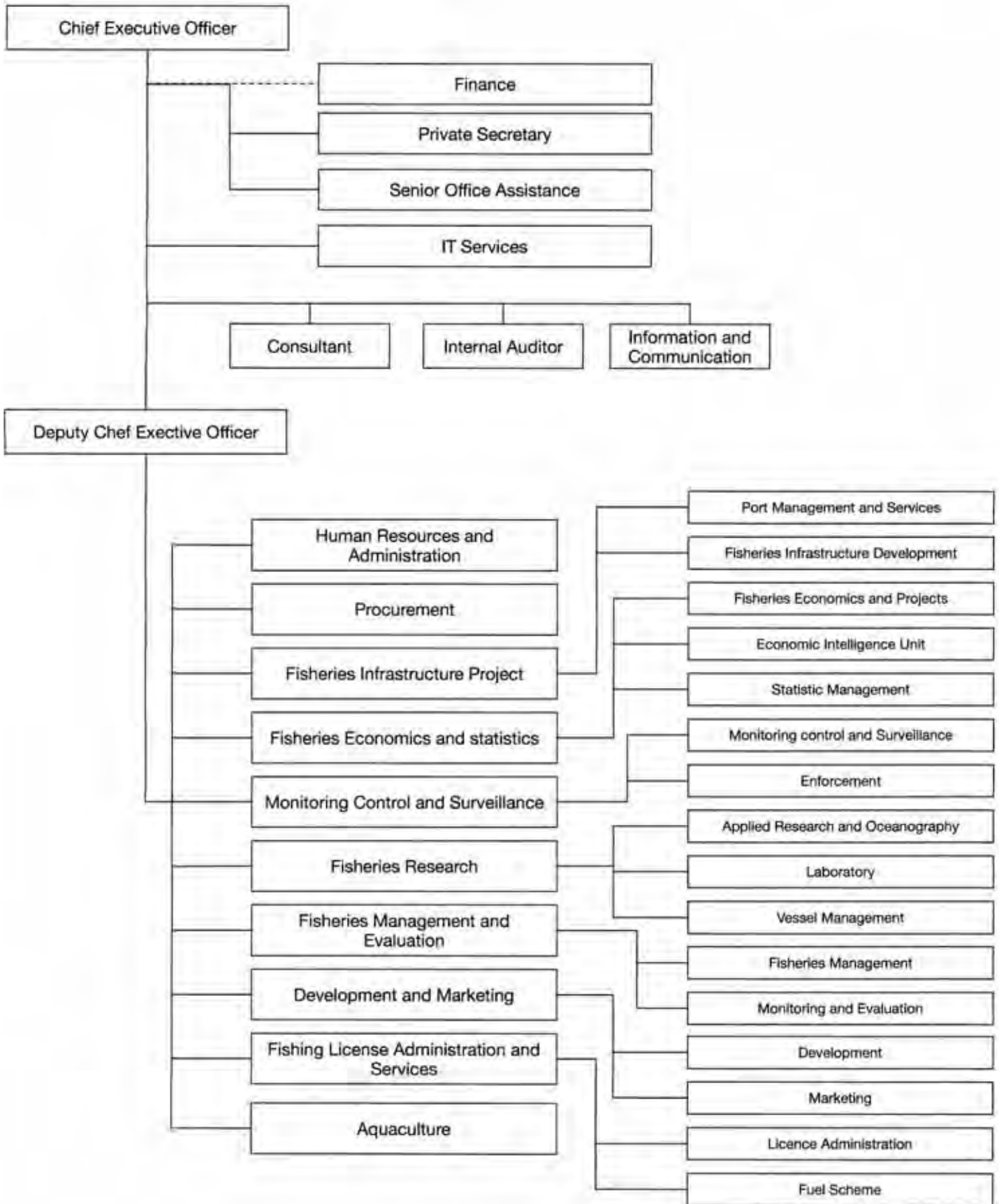
END

- Annex 1 Map of Project Sites
- Annex 2 Organization Chart
- Annex 3 Contents Requested by GOS
- Annex 4 Japan's Grant Aid Scheme
- Annex 5 Major Undertakings to be taken by each Government



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Annex 3

Contents Requested by GOS

No.	Requested Component	Detail of Component	Priorities
1	Quay No.1, No. 2 and No. 3	Quay No.1	A ⁺
		Quay No.2	A ⁺
		Quay No.3	A
2	Quay No.4 , Breakwater, Back filling	Quay No.4	A
		Breakwater	A
		Back filling	A
3	Quay surfacing behind Quay No.1	Quay Surfacing (Interlocking Block)	A ⁺
4	Electrical installation and lightning, water and rainwater collection, and drainage.	Water supply	A ⁺
		Electric socket	A ⁺
		Electric Lights	A ⁺
		Water drainage	A ⁺
5	Landing shed on Quay No.1	Landing shed	A ⁺
6	Ice plants	Ice plant	A ⁺
7	Mooring buoys	Anchoring Buoys	A ⁺
8	Soft component	Technical assistance	A ⁺

(Note) A⁺; Urgently needed, A; Needed

Flow Chart of Japan's Gant Aid Procedures

Stage	Flow & Works	Recipient Government	Japanese Government	JICA	Consultant	Contract	Others
Application	<p>(T/R : Terms of Reference)</p> <p>Request (Oval) → Screening of Project (Oval) → Evaluation of T/R (Rectangular) → Project Identification Survey* (Oval)</p>						
Project Formulation & Preparation	<p>Preparatory Survey</p> <p>Preliminary Survey* (Oval) → Field Survey Home Office Work Reporting (Rectangular) → *if necessary (Text)</p> <p>Outline Design (Oval) → Selection & Contracting of Consultant by Proposal (Rectangular) → Field Survey Home Office Work Reporting (Rectangular)</p> <p>Explanation of Draft (Oval) → Final Report (Rectangular)</p>						
Appraisal & Approval	<p>Appraisal of Project (Oval) → Inter Ministerial Consultation (Oval) → Presentation of Draft Notes (Oval) → Approval by the Cabinet (Oval)</p>						
Implementation	<p>(E/N: Exchange of Notes) (G/A: Grant Agreement) (A/P: Authorization to Pay)</p> <p>E/N and G/A (Oval) → Banking Arrangement (Oval) → Consultant Contract (Oval) → Verification (Rectangular) → Issuance of A/P (Rectangular)</p> <p>Detailed Design & Tender Documents (Oval) → Approval by Recipient Government (Rectangular) → Preparation for Tendering (Rectangular)</p> <p>Tendering & Evaluation (Oval) → Procurement /Construction Contract (Oval) → Verification (Rectangular) → A/P (Rectangular)</p> <p>Construction (Oval) → Completion Certificate (Rectangular) → A/P (Rectangular)</p> <p>Operation (Oval) → Post Evaluation Study (Oval)</p>						
Evaluation & Follow up	<p>Ex-post Evaluation (Oval) → Follow up (Oval)</p>						



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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 lots of land necessary for the implementation of the Project and to clear the sites;		•
2	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in the recipient country and to assist internal transportation of the products		
	1) Marine (Air) transportation of the Products from Japan to the recipient country	•	
	2) Internal transportation from the port of disembarkation to the project site	(•)	(•)
3	To construct the following facilities		
	1) The building	•	
	2) The gates and fences in and around the site		•
	3) The parking lot	•	
	4) The road within the site	•	
	5) The road outside the site		•
4	To provide facilities for distribution of electricity, water supply and drainage and other incidental facilities necessary for the implementation of the Project outside the sites.		
	1) Electricity		
	a. The distributing power 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, common waste, storm drainage and others) within the site	•	
	4) 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	•	
	5) Furniture and Equipment		
	a. General furniture		•
	b. Project equipment	•	
5	To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the recipient country with respect to the purchase of the products and the services be exempted.		•
6	To accord Japanese physical persons and / or physical persons of third countries whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		•
7	To ensure that the Facilities and the products be maintained and used properly and effectively for the implementation of the Project		•
8	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		•
9	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A		
	1) Advising commission of A/P		•
	2) Payment commission		•
10	To give due environmental and social consideration in the implementation of the Project.		•

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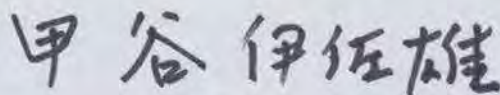
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JICA sent a study mission to the Republic of Seychelles (hereinafter referred to as "Seychelles") from March to April, 2015 to have preliminary discussions with relevant authorities of the Government of Seychelles. For holding further discussions and collecting necessary information for the preparation of outline design, cost estimation and so forth, JICA dispatched Preparatory Survey Team (hereinafter referred to as "the Team") headed by Mr. Isao Koya, Senior Advisor to the Director General, Rural Development Department, JICA, and the Team is scheduled to stay in the country from 20 May to 16 July, 2015.

The Team held a series of discussions with the officials concerned of the Government of Seychelles and conducted a field survey at the proposed project site and other relevant areas.

As a result of discussions and field survey, both parties confirmed the main points described in the attached sheets. The Team will proceed with further works and prepare a Preparatory Survey Report.

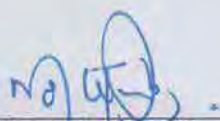
Victoria, 2 July, 2015



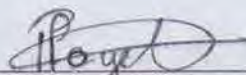
Mr. Isao Koya
Leader
Preparatory Survey Team
Japan International Cooperation Agency



Mr. Vincent Lucas
Chief Executive Officer
Seychelles Fishing Authority
The Republic of Seychelles



Mr. Michael Nalletamby
Principal Secretary
Ministry of Fisheries and Agriculture
The Republic of Seychelles



Mr. Patrick Payet
Principal Secretary for Finance and Trade
Ministry of Finance, Trade and The Blue Economy
The Republic of Seychelles

ATTACHMENT

1. Items requested by the Government of Seychelles

1-1. The Team explained the result of examination in Japan on requested facilities and equipment for the Project which were confirmed between JICA mission and the Government of Seychelles in April, 2015. As a result of discussions, both sides agreed that the items requested by the Government of Seychelles are as shown in the table below.

Items Requested by the Government of Seychelles

No.	Requested Component	Remarks
1	Quay	Quay No.1
		Quay No.2
2	Quay surfacing behind Quay No.1	Quay Surfacing (Interlocking Block, Apron and Access Road)
3	Ancillary works	Water supply system within the Project site
		Power supply system within the Project site
		Lamppost in the Project site
		Water drainage system within the Project site
4	Landing shed on Quay No.1	Landing shed
5	Ice plant	Ice making machine (Plate ice) and Ice storage
6	Mooring buoys	Anchoring Buoys
7	Soft component	Indicated in 5-3 below

1-2. JICA will further assess the appropriateness of the above requested items through the survey and will report findings to the Government of Japan. The final components of the Project would be decided by the Government of Japan

2. Japanese Grant Scheme

2-1. The Team explained about the Japanese Grant Scheme and its procedures as described in **Annex-1**, **Annex-2** and **Annex-3**. The Seychelles side understood the explanation by the Team including necessary measures to be taken by the Government of Seychelles.

2-2. The Seychelles side understood major undertakings by both parties as described in **Annex-4** and agreed to take necessary majors for smooth implementation of the Project.

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The contents of **Annex-4** will be used to determine the following:

- (1) The scope of the Project.
- (2) The timing of the Project implementation.
- (3) Timing and possibility of budget allocation.

Contents of **Annex-4** will be updated as the Preparatory Survey progresses, and will finally be the Attachment to the Grant Agreement.

3. Schedule of the Survey

- 3-1. The Team will proceed with further survey in Seychelles until 16 July, 2015.
- 3-2. JICA will prepare a draft Preparatory Survey Report in English and dispatch a mission to Seychelles in order to explain its contents in November, 2015.
- 3-3. If the contents of the draft Preparatory Survey Report is accepted in principle and the undertakings are fully agreed by the Seychelles side, JICA will complete the final report in English and send it to Seychelles in March, 2016.
- 3-4. The above schedule is tentative and subject to change.

4. Environmental and Social Consideration

- 4-1. The Seychelles side explained about the process and progress of EIA approval procedure as follows:
 - (1) Seychelles Fishing Authority (SFA) communicates with Environment Assessment and Permit Section, Ministry of Environment, Climate Change and Energy (MECCE) (done in April, 2015).
 - (2) SFA signs on contract agreement with a consultant firm which conducts EIA Class II survey for the Project (the survey is expected to start in July, 2015 and be completed by November, 2015).
 - (3) SFA submits EIA Class II survey report to MECCE for their review and comments (expected in November, 2015).
 - (4) MECCE issues EIA Authorization (expected by December, 2015).
- 4-2. Both sides confirmed that there is no PAP (Project Affected People) residing in the Project site.

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5. Other Relevant Issues

5-1. Lease agreement of Land adjacent to the Project Site

The Seychelles side explained that some lands adjacent to the Project site are leased out to private entities. The Team expressed concern on the explanation by the Seychelles side that this might hinder construction works and/or increase construction cost for the Project.

Since securing enough space for construction works is essentially important for smooth implementation of the Project, the Government of Seychelles has already taken necessary measures to obtain basic consent from all the private entities (lessees) not to proceed with any further development/construction in the allotted parcel adjacent to the Project site until the port extension project to be completed.

The Team appreciated the effort made by the Seychelles side and further requested SFA to inform all the private entities (lessees) of probable construction schedule and obtain consensus from them on tentative suspension of further development during the construction period, if the Government of Japan approve the Project. The Seychelles side understood and agreed on the request made by the Team.

5-2. Necessary Approval of Construction of Facilities

The Seychelles side explained necessary procedures for obtaining approval for the construction of facilities in the Project as follows;

- (1) SFA submits draft outline design to Project Planning and Implementation Department (PPID), Ministry of Land Use and Habitat and MECCE for their review and recommendations (expected in November, 2015).
- (2) SFA submits detailed design (detailed drawings of architecture and engineering) to PPID for final approval (expected in July, 2016).
- (3) Final approval of construction of facilities (expected one month after submission of detailed design to PPID).

The Seychelles side agreed to obtain all the necessary approval required under the laws and regulations of Seychelles from relevant authorities prior to the signing of the contract agreement for construction of the Project facilities.

5-3. Operation and Maintenance of Facilities and Equipment

The Seychelles side agreed to submit revised utilization plan of Providence fishing port, which includes structural and financial plan to JICA Kenya Office by October 2015.

The Seychelles side requested the Team to include technical assistance for operation and maintenance of ice plant as a "Soft-Component" of the Project. The Team took note of the request made by the Seychelles side.

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5-4. Securing of Budget by the Government of Seychelles for the Project

Seychelles side shall secure necessary budget to cover the cost for taking necessary major undertakings to be covered by Seychelles side for the Project as per Annex-4.

5-5. Tax exemption

The Government of Seychelles shall exempt from all taxes (including import duty, Gainful Occupation Permit (GOP), Value Added Tax (VAT) on imported goods, concerning construction materials, machineries and services exclusively used for the Project). The Government of Seychelles shall make available through the budget to pay any VAT on domestic goods and services and levies.

5-6. Site Clearance

It was agreed that site clearance shall be undertaken by the Seychelles side, which includes removal of base structure of building and temporary quay in the Project site. The temporary quay located in the Project site was erected by one of the lessees of parcel adjacent to the Project site. The Seychelles side explained that the lessee had already agreed to remove the quay at his own expense.

5-7. Ice Plant at the Project Site

The Team observed an ice plant installed in the Providence Fishing Port and asked the utilization plan of the ice plant to the Seychelles side. The Seychelles side explained that the ice plant was temporarily installed at the site to meet the increasing demand of ice for fisheries activities at the Providence Fishing Port and it would be relocated to its original intended location (southern part of Mahe Island) after completion of the Project.

END

Annex-1 Japanese Grant

Annex-2 Flow Chart of Japanese Grant Procedures

Annex-3 Financial Flow of Japanese Grant

Annex-4 Major Undertakings to be taken by Each Government

Annex-5 Project Monitoring Report

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JAPANESE GRANT

Based on a JICA law which was entered into effect on October 1, 2008 and the decision of the GOJ, JICA has become the executing agency of the Japanese Grant for Projects for construction of facilities, purchase of equipment, etc.

The Japanese Grant (hereinafter referred to as the "Grant") is non-reimbursable fund provided to a recipient country to procure the facilities, equipment and services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. The Grant is not supplied through the donation of materials as such.

1. Grant Procedures

The Grant is supplied through following procedures :

- Preparatory Survey
 - The Survey conducted by JICA
- Appraisal & Approval
 - Appraisal by the GOJ and JICA, and Approval by the Japanese Cabinet
- Authority for Determining Implementation
 - The Notes exchanged between the GOJ and a recipient country
- Grant Agreement (hereinafter referred to as "the G/A")
 - Agreement concluded between JICA and a recipient country
- Implementation
 - Implementation of the Project on the basis of the G/A

2. Preparatory Survey

(1) Contents of the Survey

The aim of the preparatory Survey is to provide a basic document necessary for the appraisal of the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of relevant agencies of the recipient country necessary for the implementation of the Project.
- Evaluation of the appropriateness of the Project to be implemented under the Grant Scheme

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from a technical, financial, social and economic point of view.

- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of a outline design of the Project.
- Estimation of costs of the Project.

The contents of the original request by the recipient country are not necessarily approved in their initial form as the contents of the Grant project. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant scheme.

JICA requests the Government of the recipient country to take whatever measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the organization of the recipient country which actually implements the Project. Therefore, the implementation of the Project is confirmed by all relevant organizations of the recipient country based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA employs (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the Report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the appropriateness of the Project.

3. Japanese Grant Scheme

(1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes(hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the recipient country to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Government of the recipient country to define the necessary articles, in accordance with the E/N, to implement the Project, such as payment conditions, responsibilities of the Government of the recipient country, and procurement conditions.

(2) Selection of Consultants

Annex-1

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the recipient country to continue to work on the Project's implementation after the E/N and G/A.

(3) Eligible source country

Under the Grant, in principle, Japanese products and services including transport or those of the recipient country are to be purchased. The Grant may be used for the purchase of the products or services of a third country, if necessary, taking into account the quality, competitiveness and economic rationality of products and services necessary for achieving the objective of the Project. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm are limited to "Japanese nationals", in principle.

(4) Necessity of "Verification"

The Government of the recipient country or its designated authority will conclude contracts denominated in Japanese yen with Japanese nationals, in principle. Those contracts shall be verified by JICA. This "Verification" is deemed necessary to fulfill accountability to Japanese taxpayers.

(5) Major undertakings to be taken by the Government of the Recipient Country

In the implementation of the Grant Project, the recipient country is required to undertake such necessary measures as Annex. The Japanese Government requests the Government of the recipient country to exempt all customs duties, internal taxes and other fiscal levies such as VAT, commercial tax, income tax, corporate tax, resident tax, fuel tax which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract, since the Grant fund comes from the Japanese taxpayers.

(6) "Proper Use"

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

(7) "Export and Re-export"

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

(8) Banking Arrangements (B/A)

- a) The Government of the recipient country or its designated authority should open an account under the name of the Government of the recipient country in a bank in Japan (hereinafter referred to as "the Bank"), in principle. JICA will execute the Grant by making payments in Japanese yen, in principle, 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 to JICA under an Authorization to Pay (A/P) issued by the Government of the recipient country or its designated authority.

(9) Authorization to Pay (A/P)

The Government of the recipient country should bear an advising commission of an Authorization to Pay and payment commissions paid to the Bank.

(10) Social and Environmental Considerations

The Government of the recipient country must carefully consider social and environmental impacts by the Project and must comply with the environmental regulations of the recipient country and JICA socio-environmental guidelines.

(11) Monitoring

The Government of the recipient country must take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and must regularly report to JICA about its status by using the Project Monitoring Report (PMR).

(12) Safety Measures

The Government of the recipient country must ensure that the safety is highly observed during the implementation of the Project.

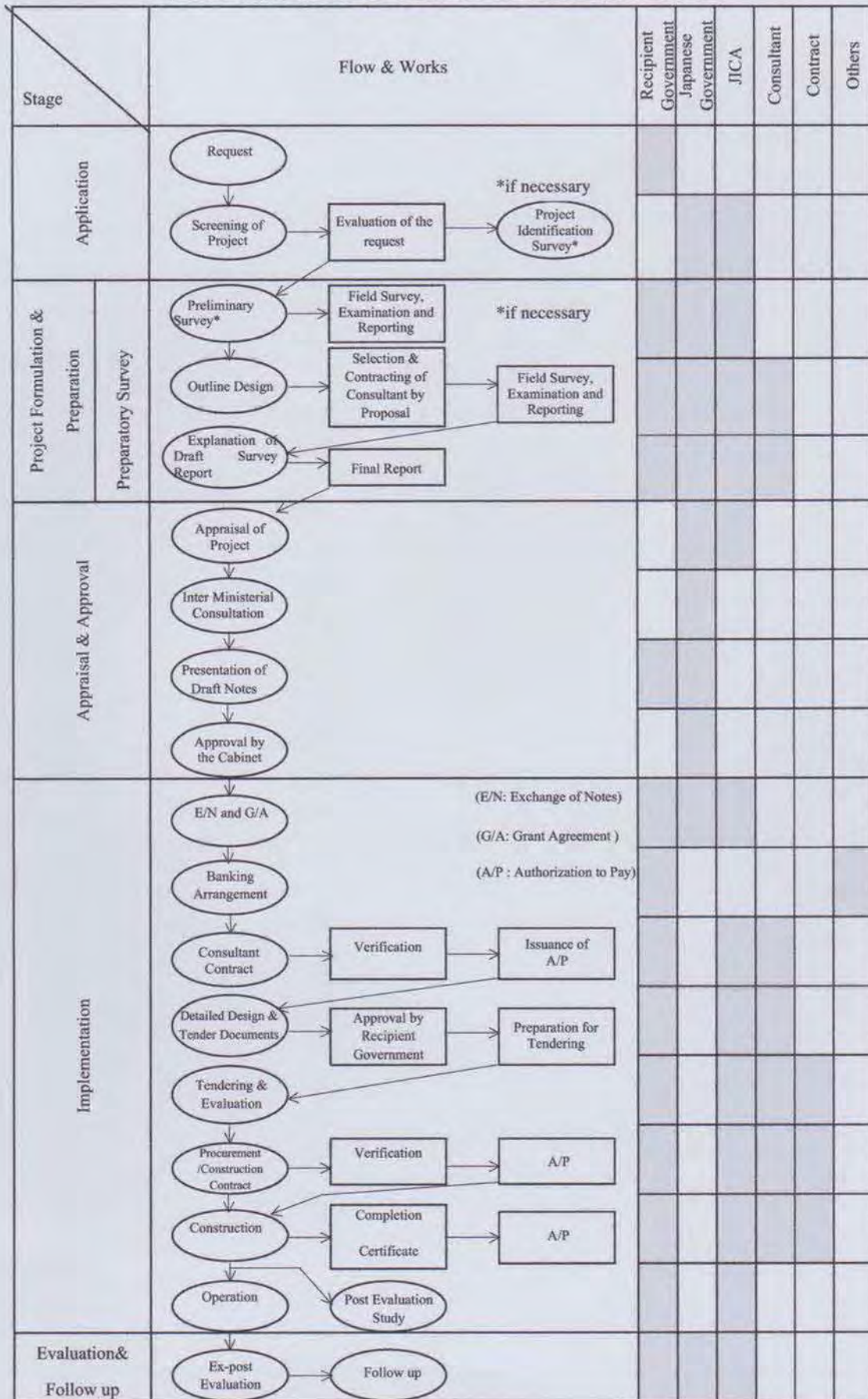
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FLOW CHART OF JAPANESE GRANT PROCEDURES



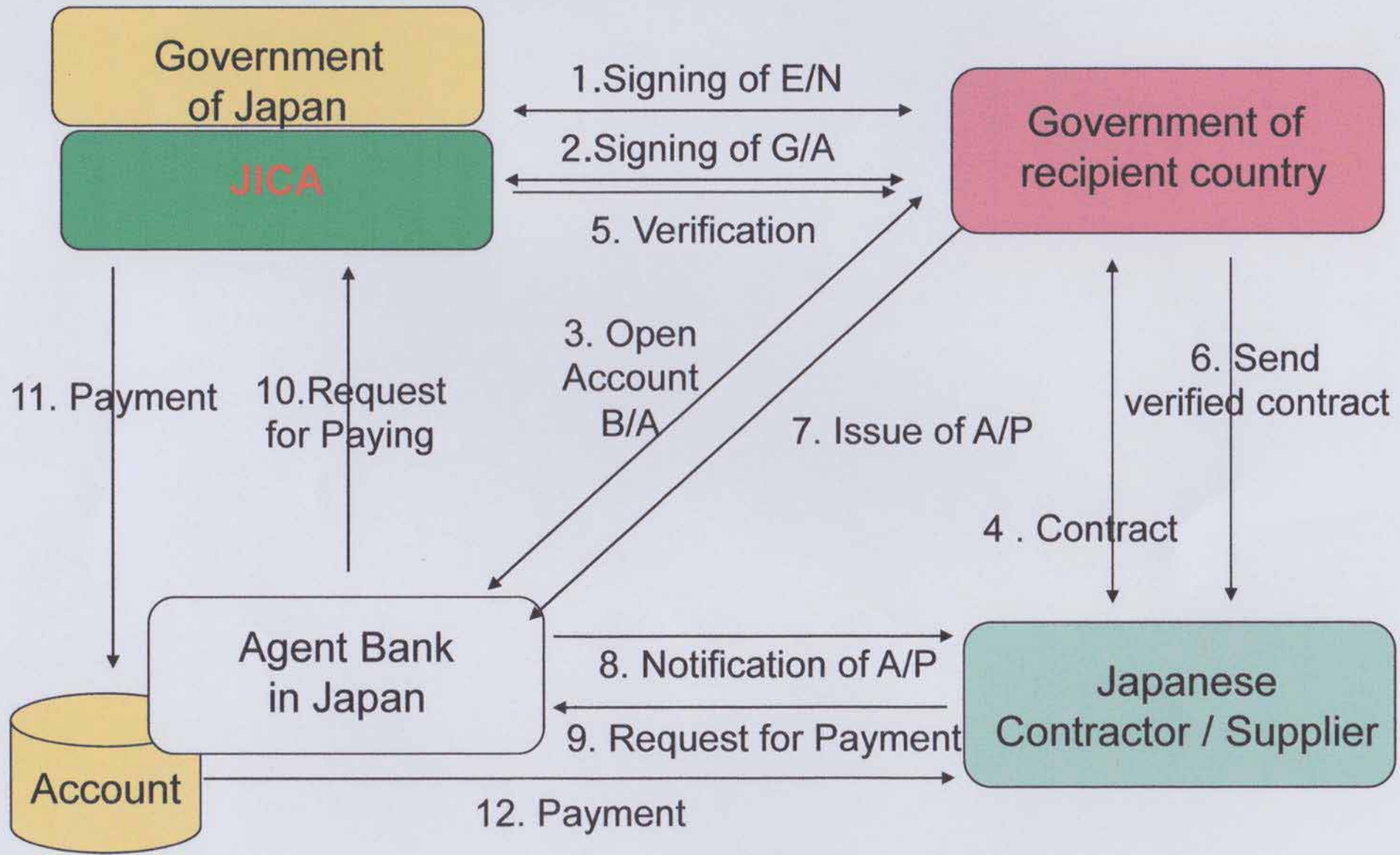
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Financial Flow of Grant Aid



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Major Undertakings to be taken by Each Government

No	Items	Responsibility		Major Undertakings to be taken by Recipient			
		To be covered by Grant Aid	To be covered by recipient side	Deadline	In charge	Cost	Remarks
Before Tender							
1	To bear the following commissions paid to the Japanese bank for banking services based upon the B/A						
	1) Advising commission of A/P		●		SFA		
	2) Payment commission		●		SFA MFTBE		
2	To give due environmental and social consideration in the implementation of the Project		●		SFA MECCE		
3	To secure the following land necessary for the implementation of the Project						
	1) Project sites		●		SFA		
	2) Temporary stock yard for construction near the Project area		●		SFA		
4	To clear, level and reclaim the project site						
	1) Demolition of unnecessary existing building		●		SFA		
	2) Removal of unnecessary existing trees		●		SFA		
	3) Leveling and reclaiming the site for the building		●		SFA		
5	To obtain the planning, construction approval		●		SFA P/A		
During the Project							
6	To bear the following commissions to a bank of Japan for the banking services based upon the B/A						
	1) Advising commission of A/P		●		SFA MFTBE		
	2) Payment commission for A/P		●		SFA MFTBE		
7	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in the recipient country and to assist internal transportation of the products						
	1) Marine (air) transportation of the Products from Japan to the recipient country	●			Contractor Supplier(s)		
	2) Tax exemption and customs clearance of the products at the port of disembarkation		●		SFA MFTBE		
	3) Internal transportation from the port of disembarkation to the project site	●			Contractor Supplier(s)		
8	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work		●		SFA MHA/ID		

9	(To exempt Japanese nationals from, without using the Grant,) customs duties, internal taxes and other fiscal levies such as VAT(Value Added Tax), NBT(Nation Building Tax), PAL(Port and Airport Levies), CID, CESS, Excise Special Provision, and Construction Industry Guarantee Fund Levy, which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract		●		SFA MHA/ID		
10	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		●		SFA MFTBE		
11	Construct temporary access road for the construction work.		●		SFA		
12	To construct the following facilities:						
	1) The building (ice plant)	●			Contractor		
	2) The Quay	●			Contractor		
	3) The gates and fences in and around the site		●		SFA		
	4) The road within the site	●			Contractor		
	5) The road outside the site		●		SFA		
13	To provide facilities for distributing electricity, water supply and drainage, and other incidental facilities necessary for the implementation of the Project outside the site						
	1) Electricity						
	a. The distribution power line to the site		●		SFA PUC		
	b. The drop wiring and internal wiring within the site	●			Contractor		
	c. The main circuit breaker and transformer		●		SFA PUC		
	2) Water Supply						
	a. The potable water distribution main to the site		●		SFA PUC		
	b. The water supply system within the site	●			Contractor		
	3) Drainage						
	a. Central Drainage on the port		●		SFA		
	b. The drainage system (storm drainage, and others) within the site	●			Contractor		
	4) Furniture and Equipment						
	a. General furniture		●		SFA		
	After the Project						
14	To ensure that facilities and the products be maintained and used properly and effectively for the implementation of the Project		●		SFA MFTBE MFA		
15	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		●		SFA MFTBE		
16	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid						
	1) Allocation of maintenance cost		●		SFA MFTBE		
	2) Operation and maintenance organization and staff		●		SFA MFA		
	3) Routine check/periodical maintenance		●		SFA		

(B/A: Banking Arrangement, A/P: Authorization to pay)

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*; The cost estimates are provisional. This is subject to the approval of the Government of Japan.

MFTBE : Ministry of Finance the Blue Economy

MECCE : Minister of Environment, Climate Change, & Energy

P A : Planning Authority

MHA/ID : Ministry of Home Affairs / Immigration department

PUC : Public Utility Corporation

MFA : Ministry of Fisheries and Agriculture

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Project Monitoring Report
 on
Project Name
Grant Agreement No. XXXXXXXX
 20XX, Month

Organization Information

Authority (Signer of the G/A)	_____ Person in Charge _____ (Division) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____
Executing Agency	_____ Person in Charge _____ (Division) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____

Outline of Grant Agreement:

Source of Finance	Government of Japan: Not exceeding JPY _____ mil. Government of (_____): _____
Project Title	
E/N	Signed date: Duration:
G/A	Signed date: Duration:

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[Signature]

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1: Project Description

1-1 Project Objective

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1-2 Necessity and Priority of the Project

- Consistency with development policy, sector plan, national/regional development plans and demand of target group and the recipient country.

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1-3 Effectiveness and the indicators

- Effectiveness by the Project

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2: Project Implementation

2-1 Project Scope

Table 2-1-1a: Comparison of Original and Actual Location

Location	Original: (M/D) Attachment(s):Map	Actual: (PMR and PCR) Attachment(s):Map
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Table 2-1-1b: Comparison of Original and Actual Scope

Items	Original	Actual
<p>M/D</p> <p>'Soft component' shall be included in 'Items'.</p>	<p>M/D</p>	<p>(PMR and PCR)</p> <p>Please state not only the most updated schedule but also other past revisions chronologically. All change of design shall be recorded regardless of its degree.</p>

2-1-2 Reason(s) for the modification if there have been any.

PMR and PCR

2-2 Implementation Schedule
2-2-1 Implementation Schedule

Table 2-2-1: Comparison of Original and Actual Schedule

Items	Original		Actual
	DOD	G/A	
M/D	M/D		(PMR,PCR) As of (Date of Revision)
'Soft component' shall be stated in the column of 'Items'.			Please state not only the most updated schedule but also other past revisions chronologically.
Project Completion Date*			

*Project Completion was defined as _____ at the time of G/A.

2-2-2 Reasons for any changes of the schedule, and their effects on the project.

PMR and PCR

2-3 Undertakings by each Government
2-3-1 Major Undertakings
 See Attachment 2.

2-3-2 Activities
 See Attachment 3.

2-3-3 Report on RD
 See Attachment 4.

2-4 Project Cost
2-4-1 Project Cost

Table 2-3-1 Comparison of Original and Actual Cost by the Government of Japan
 (Confidential until the Tender)

Items	Cost (Million Yen)		
	Original	Actual	Actual
Construction Facilities (or Equipment)	'Soft component' shall be included in 'Items'.		Please state not only the most updated schedule but

				also other past revisions chronologically.
Consulting Services	- Detailed design - Procurement Management - Construction Supervision			
Total				

Note: 1) Date of estimation:
 2) Exchange rate: 1 US Dollar = Yen

Table 2-3-2 Comparison of Original and Actual Cost by the Government of XX

Items		Cost (Million USD)		
	Original	Actual	Original	Actual
	'Soft component' shall be included in 'Items'.			Please state not only the most updated schedule but also other past revisions chronologically.
Total				

Note: 1) Date of estimation:
 2) Exchange rate: 1 US Dollar = (local currency)

2-4-2 Reason(s) for the wide gap between the original and actual, if there have been any, the remedies you have taken, and their results.

PMR, PCR

2-5 Organizations for Implementation

2-5-1 Executing Agency:

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

Original: M/D

Actual, if changed: PMR and PCR

2-6 Environmental and Social Impacts

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Report based on the agreed environmental checklist and monitoring form (See Attachment 4)

3: Operation and Maintenance (O&M)

- 3-1 O&M and Management**
 - Organization chart of O&M
 - Operational and maintenance system (structure and the number, qualification and skill of staff or other conditions necessary to maintain the outputs and benefits of the project soundly, such as manuals, facilities and equipment for maintenance, and spare part stocks etc)

Original: (M/D)
Actual: (PCR)

- 3-2 O&M Cost and Budget**
 - The actual annual O&M cost for the duration of the project up to today, as well as the annual O&M budget.

Original: (M/D)

4: Precautions (Risk Management)

- Risks and issues, if any, which may affect the project implementation, outcome, sustainability and planned countermeasures to be adapted are below.

Original Issues and Countermeasure(s): (M/D)	
Potential Project Risks	Assessment
1.	Probability: H/M/L
(Description of Risk)	Impact: H/M/L
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action during the Implementation:
	Contingency Plan (if applicable):
2.	Probability: H/M/L

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(Description of Risk)	Impact: H/M/L
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action during the Implementation:
	Contingency Plan (if applicable):
3.	Probability: H/M/L
(Description of Risk)	Impact: H/M/L
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action during the Implementation:
	Contingency Plan (if applicable):
Actual issues and Countermeasure(s)	
(PMR and PCR)	

5: Evaluation at Project Completion

5-1 Overall evaluation

Please describe your evaluation on the overall outcome of the Project.

(PCR)

5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

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Attachment

1. Project Location Map
2. Undertakings to be taken by each Government
3. Monthly Report
4. Report on RD
5. Monitoring report on environmental and social considerations
6. Monitoring sheet on price of specified materials (Quarterly)
7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)
(Completion Report Only)

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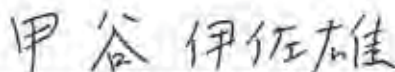
Minutes of Discussions
on the Preparatory Survey for the Project for
the Construction of Fisheries Facilities at Providence, Zone 6
(Explanation on Draft Preparatory Survey Report)

On the basis of the discussions and field surveys in the Republic of Seychelles (hereinafter referred to as "Seychelles") in March to July, 2015, and the subsequent technical examination of the results in Japan, the Japan International Cooperation Agency (hereinafter referred to as "JICA") prepared a draft Preparatory Survey Report on the Project for the Construction of Fisheries Facilities at Providence, Zone 6 (hereinafter referred to as "the Draft Report").

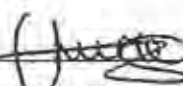
In order to explain the Draft Report and to consult with the concerned officials of the Government of Seychelles on its contents, JICA sent to Seychelles the Preparatory Survey Team (hereinafter referred to as "the Team") for the explanation of the Draft Report, headed by Mr. Isao Koya, Senior Advisor to the Director General, Rural Development Department, and is scheduled to stay in the country from 26th November to 3rd December, 2015.

As a result of the discussions, both sides confirmed the main items described in the attached sheets.

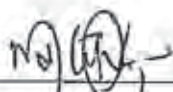
Victoria, 2nd December, 2015



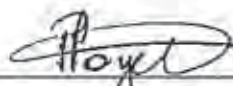
Mr. Isao Koya
Leader
Preparatory Survey Team
Japan International Cooperation Agency
Japan



Mr. Vincent Lucas
Chief Executive Officer
Seychelles Fishing Authority
The Republic of Seychelles



Mr. Michael Nalletamby
Principal Secretary
Ministry of Fisheries and Agriculture
The Republic of Seychelles



Mr. Patrick Payet
Principal Secretary for Finance and Trade
Ministry of Finance, Trade and The Blue Economy
The Republic of Seychelles

ATTACHEMENT

1. Objective of the Project

The objective of the Project is to extend existing quays and expansion of fisheries facilities in Providence fishing port by securement of mooring quays to cater for increasing number of fishing vessels, with the aim to improve port operation and the quality of fish product through fishing activities in accordance with demand fluctuation, thereby contributing to the development of the fishing industry including the fish processing sector.

2. Title of the Project

The Team proposed to change the title of the Project as "The Project for the Construction of Artisanal Fisheries Facilities on Mahe Island (Phase II)" and the Seychelles side agreed in principle to this proposal.

The Team explained to the Seychelles side that the project title would be finalized after consultation with Government of Japan.

3. Project Site

Both sides confirmed that the site of the Project is in Providence, Zone 6.

4. Line Agency and Executing Agency

Both sides confirmed the line agency and executing agency as follows:

- 4.1. The line agency is Ministry of Fisheries and Agriculture, which would supervise the executing agency.
- 4.2. The executing agency is Seychelles Fishing Authority (hereinafter referred to as SFA) which shall coordinate with all the relevant agencies to ensure smooth implementation of the Project and ensure that the Undertakings are properly and timely implemented by relevant agencies.

5. Contents of the Draft Report

After the explanation of the contents of the Draft Report by the Team, the Seychelles side agreed in principle to its contents.

6. Cost Estimation

- 6.1. Both sides confirmed that the Project cost estimation described in the Annex-1 was provisional and would be examined further by the Government of Japan for

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its final approval.

- 6.2. The Team explained to the Seychelles side that the Project Cost covered by Grant Aid described in Annex-1 does not include the contingency. However, the final Project Cost may include the contingency through the appraisal of Government of Japan. The contingency would cover the additional cost against natural disaster and unexpected national condition which are beyond the control of project implementation.

7. Confidentiality of the Cost Estimation and Specifications

Both sides confirmed that the Project cost estimation and technical specifications in the Draft Report should not be duplicated or disclosed to third parties until all the contracts of the Project are concluded.

8. Project Implementation Schedule

The Team explained to the Seychelles side that the expected implementation schedule is as attached in Annex 2.

9. Expected outcomes and Indicators

Both sides agreed that key indicators for expected outcomes are as follows. The Seychelles side has responsibility to monitor the progress of the indicators and achieve the target in year 2021.

[Quantitative Effect]

Quantitative index	Basal index 2015 (Before operation)	Target index 2021 3 years after operation
Port congestion rate (%)	191	100
Annual fish catch landed (tons)	150	292
Monthly Ice sales (tons)	125	375

Notice: Definition of Port congestion rate is as follows.

Definition of Port congestion rate = (actual number of mooring vessels in 2021) / (planned number of mooring vessels (39))

[Qualitative Effect]

- i. The work efficiency of fishers is improved through the implementation of port regulations.
- ii. The safety of vessels and fishers at Providence/ Victoria ports are improved

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- through reducing the congestion.
- iii. The optimum supply of ice for fishers is ensured through enhancing the operation and management of ice making facility.
 - iv. The quality of fish product is improved through enhancing the port operation such as the use of ice making facility and landing shed.
10. Technical assistance ("Soft Component" of the Project)
- Considering the sustainable operation and maintenance of the provided facility, technical assistance is planned to be provided under the Project. The Seychelles side confirmed to assign the necessary number of competent and appropriate Counter Parts (C/Ps) as described in the Draft Report.
11. Undertakings Taken by Both Sides
- Both sides confirmed to undertakings described in Annex 3. The Seychelles side assured to take the necessary measures and coordination including allocation of the necessary budget which are preconditions of implementation of the Project. It is further agreed that the main parts of the Annex 3 would be the Attachment to the Grant Agreement.
12. Monitoring during the Implementation
- The Project will be monitored every 3 months by the executing agency in accordance with the Project Monitoring Report (PMR) attached as Annex 4. Annex-4 is a standard form. The executing agency shall prepare the first version referring to the Final Report and signed Minutes of Discussion of the Preparatory Survey for the Project before the commencement of the Project.
13. Ex-Post Evaluation
- JICA will conduct ex-post evaluation three (3) years after the project completion with respect to five evaluation criteria (Relevance, Effectiveness, Efficiency, Impact, and Sustainability). Result of the evaluation will be publicized. The Seychelles side provide necessary support for the evaluation.
14. Issue to be considered for the smooth implementation of the Project
- 14.1. Lease agreement of Land adjacent to the Project Site
- Some lands adjacent to the project site are leased out to 8 private entities. However, the Seychelles Side has already obtained the consent from all the private entities not

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to proceed with any further development/construction in the allocated parcel adjacent to the project site until the Project is completed.

The Seychelles Side explained the current situation of the leased land as follows.

- i) Seven private entities have not, to date, initiated any development on the leased land
- ii) One entity is utilizing part of the leased land for temporary storage of construction material/equipment and has developed a temporary quay since December, 2011. However, the Seychelles side has already obtained the consent of the entity to remove all the stocked material, equipment and temporal facilities in a timely manner at his own cost.

The Team requested the Seychelles side to inform all the private entities of probable construction schedule and obtain consent again from them on tentative suspension of further development during the construction period before the commencement of the Project, if the Government of Japan approves the project.

14.2. Tax Exemption

The Government of Seychelles shall exempt from all taxes including import duty, Trade Tax, Value Added Tax (VAT) on imported goods, concerning construction materials, machineries and services exclusively used for the Project. The Government of Seychelles shall make available through the budget to pay any VAT on domestic goods and services and levies.

14.3. Gainful Occupation Permit (GOP)

The Government of Seychelles shall exempt Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work from the payment of GOP.

14.4. Utilization plan of Providence Fishing Port

The Seychelles side explained the progress of preparation of a three year utilization plan as follows.

- Draft concept paper of a three year utilization plan is almost completed and it will be finalized by the end of January, 2016.
- Based on the concept paper, SFA will start the consultation with the Government of Seychelles to ensure the financial and human resource needs are addressed.

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Both sides agreed that SFA shall prepare the utilization plan (guideline/regulation) considering the result of consultation with the Government of Seychelles and submit it to JICA before the initiation of the tender process for the Project, if the Government of Japan approves the project.

14.5. Preparation of the Project Budget covered by The Seychelles Side

The Seychelles side explained that the required project cost for 2016 such as advising commission of Banking Arrangement, cost for site clearance and fee for the hiring of local consultant has already been catered in the SFA's 2016 annual budget (January to December, 2016). The budget of the Project covered by the Seychelles side will be approved by the Government of Seychelles.

14.6. Necessary Approval of Construction of Facilities

The Seychelles side explained the necessary procedures for obtaining approval for the construction of facilities in the Project as follows.

- i) SFA submits final outline design to Project Planning and Implementation Department, Ministry of Land Use and Housing (hereinafter referred to as PPID) and Ministry of Environment Energy and Climate Change for their review and recommendations (expected in February, 2016)
- ii) SFA submits the detail design (detailed drawings of architecture and engineering) to PPID for final approval (expected in July, 2016)
- iii) If submitted the detailed design is acceptable for PPID, PPID would issues the final approval for construction of facilities within one month following the submission of detailed design to PPID.

The Seychelles side agreed to obtain all the necessary approval required under the laws and regulations of Seychelles from relevant authorities prior to the signing of the contract agreement for construction of the Project facilities.

14.7. Collection of Information

Since information such as the volume of fish landed, ice production and sales, and the berthing occupancy at Providence fishing port is an important indicator to review the operational situation of the port as well as evaluate the output of the Project, The Seychelles side agreed to collect these information periodically and confirm that the system have been established to collect the information.

15. Schedule of the Study

JICA will complete the Final Report of the Preparatory Survey in accordance with the confirmed items and send it to the Seychelles side around January, 2016.

16. Environmental and Social Considerations

16.1. General Issues

16.1.1. Environmental Guidelines and Environmental Category

The Team explained that 'JICA Guidelines for Environmental and Social Considerations (April 2010)' (hereinafter referred to as 'the Guidelines') is applicable for the Project. The Project is categorized as B because it is not considered to be a large-scale Ports and Harbors project, is not located in a sensitive area, and has none of the sensitive characteristics under the Guidelines, and it is not likely to have a significant adverse impact on the environment.

16.1.2. Environmental Checklist

The Seychelles Side and the the Team confirmed information on environmental and social considerations including major impacts and relevant mitigation measures are summarized in the Environmental Checklist attached as Annex 5 . The Seychelles Side confirmed that they would inform JICA of any major changes which may affect environmental and social considerations made for the Project by revising the Checklist in a timely manner.

16.2. Environmental Issues

16.2.1. Environmental Impact Assessment (EIA)

Both sides confirmed the EIA Class-II survey report would be finalized and submitted to Environment Assessment and Permit Section, Ministry of Environment Energy and Climate Change (hereinafter referred to as "MEECC") by December 2016.

The Seychelles Side assured to take necessary measures to obtain approval of EIA by February, 2016.

16.2.2. Environmental Management Plan and Environmental Monitoring Plan

The Seychelles side assured to prepare the Environmental Management Plan in accordance with Annex-6 and send it to JICA by the End of December, 2015.

The Seychelles Side and the Team confirmed that environmental monitoring would be conducted by the Seychelles Side in accordance with the Environmental Monitoring Plan described in Annex-7.

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16.3. Environmental and Social Monitoring

The Seychelles Side confirmed that the results of environmental monitoring would be provided to JICA as a part of Project Monitoring Report in accordance with the Environmental Monitoring Form attached as Annex 8 on a quarterly basis until the completion of the project. In case JICA finds that there is a need for improvement in a situation with respect to environmental considerations after the agreed monitoring period, JICA may request to extend the period of monitoring and reporting until JICA confirms the issues have been properly addressed in accordance with the agreement between the Seychelles side and JICA.

16.4. Information Disclosure of Monitoring Results

The Seychelles side explained that there is no stipulated regulations/procedures for information disclosure of Environmental Monitoring Results. The Team requested the Seychelles Side to disclose the monitoring results to local project stakeholders, and the Seychelles Side agreed to disclose monitoring results in the administrating office of the Providence Fishing Port.

The Seychelles side agreed JICA's disclosure of provided monitoring results in the monitoring form (Annex 7) on its website.

17. Other Relevant Issues

17.1. Operation and Maintenance of the Facilities (Equipment)

The team explained the importance of operation and maintenance of the facilities constructed by the Project considering that proper asset management impacts greatly on life-span of the facilities and its maintenance cost. The long and mid-term operation and maintenance costs are estimated and shown in Annex-9. The Seychelles side shall secure enough staff and budgets necessary for appropriate operation and maintenance of the facilities.

17.2. Disclosure of Information

Both sides confirmed that the study results excluding the Project cost will be disclosed to the public after completion of the Preparatory Survey. All the study results including the project cost will be disclosed to the public after all the contracts for the Project are concluded.

17.3. Technical Recommendation

The Team explained the technical points to be taken into consideration as follows .

- In case that Quay no.3 is going to be constructed in the future by the Seychelles side, it is ideal to limit the length of vessels using port to 20m, for the safety of vessel maneuvering within the area.
- In case of accumulation of sediment in the port, maintenance dredging by the Seychelles side shall be necessary. However, the depth of dredging in front of quay 1-2 should be limited within 2.5m according to the structural design of steel sheet pile quay.

The Seychelles took note of recommendations .

Annex 1 Cost Estimation

Annex-2 Project Implementation Schedule

Annex 3 Major Undertakings to be implemented by the Seychelles Side/ Major Undertakings to be covered by Grant Aid

Annex 4 Project Monitoring Report (Form)

Annex 5 Environmental Checklist

Annex 6 Environmental Management Plan (Form)

Annex-7 Environmental Monitoring Plan

Annex-8 Environmental Monitoring Form

Annex-9 Estimated Operation and Maintenance Cost

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Cost Estimation

(1) Project Cost Estimation covered by Grant Aid

Project cost estimation born by Grant Aid is approximate 1,397 million Japanese Yen. This cost estimate is provisional and would be further examined by the Government of Japan for the approval of the Grant.

(Note: US\$-122.47 Japanese Yen, SCR 1.0=9.35 Japanese Yen)

(2) Project Cost Estimation covered by the Government of Seychelles

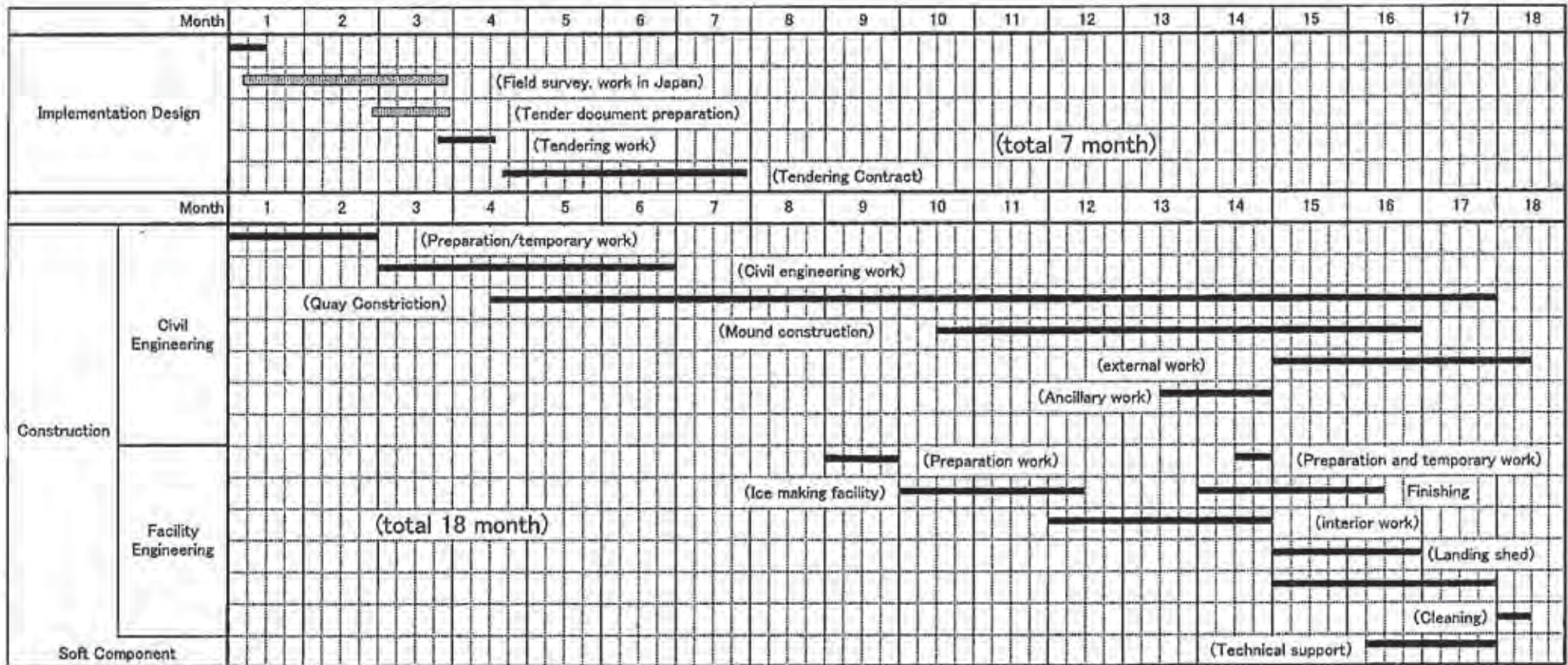
The cost borne by the Government of Seychelles is estimated tentatively. Total cost will be 5,100,000 Seychelles Rupee (SCR). Details are shown in below.

i.	To obtain the approval of EIA (Environmental Authorization)	SCR 145,000
ii.	To open the Bank Account/ Advising commission of A/P and payment commission	SCR 155,000
iii.	To obtain the planning/construction/building/ development permission	SCR 150,000
iv.	To clear, level and reclaim the Project sites	SCR 350,000
v.	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in the recipient country and to assist internal transportation of the products.	SCR 4,200,000
vi.	To construct the gates and fences in and around the ice plan facility	SCR 100,000

Total SCR 5,100,000

This amount must be secure to budget as the cost for the implementation of the project from National Budget by SFA. It has been confirmed at the time of Explanation of Draft Final Report that the SFA are to secure the budget by applying the budget to the Ministry of Finance.

Project Implementation Schedule



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1. Major Undertakings to be implemented by the Government of Seychelles

1.1. Before Tender process

No	Items	Deadline	in charge	Cost	Ref.
1	To obtain the approval of EIA (Environmental Authorization)	before G/A	SFA, MECCE	145,000	
2	To ensure the budget for the project implementation	within one month after G/A	SFA, MFTBE CBS	-	
3	To open the Bank Account	within one month after G/A	SFA, MFTBE CBS	155,000	
4	To issue the A/P (for consultant contract) Advising commission of A/P and payment commission need to be covered	within one month after GA	SFA, MFTBE CBS		
5	To prepare the Utilization plan (regulation/guideline) of the Providence Fishing Port	within one month after GA	SFA	-	
6	To obtain the planning/construction/building/ development permission	before PQ	SFA, PPID MECCE	150,000	
7	To secure the land necessary for project implementation. (project sites and temporary stock yard for the construction near the project site)	before PQ	SFA	-	
8	To clear, level and reclaim the Project sites 1) Demolition of unnecessary existing building 2) Removal of unnecessary existing trees 3) Leveling and reclaiming the site for the construction	before PQ	SFA	350,000	
9	Construct temporary access road for the construction work.	before PQ	SFA	-	

1.2. After the signing of the contract with contractor /supplier

No.	Items	Deadline	In charge	Cost	Ref
1	To issue the A/P (for construction contract) Advising commission of A/P and payment commission need to be covered	within one month after the signing of contract	SFA, MFTBE CBS	Involved into the cost of 1. item3 and 4	
2	To ensure prompt unloading and customs clearance of the products at ports of disembarkation in the recipient country and to assist internal transportation of the products. 1) Tax exemption of the products at the port of disembarkation 2) Customs clearance of the products at the port of disembarkation	within one month after the equipment/material /heavy machine are delivered to the port/airport.	SFA MFTBE	4,200,000	
3	To accord Japanese nationals whose services may be required in connection with the supply of the products and the services such facilities as may be necessary for their entry into the recipient country and stay therein for the performance of their work.	One month after the submission of required application.	SFA, DICS	-	
4	To exempt Japanese nationals from, without using the Grant, customs duties, internal taxes and other fiscal levies such as VAT(Value Added Tax), Trades Tax, Vehicle Levies, which may be imposed in the recipient country with respect to the supply of the products and services under the verified contract	After contractor's contract	SFA MFTBE	Notice: need to be examined after the signing of the contract	
5	To bear all the expenses, other than those to be borne by the Grant Aid, necessary for construction of the facilities as well as for the transportation and installation of the equipment		SFA MFA MFTBE	-	
6	To provide facilities for distributing electricity, water supply and drainage, and other incidental facilities necessary for the implementation of the Project outside the site 1) Electricity a. The distribution power line to the site	before the commencement of contraction	SFA		

	b. The main circuit breaker and transformer 2) Water Supply: the potable water distribution main to the site 3) Drainage : Central Drainage on the port				
7	To assign the required staffs for the implementation of Soft Component	before the completion of construction	SFA		
8	To submit Project Monitoring Report with the results of environmental monitoring to JICA on a quarterly	every three month	SFA		
9	To apply for the supplementary budget in the 3 rd fiscal quarter (July to September) , if necessary		SFA MFA MFTBE		
10	To construct the gates and fences in and around the ice plan facility	After the completion of the contract	SFA	100,000	

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1.3. After the completion of the project

No	Items	Deadline	in charge	Cost	Ref
1	To ensure that facilities and the products be maintained and used properly and effectively for the implementation of the Project		SFA MFA MFTBE		
2	To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project		SFA MFA MFTBE		
3	To maintain and use properly and effectively the facilities constructed and equipment provided under the Grant Aid 1) Allocation of maintenance cost 2) Operation and maintenance organization and staff 3) Routine check/periodical maintenance		SFA MFA MFTBE		
4	To implement Environment Monitoring based on the Environmental monitoring plan	for a period based on EMP	SFA MECCE		
5	To cooperate the Ex-Post Evaluation survey implemented by JICA		SFA MFA		

* The cost estimates are provisional.

B/A: Banking Arrangement, **A/P:** Authorization to pay, **PQ:** Notice of Pre-Qualification, **SFA:** Seychelles Fishing Authority, **MFA:** Ministry of Fisheries and Agriculture, **MFTBE:** Ministry of Finance the Blue Economy, **MECCE:** Minister of Environment, Climate Change, & Energy, **PPID:** Project Planning and Implementation Department, Ministry of Land Use and Habitat, **DICS:** Department of Immigration and civil status, Ministry of Home Affairs, **PUC:** Public Utility Corporation

2. Major Undertakings to be covered by Grant Aid

- 1) To implement detailed design and tender support (Consultant Services)
- 2) To implement construction supervision (Consultant Services)
- 3) To construct the following facilities
 - Ice making facility
 - Landing shed
 - Quay No1 , No2 and related aprons
 - Access roads to quay within the Project site
 - Mooring buoys
- 4) Marine (air) transportation of the products from Japan to the recipient country
- 5) Internal transportation of the products from the port of disembarkation to the project site
- 6) To provide facilities for the distribution of electricity, water supply, drainage and other incidental facilities
 - Electricity: The drop wiring and internal wiring within the Project site
 - Water Supply: The water supply system within the Project site
 - Drainage: The drainage system (storm drainage, and others) within the site
- 7) To implement Soft Component (Technical Training)
- 8) To implement Soft Component (Technical Training)

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Project Monitoring Report
 on
Project Name
Grant Agreement No. XXXXXXXX
 20XX, Month

Organization Information

Authority (Signer of the G/A)	Person in Charge _____ _____ (Division) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____
Executing Agency	Person in Charge _____ _____ (Division) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____
Line Agency	Person in Charge _____ _____ (Division) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____

Outline of Grant Agreement:

Source of Finance	Government of Japan: Not exceeding JPY _____ mil. Government of (_____): _____
Project Title	
E/N	Signed date: _____ Duration: _____
G/A	Signed date: _____ Duration: _____

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1: Project Description

1-1 Project Objective

Notice: Please refer to "1-2 Outline of the Project " on Draft Final report of preparatory survey.

1-2 Necessity and Priority of the Project

Consistency with development policy, sector plan, national/regional development plans and demand of target group and the recipient country.

Notice: Please refer to "1-2 Outline of the Project " on Draft Final report of preparatory survey.

1-3 Effectiveness and the indicators

- Effectiveness by the project

Quantitative Effect (Operation and Effect indicators)		
Indicators	Original (Yr)	Target (Yr)
Qualitative Effect		

2: Project Implementation

2-1 Project Scope

Table 2-1-1a: Comparison of Original and Actual Location

Location	Original: (M/D) Attachment(s):Map	Actual: (PMR) Attachment(s):Map

Table 2-1-1b: Comparison of Original and Actual Scope

Items	Original	Actual
(M/D) 'Soft component' shall be included in 'Items'.	(M/D)	(PMR) Please state not only the most up dated schedule but also other past revisions chronologically. All change of design shall be recorded regardless of its degree.

2-1-2 Reason(s) for the modification if there have been any.

(PMR)

2-2 Implementation Schedule

2-2-1 Implementation Schedule

Table 2-2-1: Comparison of Original and Actual Schedule

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Items	Original		Actual
	DOD	G/A	
{M/D}	{M/D}		{PMR} As of (Date of Revision)
'Soft component' shall be stated in the column of 'Items'.			Please state not only the most updated schedule but also other past revisions chronologically.
Project Completion Date*			

*Project Completion was defined as _____ at the time of G/A.

2-2-2 Reasons for any changes of the schedule, and their effects on the project.

2-3 Undertakings by each Government

2-3-1 Major Undertakings

See Attachment 2.

2-3-2 Activities

See Attachment 3.

2-3-3 Report on RD

See Attachment 4.

2-4 Project Cost

2-4-1 Project Cost

Table 2-4-1a Comparison of Original and Actual Cost by the Government of Japan
(Confidential until the Tender)

Items	Cost (Million Yen)			
	Original	Actual	Original	Actual
Construction Facilities (or Equipment)	'Soft component' shall be included in 'Items'.			Please state not only the most updated schedule but also other past revisions chronologically.
Consulting Services	- Detailed design - Procurement Management - Construction Supervision			
Total				

Note: 1) Date of estimation:
2) Exchange rate: 1 US Dollar = Yen

Table 2-4-1b Comparison of Original and Actual Cost by the Government of XX

Items	Cost (Million USD)			
	Original	Actual	Original	Actual
				Please state not only the most

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				updated schedule but also other past revisions chronologically.
Total				

Note: 1) Date of estimation:
 2) Exchange rate: 1 US Dollar = (local currency)

2-4-2 Reason(s) for the wide gap between the original and actual, if there have been any, the remedies you have taken, and their results.

(PMR)

2-5 Organizations for Implementation

2-5-1 Executing Agency:

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

Original: (M/D)

Actual, if changed: (PMR)

2-6 Environmental and Social Impacts

- The results of environmental monitoring as attached in [redacted] in accordance with Schedule 4 of the Grant Agreement.
- The results of social monitoring as attached [redacted] in accordance with Schedule 4 of the Grant Agreement.
- Information on the disclosed results of environmental and social monitoring to local stakeholders, whenever applicable.

3: Operation and Maintenance (O&M)

3-1 O&M and Management

- Organization chart of O&M
- Operational and maintenance system (structure and the number ,qualification and skill of staff or other conditions necessary to maintain the outputs and benefits of the project soundly, such as manuals, facilities and equipment for maintenance, and spare part stocks etc)

Original: (M/D)

Actual: (PMR)

3-2 O&M Cost and Budget

- The actual annual O&M cost for the duration of the project up to today, as well as the annual O&M budget.

Original: (M/D)

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4: Precautions (Risk Management)

- Risks and issues, if any, which may affect the project implementation, outcome, sustainability and planned countermeasures to be adapted are below.

Original Issues and Countermeasure(s): (M/D)	
Potential Project Risks	Assessment
1. (Description of Risk)	Probability: H/M/L
	Impact: H/M/L
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action during the Implementation:
Contingency Plan (if applicable):	
2. (Description of Risk)	Probability: H/M/L
	Impact: H/M/L
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action during the Implementation:
Contingency Plan (if applicable):	
3. (Description of Risk)	Probability: H/M/L
	Impact: H/M/L
	Analysis of Probability and Impact:
	Mitigation Measures:
	Action during the Implementation:
Contingency Plan (if applicable):	
Actual issues and Countermeasure(s)	
(PMR)	

5: Evaluation at Project Completion and Monitoring Plan

5-1 Overall evaluation

Please describe your overall evaluation on the project.

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5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

5-3 Monitoring Plan for the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

Attachment

1. Project Location Map
2. Undertakings to be taken by each Government
3. Monthly Report
4. Report on RD
5. Environmental Monitoring Form / Social Monitoring Form
6. Monitoring sheet on price of specified materials (Quarterly)
7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)
(Final Report Only)

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Environmental Checklist

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations
1 Permits and Explanation	(1) EIA and Environmental Permits	(a) Have EIA reports been already prepared in official process? (b) Have EIA reports been approved by authorities of the host country's government? (c) Have EIA reports been unconditionally approved? If conditions are imposed on the approval of EIA reports, are the conditions satisfied? (d) In addition to the above approvals, have other required environmental permits been obtained from the appropriate regulatory authorities of the host country's government?	(a):N (b):N (c):Y (d):	(a)EIA report is prepared by the SFA with instruction of the Ministry of Environment, Energy and Climate Change and submit for approval by November 2015. (b)EIA report is approved and examined by the Ministry of Environment, Energy and Climate Change, by November 2015. Environmental permit is issued in December 2015. (c) Before EIA implementation, the Ministry of Environment, Energy and Climate Change will hold a stakeholders meeting. (d) Additional approvals are not requirement after the approval of Environmental Permit.
	(2) Explanation to the Local Stakeholders	(a) Have contents of the project and the potential impacts been adequately explained to the Local stakeholders based on appropriate procedures, including information disclosure? Is understanding obtained from the Local stakeholders? (b) Have the comment from the stakeholders (such as local residents) been reflected to the project design?	(a):Y (b):	(a)Stakeholders meeting were held on 25th of May and 3rd Jun 2015. Project details are explained to the Stakeholders. Opportunity of Consensus was build, and comments were collected from the stakeholders. (b) The project site does not consist residential area since the site is situated in the industrial zone. Comments obtained from Stakeholders meeting were reflected to the Project plan. from safe operation of the port and functional operation of facilities.
	(3) Examination of Alternatives	(a) Have alternative plans of the project been examined with social and environmental considerations?	(a):Y	(a) the Project site was selected from different alternative plans for the project, which were design from different aspect of social and environmental consideration.
2 Pollution Control	(1) Air Quality	(a) Do air pollutants, such as sulfur oxides (SOx), nitrogen oxides (NOx), and soot and dust emitted from ships, vehicles and project equipments comply with the country's emission standards? Are any mitigating measures taken?	(a):Y	(a)No specific air pollutants will discharged from the project component. Exhaust gas from small vehicle might be emitted, but the project will adversely affect to the air quality.
	(2) Water Quality	(a) Do effluents from the project facilities comply with the country's effluent and environmental standards? (b) Do effluents from the ships and other project equipments comply with the country's effluent and environmental standards? (c) Does the project prepare any measures to prevent leakages of oils and toxicants? (d) Does the project cause any alterations in coastal lines and disappearance/appearance of surface water to change water temperature or quality by decrease of water exchange or changes in flow regimes?	(a):Y (b):Y (c):Y (d):N (e):Y	(a)The project facilities are complied with Seychelles environmental standard for wastewater effluent from the quay and ice making facility installed by the Project. (b) No effluent was observed from water quality survey held in 2015 from vessels and other project equipment. Water quality level is to clear the environmental standards of the Seychelles. Installations of ice making units are design with circular cooling system to reduce effluent to the port from project components. (c)Basic structure of floor is design to avoid external outflow of oil for facilities and equipment that utilize oil.

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations
		(c) Does the project prepare any measures to prevent polluting surface, sea or underground water by the penetration from reclaimed lands?		(d) The project is extension of existing port, minor modification of formal lines are design in the port, however there will be no change in coastal lines and no effect to water current, temperatures, or water exchanges. (e)The project does not contain reclaimed land work.
	(3) Wastes	(a) Are wastes generated from the ships and other project facilities properly treated and disposed of in accordance with the country's regulations? (b) Is offshore dumping of dredged soil properly disposed in accordance with the country's regulations? (c) Does the project prepare any measures to avoid dumping or discharge toxicants?	(a):Y (b):Y (c):Y	(a) Currently, wastes generated from the vessels and other project facilities are collect three times a week by the contracted private company. After the project implementation, their contract with SFA is remain as it is. (b)In Seychelles, soil is basically valuable, hence soils collected from dredging is never disposed. Dredged soil is properly collected to use as accordance with the country's regulations. (c) SFA will monitor of dumping or discharge toxicants. SFA will also prepare awareness program relating waste to the port users.
	(4) Noise and Vibration	(a) Do noise and vibrations from the vehicle and train traffic comply with the country's standards?	(a):Y	(a) The project is situated in industrial area where no residence are living, and not adversely have affect by the noise and vibration accordance with country's regulation. However, monitoring plan for Noise and vibration are require after the implementation of the Project.
	(5) Subsidence	(a) In the case of extraction of a large volume of groundwater, is there a possibility that the extraction of groundwater will cause subsidence?	(a):N	(a) The project will not extract any groundwater. Building structure design to the project components is designed with a reinforcing concrete bars structure to reduce weight.
	(6) Odor	(a) Are there any odor sources? Are adequate odor control measures taken?	(a):Y	(a) General wastes are collect by the private company, three times a week. The contract with the company will continue after completion of construction.
	(7) Sediment	(a) Are adequate measures taken to prevent contamination of sediments by discharges or dumping of hazardous materials from the ships and related facilities?	(a):Y	(a)Contamination of sediments discharges of hazardous material from procured equipment or ships are controlled by the proper maintenance. In addition, hazardous material will not discharge from facilities as environmentally considerate equipment are selected from procurement stage.
Natural Environ	(1) Protected Areas	(a) Is the project site located in protected areas designated by the country's laws or international treaties and conventions? Is there a possibility that the project will affect the protected areas?	(a):N	(a)The project site is not located in protected areas accordance with international and national law. In addition, the Project will not create any affect to protected areas.

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Catag ory	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations
	(2) Ecosystem	<p>(a) Does the project site encompass primeval forests, tropical rain forests, ecologically valuable habitats (e.g., coral reefs, mangroves, or tidal flats)?</p> <p>(b) Does the project site encompass the protected habitats of endangered species designated by the country's laws or international treaties and conventions?</p> <p>(c) If significant ecological impacts are anticipated, are adequate protection measures taken to reduce the impacts on the ecosystem?</p> <p>(d) Is there a possibility that the project will adversely affect aquatic organisms? Are adequate measures taken to reduce negative impacts on aquatic organisms?</p> <p>(e) Is there a possibility that the project will adversely affect vegetation or wildlife of coastal zones? If any negative impacts are anticipated, are adequate measures taken to reduce the impacts on vegetation and wildlife?</p>	<p>(a):N (b):N (c):N (d):N (e):N</p>	<p>(a) The project site does not encompass primeval forest, tropical rain forest, ecologically valuable habitats</p> <p>(b) The project site does not encompass to the protected area of endangered by the Seychelles Laws or international treaties and conventions.</p> <p>(c) No significant ecological impacts are observed.</p> <p>(d) The project will not adversely affect to the aquatic organism.</p> <p>(e) The project will not adversely affect to the vegetation and wild animals in coastal zone.</p>
	(3) Hydrology	<p>(a) Do the project facilities affect adversely flow regimes, waves, tides, currents of rivers and etc if the project facilities are constructed on/by the seas?</p>	(a):N	(a) The project will not adversely affect to the flow of surface water and groundwater.
	(4) Topography and Geology	<p>(a) Does the project require any large scale changes of topographic/geographic features or cause disappearance of the natural seashore?</p>	(a):N	(a) The project will not adversely affect to topographic/geographic feature.
4	Social Environment	<p>(1) Resettlement</p> <p>(a) Is involuntary resettlement caused by project implementation? If involuntary resettlement is caused, are efforts made to minimize the impacts caused by the resettlement?</p> <p>(b) Is adequate explanation on compensation and resettlement assistance given to affected people prior to resettlement?</p> <p>(c) Is the resettlement plan, including compensation with full replacement costs, restoration of livelihoods and living standards developed based on socioeconomic studies on resettlement?</p> <p>(d) Are the compensations going to be paid prior to the resettlement?</p> <p>(e) Are the compensation policies prepared in document?</p> <p>(f) Does the resettlement plan pay particular attention to vulnerable groups or people, including women, children, the elderly, people below the poverty line, ethnic minorities, and indigenous peoples?</p> <p>(g) Are agreements with the affected people obtained prior to resettlement?</p> <p>(h) Is the organizational framework established to properly implement resettlement? Are the capacity and budget secured to implement the plan?</p>	<p>(a):N (b): (c): (d): (e): (f): (g): (h): (i): (j):</p>	<p>(a)(b)(c)(d)(e)(f)(g)(h)(i)(j)The project will not cause any resettlement.</p>

Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations
a		(i) Are any plans developed to monitor the impacts of resettlement? (j) Is the grievance redress mechanism established?		
	(2) Living and Livelihood	(a) Is there a possibility that the project will adversely affect the living conditions of inhabitants? Are adequate measures considered to reduce the impacts, if necessary?	(a):N	(a)The project will not adversely affect resettlement and living conditions of the people.
	(3) Heritage	(a) Is there a possibility that the project will damage the local archeological, historical, cultural, and religious heritage? Are adequate measures considered to protect these sites in accordance with the country's laws?	(a):N	(a)The project does not affect the local archeological, historical, cultural, and religious heritage
	(4) Landscape	(a) Is there a possibility that the project will adversely affect the local landscape? Are necessary measures taken? (b) Is there a possibility that landscape is spoiled by construction of high-rise buildings such as huge hotels?	(a):N (b):N	(a)The project site is assign as industrial zone. The project will not adversely affect to local landscape. (b)The projects component is constructed with one-story building, therefore the project components will not adversely affect to local landscape.
	(5) Ethnic Minorities and Indigenous Peoples	(a) Are considerations given to reduce impacts on the culture and lifestyle of ethnic minorities and indigenous peoples? (b) Are all of the rights of ethnic minorities and indigenous peoples in relation to land and resources respected?	(a):N (b)	(a)(b) The project will not adversely affect to the culture and lifestyle of ethnic minorities and indigenous people.
	(6) Working Conditions	(a) Is the project proponent not violating any laws and ordinances associated with the working conditions of the country which the project proponent should observe in the project? (b) Are tangible safety considerations in place for individuals involved in the project, such as the installation of safety equipment which prevents industrial accidents, and management of hazardous materials? (c) Are intangible measures being planned and implemented for individuals involved in the project, such as the establishment of a safety and health program, and safety training (including traffic safety and public health) for workers etc.? (d) Are appropriate measures taken to ensure that security guards involved in the project not to violate safety of other individuals involved, or local residents?	(a):Y (b):Y (c):Y (d):Y	(a)(b)(c)(d) The accidents is to prevented by installation of fences, secured the traffic with security guards, notice the construction schedule, and enlighten the workers with the safety management during the construction.
c Others	(1) Impacts during Construction	(a) Are adequate measures considered to reduce impacts during construction (e.g., noise, vibrations, turbid water, dust, exhaust gases, and wastes)? (b) If construction activities adversely affect the natural environment (ecosystem), are adequate measures considered to reduce impacts? (c) If construction activities adversely affect the social environment, are adequate measures considered to reduce impacts?	(a):Y (b):N (c):N	(a)Impacts during construction Noise: The noise will be arisen during the construction work. The construction hours are to limit during the night and holiday. Dust: The construction work, vehicles movement, and strong wind at the site will create the dust. Appropriate sprinkling of water is planned during construction period to reduce impact. Water quality: For minimize impact to water quality, appropriate

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Area	Category	Environmental Item	Main Check Items	Yes: Y No: N	Confirmation of Environmental Considerations
					<p>construction equipment and silt fence are use during the construction period.</p> <p>Sediment: All of the construction work must be supervise to monitor the oil leakage during the Project.</p> <p>(b)Construction activities will not adversely affect the natural environment (ecosystem).</p> <p>(c)Construction activities will not adversely affect the social environment.</p>
		(2) Monitoring	<p>(a) Does the proponent develop and implement monitoring program for the environmental items that are considered to have potential impacts?</p> <p>(b) What are the items, methods and frequencies of the monitoring program?</p> <p>(c) Does the proponent establish an adequate monitoring framework (organization, personnel, equipment, and adequate budget to sustain the monitoring framework)?</p> <p>(d) Are any regulatory requirements pertaining to the monitoring report system identified, such as the format and frequency of reports from the proponent to the regulatory authorities?</p>	<p>(a):Y</p> <p>(b):</p> <p>(c):Y</p> <p>(d):Y</p>	<p>(a) Proponent and development of implement monitoring program are to prepare by SFA. Monitoring program is prepared to determine for seawater, waste and soil, respectively.</p> <p>(b) SFA will conduct seawater, soil and wastes monitoring accordance with country's regulation.</p> <p>Seawater sample is carried out to analyze once every three months dring the quay construction work.</p> <p>Soil sample is to analyze during the operation of Heavy machineries in addition to once every month.</p> <p>Wastes in the port is to monitor every three months.</p> <p>(c)Monitoring system is established by SFA. Require staffs and necessary budget for implementation of monitoring programs is secure by the SFA.</p> <p>(d)Monitoring report system is to establish by SFA including format, frequency of reporting. SFA have responsibility to prepare monitoring report to Ministry of Environment, Energy and Climate Change once a year.</p>
	B	Reference to Checklist of Other Sectors	<p>(a) For processing and storage facilities, where necessary, pertinent items described in the Mining and Industry checklist should also be checked.</p> <p>(b) Where necessary, pertinent items described in the Ports and Harbors checklist should also be checked (e.g., projects including construction of ports and harbor facilities).</p>	<p>(a):</p> <p>(b):</p>	<p>(a)It is no required in the project</p> <p>(b)It is no required in the project</p>
	Note	Note on Using Environmental Checklist	<p>(a) If necessary, the impacts to transboundary or global issues should be confirmed (e.g., the project includes factors that may cause problems, such as transboundary waste treatment, acid rain, destruction of the ozone layer, or global warming).</p>	<p>(a):</p>	<p>(a)Component of ice making facility is equipped with units using refrigerant. The Project is design to select ammonia as refrigerant instead of Freon to reduce effect to depletion ozone layers for ice making unit. In addition, smallest requirement of ice demand is applied to reduce electrical consumption and emission by CO2.</p>

Annex-6

Environmental Management Plan

	Project Activity	Potential Environmental Impact	Mitigation Measures (Proposed/Implemented)	Parameters to be Monitored	Location	Methods, equipment and frequency of Measurement (Date and/or time of Measurement)	Measured Value (Average/Max/Total, etc)	Standard Value (legal standard, standard for contract, and/or international standard)	Responsible Institution	Past trend and current status including remedial measures if necessary
Pre-construction Phase										
Construction phase										
Operation and Maintenance phase										

Ex: Construction phase

Project Activity	Potential Environmental Impact	Mitigation Measures (Proposed/Implemented)	Parameters to be Monitored	Location	Methods, equipment and frequency of Measurement (Date and/or time of Measurement)	Measured Value (Average/Max/Total, etc)	Standard for Contract (Legal/International Standard)	Responsible Institution	Past trend and current status including remedial measures if necessary
Construction of bridge and approach roads	Air pollution	<ul style="list-style-type: none"> Construction-related vehicles must qualify for 'Emission Permit' Speed limit for construction-related vehicles. Watering of unpaved roads 	SO ₂	2 points in xxx and 3 points in xxx	Conductometric method, measured monthly using IS4150 (JMS Inc.) 13 March 2011	High: 45 µg/m ³ (24h) Low: 18 µg/m ³ (24h) Average: 21 µg/m ³ (24h)	20 µg/m ³ (WHO: 20 µg/m ³ , IFC: 5 µg/m ³)	xxx Bridge Authority	Above standard value(s) but declining steadily.
			NO ₂	2 points in xxx and 3 points in xxx	Absorptionmetry method, measured monthly using Model 810! (Biosdes Corp.) 13 March 2011	High: 360 µg/m ³ (1h) Low: 180 µg/m ³ (1h) Average: 220 µg/m ³ (1h)	20 µg/m ³ (WHO: 200 µg/m ³ , IFC: 50 µg/m ³)	xxx Bridge Authority	Above standard value(s). Fluctuating, with the past 12 months' average of 26 µg/m ³ (24h)
			PM10	2 points in xxx and 3 points in xxx	Gravimetric methods, measured monthly using GMW-1200 (Anderson Instruments Inc.) 13 March 2011	High: 160 µg/m ³ (24h) Low: 80 µg/m ³ (24h) Average: 145 µg/m ³ (24h)	50 µg/m ³ (WHO: 50 µg/m ³ , IFC: 12.5 µg/m ³)	xxx Bridge Authority	Above standard value(s) but declining steadily.
Construction of bridge	Decrease in the catch of local fishery	<ul style="list-style-type: none"> Avoid underwater construction activities during the spawning season of commercially important species. 	Number, size, and maturity of hilsa (<i>Tilapia nilotica</i>)	3 points upstream and 3 points downstream of the construction site.	Experimental fishery (bi-monthly) and sampling from the fishermen's catch (monthly). 13 March 2011	Annual landing: 2000t Average size: 41cm	Annual landing*: 2,100t Average size*: 42cm *Value before the construction.	Fishery Centre of xxx	Decrease in annual landing, but this may be due to the series of cyclones which heavily affected the fisheries industry in 2011.
Construction of bridge and bank protection	Population decline in reptilian species	<ul style="list-style-type: none"> Secure habitat/breeding site of endangered species. Avoid or minimize construction work during the mating/breeding season. Creation of biotope (not implemented) 	Number, size, and sex ratio of <i>Gerrhonotus haughtoni</i>	40 km ² of the riverbanks of both sides (20 km ² upstream and 20 km ² downstream from the construction site)	Quadrat method, measured monthly during the rain season and bi-monthly during the dry season. 13 March 2011	<ul style="list-style-type: none"> Average of 0.8 mature individuals per 100m² Tertiary male to female ratio: 6 to 10 A total of 12 juveniles observed. 	Average of 1.1* mature individuals per 100m ² *Value before the construction.	University of xxx	Decline in population density, but not significant enough to attribute it to the project. Anomaly in M/F ratio may be due to the exceedingly warm weather during the breeding season.

Environmental Monitoring Plan

Seychelles Fishing Authority (SFA), as a responsible organization of the project, has responsibility to conduct the environmental monitoring plan accordance with following measures. The monitoring is planned from before construction stage to after starting operation. SFA is requested to conduct the environmental monitoring, a safety instruction, and pollution prevention together with the constructor through the construction phase.

Water analysis of project site has been studied in March 2015. The result obtained from collected water samples were below limit of Seychelles standard. The project proponent should refer to the following monitoring plan for submitting reports.

Item	Elements	Location	Frequencies	Responsible Organization
【Construction phase】				
Water pollution	Dissolve Oxygen (DO) Total coliforms Suspended Solid (SS) pH	Front of construction area	During the quay construction work: Every three month.	SFA Contractor
Soil pollution	Oil Oil film	Construction area	Every month and During operation of Heavy machineries	SFA
【Operation and maintenance phase】				
Water Pollution	Dissolve Oxygen (DO) Total coliforms Suspended Solid (SS) pH	Front of construction area	Every 6 month for two years	SFA
Waste	General waste	In the port	Every 3 month for two years	SFA

In the Project, the regulations of Seychelles standard are used for monitoring, accordingly.

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Environnemental Monitoring Form

1. Responses/Actions to Comments and Guidance from Government Authorities and the Public

Monitoring Item	Monitoring Results during Report Period
ex.) Responses/Actions to Comments and Guidance from Government Authorities	

2. Mitigation Measures

- Water Quality (Ambient Water Quality)

Item	Unit	Measured Value (Mean)	Measured Value (Max.)	Country's Standards	Referred International Standards	Remarks (Measurement Point, Frequency, Method, etc.)
SS (Suspended Solid)	(mg/L)			30	200	
DO						
Total coliforms	(N/100ml)			500	3000/cm ³	
pH						

- Soil

Monitoring Item	Monitoring Results during Report Period
Oil, Oil film	

- Wastes

Monitoring Item	Monitoring Results during Report Period
Waste	

-When monitoring plans including monitoring items, frequencies and methods are decided, project phase or project life cycle (such as construction phase and operation phase) should be considered.

Estimated Operation and Maintenance Cost

Providence fishing port is respected to maintain to operate after the implementation of the project by the SFA. However, implementation agency will have responsibility to keep budget to ensure sustainable medium- and long-term operation maintenance cost for appropriate depreciation.

It is recommended to secure the budget for items as shown in Table (1) and (2) for sustainable operation of the project.

Table (1) Long term Maintenance Cost for Facilities

Interval	Cost (SCR)	Remark
5 years	214,000	Facilities painting, repair of the port facility
10 years	428,000	Exchange of pump system

Table(2) Maintenance cost for Equipment

Interval	Cost (SCR)	Remark
2.5 years	43,000	Lubrication oil for refrigerating compressor, Refrigerant
5 years	150,000 210,000	Refrigerating compressor, Replacement of parts Bollards (10% of bollard to be change)
10 years	300,000	Refrigerating compressor, Replacement of main part, Replacement of ventilation fan
30 years	1,200,000	Anode corrosion for Sheet pile

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資料－5 参考資料

資料 5.1 ステークホルダーミーティング議事録

2015年3月25日(SFA作成)

(第1回)

Minutes of stakeholders meeting regarding the Extension of the Providence Fishing Port which took place on Wednesday 25th March 2015 at 9 am in the SFA Conference Room.

Present: Mr Isao Koya and Mr Kenichi Matsumoto from JICA
Dr Ryo Ishimoto, Mr Kazumi Lida and Mr Masanori Nakamura from OAFIC Co
Ltd Consultancy

Mr Kenji Kuroki ECHO CORPORATION Consultancy

Mr Marguerite, Mr R Govinden, C Toussaint and Miss D Lesperance from SFA

Mr Keith Andre FBOA, Mr A Benoiton, Mr Jack Matombe, Mr Faiy Mubarak Ali from Boat
owners

Mr KD Pillay, Mr Daniel Mellie, Mr Alexander Geese and Mr Alexander Marie from Fish
Processors

Mr Victor Tirant from PIE, Capt J Valmont from SMSA and Mr Dean Zelime from SPA.

The Purpose of the meeting

1-The meeting started with Mr Toussaint of SFA welcoming all present and in particular the Japanese delegation who is currently in the country. He highlighted the point that following a request which Seychelles government has initiated to the Government of Japan some time ago this is the first of three visits the team will undertake in Seychelles throughout the course of this year. During this trip which is to last until the first week of April 2015 the mission is to undertake base line survey works at the site earmarked to extend the fishing quay at Providence. The information collected will assist in justifying what component the project will entail.

During the second mission to Seychelles which will be from mid May to mid July 2015 the Consultant will also be collecting some more field survey works for preparation of the draft report which is expected to be ready for explanation by end of November this year.

2- Mr Keith Andre of FBOA who took the floor expressed his thanks and gratitude on behalf of his colleagues to the Japanese Government and peoples. He highlighted the fact that this again will be another of the several fisheries projects fishermen have been assisted with from the Japanese. He emphasized the importance of such project and avers it would be put to good use.

3- Mr Tirant of PIE wanted to know whether the study will also include traffic flow to the site where the anticipated development is to take place. He was informed the scope of the study is purely for the extension of the Fishing Port and PIE will be kept informed of the development as same progresses.

Mr Benoiton and also others who spoke felt the extension of the quay is a must and were in favor of the project.

There being no further clarification, queries the meeting was adjourned at 10 am.

(第2回)

The second stakeholders meeting for the extension of the Providence Fishing Port held in the SFA Training Room Victoria on the 3rd of June 2015 at 9.30 a.m

Present: Messrs R Ishimoto, T Hanada and K Kuroki – Japanese Consultant
Messrs V Lucas, R Clarisse, M Marguerite and C Toussaint - SFA
Messrs R Pillay, F Pool, T Songoire, F Jean, R Juluis, P Morin, D Mellie,
R Jeannevol and K Andre – Boat owners/Fishermen.

The Purpose of the meeting:

1- The meeting started with Mr C Toussaint introducing all present the main purpose for calling this meeting. Mr R Ishimoto a member of the Japanese consultant was then invited to briefly explain the outcomes of the first base line Survey with regards to this project that was held from March to April 2015. Mr Ishimoto presentation lasted roughly 40 minutes. The language used throughout was English and same was translated in Creole to the stakeholders by C Toussaint.

2- The consultant, Mr Ishimoto informed that they are in Seychelles to conduct the second baseline survey based on the initial request from the Government of Seychelles to construct fisheries facilities at Providence, Zone 6. He informed the meeting that they had to priorities the various project components due to budgetary constraint, but highlighted the fact that the request will continue to be studied in its entirety. The project components were categories in the following orders; 1- Quay No 1 and 2, 2- surfacing behind Quay No 1, 3- Ancillary works ie water, electricity and lampposts, 4- Landing shed, 5- Ice plant, 6- Mooring buoys, 7- Soft components.

3- All present were able to appraise the project's concept and the study carried out so far. However, Mr D Mellie and Mr F Jean two land owners at Zone 6 who will be negatively impacted wanted to know whether they will be compensated during the stand still period the mere fact they will have to delay the commencement of their projects, were informed that the JICA's project has nothing to do with compensation and that their cases should be referred to Seychelles Government. Mr Pillay on his part wanted when to know when will the project begin and be completed, Mr Ishimoto gave an indicative time frame but not a fixed one.

With no more question from the floor the second stakeholders meeting was adjourned at 10 15 a.m.

資料 5.2 SFA と投資家間の土地リース変更確認同意書



SEYCHELLES FISHING AUTHORITY -

P.O Box 449,
Fishing Port, Mahé,
Republic of Seychelles
Telephone: +248 4670300 Fax: +248 4224508 E-mail: management@sfa.sc



Please address all Correspondence to the Chief Executive Officer.

Tuesday, May 12, 2015

*Mr. Bernard Port-Louis
Providence Industrial Estate
P.O.Box 279,
Victoria*

Dear Mr. Port-Louis

**RE: EXTENSION OF FISHING PORT AT PROVIDENCE ZONE 6
MORATORIUM ON CONSTRUCTION ACTIVITY**

Reference is made to the above mentioned subject.

Earlier in march 2015, we hosted a delegation from Japan who was in the country to conduct a survey to assess the need for the above mentioned project. One of the concerns raised by the delegation was that given that lease agreements have already been signed between the Seychelles Fishing Authority and prospective developers on Providence Zone 6, there will be probable disruption or impediments to construction works should the project be approved by the Japanese Government. In this regards the Japanese consultants advise the SFA to have written consent from the lessees not to proceed with any construction on the sites until the port extension project have been completed which is expected to be within 18 to 24 months.

Moreover it was also agreed that through this letter the SFA gives it assurances that your allotted parcel V18287 (428 m²) will remain at your disposal for your development once the project is completed. It was also agreed that because of this delay the duration of your lease, as well as the grace period shall be reviewed when a new lease agreement is signed to take into consideration the loss of opportunity.

By signing of the attached letter, you hereby give your consent not to proceed with any further development/construction on the allotted parcel V18287.

I thank you for your co-operation and understanding. We remain at your disposal for any further discussion on the matter.

Yours Sincerely

Vincent Lucas
Ag. CHIEF EXECUTIVE OFFICER



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SEYCHELLES FISHING AUTHORITY

P.O Box 449,
Fishing Port, Mahé,
Republic of Seychelles
Telephone: +248 4670300 Fax: +248 4224508 E-mail: management@sfa.sc



Please address all Correspondence to the Chief Executive Officer.

Friday, April 24, 2015

*Mrs. Gracia Maria
Flat No. 7
Village Trezor
Union Vale*

Dear Mrs. Maria

**RE: EXTENSION OF FISHING PORT AT PROVIDENCE ZONE 6
MORATORIUM ON CONSTRUCTION ACTIVITY**

Further to our discussions of yesterday pertaining to the above mentioned subject and agreements.

As explained, the Japanese consultants who were on their first mission to Seychelles beginning of March made it known to the Seychelles' Authorities that given that lease agreements have already been signed between the Seychelles Fishing Authority and prospective developers, there will be probable disruption or impediments to construction works should the project eventually gets the no objection. In this regards the Japanese Consultants advise the SFA to have written consent from the lessees not to proceed with any construction on the sites until the port extension project have been completed which is expected to be within 18 to 24 months.

Moreover it was also agreed that through this letter the SFA gives it assurances that your allotted parcel V18885 (412 m²) will remain to you for your development. It was also agreed that because of this further delay the grace period on the lease will be extended until the project is completed

By signing of the letter below, you give your consent not to proceed with any development or construction on parcel V18885 until further notice.

I thank you for your co-operation and understanding

Yours Sincerely

Vincent Lucas

Ag. CHIEF EXECUTIVE OFFICER



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SEYCHELLES FISHING AUTHORITY

P.O Box 449,
Fishing Port, Mahé,
Republic of Seychelles
Telephone: +248 4670300 Fax: +248 4224508 E-mail: management@sfa.sc



Please address all Correspondence to the Chief Executive Officer

Wednesday, May 06, 2015

Mr Franky Jean
Franky's Construction (Pty) Ltd
Providence Industrial Estate

Dear Mr. Jean,

**RE: EXTENSION OF FISHING PORT AT PROVIDENCE ZONE 6
MORATORIUM ON CONSTRUCTION ACTIVITY**

Further to our discussions of yesterday pertaining to the above mentioned subject and agreements.

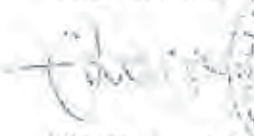
As explained, the Japanese consultants who were on their first mission to Seychelles beginning of March made it known to the Seychelles Authorities that given that lease agreements have already been signed between the Seychelles Fishing Authority and prospective developers, there will be probable disruption or impediments to construction works should the project eventually be approved by the Japanese Government. In this regards the Japanese Consultants advised the SFA to have written consent from the lessees not to proceed with any construction on the sites until the port extension project have been completed which is expected to be within 18 to 24 months.

Moreover as it was agreed during our discussions that SFA hereby gives it assurances that your allotted parcel V18898 (400m²) will remain to you for your development once the project is completed. It was also agreed that because of this further delay the duration of your lease as well as the grace period shall be considered when a new lease agreement is signed to take into consideration the loss of opportunity. Any delays in the project implementation shall also be taken into consideration in the new lease agreement.

In order for the port extension project to obtain further consideration by our Japanese counterparts, SFA needs to provide firm commitments that no development will be undertaken until the project is completed. In this we would be very grateful if by the signing of the attached letter you give your consent not to proceed with any development/construction on parcel V 18898 until further notice.

I thank you for your co-operation and understanding. We remain at your disposal for any further discussion on the matter.

Yours Sincerely


Vincent Louis (Mr)
Ag. CHIEF EXECUTIVE OFFICER



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P.O Box 449,
Fishing Port, Mahé,
Republic of Seychelles
Telephone: +248 4670300 Fax: +248 4224508 E-mail: management@sfa.sc



Please address all Correspondence to the Chief Executive Officer.

Thursday, May 07, 2015

*Mr. Alderick Benoiton
Manager
Marine Resources Investment (Seychelles) Pty Ltd
Providence Industrial Estate*

Dear Mr. Benoiton

**RE: EXTENSION OF FISHING PORT AT PROVIDENCE ZONE 6
MORATORIUM ON CONSTRUCTION ACTIVITY**

Further to our discussions of 22nd April 2015 pertaining to the above mentioned subject and agreements.

As explained, the Japanese consultants who were on their first mission to Seychelles beginning of March made it known to the Seychelles' Authorities that given that lease agreements have already been signed between the Seychelles Fishing Authority and prospective developers, there will be probable disruption or impediments to construction works should the project be approved by the Japanese Government. In this regards the Japanese consultants advise the SFA to have written consent from the lessees not to proceed with any construction on the sites until the port extension project have been completed which is expected to be within 18 to 24 months.

Moreover it was also agreed that through this letter the SFA gives it assurances that your allotted parcel V18285 (1134 m²) will remain to you for your development will remain to you for your development once the project is completed. It was also agreed that because of this delay the duration of your lease, as well as the grace period shall be reviewed when a new lease agreement is signed to take into consideration the loss of opportunity.

By signing of the attached letter, you hereby give your consent not to proceed with any further development/construction on the allotted parcel V18285. Furthermore you agree that before construction work begins for the extension of the port (expected date 2nd quarter 2016), to remove existing structures which may obstruct the construction work, i.e. the erected structures in the sea and any structure found within an average of 6 metres off the waterfront in front of your facility. Any need for further displacement of structures shall be discussed and mutually agreed.

SFA take note that your bait business is an established and important business that many fishermen rely on, and we will do our utmost to cause minimum disruptions to the running of your business. SFA will assist you to the extent possible if there is any need.

I thank you for your co-operation and understanding. We remain at your disposal for any further discussion on the matter.

Yours Sincerely

Vincent Lucas
Ag. CHIEF EXECUTIVE OFFICER



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P.O Box 449,
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Telephone: +248 4670300 Fax: +248 4224508 E-mail: management@sfa.sc



Please address all Correspondence to the Chief Executive Officer.

Friday, April 24, 2015

*Mr. Alderick Benoiton
Manager
Marine Resources Investment (Seychelles) Pty Ltd
Providence Industrial Estate*

Dear Mr. Benoiton

RE: EXTENSION OF FISHING PORT AT PROVIDENCE ZONE 6
MORATORIUM ON CONSTRUCTION ACTIVITY

Further to our discussions of yesterday pertaining to the above mentioned subject and agreements.

As explained, the Japanese consultants who were on their first mission to Seychelles beginning of March made it known to the Seychelles' Authorities that given that lease agreements have already been signed between the Seychelles Fishing Authority and prospective developers, there will be probable disruption or impediments to construction works should the project eventually gets the no objection. In this regards the Japanese Consultants advise the SFA to have written consent from the lessees not to proceed with any construction on the sites until the port extension project have been completed which is expected to be within 18 to 24 months.

Moreover it was also agreed that through this letter the SFA gives it assurances that your allotted parcel V18285 (1134 m²) will remain to you for your development. It was also agreed that because of this further delay the grace period on the lease will be extended until the project is completed

By signing of the letter below, you give your consent to move the existing structure and to remove all existing structure in the sea in front of your facility before works on the project starts

I thank you for your co-operation and understanding

Yours Sincerely

Vincent Lucas

Ag. CHIEF EXECUTIVE OFFICER



**I Love
Mon Kontan
J'aime**

Responsible Fishing For Sustainability



SEYCHELLES FISHING AUTHORITY

P.O Box 449,
Fishing Port, Mahé,
Republic of Seychelles
Telephone: +248 4670300 Fax: +248 4224508 E-mail: management@sfa.sc



Please address all Correspondence to the Chief Executive Officer.

Monday, May 04, 2015

*Mr. Kumar Pillay
C/O Chez Deenu Pty Ltd
Quincy Street*

Dear Mr. Pillay,

**RE: EXTENSION OF FISHING PORT AT PROVIDENCE ZONE 6
MORATORIUM ON CONSTRUCTION ACTIVITY**

Further to our discussions of 22nd April 2015 pertaining to the above mentioned subject and agreements.

As explained, the Japanese consultants who were on their first mission to Seychelles beginning of March made it known to the Seychelles' Authorities that given that lease agreements have already been signed between the Seychelles Fishing Authority and prospective developers, there will be probable disruption or impediments to construction works should the project be approved by the Japanese Government. In this regards the Japanese consultants advise the SFA to have written consent from the lessees not to proceed with any construction on the sites until the port extension project have been completed which is expected to be within 18 to 24 months.

Moreover as it was agreed during our discussion SFA hereby gives it assurances that your allotted parcel V18884 (400m²) will remain to you for your development once the project is completed. It was also agreed that because of this delay the duration of your lease, as well as the grace period shall be considered when a new lease agreement is signed to take into consideration the loss of opportunity.

SFA is in negotiation with MLUH for the possible short term relocation of your project, however at the moment we cannot provide any firm commitment on this. Negotiation is still ongoing and we shall inform you of the outcome in due course.

In order for the port extension project to obtain further consideration by our Japanese counterparts, SFA needs to provide firm commitments that no development will be undertaken until the project is completed. In this we would be very grateful if by the signing of the attached letter you give your consent not to proceed with any development/construction on parcel V18884 until further notice.

I thank you for your co-operation and understanding. We remain at your disposal for any further discussion on the matter.

Yours Sincerely

Vincent Lucas

Ag. CHIEF EXECUTIVE OFFICER



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J'aime

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SEYCHELLES FISHING AUTHORITY

P.O Box 449,
Fishing Port, Mahé,
Republic of Seychelles
Telephone: +248 4670300 Fax: +248 4224508 E-mail: management@sfa.sc



Please address all Correspondence to the Chief Executive Officer.

Friday, April 24, 2015

*Mr. Kumar Pillay
C/O Chez Deenu Pty Ltd
Quincy Street*

Dear Mr. Pillay,

**RE: EXTENSION OF FISHING PORT AT PROVIDENCE ZONE 6
MORATORIUM ON CONSTRUCTION ACTIVITY**

Further to our discussions of yesterday pertaining to the above mentioned subject and agreements.

As explained, the Japanese consultants who were on their first mission to Seychelles beginning of March made it known to the Seychelles' Authorities that given that lease agreements have already been signed between the Seychelles Fishing Authority and prospective developers, there will be probable disruption or impediments to construction works should the project eventually gets the no objection. In this regards the Japanese Consultants advise the SFA to have written consent from the lessees not to proceed with any construction on the sites until the port extension project have been completed which is expected to be within 18 to 24 months.

Moreover it was also agreed that through this letter the SFA gives it assurances that your allotted parcel V18884 (400m²) will remain to you for your development. It was also agreed that because of this further delay the grace period on the lease will be extended until the project is completed

By signing of the letter below, you give your consent not to proceed with any development/construction on parcel V 18884 until further notice.

I thank you for your co-operation and understanding

Yours Sincerely

*Vincent Lucas
Ag. CHIEF EXECUTIVE OFFICER*



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J'aime**

資料 - 5.2



SEYCHELLES FISHING AUTHORITY

P.O Box 449,
Fishing Port, Mahé,
Republic of Seychelles
Telephone: +248 4670300 Fax: +248 4224508 E-mail: management@sfa.sc



Please address all Correspondence to the Chief Executive Officer.

Wednesday, May 06, 2015

Mr Keith Andre
Future Peche (Pty) Ltd
Providence Industrial Estate

Dear Mr. Andre,

RE: EXTENSION OF FISHING PORT AT PROVIDENCE ZONE 6
MORATORIUM ON CONSTRUCTION ACTIVITY

Further to our discussions of yesterday pertaining to the above mentioned subject and agreements.

As explained, the Japanese consultants who were on their first mission to Seychelles beginning of March made it known to the Seychelles' Authorities that given that lease agreements have already been signed between the Seychelles Fishing Authority and prospective developers, there will be probable disruption or impediments to construction works should the project eventually be approved by the Japanese Government. In this regards the Japanese Consultants advised the SFA to have written consent from the lessees not to proceed with any construction on the sites until the port extension project have been completed which is expected to be within 18 to 24 months.

Moreover as it was agreed during our discussions that SFA hereby gives it assurances that your allotted parcel V18286 (426m²) will remain to you for your development once the project is completed. It was also agreed that because of this further delay the duration of your lease as well as the grace period shall be considered when a new lease agreement is signed to take into consideration the loss of opportunity. Any delays in the project implementation shall also be taken into consideration in the new lease agreement.

In order for the port extension project to obtain further consideration by our Japanese counterparts, SFA needs to provide firm commitments that no development will be undertaken until the project is completed. In this we would be very grateful if by the signing of the attached letter you give your consent not to proceed with any development/construction on parcel V 18286 until further notice.

I thank you for your co-operation and understanding. We remain at your disposal for any further discussion on the matter.

Yours Sincerely

Vincent Lucas

Ag. CHIEF EXECUTIVE OFFICER



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J'aime

Responsible Fishing For Sustainability

Pwason Zil

P. O. BOX 280, VICTORIA, MAHE, SEYCHELLES

TEL: 2783300,2781222

Email :

And;

Fish House Holding (SEY) LTD

Providence, Mahe, Seychelles

Tel : 2722117

Email :mellie_dc@yahoo.com

27th April, 2015

Mr Vincent Lucas
Chief Executive Officer
Seychelles Fishing Authority
Fishing Port, Victoria

Dear Mr Lucas,

RE: REQUEST TO DELAY COMMENCEMENT OF CONSTRUCTION OF OUR FISH PROCESSING FACTORY AT PROVIDENCE FISHING PORT.

Further to our meeting with you of the 23rd April, 2015, we would like to affirm and confirm our position as follows;

With regards to the allocated plots;

PWASON ZIL (PTY) LTD – plot no. V18899 &
FISH HOUSE HOLDING (SEY) LTD – plot no. V18892

We are in the process of finalising our architectural and engineering works for our joint venture project of our Fish Processing Factory to be located on the above stated plots. We have already made initial deposit to Iceman Company of Sri Lanka, which is our contracted party for construction of our processing plant. We were expecting to commence construction works on same by June 2015.

However, we fully understand the need for the extended Port Facilities, as proposed for development at the Providence Fishing Port.

We are also grateful for the gesture by the Japanese Government for their generous assistance to Seychelles.



We feel it is our duty to collaborate with all parties concerned so as to ensure that we do benefit from the proposed generosity of the Japanese People.

In accordance with the above, we would jointly like to confirm that we are prepared to differ commencement of construction works of our FISH PROCESSING FACTORY for 18 months after our initial commencement date which would have been around June 2015.

We would however, be grateful if it could be agreed with the Authority and the Developers, that the works could start from the area in front of our allocated plots, so as to enable us to start with our development at the earliest.

We trust in your continued support and understanding.

Faithfully,



Paul P Morin
Director Pwason Zil



Daniel C Mellie
Director - Fish House Holding



TO WHOM IT MAY CONCERN

I, ... KEITH H.G. ANOIRE of Future Peche (Pty) Ltd. hereby gives my consent not to proceed with any development or construction works on parcel V18286 at Providence Fishing Port, Zone 6 until the Port Extension project is completed and upon instruction by the Seychelles Fishing Authority. I take note that the project will take between 18 to 24 months to be completed and that SFA has provided its assurance that the allotted parcel V18286 (426m²) will remain at our disposal for development once the project is completed and that any loss of opportunity shall be given consideration in a new lease agreement to be signed once the port extension project is completed.

For any other information on the matter, I may be contacted on the following details

Full Name: KEITH ANOIRE
Address: P.O. Box 709 (B. VALLON)
Tel: 2710800 / 2791933 (mobile) 2710800
e-mail: andreekit@hotmail.com

Signature:  Date: 06.12.15



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Mon Kontan *Seychelles*
J'aime *la Seychelles*

TO WHOM IT MAY CONCERN

I, Gracia Maria..... hereby gives my consent to differ commencement of construction works for our project on parcel V18885 at Providence Fishing Port, Zone 6 until the Port Extension project is completed and upon instruction by the Seychelles Fishing Authority. I take note that the project will take between 18 to 24 months to be completed and that SFA has provided its assurance that the allotted parcel V18885 (412 m²) will remain at my disposal for development once the project is completed and that any loss of opportunity shall be given consideration in a new lease agreement to be signed once the port extension project is completed.

For any other information on the matter, I may be contacted on the following details

Full Name: Gracia Maria.....
Address: Flat No 7, Village TRISOL.....
Tel: 2743638 (mobile) 2743638.....
e-mail: gmaria016@yahoo.com.....

Signature:

Gracia

Date: 6.1.5.2015



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J'aime

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TO WHOM IT MAY CONCERN

I, Mr. Franky Jean..... hereby gives my consent not to proceed with any development or construction works on parcel V18898 at Providence Fishing Port, Zone 6 until the Port Extension project is completed and upon instruction by the Seychelles Fishing Authority. I take note that the project will take between 18 to 24 months to be completed and that SFA has provided its assurance that the allotted parcel V18898 (400m²) will remain at our disposal for development once the project is completed and that any loss of opportunity shall be given consideration in a new lease agreement to be signed once the port extension project is completed.

For any other information on the matter, I may be contacted on the following details

Full Name: FRANKY REGIS JEAN
Address: PROVIDENCE, APHE
Tel: 4873389 (mobile) 2510006
e-mail: frankyrjean@hotmail.com

Signature:  Date: 08/05/15



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Mon Kontan *Seychelles*
J'aime *les Seychelles*

TO WHOM IT MAY CONCERN

I, D. Savoundaravally..... acting on behalf of Chez Deenu Pty Ltd hereby gives my consent not to proceed with any development or construction works on parcel V18884 at Providence Fishing Port, Zone 6 until the Port Extension project is completed and upon instruction by the Seychelles Fishing Authority. I take note that the project will take between 18 to 24 months to be completed.

For any other information on the matter, I may be contacted on the following details

Full Name: Savoundaravally DEENADAYALU, (MTR)
Address: Plaisance
Tel: 4322639..... (mobile) 2714667, 2714667.
e-mail: deenu@seychelles.net.....

Signature: D. Savoundaravally Date: 29/04/2015



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Mon Kontan
J'aime

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TO WHOM IT MAY CONCERN

I, BERNARD PORT-LOUIS....., hereby gives my consent to differ commencement of construction works for my project on parcel V18287 at Providence Fishing Port, Zone 6 until the Port Extension project is completed and upon instruction by the Seychelles Fishing Authority. I take note that the project will take between 18 to 24 months to be completed and that SFA has provided its assurance that the allotted parcel V18287 (428m²) will remain at my disposal for development once the project is completed and that any loss of opportunity shall be given consideration in a new lease agreement to be signed once the port extension project is completed.

I also take note of SFA letter dated 12/05/2015 (which was attached to this document), and all its wording and content form part and partial of this agreement.

For any other information on the matter, I may be contacted on the following details

Full Name: BERNARD PORT-LOUIS.....
Address: BEA OMBEG MARTE.....
Tel: (mobile) 2527752.....
e-mail: bernard.portlouis@seychelles.net

Signature: [Handwritten Signature].....

Date: 12/05/2015

Company's official Stamp



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TO WHOM IT MAY CONCERN

I, Alderic Benoiton Manager Director of Marine Resources Investment (Seychelles) Pty Ltd agree to remove existing structures (Steel Structures) in the sea that had been erected by Marine Resources Investment (Seychelles) Ltd and at the waterfront in front of our facility on parcel V18285 which may cause obstruction to the Proposed Quay Extension Work, i.e. the erected structures in the sea and any structure found within the perimeter of 6 meters off the waterfront in the front of the existing facility. Should further need, arise for the relocation of other existing structures in the vicinity on same parcel which has not taken in this agreement. SFA and MIRS shall discuss the matter and mutually agreed upon and SFA will assist MIRS to the extent possible if there is any need.

I also give my consent not to undertake any further development/construction on the said parcel until the project is completed and upon instruction by the Seychelles Fishing Authority. I take note that the project will take between 18 to 24 months to be completed and that SFA has provided its assurance that the allotted parcel V18285 (1134 m²) will remain at my disposal for development once the project is completed and that any loss of opportunity shall be given consideration in a new lease agreement to be signed once the port extension project is completed.

I do understand that this document makes reference to SFA letter dated 07/05/2015 and all its wordings and contents form part and partial of this Agreement.

For any other information on the matter, I may be contacted on the following

Full Name: Alderic Benoiton
Address: Union Vale
Tel: 4374627 (mobile) 2514545
E-mail: marine@email.sc

11/05/2015
for Marine Investment
Advanced
Solutions
LTD.



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Mon Kontan *Sans*
J'aime *les Seychelles*

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資料－6 その他の資料・情報

資料 6.1 環境社会配慮

資料 6.1.1 環境社会配慮チェックリスト

分類	環境項目	主なチェック事項	Yes: Y No: N	具体的な環境社会配慮
1 許認可・説明	(1)EIA および環境許認可	(a) 環境アセスメント報告書 (EIA レポート)等は作成済みか。 (b)EIA レポート等は当該国政府により承認されているか。 (c)EIA レポート等の承認は付帯条件を伴うか。付帯条件がある場合は、その条件は満たされるか。 (d)上記以外に、必要な場合には現地の所管官庁からの環境に関する許認可は取得済みか。	(a):N (b):N (c):Y (d):	(a)SFA は環境エネルギー気候変動省の指導のもと、2015年11月中旬にEIA レポートを提出する (b)EIA レポートは2015年12月に環境エネルギー気候変動省により承認され審査し、環境許可書が2015年12月(予定)に発出される。 (c)EIA 実施前にステークホルダー会議を環境エネルギー気候変動省主導が開催する。 (d)EIA の環境許可取得後は必要ない。
	(2) 現地ステークホルダーへの説明	(a)プロジェクトの内容および影響について、情報公開を含めて現地ステークホルダーに適切な説明を行い、理解を得ているか。 (b)住民等からのコメントを、プロジェクト内容に反映させたか。	(a):Y (b):	(a)ステークホルダー会議が2015年3月25日ならびに6月3日に実施され、施設利用者や漁民への説明が行われた。関係者より意見が徴収され、合意形成の場が設けられている。 (b)ステークホルダー会議で得られた意見を尊重し、その内容をプロジェクトを設計する際に反映した。特に利用者の利便性を考慮した施設コンポーネントの配置と利用船舶の港内での安全性を考慮した設計とした。
	(3) 代替案の検討	(a)プロジェクト計画の複数の代替案は(検討の際、環境・社会に係る項目も含めて)検討されているか。	(a):Y	(a) SFA が所有するリース地内に施設を設置する際、複数の利用計画を検討し、利用目的及び環境面よりもっとも適した場所を元に代替案を検討した。
2 汚染対策	(1) 大気質	(a)船舶・車輛・付帯設備等から排出される硫黄酸化物(SOx)、窒素酸化物(NOx)、煤じん等の大気汚染物質は、当該国の排出基準、環境基準等と整合するか。大気質に対する対策はとられるか。	(a):Y	(a)事業開始後、プロジェクトサイトから新たに排出される大気汚染物質は排出されない。また、排気ガスの排出は想定されるが本プロジェクトによる影響はほとんど発生しない。
	(2) 水質	(a)関連施設からの一般排水は、当該国の排出基準、環境基準等と整合するか。 (b)船舶・付帯設備等(ドック等)からの排水は、当該国の排出基準、環境基準等と整合するか。 (c)油、有害物質等が周辺水域に流出・排出しない対策がなされるか。 (d)水際線の変更、既存水面の消滅、新規水面の創出等によって、流況変化・海水交換率の低下等(海水循環が悪くなる)が発生し、水温・水質の変化が引き起こされるか。 (e)埋め立てを行う場合、埋立地からの浸透水が表流水、海水、地下水を汚染しない対策がなされるか。	(a):Y (b):Y (c):Y (d):N (e):Y	(a)建設される接岸岸壁、製氷施設には適切な排水処理施設が設置され、周辺海域の環境基準はセーシェルの基準をクリアする。 (b)船舶等からの排水は2015年の水質調査により、セーシェルの基準をクリアしている。供用後、付帯設備からの排水には製氷施設の冷却装置からの排水が想定されたが、設置機材を循環蒸発型にすることで排水はなく、港内への排水はない。 (c)発電機などの一部機材に関しては事業開始後にオイルを使用する施設は外部流出を避ける床構造とする。 (d)水際線の変更、既存水面の一部変更はあるものの、既存漁港内の拡張であるため、流況変化、水温・水質に変化はない。 (e)本案件において埋め立て作業は発生しない。
	(3) 廃棄物	(a)船舶、関連施設からの廃棄物は当該国の規定に従って適切に処理・処分されるか。 (b)浚渫土・沖捨ての投棄が周辺水域に影響を及ぼすことがないよう、当該国の基準に従って適切に処理・処分されるか。 (c)有害物質が周辺水域に排出・投棄されないよう対策がなされるか。	(a):Y (b):Y (c):Y	(a)船舶、関連施設からは一般ゴミが排出されるが、一般ゴミ等は、SFA が民間業者に委託して週3回廃棄物処理を行っており、建設後も継続して実施される。 (b)島嶼国であるセーシェルでは土壌が貴重であり、浚渫土が投棄されることはなく、先方国の基準に従い処理される。 (c)事業開始後、SFA により有害物質の排出・投棄に関するモニタリングと利用者に向けた啓蒙活動を実施する。

分類	環境項目	主なチェック事項	Yes: Y No: N	具体的な環境社会配慮
	(4) 土壌汚染 (底質)	(a) 船舶及び関連施設からの有害物質等の排出・投棄によって底質を汚染しないよう対策がなされるか。	(a):Y	(a) 工事中は重機等のオイル漏れはメンテナンスを十分に行うことで未然に防げる。関連施設に関しては、環境適応する機材を配置することにより有害物質は排出されない、もしくは適切に処理されるため、港内には流出しない。
	(5) 騒音・振動	(a) 騒音、振動は当該国の基準等と整合するか。	(a):Y	(a) プロジェクトサイト周辺には民家はなく、騒音振動の影響は考えにくい。また、事業開始後は騒音に関し、利用者にモニタリング調査を行う。
	(6) 地盤沈下	(a) 大量の地下水汲み上げを行う場合、地盤沈下が生じる恐れがあるか。	(a):N	(a) 本プロジェクトサイトでは地盤沈下は発生しにくい構造であり、また構造物についてはRC造に比較して比重が軽い鉄骨構造で設計を行なっている。
	(7) 悪臭	(a) 悪臭源はあるか。悪臭防止の対策はとられるか。	(a):Y	(a) 一般ゴミ等は、SFAが週3回、民間業者に委託して廃棄物処理を行っており建設後も継続して実施される。
3 自然環境	(1) 保護区	(a) サイトは当該国の法律・国際条約等に定められた保護区内に立地するか。プロジェクトが保護区に影響を与えるか。	(a):N	(a) プロジェクトサイトは商業地域であり、セーシユールの法律・国際条約等に定められた保護区内に立地していない。また、プロジェクトは保護区域には影響を与えない。
	(2) 生態系	(a) サイトは原生林、熱帯の自然林、生態学的に重要な生息地(珊瑚礁、マングローブ湿地、干潟等)を含むか。 (b) サイトは当該国の法律・国際条約等で保護が必要とされる貴重種の生息地を含むか。 (c) 生態系への重大な影響が懸念される場合、生態系への影響を減らす対策はなされるか。 (d) 水生生物に悪影響を及ぼす恐れはあるか。影響がある場合、対策はなされるか。 (e) 沿岸域の植生、野生動物に悪影響を及ぼす恐れはあるか。影響がある場合、対策はなされるか。	(a):N (b):N (c): (d):N (e):N	(a) サイトは既設漁港の拡張工事になり、原生林、熱帯の自然林、生態学的に重要な生息地(珊瑚礁、マングローブ湿地、干潟等)を含まない。 (b) サイトは当該国の法律・国際条約等で保護が必要とされる貴重種の生息地を含まない。 (c) 生態系への重大な影響は懸念されない。 (d) 周辺の水生生物に影響を及ぼすことはない。 (e) 沿岸域の植生、野生動物に悪影響を及ぼすことはない。
	(3) 水象	(a) プロジェクトによる水系の変化に伴い、地表水・地下水の流れに悪影響を及ぼすか。	(a):N	(a) 本プロジェクトによる水象への影響はほとんど発生しない。
	(4) 地形・地質	(a) 沿岸部での造成に伴い、計画地周辺の地形・地質構造の大規模な改変、地盤沈下や自然海浜の消失は生じるか。	(a):N	(a) 本プロジェクトでは、工事による影響はない。
4 社会環境	(1) 住民移転	(a) プロジェクトの実施に伴い非自発的住民移転が生じるか。生じる場合は、移転による影響を最小限とする努力がなされるか。 (b) 移転する住民に対し、移転前に補償・生活再建対策に関する適切な説明が行われるか。 (c) 住民移転のための調査がなされ、再取得価格による補償、移転後の生活基盤の回復を含む移転計画が立てられるか。 (d) 補償金の支払いは移転前に行われるか。 (e) 補償方針は文書で策定されているか。 (f) 移転住民のうち特に女性、子供、老人、貧困層、少数民族・先住民族等の社会的弱者に適切な配慮がなされた計画か。(g) 移転住民について移転前の合意は得られるか。 (h) 住民移転を適切に実施するための体制は整えられるか。十分な実施能力と予算措置が講じられるか。	(a):N (b): (c): (d): (e): (f): (g): (h): (i): (j):	(a) (b) (c) (d) (e) (f) (g) (h) (i) (j) 本プロジェクトによる住民移転は発生しない。

分類	環境項目	主なチェック事項	Yes: Y No: N	具体的な環境社会配慮
		(i) 移転による影響のモニタリングが計画されるか。 (j) 苦情処理の仕組みが構築されているか。		
	(2) 生活・生計	(a) プロジェクトによる住民の生活への悪影響が生じるか。必要な場合は影響を緩和する配慮が行われるか。	(a):N	(a) 住民移転もなく、当該用地はSFAの所有地であるため、生活生計への影響はない。
	(3) 文化遺産	(a) プロジェクトにより、考古学的、歴史的、文化的、宗教的に貴重な遺産、史跡等を損なう恐れはあるか。また、当該国の国内法上定められた措置が考慮されるか。	(a):N	(a) プロジェクトサイトは先方政府による埋め立て地であり、考古学的、歴史的、文化的、宗教的に貴重な遺産、史跡等を損なう恐れはない。
	(4) 景観	(a) 特に配慮すべき景観が存在する場合、それに対し悪影響を及ぼすか。影響がある場合には必要な対策は取られるか。 (b) 大規模な宿泊施設や建築物の高層化によって景観が損なわれる恐れがあるか。	(a):N (b):N	(a) 商業地域であり、とくに配慮すべき景観はない。 (b) 接岸岸壁と1階建て相当の製氷施設、陸揚げシェッドの建設であるため景観への影響はほとんど問題ない。
	(5) 少数民族、先住民族	(a) 少数民族、先住民族の文化、生活様式への影響を軽減する配慮がなされているか。 (b) 少数民族、先住民族の土地及び資源に関する諸権利は尊重されるか。	(a):N (b)	(a) (b) 本プロジェクトにより少数民族・先住民への影響は発生しない。
	(6) 労働環境	(a) プロジェクトにおいて遵守すべき当該国の労働環境に関する法律が守られるか。 (b) 労働災害防止に係る安全設備の設置、有害物質の管理等、プロジェクト関係者へのハード面での安全配慮が措置されるか。 (c) 安全衛生計画の策定や作業員等に対する安全教育(交通安全や公衆衛生を含む)の実施等、プロジェクト関係者へのソフト面での対応が計画・実施されるか。 (d) プロジェクトに関する警備要員が、プロジェクト関係者・地域住民の安全を侵害することのないよう、適切な措置が講じられるか。	(a):Y (b):Y (c):Y (d):Y	(a) (b) (c) (d) 安全教育をはじめとする安全対策や法律の遵守を十分に実施・喚起することや、工事現場でのフェンス設置、交通監視員の配置、工事期間の周知等により事故の発生を未然に防止する。
5 その他	(1) 工事中の影響	(a) 工事中の汚染(騒音、振動、濁水、粉じん、排ガス、廃棄物等)に対して緩和策が用意されるか。 (b) 工事により自然環境(生態系)に悪影響を及ぼすか。また、影響に対する緩和策が用意されるか。 (c) 工事により社会環境に悪影響を及ぼすか。また、影響に対する緩和策が用意されるか。	(a):Y (b):N (c):N	(a) 工事中の汚染 騒音：工事中に騒音の発生が予測される作業は、夜間、休日には行わない。 粉塵：工事中、工事中大型車両等により粉塵が発生する可能性があるため、強風時にはサイト内において散水などを実施する。 水質汚濁：水質汚濁を最小限に抑える工機を使用し、シルトフェンス等の設置も行い、水質汚濁を削減する。 土壌汚染：施設全体の建設工事中は油漏れを監視する施工監理体制とする。 (b) 工事により自然環境(生態系)に影響を及ぼさない。 (c) 工事により社会環境に悪影響を及ぼさない。

分類	環境項目	主なチェック事項	Yes: Y No: N	具体的な環境社会配慮
	(2) モニタリング	(a)上記の環境項目のうち、影響が考えられる項目に対して、事業者のモニタリングが計画・実施されるか。 (b)当該計画の項目、方法、頻度等はどのように定められているか。 (c)事業者のモニタリング体制（組織、人員、機材、予算等とそれらの継続性）は確立されるか。 (d)事業者から所管官庁等への報告の方法、頻度等は規定されているか。	(a):Y (b): (c):Y (d):Y	(a)セーシェル漁業公社が、港内の水質、廃棄物、土壌等についてモニタリングを行う。 (b)水質はセーシェル国の水質基準に準じて半年に一回、土壌は一月に一回の頻度でセーシェル漁業公社が実施する。 (c)モニタリング実施体制について、セーシェル漁業公社が必要な費用を準備し、人員を配置する。 (d)当該国のEIA審査により、SFAにその計画に沿った業務の実施を求めることとなる。SFAから環境エネルギー省へのモニタリング結果の報告は、モニタリングフォームにより、規定する。（年1回を想定）
6 留意点	他の環境チェックリストの参照	(a)必要な場合、道路、鉄道、橋梁に係るチェックリストの該当チェック事項も追加して評価すること（インフラ施設に関連して、アクセス道路等が設置される場合等）。 (b)電話線敷設、鉄塔、海底ケーブル等については、必要に応じて、送変電・配電に係るチェックリストの該当チェック事項も追加して評価すること。	(a): (b):	(a)とくに影響はなく、確認は必要ない (b)とくに影響はなく、確認は必要ない
	環境チェックリスト使用上の注意	(a)必要な場合には、越境または地球規模の環境問題への影響も確認する（廃棄物の越境処理、酸性雨、オゾン層破壊、地球温暖化の問題に係る要素が考えられる場合等）。	(a):	(a)プロジェクトサイトでは漁業活動に必要な氷を製造するため製氷施設を用いる。冷媒を使用する計画である。冷媒は、オゾン層への影響が極めて小さい自然冷媒のアンモニアを採用する。また、必要最低限の氷の生産を計画することにより、稼働時間を短縮し、二酸化炭素排出量の軽減に努力する。

資料6.1.2 環境モニタリングフォーム

1. 許認可・住民説明

モニタリング項目	報告期間中の状況
例：当局からの指摘事項への対応	

2. 汚染対策

－水質（排水測定値および周辺水域環境測定値）

項目（単位）	測定値 （平均値）	測定値 （最大値）	現地基準	参照した 国際的基準	備考 （測定場所、 頻度、方法等）
SS （浮遊物質）	(mg/L)		30	200	
DO	(mg/L)				
大腸菌群	N/100ml		500	3000 /cm ³	
pH					

－土壌

モニタリング項目	報告期間中の状況

－廃棄物

モニタリング項目	報告期間中の状況

資料 6.2 要請岸壁に対する港内静穏度解析結果

(1) 岸壁-1、岸壁-2、岸壁-3 の整備に係る港内静穏度解析

現在のプロビデンス漁港は、Phase□1 で整備された箇所のみが直立構造の岸壁で、大半は捨石などによる緩傾斜護岸となっているため、波の反射率低減の割合が多く、比較的良好な静穏水域が確保できている。

本計画では、先方政府から要請されている岸壁-1~3 のうち、現在の船舶利用状況から緊急性及び必要性の高い岸壁□1、岸壁□2 の整備計画を立案している。将来的に先方政府により岸壁-3 の整備が行われる可能性もある。以上のことから、当初要請のように岸壁□1~岸壁□3 まで港内の水際線の大半を直立岸壁の占める割合が多くなると、図-資 6.2 (1)のように波の反射率が増幅し良好な静穏水域が確保できない可能性がある。

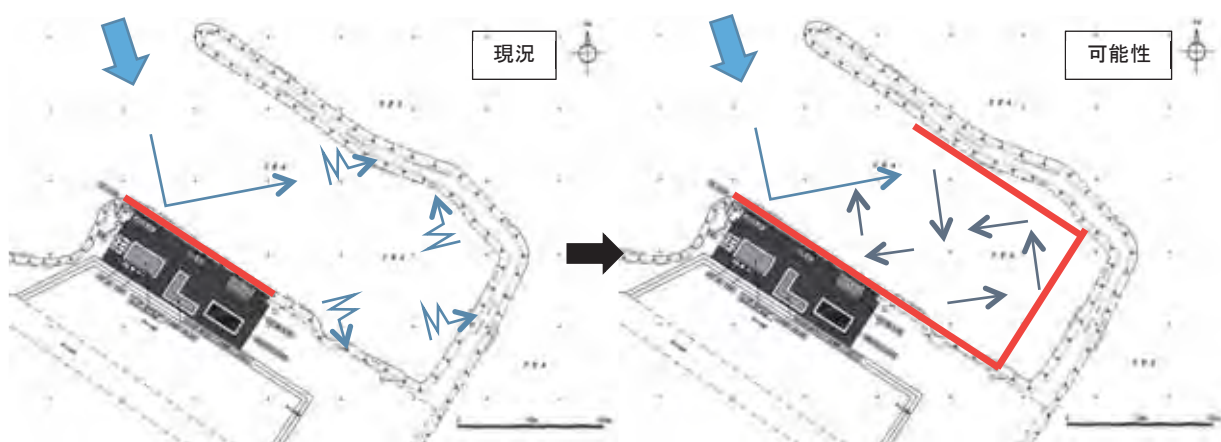


図-資 6.2 (1) 直立岸壁化に伴う港内静穏性悪化の可能性

このため、本文の表 2-2-4(9)で取りまとめたプロビデンス漁港前面における波向別波高階級別頻度表を用いて、図-資 6.2 (2)に示すように以下の3ケースについて静穏度解析による分析を行った。

- ① 岸壁-1 (直立構造) を整備する場合
- ② 岸壁-1~2 (直立構造) を整備する場合
- ③ 岸壁-1~3 (直立構造) を整備する場合

静穏度解析による分析に当たっては、各岸壁前面の水域特性把握のため、領域 A、B、C、D に区分して波高比を整理した。計算結果から得られる波高比分布図の代表例として N 系波浪および E-S 系波浪を図-資 6.2 (3)~図-資 6.2 (5)に示す。

通常、日本の漁港基準となる陸揚げ岸壁や係留岸壁の限界波高は、利用船舶の安全性を考慮して 0.3m に設定され、年間を通じた稼働率は 95.7% 以上に定められている。このため、表-資 6.2 (1)に示す領域内の平均波高比から領域別の稼働率を求めたものを表-資 6.2 (2)~表-資 6.2 (3)に示す。

以上の検討解析結果から、本プロジェクト整備による稼働率は、岸壁-1~3 を直立としたケース 3 も含めた何れのケースでも 99% 以上 (日本の基準 95.7% 以上) となっていることから、

本プロジェクトで立案している岸壁-1～岸壁-2 の整備においても、先方要請の岸壁-1～岸壁-3 の整備においても、高い静穏性が確保できると推測される。

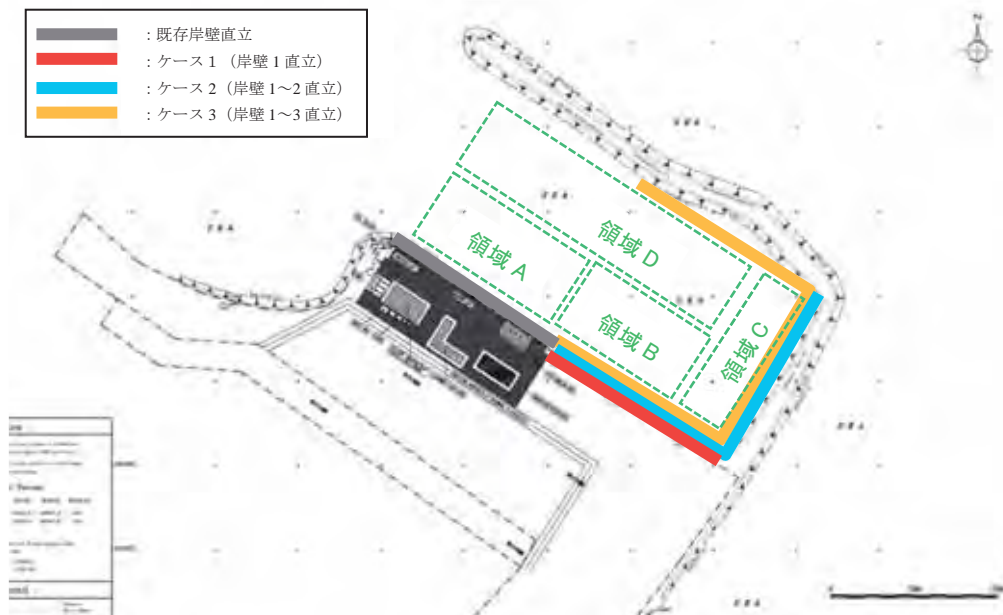


図-資 6.2 (2) 静穏度解析に用いるモデルケースと領域設定

表-資 6.2 (1) 静穏度計算結果による領域内平均波高比

モデルケース		沖波波向	NNW	N	NNE	ESE	SE	SSE	S
		波高比	0.46	0.46	0.42	0.36	0.29	0.23	0.18
港口緒元	入射浪向	N2.1°W	N0.2°W	N2.8°E	N62.8°E	N63.3°E	N63.9°E	N64.1°E	
	領域 A	0.43	0.42	0.39	0.15	0.15	0.15	0.15	
ケース 1 (岸壁 1 直立)	領域 B	0.27	0.26	0.23	0.09	0.09	0.09	0.09	
	領域 C	0.22	0.21	0.19	0.09	0.09	0.09	0.09	
	領域 D	0.23	0.22	0.21	0.13	0.13	0.13	0.13	
	領域 A	0.45	0.43	0.40	0.16	0.16	0.16	0.16	
ケース 2 (岸壁 1~2 直立)	領域 B	0.30	0.29	0.26	0.11	0.11	0.11	0.11	
	領域 C	0.27	0.26	0.23	0.11	0.11	0.11	0.11	
	領域 D	0.27	0.26	0.24	0.14	0.14	0.14	0.14	
	領域 A	0.47	0.46	0.42	0.18	0.18	0.18	0.18	
ケース 3 (岸壁 1~3 直立)	領域 B	0.38	0.37	0.34	0.17	0.17	0.17	0.17	
	領域 C	0.34	0.33	0.30	0.16	0.16	0.16	0.16	
	領域 D	0.31	0.31	0.28	0.17	0.17	0.16	0.16	

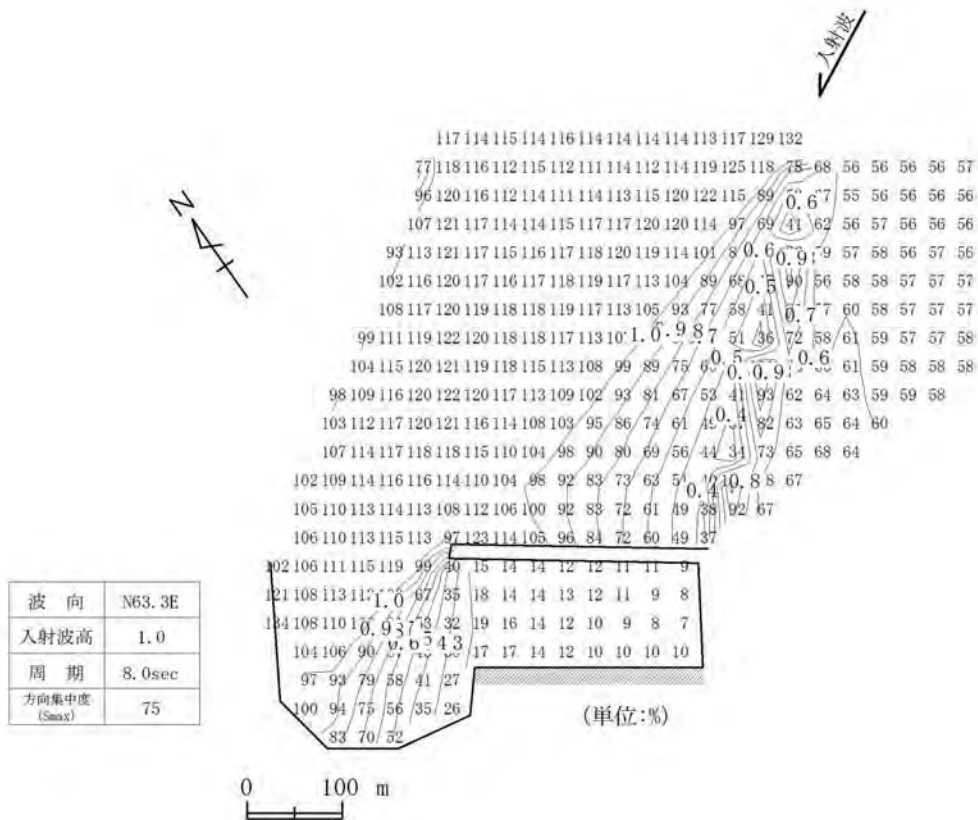
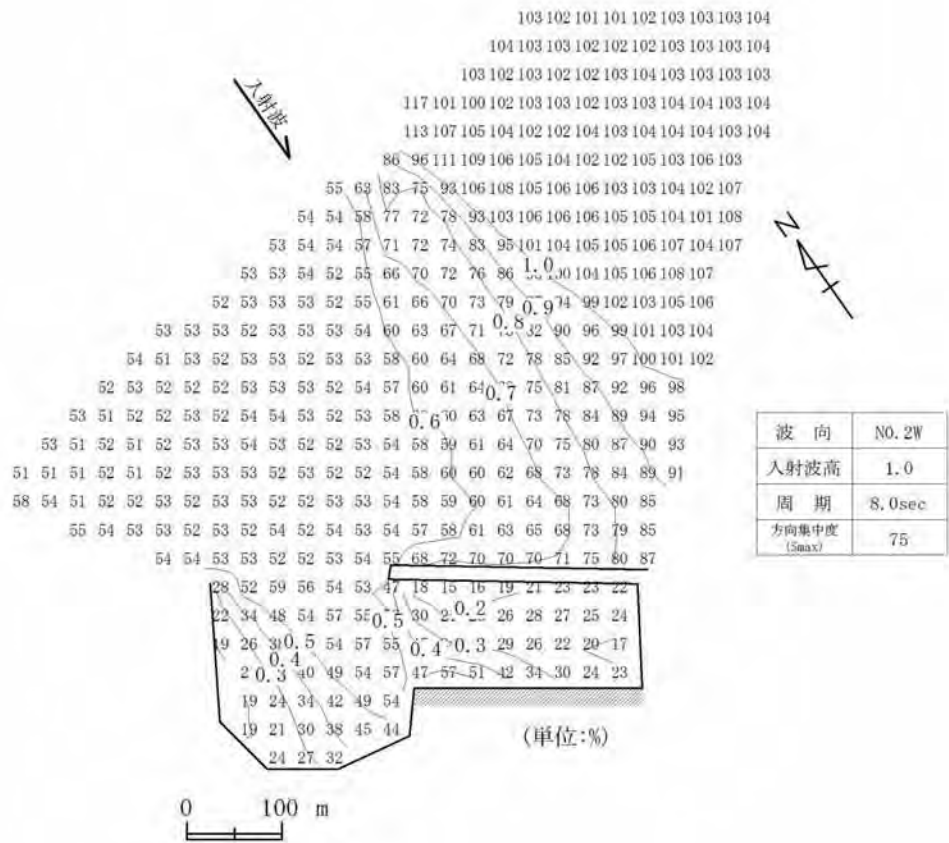


図-資 6.2 (3) 漁港内静穏度計算結果(ケース 1:岸壁 1 直立)

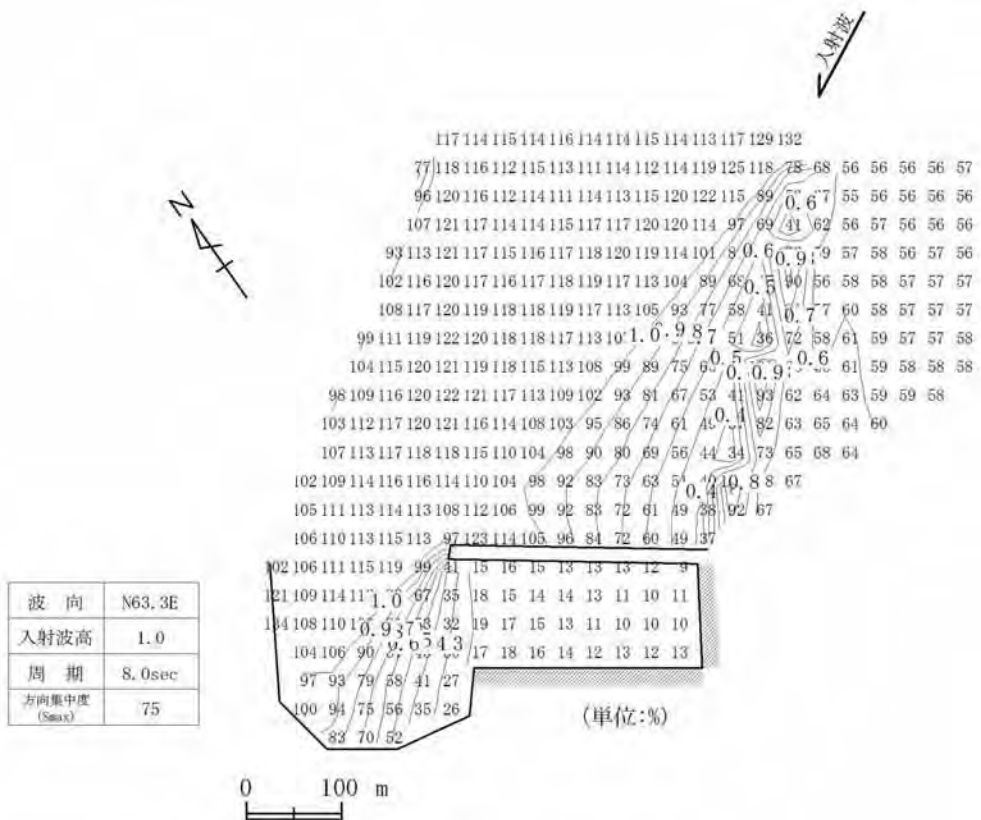
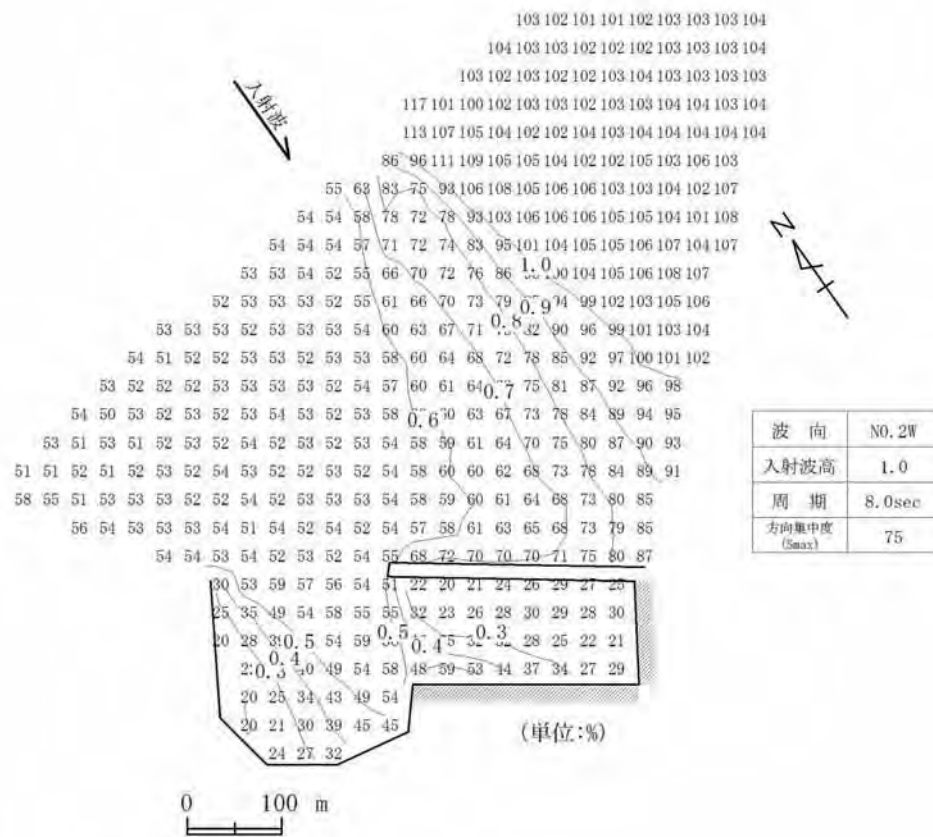


図-資 6.2 (4) 漁港内静穏度計算結果(ケース 2:岸壁 1~2 直立)

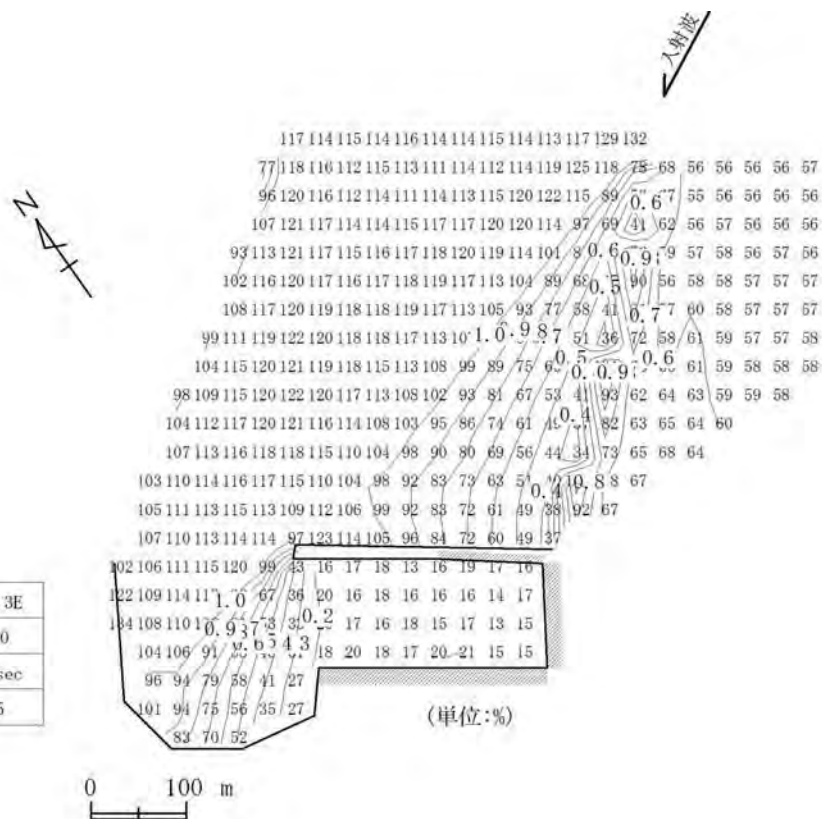
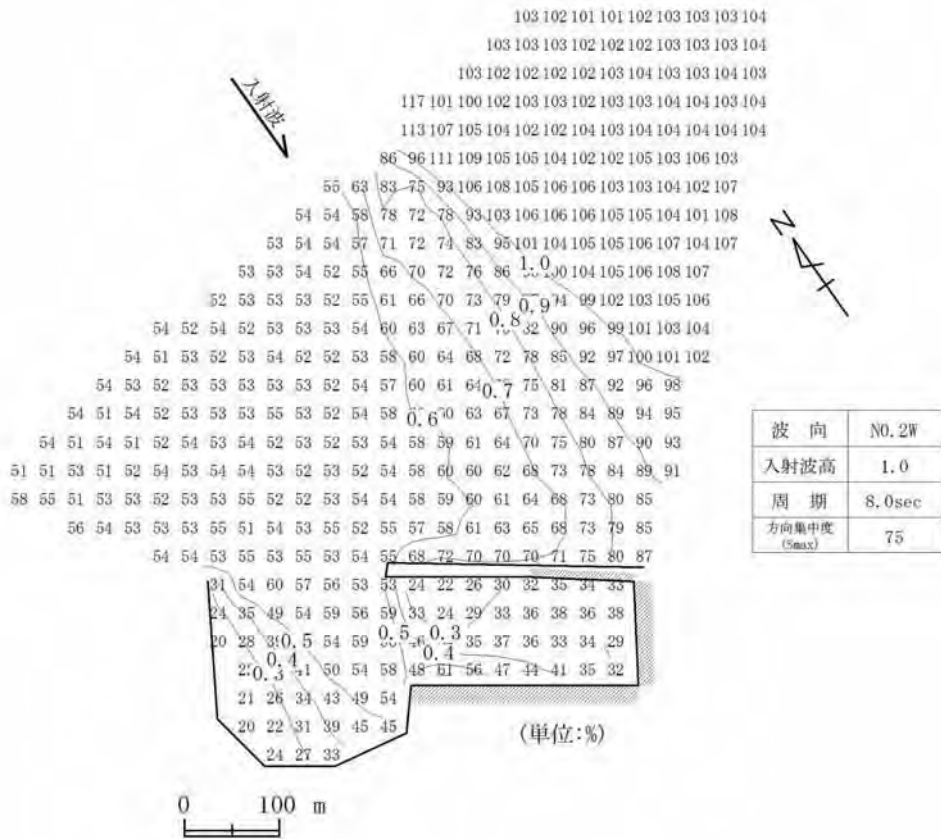


図-資 6.2 (5) 漁港内静穏度計算結果(ケース 3:岸壁 1~3 直立)

表-資 6.2 (2) 各領域の稼働率および稼働日数(限界波高 0.3m)

モデルケース (代替案・構造)	ケース 1 (岸壁 1 直立)				ケース 2 (岸壁 1~2 直立)			
	A	B	C	D	A	B	C	D
稼働率(%)	99.04	99.89	100.0	99.98	98.87	99.81	99.89	99.89
年間稼働日数(日)	361	364	364	364	360	364	364	364

表-資 6.2 (3) 各領域の稼働率および稼働日数(限界波高 0.3m)

モデルケース (代替案・構造)	ケース 3 (岸壁 1~3 直立)			
	A	B	C	D
稼働率(%)	98.58	99.44	99.64	99.75
年間稼働日数(日)	359	362	363	364

(2) 静穏度解析による岸壁-4 の整備にあたっての防波堤の所要延長

本プロジェクトの対象外となっている岸壁-4 の要請箇所は、プロビデンス漁港外側に位置しており、直接波の影響を受ける場所である。このため、岸壁-4 の前面水域における安全な利用のために、防波堤の整備は必要になるかと思われ、防波堤の所要延長については、異常波浪に対する防波機能だけでなく、常時波浪に対する岸壁-4 前面水域の静穏性のチェックと合わせて延長を決定する必要がある。

岸壁-4 及び防波堤の整備は、本プロジェクトにおいては時期尚早としてコンポーネントから除外した施設であるため、異常波浪などによる構造物の計画や設計は行わない。しかしながら、今後も利用漁船の増加や大型化が進み、将来的に岸壁-4 及び防波堤の整備が必要となる可能性もあるため、現段階においては、要請案やゼロオプションを含めた数パターンのモデルケースを設定し、常時波浪による静穏性の観点から参考程度の比較検討を行った。

検討を行うモデルケースは、図-資 6.2(6)に示す 4 ケースの代替案とし、静穏度解析を行う水域は、領域 A、領域 B の 2 ヶ所の領域設定とした。この時、領域 B については、埋立護岸の前面水域であり、船舶の接岸水域ではないため、参考値として表示したものである。静穏度計算結果から得られる岸壁-4 周辺海域の波高比分布図の代表例として N 系波浪および E-S 系波浪を図-資 6.2(7)~図-資 6.2(10)に示す。

領域内の平均波高比は、表-資 6.2(4)に示すとおりであり、限界波高 30cm に対する各領域の稼働率を算出した結果を表-資 6.2(5)に示す。

以上の分析結果から領域 A の稼働率は、ケース 1 では約 60%、ケース 2 (要請案) では 66%、ケース 3 では約 75%、ケース 4 では約 88%となり、いずれも日本の稼働率基準である 95.7%以上を下回っていることになる。

結果として得られた稼働率の取り扱いについては、岸壁-4 の運用に対する管理者の考え方で異なるものであるが、防波堤の延長として要請 50m に対し、70m 以上の整備の場合、稼働率 75%程度は確保できるものと推計される。

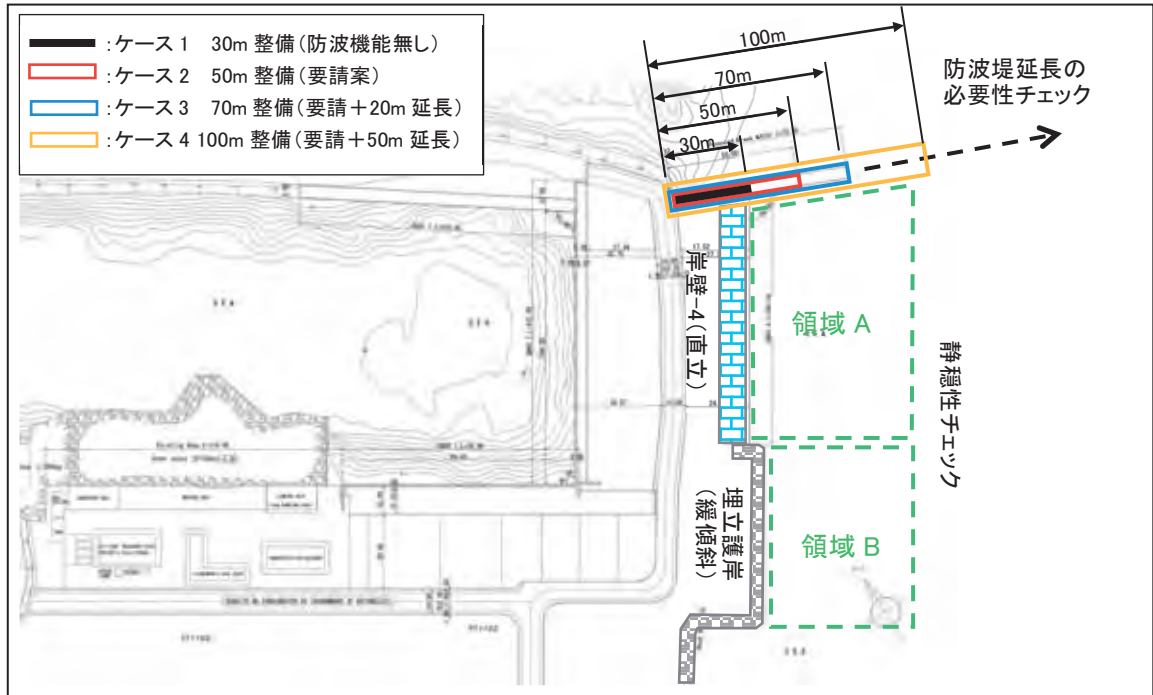


図-資 6.2 (6) 静穏度解析に用いるモデルケースと領域設定

表-資 6.2 (4) 静穏度計算結果による領域内平均波高比

モデルケース(代替案)		沖波波向	NNW	N	NNE	ESE	SE	SSE	S
港口緒元	波高比		0.46	0.46	0.42	0.36	0.29	0.23	0.18
	入射浪向		N2.1°W	N0.2°W	N2.8°E	N62.8°E	N63.3°E	N63.9°E	N64.1°E
ケース 1 (防波堤無し)	領域 A		0.61	0.64	0.70	0.66	0.67	0.67	0.67
	領域 B		0.40	0.42	0.48	0.71	0.72	0.72	0.72
ケース 2 (要請案)	領域 A		0.52	0.55	0.59	0.58	0.58	0.59	0.59
	領域 B		0.31	0.33	0.38	0.65	0.65	0.66	0.66
ケース 3 (要請+20m 延長)	領域 A		0.40	0.43	0.47	0.51	0.51	0.52	0.52
	領域 B		0.25	0.26	0.30	0.62	0.62	0.62	0.63
ケース 4 (要請案+50m 延長)	領域 A		0.24	0.25	0.28	0.38	0.38	0.39	0.39
	領域 B		0.20	0.21	0.24	0.54	0.54	0.55	0.55

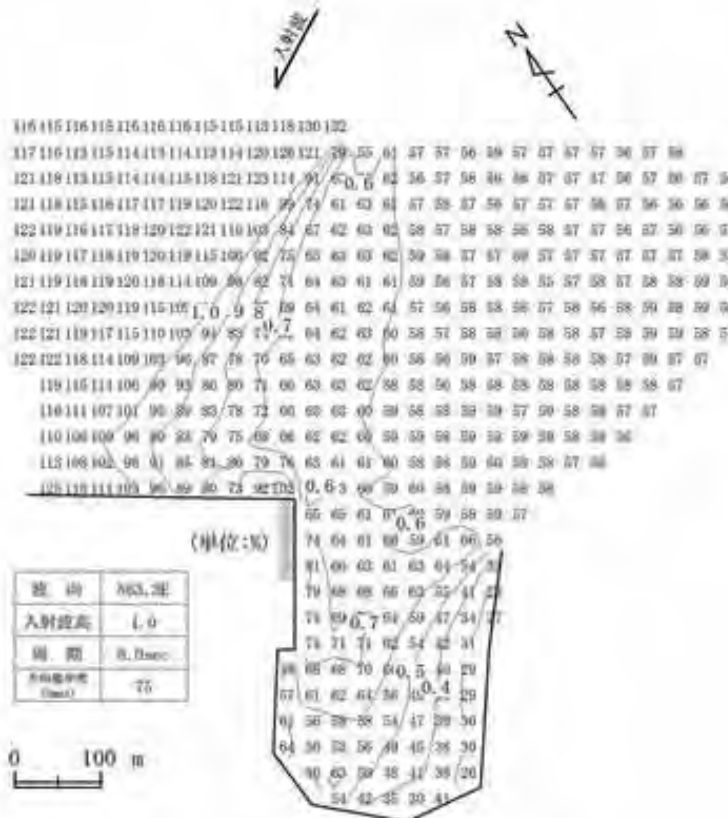
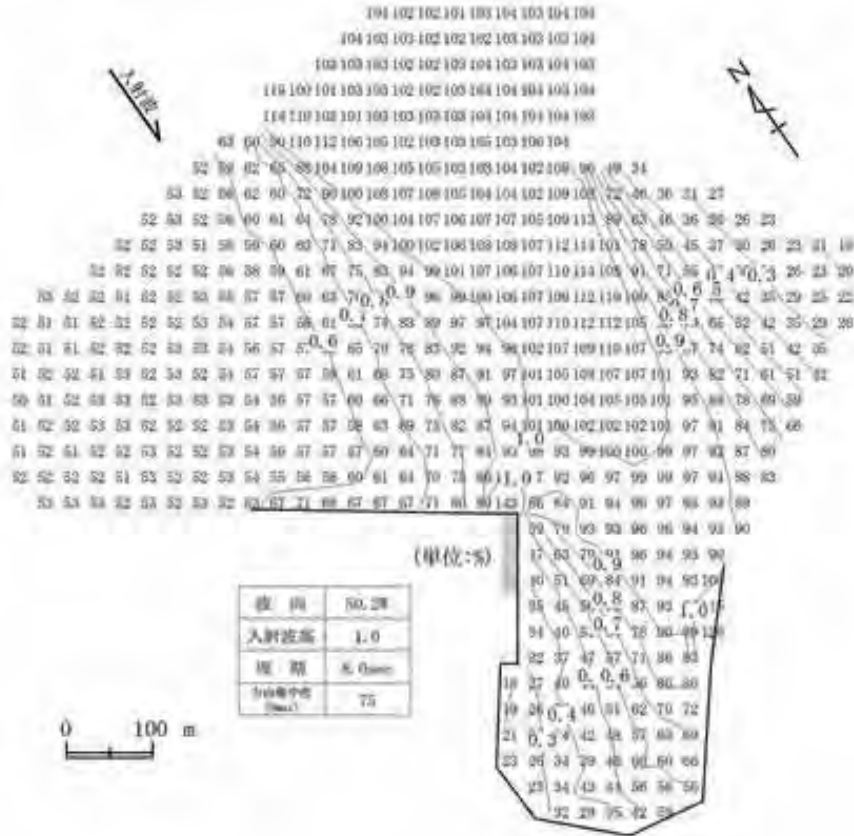


図-資 6.2 (7) 漁港南側静穏度計算結果(ケース 1:岸壁整備、防波堤無)

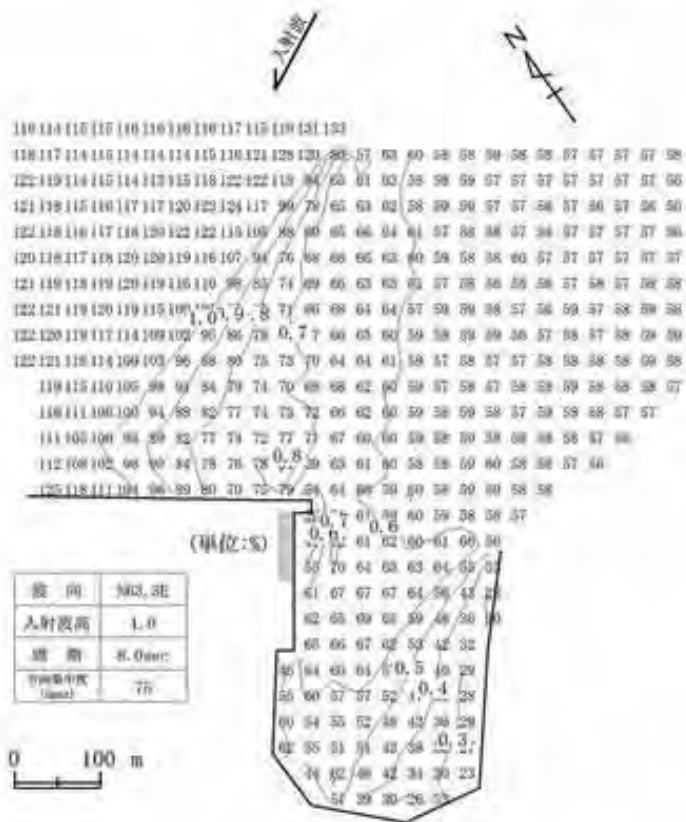
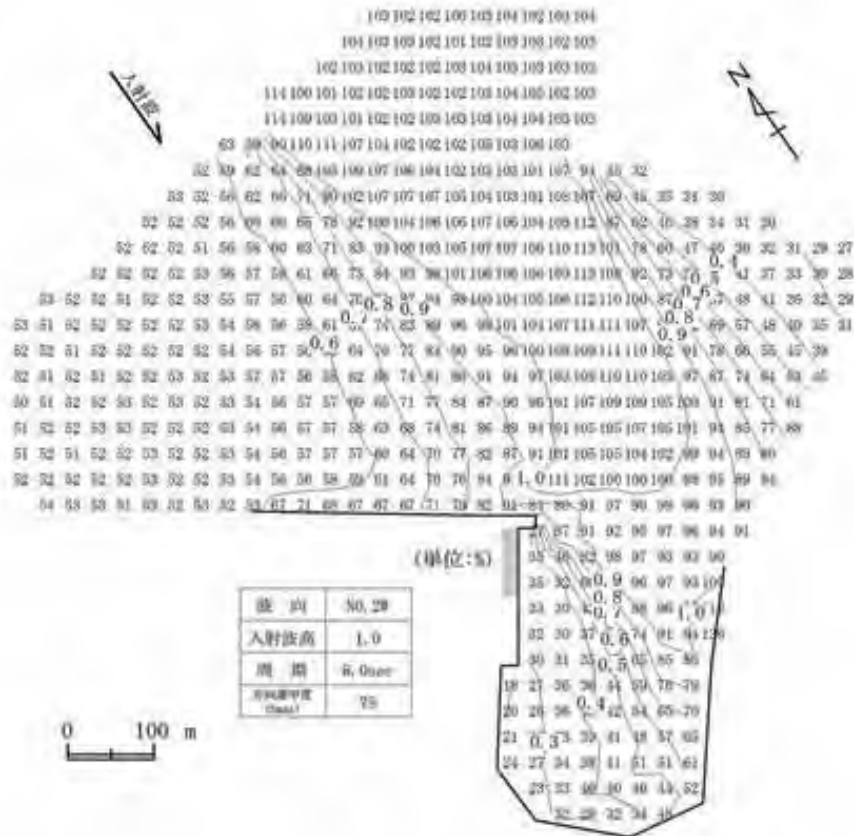


図-資 6.2 (8) 漁港南側静穏度計算結果(ケース 2: 要請案)

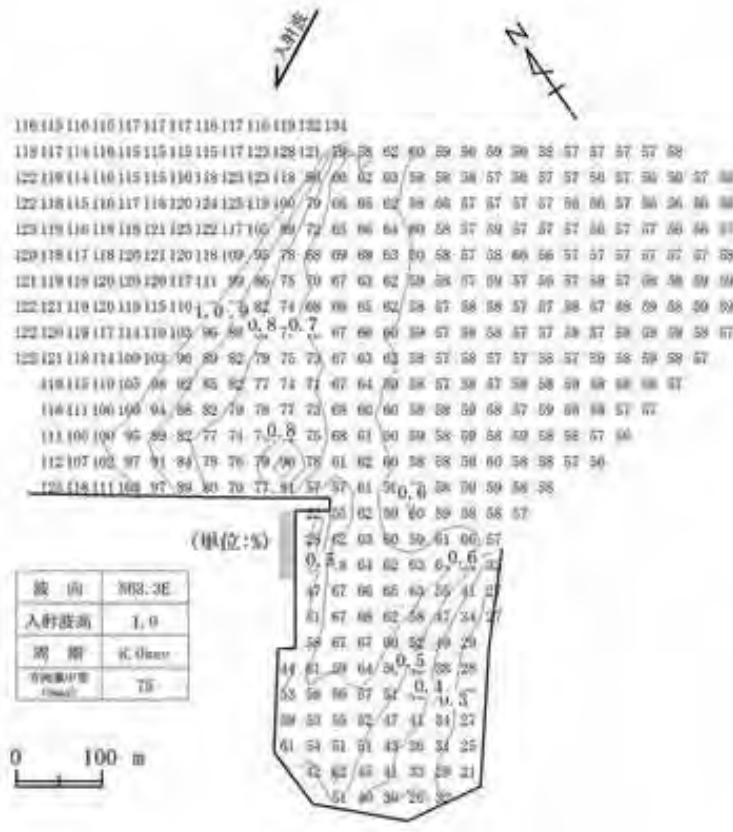
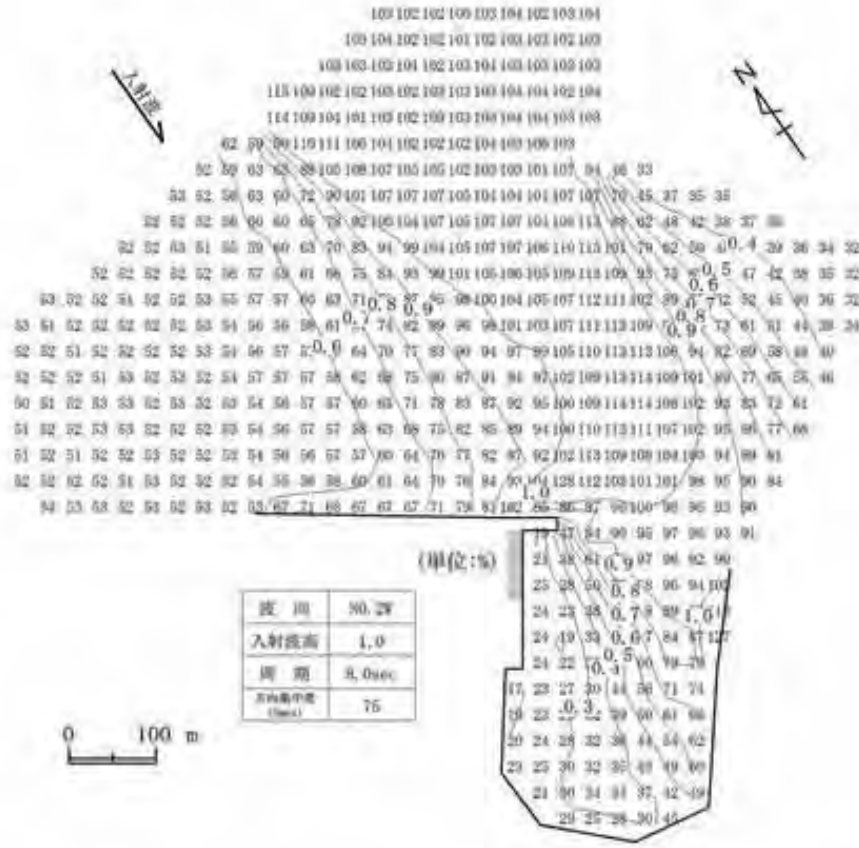


図-資 6.2 (9) 漁港南側静穏度計算結果(ケース 3:要請案+防波堤延長 20m)

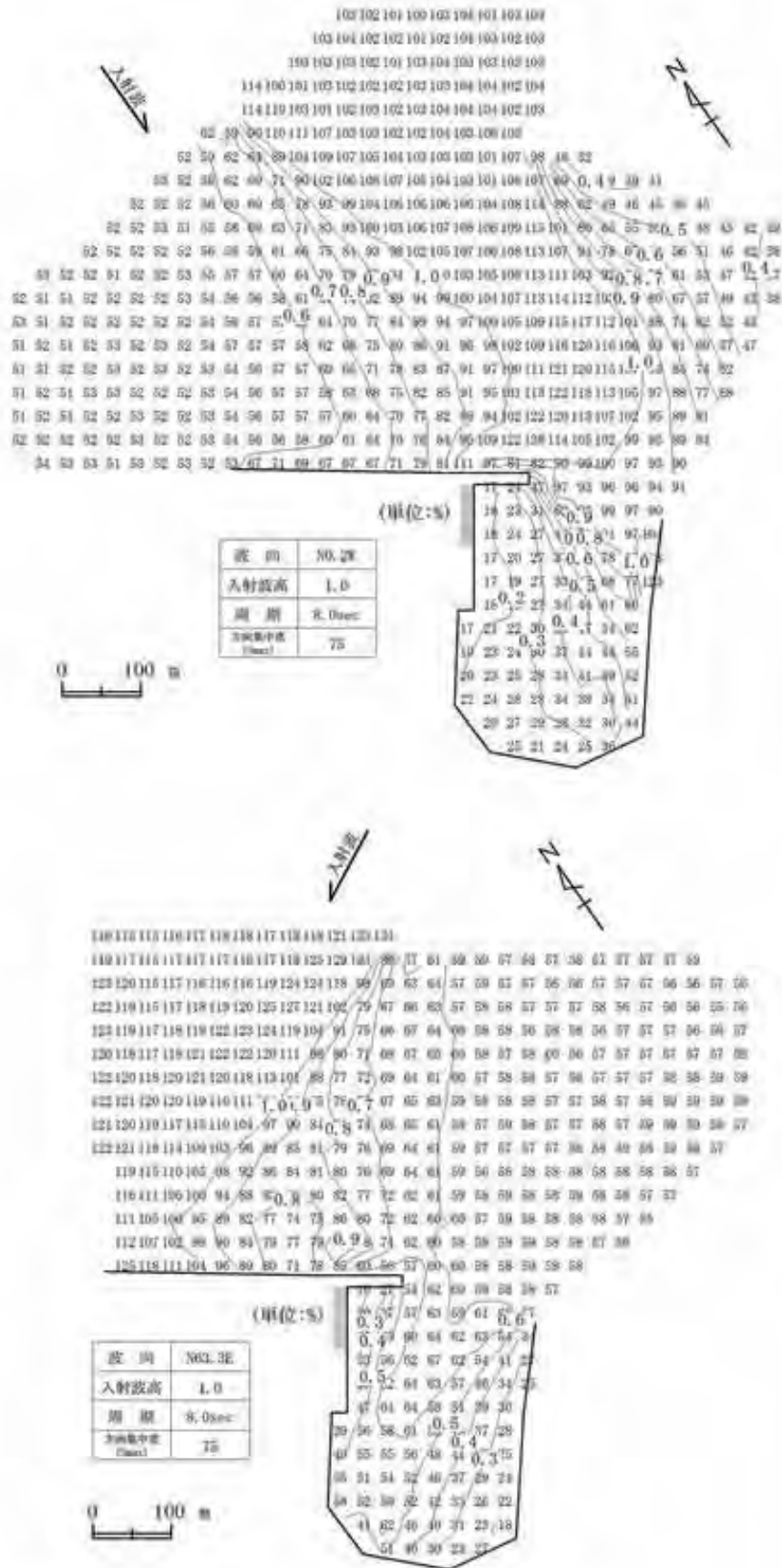


図-資 6.2 (10) 漁港南側静穏度計算結果(ケース 4:要請案+防波堤延長 50m)

表-資 6.2 (5) 各領域の稼働率および稼働日数(限界波高 0.3m)

モデルケース (防波堤代替案)	ケース 1 (防波堤無し)		ケース 2 (要請案)		ケース 3 (要請+20m 延長)		ケース 4 (要請+50m 延長)	
	A	B	A	B	A	B	A	B
稼働率 (%)	59.31	59.40	66.46	63.66	74.05	65.98	88.55	72.20
年間稼働日数 (日)	216	216	242	232	270	240	323	263

※領域 A : 岸壁 (船舶の接岸水域)、 領域 B : 護岸 (参考)

資料 6.3 漁船タイプ別推定漁船利用隻(ビクトリア漁港)

(単位：隻)

漁船名	SZ 番号	漁船タイプ	2015年3月ビクトリア漁港																
			16	17	18	19	20	21	22	23	24	25	26	27	28	29			
Albacore	337	LL	1																
Aquarius	359	LL	1	1	1	1	1	1	1	1	1								
Pisces	690	LL	1	1															
La Fleche	961	LL				1	1	1	1	1	1	1	1	1	1	1	1		
Dolphin 1	1120	LL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Dolphin 2	1121	LL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Sea Crest	1204	LL											1						
Taurus	1182	LL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Bonanza	1260	LL	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Ave Maria	1285	LL	1	1	1	1	1	1	1	1	1	1	1	1	1				
Prosperity	1365	LL							1			1	1	1	1	1	1		
Lion	1390	LL												1	1	1	1		
Sea king	1463	LL								1	1		1	1	1				
Night Cagre	16	SCH	1	1															
Mon Traka	24	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Vainguier	36	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Haray	50	SCH							1										
St Maxim	54	SCH	1				1	1				1					1		
Cavier	124	SCH		1															
St Michel	159	SCH											1	1					
Reefer	170	SCH									1	1	1	1					
Amelia	177	SCH										1	1	1	1	1	1		
????	192	SCH							1										
Makonde	222	SCH													1				
Bek Bek	244	SCH		1															
LA Belle Violita	248	SCH						1	1	1	1	1			1				
Pacitencia	253	SCH		1															
Mawan	272	SCH	1	1	1	1	1				1								
St Claire	301	SCH						1											
不明	305	SCH									1								
Zekler	325	SCH	1	1	1														
La Providence	327	SCH	1																
LA Belle Maria	334	SCH	1														1		
Marilor	369	SCH		1															
Haifa 3	427	SCH	1		1	1	1	1	1	1		1	1		1	1	1		
Pasyans	563	SCH	1	1	1	1	1	1	1					1	1	1	1		
Trois Frères	598	SCH	1	1	1	1	1	1	1			1	1	1	1	1	1		
Anse Kerlan	632	SCH							1	1	1	1	1						
Madras	635	SCH														1	1		
Espadron	646	SCH						1											
Felicite	668	SCH															1		
Zanmi	676	SCH										1	1						
PHOENIX RISING	701	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Botan	702	SCH	1	1		1	1	1	1	1	1	1	1	1	1	1	1		
Machata	725	SCH	1	1							1		1						
Diana	770	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Marliz	806	SCH	1	1	1	1	1	1	1										
Blue Chaser	975	SCH			1		1												
Follow me	992	SCH	1		1	1				1			1	1	1	1	1		
不明	996	SCH	1																
CHRISTO	1112	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Ma Vallee	1138	SCH										1							
Faith	1146	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Stormy-Waltz	1148	SCH									1	1	1	1					
Dejavu	1164	SCH		1	1	1	1	1	1	1	1	1	1	1	1	1			
Amy	1240	SCH	1	1	1								1	1	1	1	1		
Xavier	1241	SCH	1		1	1	1	1	1	1	1	1	1	1	1	1	1		
Rosema 1	1297	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
St Marthe	1300	SCH								1	1	1	1	1					
Ste Marie	1389	SCH											1						
Etoile	1391	SCH				1	1	1	1	1	1	1	1						
Lange de Mer	不明	SCH		1	1										1	1			
Mon Chata ???	不明	SCH										1							
Other	不明	SCH							1								1		

Other	不明	SCH							1								1	
My Luck	3	WH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Lucky	22	WH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mon Souvenir	23	WH				1		1	1	1	1	1	1	1	1	1	1	1
Pti Ser	35	WH	1											1	1	1	1	1
Bek Bek	44	WH	1		1							1	1					
St Maxime	54	WH		1	1	1			1	1	1			1	1	1	1	1
St Jean	84	WH			1			1						1	1	1	1	1
Mon Zanmi	87	WH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Venus	115	WH			1			1			1							
Mere Teresa	224	WH	1															
Patiencia	253	WH	1		1											1	1	1
St Claire	301	WH			1	1	1											
La Belle Jane	409	WH	1	1					1	1	1	1	1			1		
St Therese	420	WH	1						1	1	1	1	1					
Les Li Trankil	439	WH	1							1	1	1	1	1			1	1
Capricorn	569	WH	1	1							1	1	1	1	1	1	1	1
St Antoine	587	WH						1	1	1	1	1	1	1	1	1	1	1
Felicité	608	WH	1	1	1									1	1	1	1	1
Lafyerte	684	WH				1			1	1	1							
Makonde	772	WH	1	1	1									1	1			1
Filanbaz	1161	WH	1	1		1	1	1	1	1	1	1			1	1	1	1
不明	不明	WH							1									
Claudette	6	LAV	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
La Betay	25	LAV		1	1							1	1	1	1	1	1	1
L'ange de Mer	113	LAV	1									1						
St Christophe	176	LAV	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Toyo	196	LAV			1	1	1	1	1	1	1	1						
Rene de mer	216	LAV				1												
Babonne	281	LAV	1						1	1	1			1			1	1
Hakuna Matata	306	LAV	1	1	1							1	1		1	1	1	1
Bellatrix	393	LAV	1	1		1			1	1	1	1			1	1	1	1
Survive II	472	LAV	1								1	1	1				1	1
St Anthony	581	LAV										1	1					
Espadron	646	LAV	1	1	1	1				1	1	1	1	1				1
Filanbaz	678	LAV									1	1	1	1				
La Mon La	679	LAV	1	1	1	1	1	1	1	1	1	1						
St Patrick	810	LAV												1	1			
Progress	1192	LAV	1			1					1	1			1	1	1	1
Lady Lyra	1243	LAV				1			1			1					1	1
Others (S. H.)	不明	LAV											1					
Sea Ray	50	LEK	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mere Teresa	224	LEK		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Marie Laure	396	LEK			1								1	1	1	1	1	1
Others (SH)	不明	LEK							1			1	1	1	1	1	1	1
Eurika	1099	SEA		1	1	1	1	1	1	1	1	1	1	1				
Brizar	1198	SEA	1	1	1	1						1	1	1				
Tate	1163	MM										1						
L' Amitié		R/V	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Tamoun	1160	Other	1	1	1	1			1	1	1	1	1	1	1	1	1	1
Anse Kerlan	不明	OTHER													1			
			58	51	51	47	40	51	45	50	57	56	63	57	55	50		

資料 6.4 漁船タイプ別推定漁船利用隻(プロビデンス漁港)

漁船名	SZ 番号	漁船タイプ	2015年3月プロビデンス漁港														
			16	17	18	19	20	21	22	23	24	25	26	27	28	29	
Haifa I	868	LL									1	1	1	1	1		
Anastasia	1020	LL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Neliz	1329	LL	1	1	1		1	1	1	1	1	1	1	1	1	1	1
Prosperity	1365	LL								1	1						
Marlu	1457	LL	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Muscadin	256	SCH			1												
Canapone	332	SCH		1	1	1	1									1	1
Anthony	581	SCH					1	1									
Manta Ray	614	SCH	1	1	1	1	1	1	1		1	1	1	1	1	1	1
Haifa 2	777	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Listao	800	SCH	1	1	1	1	1	1			1	1	1	1	1	1	1
Soleil	1017	SCH			1												
Aries	1019	SCH	1	1	1	1	1	1	1	1	1		1	1	1	1	1
Felina II	1111	SCH	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ma Vallee	1138	SCH						1		1	1						
Anonyme	1196	SCH			1	1											
ST Rosiere	1217	SCH	1	1				1	1	1						1	1
Tayana	1313	SCH	1	1	1	1	1	1	1	1	1	1	1	1			
Ste Marie	1369	SCH														1	1
Dorad	4	WH	1	1	1	1	1	1	1	1	1	1		1	1	1	1
Venus	115	WH				1	1	1	1	1	1	1					
Scorpion	181	WH											1	1	1		1
Haifa Junior	388	WH	1	1	1	1	1	1	1	1	1	1	1	1	1		
Aries	1019	WH											1				
Zozo	1265	WH	1														
Neliz	1329	WH										1					
Ste Marie	1369	WH													1		
St Anthony	581	LAV	1	1	1	1				1	1	1					
Lady Lyra	1243	LAV									1	1	1	1			
St Nicholas	17	LEK	1		1	1	1	1	1	1		1	1	1	1	1	1
Etelis	101	LL⇒ SEA								1	1	1	1	1	1	1	1
Dolphine	183	SEA	1	1						1	1	1	1				
Muscadin	256	SEA	1	1		1	1	1	1	1	1						
Loraz	324	L.L ⇒ SEA	1	1	1	1	1										
Galate	326	L.L ⇒ SEA								1	1	1	1	1	1	1	1
Brizar	1198	SEA							1	1	1						
Mala	167	MM							1								
不明	584	MM	1	1	1	1	1	1	1			1	1	1	1	1	1
Sans Souci	Bait	Other	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Grat White	525	Catama							1								
			20	19	20	19	19	22	22	22	22	22	20	18	18	17	17

資料 6.5 プロビデンス漁港からの氷供給(回数)

No	漁船根拠地	氷供給を受ける漁船名			調査日 (3月)															計
		SZ 番号	漁船名	型	16	17	18	19	20	21	22	23	24	25	26	27	28	29		
1	Victoria	SZ281	Babonne	LAV						1								1		
2		SZ393	Bellatrix	LAV													1	1	2	
3		SZ1161	Filanbaz	WH	1	1													2	
4		SZ1019	Aries	SCH					1										1	
5		SZ992	Follow me	SCH							1					1	1	1	4	
6		SZ4	Dorad	WH			1		1										2	
7		SZ439	Les Li Trankil	WH	1					1								1	3	
8		SZ1265	-	WH	1	1													2	
9		SZ393	Bellatrix	LAV					1									1	2	
10		-	-	SCH													1		1	
11		SZ1192	Progress	LAV													1	1	2	
12		SZ1321	Zozo	WH														1	1	
13		SZ758	Sea Harvest	MM														1	1	
14	Pprovidence	SZ1217	St Roiere	WH	1													1		
1	AnseEtoile	SZ38	Lady Gina	LEK	1						1	1						3		
2		SZ640	Pearl	LEK	1						1							2		
3		SZ1035	Papa	MM	1						1							2		
4		-	Elles	MM								1						1		
5		-	-	MM											1			1		
6		SZ1089	-	MM													1	1		
7	Cascade	SZ1238		MM				1										1		
8		SZ738		MM				1	1									2		
9		SZ1258		MM					1									1		
10		-	Dorado	-								1						1		
11		-	-	MM											1			1		
12		SZ660	Lay La	MM													1	1		
13		SZ1218		MM														1		
14		Private																1		
15		SZ1371	Elaine	MM														1		
16	AnseauxPins	SZ		SSD	1													1		
17		SZ1439	Minista	MM		1												1		
18		SZ207	Trankil	-		1												1		
19		SZ1137		MM		1												1		
20		-	Super Sea dog	SSD					1									1		
21		SZ1168	Amigo	T					1									1		

資料 7. ソフトコンポーネント計画書

セーシェル国 第二次マヘ島零細漁業施設整備計画準備調査 ソフトコンポーネント計画書

1. ソフトコンポーネントを計画する背景

生鮮物を扱う水産業では、魚の衛生状態および食品の安全性を確保する上で氷が重要な役割を果たす。特に沖合で作業する漁船は水揚げから陸揚げまでの間、魚体を衛生的な魚槽内氷蔵保管すること、またその氷蔵保管する氷は飲料に適した清水を用いて製造される必要があるため、大量の氷が出漁時に必要とされる。

「セ」国での漁港の維持管理は、セーシェル漁業公社（SFA）が全ての漁港における運営維持管理を担っており、SFA はこれまでも漁港における製氷設備の運営を行っている。その一方で、SFA では、政策により氷製造に必要な経費の一部が政府の補助金で賄かなわれているため、適切な価格で氷を販売できず、適切な価格設定がなされていない。このため氷の販売による利益が見込めず、さらには運営維持管理に必要な財源も確保されていない。

マヘ島零細漁業施設整備計画（前フェーズ）により、アンモニア冷媒を使った製氷機がプロビデンス漁港とベルオンブレ漁港に設置され SFA の管理のもと運用されている。アンモニア冷媒は自然冷媒に分類され、温暖化係数が高い代替フロン冷媒よりも地球環境に優しく、またオゾン破壊係数が低いことより近年では多くの製氷機に使用されている。また、将来的にはモントリオール議定書に基づき特定フロンが全廃されることが確定しているなどの長期的な視点からも、本案件においてもアンモニア冷媒を用いた製氷機の設置が望まれている。

しかし、アンモニア冷媒の欠点としては、臭気があり安全区分が弱燃性の高毒性に区分されていることが挙げられる。このため、アンモニア冷媒を使った製氷機の運用には専門性を持つ職員の配置が必要とされる。また製氷設備は蒸発機、圧縮機、チラーなど異なる機器が電氣的に制御されているため、維持管理には各ユニットの電気回路を理解し、総合判断できる職員を配置することが必要となる。

本件対象のプロビデンス漁港では、漁業者、加工業者による氷の需要が拡大しているが、職員にアンモニアを冷媒とする製氷機に関する知識が乏しく、適切なメンテナンスの方法が確立できていないことより製氷能力に著しい低下がみられている。このためプロビデンス漁港では、漁業者（漁船）が必要とする製氷量に対応できていない状況が常態化しており、この維持管理に起因して以下に示す課題が生じている。

1) 「セ」国側のアンモニア冷媒を使った製氷機の運営実績が必ずしも豊富ではないことを考慮すると、製氷設備の運営・維持管理にかかるソフト面の指導・支援が必要となっている。

2) 氷の需要は極めて大きい現況にあり、適切な将来計画を見越した運営維持管理を実現するためのソフト面での指導・支援が必要となっている。

また、維持管理の観点から、製氷機の日常的な使用記録とメンテナンス、さらには毎月、半年毎の装置の状況に応じたオーバーホールができるような教育訓練を行うと同時に予備品管理、エネルギー消費（省エネ運用）を考慮した運転に関する実技訓練が必要である。このように製氷機の運営維持管理の重要性が認識される同時に、製氷設備全体の配線・電気回路の理解に関する技術の実施指導も重要とされる。

上記の課題を解決し、本体事業の運営・維持管理の立ち上げを支援するため、製氷設備の運営・維持管理等を内容とするソフトコンポーネントを実施する必要性が生じている。

2. ソフトコンポーネントの目標

ソフトコンポーネントの目標は、「本事業の運営・維持管理体制を適切に確立すること」とする。具体的には、製氷設備の保守・運転管理に必要な技術面での座学及び実務指導、保守演習を行うことにより、対象者が、有効かつ適切に、日常及び中長期の運営・維持管理ができるようになることを目指す。

(1) ソフトコンポーネントの対象者

製氷設備:SFAの製氷設備担当者及び設備担当者の補佐となるエンジニアを主な対象者とし、その他、漁港長及び予算担当者を一部活動の対象とする。製氷設備担当者2名は、SFAが今後配置予定。

(2) 支援リソース

アンモニア冷媒使用の技術指導が可能な現地リソースがないため、本邦コンサルタントの派遣を計画する。

3. ソフトコンポーネントの成果

ソフトコンポーネントの目標の達成について、以下の成果を設定する。

成果「製氷設備および主要機器の維持管理計画が策定される」

漁港施設そのものの運営・維持管理に関しては、本体事業の運営・維持管理主体であるSFAは豊富な運営実績を有している。しかしながら、適切な製氷機の運営維持に関する技術を維持できていない。このため、製氷設備を効果的に運用するための総合的観点での技術指導が求められている。

持続的な運営維持管理を図るためには、透明性のある会計ルールづくりと資金管理体制の確立が不可欠である。利用者から徴収する氷代金の妥当な金額の設定、その徴収方法・記帳方法と資金管理方法の設定等を通じて、将来的には独立採算性をも考慮に入れた管理体制の整備を検討する。これにより、施設等の使用料が適切に集金・管理され、施設が安定して運営維持されることが期待される。本体事業で調達される機器は、機器の特殊性に基づいた操作手順と整備手順の技術指導が必要であり、各機器メーカーの技術者により操作手順と整備手順に係る技術指導が行われる予定である。しかしながら、同技術指導だけでは総合的かつ効率的な運営に関しては系統だった技術移転が実施されにくい環境にあるため、本ソフトコンポーネントで補足的に対応する必要性が認められる。

なお透明性のある会計ルール作り、資金管理体制の確立については、①既存製氷施設での支払い形態の見直し（現金からチケット制）、②氷の販売については、採算性を考慮した適正価格を設定した上で、販売売り上げの10%を維持管理基金として積立する、など、SFAが改善計画を検討中であることから、本ソフトコンポーネントでは、取り組まない。

4. 成果達成度の確認方法

成果の達成状況を判断するため、次に述べる指標を設定する。この指標に関するデータ収集は、現地のカウンターパートと共同で進め、業務の効果を把握する。

成果「製氷設備および主要機器の維持管理計画が策定される」

以下の指標と指標入手方法を設定する。

- | | |
|---------|---|
| 指標1： | 製氷設備の維持管理計画書および維持管理記録簿（ログブック）が作成され、維持管理記録簿の記録がなされる |
| 指標入手方法： | 製氷設備の維持管理計画書および維持管理記録簿の確認 |
| 指標2： | 主要機器（製氷機・氷蔵庫）の維持管理計画書および維持管理記録簿が作成され、維持管理記録簿の記録がなされる。 |
| 指標入手方法： | 主要機器（製氷機・氷蔵庫）の維持管理計画書および維持管理記録簿の確認 |

(なお製氷設備は製氷機、氷蔵庫に加え、蒸発機、圧縮機、チラーなど異なる機器が一体となり稼働しているが、これら一式を「製氷設備」と呼ぶ。)

5. ソフトコンポーネントの活動（投入計画）

(1) 活動計画の内容

成果「製氷設備および主要機器の維持管理計画が策定される」を達成するために実施すべき活動は以下のとおり。

活動 1-1. 製氷設備の維持管理計画書および維持管理記録簿の原案を作成する。

現地作業前に国内で維持管理計画書および維持管理記録簿の原案を作成する。また必要に応じて、「セ」国関係者と連絡を取り、この原案について事前に協議する。

活動 1-2. 製氷設備の各機器の有機的関連性の説明と操作手順を指導する。

製氷設備につき順を追って設備全体と各機器の関連性と操作・取扱を担当者に説明し、各機器が担う役割を理解出来るように指導する。なお各機器については、各メーカーが操作・整備手順に係る技術指導を行うため、本活動では各機器の関連性と、製氷設備全体の操作手順に特化し、指導する。

活動 1-3. 製氷設備の各機器の維持管理手順（保守点検作業手順）を明確にし、維持管理の実技を指導する。

各機器の保守点検作業は、立案される製氷計画、氷蔵計画等に基づき、日、週、月、年という単位で定期的実施される。このため、定期的実施する各機器の保守点検作業内容を明確にし、その手順を担当者に指導する。また実技訓練では、テキスト等を用いてわかりやすく説明・指導する。

活動 1-4. 製氷設備にかかる運転データ収集方法を指導する。

製氷設備の運営維持管理組織に対し、各記録簿の原案内容と運転データ収集の必要性を説明し、協議の上、担当者の負担とならないよう出来る限り簡易なデータ収集方法とする。

活動 1-5. 製氷設備および主要機器の維持管理記録簿原案への記録と解析を指導する。

設備の運転データ記録と保守点検に関する維持管理記録は、現況の設備機能診断と故障時の機能維持回復作業に当たり、非常に重要な資料となる。従って、これらの記録の重要性を担当者に認識させ、記録と解析を指導する。

活動 1-6. 製氷設備および主要機器の維持管理計画書および各維持管理記録簿の作成を指導する。

活動 1-2から 1-5で得た情報や成果・教訓を基に、製氷設備および主要機器の維持管理計画書および維持管理記録簿の作成を指導する。

(2) 投入計画の内容

1) 日本側の投入計画

計画するソフトコンポーネントの内容は、次のとおり「技術指導」から構成される。

技術指導

成果「製氷設備および主要機器の維持管理計画が策定される」

本体事業施設の運営維持管理の立ち上げ指導を行うコンサルタントを1名派遣する。

運営管理にかかるソフトコンポーネントで得られる成果は、本体事業施設の運営立ち上げ時には必要であることから、本体事業施設建設の終了段階に実施する計画とする。技術指導にかかるソフトコンポーネントにより、本体事業設備が試運転できる状態になればならず、したがって本体事業施設建設の最終段階で実施することが妥当である。

業務期間は、国内・現地作業を合わせて1.40MMの作業計画を予定する。

投入計画は次のとおりである。

- ① コンサルタント（技術指導）1名 1.40MM（国内作業 0.40MM、現地作業 1.00MM）：
 派遣者の技術水準：以下経験・技術が備わっている人材
- ・製氷設備（製氷機・氷蔵庫含む）に係る冷凍機器類・配線構造・機能等
 - ・製氷設備（製氷機・氷蔵庫含む）の運転・整備手順及び維持管理技法・手順
 - ・製氷設備（製氷機・氷蔵庫含む）の運転・維持管理記録簿作成
- その他、車輛借上費（運転手を含む、計29日間）が必要

2) 現地側の投入計画

プロジェクトサイトでは、SFAの製氷設備担当職員をカウンターパートとして、本邦コンサルタントと製氷設備を持続的に管理できる体制作りに取り組む。また、ワークショップ開催時には、SFA製氷設備担当職員が議事進行役を担当する。

投入計画は次のとおりである。

- ① SFA製氷設備担当職員及び案件担当者
- ② 本体事業施設の運営・維持管理組織のメンバー

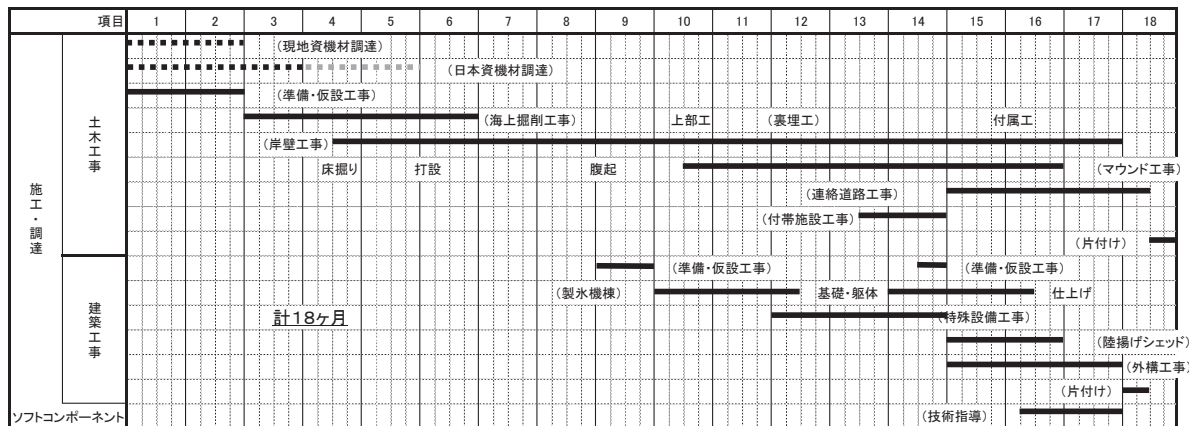
6. ソフトコンポーネントの実施リソースの調達方法

「セ」国内で、アンモニア冷媒を用いた事業施設の運営、経営、会計、流通等に関し、総合的な観点から本体事業施設の運営にかかる技術指導ができるコンサルタントまたはNGOが存在しないため、協力準備調査に従事した本邦コンサルタントを派遣し、現地のカウンターパートと共同で実施することとする。

7. ソフトコンポーネントの実施工程

本体事業施設の完工前に業務を開始することとし、次の事業実施工程表に基づき、ソフトコンポーネントを実施する。

事業実施工程



ソフトコンポーネントの実施時期については製氷設備の総合運転と施設の建設工事の進捗状況をみながら適切に運用管理できるよう調整する。

技術指導にかかるソフトコンポーネント

業務内容	国内作業		現地作業				国内作業
	1 週	2 週	3 週	4 週	5 週	6 週	7 週
維持管理計画・関連記録簿原案の作成	■	■					
JICA 事務所、「セ」国側との実施方針確認			■				
関連機器類の機能・相互関係説明			■				
製氷機・氷蔵庫の運転・維持管理指導				■			
配電盤、電気回路の運転・管理指導				■	■		
関連機器総合運転指導・記録化指導					■	■	
維持管理計画書・記録簿案取りまとめ						■	■
「セ」国側、JICA ケニア事務所への報告							■
業務完了報告書の作成							■

8. ソフトコンポーネントの成果品（案）

- 1) 業務完了報告書
- 2) 製氷設備の維持管理計画書および維持管理記録簿

9. ソフトコンポーネントの概略事業費

ソフトコンポーネントの概略事業費は、4,311 千円である。内訳詳細は別添のとおり。

見積金額内訳書

見積金額総額：（消費税・地方税は含まれず、千円未満切り捨て） 4,311,000 円

I. 直接費：	（千円未満切り捨て）	2,777,000 円
1. 直接経費：		1,579,006 円
2. 直接人件費：	（ソフトコンポーネント担当）	1,198,400 円
II. 間接費：	（千円未満切り捨て）	1,533,000 円
1. 諸経費：		1,078,560 円
2. 技術経費：		455,392 円

10. 相手国側の責務

本ソフトコンポーネントの実施に当たっては、カウンターパート職員の施設維持管理に関する知識だけでなく、関係者との調整能力と積極的な参加が必要である。したがって、適切な人物をカウンターパートとして人選することが重要である。

また、本体事業施設の運営維持管理組織のスタッフの人選に当たっては、同施設の適切な運営を行うため、人柄、能力、積極性といった観点から優秀な人材を選抜することが必要である。

1) 第1期事前国内作業（6日間、0.30MM）：製氷機の維持管理計画書案および維持管理記録簿案の作成

2) 第1期現地作業（30日間、1.00MM）：

日数	曜日	業務内容（案）	業務地
1	土	移動（日本発、ドバイ経由）	機中
2	日	移動（マヘ島着）	マヘ島
3	月	ビクトリア、SFA業務概要説明	マヘ島
4	火	SFAにて運営・維持管理組織関係者交え業務内容の説明	マヘ島
5	水	同関係者への業務内容（ソフトコンポーネントの目的・日程）説明	マヘ島
6	木	製氷機と関連機器（貯氷庫、氷蔵庫）の機能詳細説明	マヘ島
7	金	製氷機と関連機器（貯氷庫、氷蔵庫）の相互関係説明	マヘ島
8	土	現場設備工事における各機器の設置・作動確認作業	マヘ島
9	日	資料準備	マヘ島
10	月	製氷機・氷蔵庫等の構造及び取り扱い方法の説明、操作手順の確認	マヘ島
11	火	製氷機・氷蔵庫等の冷凍サイクルと注意事項	マヘ島
12	水	製氷機・氷蔵庫等のメンテナンス、トラブル対処方法指導	マヘ島
13	木	非常用発電機の構造及び取り扱い方法の説明、操作手順の確認	マヘ島
14	金	運転中の過負荷運転と軽負荷運転にかかる管理技術の指導	マヘ島
15	土	メンテナンストラブル対処指導	マヘ島
16	日	資料整理、維持管理計画書および維持管理記録簿の作成	マヘ島
17	月	製氷機の運転バランス・低コスト運転にかかる指導	マヘ島
18	火	浄水設備ポンプ等の指導（メンテナンス及び故障時の対処）	マヘ島
19	水	貯氷庫、氷蔵庫の効果的な使用方法と管理（実習）	マヘ島
20	木	関連全設備総合運転中のデータ採取及び記録方法	マヘ島
21	金	関連全設備総合運転中の注意事項と異常の発見方法（データ検証）	マヘ島
22	土	非常用発電機と製氷機の運転バランス・低コスト運転にかかる指導	マヘ島
23	日	資料整理、維持管理計画書および維持管理記録簿の作成	マヘ島
24	月	業務報告書作成、維持管理計画書および維持管理記録簿の作成	マヘ島
25	火	維持管理計画書および維持管理記録簿翻訳作成	マヘ島
26	水	維持管理計画書および維持管理記録簿内容協議・改正	マヘ島
27	木	SFA報告、マヘ島発ナイロビ移動	マヘ島
28	金	ケニア・ナイロビJICA事務所業務終了報告	ナイロビ
29	土	移動（ナイロビ発）、ドバイ経由	機中
30	日	帰国	

3) 第2期事後 国内作業（2日間、0.10MM）：業務完了報告書の作成、JICA 業務報告