ANNEX 8. ESTIMATED BENEFITS AND ECONOMIC ANALYSIS

8-1. Estimated Benefits

(1) Stabilization of volume of catch

Fish Production and Unit Price during last 5 years (2006-2010)

Category	Fish	Species	Fish Production (ton)			Unit Price (DH/kg)		
			Average	Max.	Min.	Average	Max.	Min.
Coastal Fishery	Pelagics	Sardine	536,115	649,930	412,567	1.66	1.73	1.55
		Maquereau	63,244	85,780	40,726	1.50	1.63	1.34
		Anchois	18,665	30,220	9,794	6.10	6.44	5.49
		Chinchard	24,634	31,282	19,715	4.69	5.38	3.63
		Thonides	6,021	8,886	349	28.64	37.19	21.87
		Autres	23,089	57,329	9,835	5.25	5.98	3.58
	Demersal	Loup	132	181	75	63.48	71.35	48.77
		Dorade	1,264	1,433	1,045	32.70	40.89	25.36
		Grondin	2,444	3,254	1,333	9.06	10.73	7.75
		Merlu	4,042	4,970	3,228	26.87	31.39	22.56
		Ombrine	2,822	3,599	1,817	22.03	24.26	19.67
		Pageot	2,298	5,067	510	41.65	66.90	14.60
		Sole	3,531	4,107	3,223	28.35	30.41	27.20
		Autres	62,361	67,631	55,228	11.89	13.51	10.46
Offshore fishery	Demersal	Poulpe	20,207	27,813	12,639	68.09	86.95	43.22
		Calmar	2,083	3,900	480	66.68	97.92	47.18
		Seiche	13,935	19,089	10,910	33.69	44.00	21.43
		Poisson blanc	21,952	25,668	17,528	11.65	13.20	8.00
		Crevettes	4,468	5,763	3,657	125.80	141.91	108.43
	Pelagics		56,633	99,939	31,834	1.49	1.88	1.26
Total			869,942	1,135,841	636,493			

Source : DPM

Differene of catch volume between with and without Project

A. Stabilization of fish catch (Scenario-1) (Unit: tonnes)

Project Year (1st year = 2014)			**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
Anticipated Calendar Year			**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Coastal Fishery	Pelagics	Sardine						22,763	45,526	68,289	91,052	113,815	113,815	138,525	163,234	187,944	212,653	237,363
		Maquereau						4,507	9,014	13,522	18,029	22,536	22,536	27,040	31,543	36,047	40,550	45,054
		Anchois						2,311	4,622	6,933	9,244	11,555	11,555	13,329	15,103	16,877	18,652	20,426
		Chinchard						1,330	2,659	3,989	5,318	6,648	6,648	7,632	8,615	9,599	10,583	11,567
		Thonides						573	1,146	1,719	2,292	2,865	2,865	3,999	5,134	6,268	7,403	8,537
		Autres						6,848	13,696	20,544	27,392	34,240	34,240	36,891	39,541	42,192	44,843	47,494
	Demersal	Loup		11	23	34	46	67	77	86	96	106	106	106	106	106	106	106
		Dorade		44	88	131	175	253	287	320	354	388	388	388	388	388	388	388
		Grondin		222	444	667	889	1,273	1,435	1,597	1,759	1,921	1,921	1,921	1,921	1,921	1,921	1,921
		Merlu		163	326	488	651	1,000	1,185	1,371	1,556	1,742	1,742	1,742	1,742	1,742	1,742	1,742
		Ombrine		201	402	603	804	1,160	1,316	1,471	1,627	1,782	1,782	1,782	1,782	1,782	1,782	1,782
		Pageot		358	715	1,073	1,430	2,342	2,896	3,449	4,003	4,557	4,557	4,557	4,557	4,557	4,557	4,557
		Sole		62	123	185	246	423	538	653	769	884	884	884	884	884	884	884
		Autres		1,427	2,853	4,280	5,707	8,187	9,241	10,295	11,349	12,403	12,403	12,403	12,403	12,403	12,403	12,403
Offshore fishery	Demersal	Poulpe		1,514	3,027	4,541	6,054	9,089	10,610	12,132	13,653	15,174	15,174	15,174	15,174	15,174	15,174	15,174
		Calmar		321	641	962	1,282	1,966	2,330	2,693	3,057	3,420	3,420	3,420	3,420	3,420	3,420	3,420
		Seiche		605	1,210	1,815	2,420	4,056	5,087	6,118	7,148	8,179	8,179	8,179	8,179	8,179	8,179	8,179
		Poisson blanc		885	1,770	2,655	3,540	5,168	5,911	6,654	7,397	8,140	8,140	8,140	8,140	8,140	8,140	8,140
		Crevettes		162	324	486	648	1,070	1,329	1,588	1,847	2,106	2,106	2,106	2,106	2,106	2,106	2,106
	Pelagics							8,661	17,322	25,983	34,644	43,306	43,306	48,265	53,225	58,185	63,145	68,105
Total			0	5,973	11,947	17,920	23,893	83,046	136,226	189,406	242,586	295,766	295,766	336,482	377,199	417,915	458,632	499,348
		Pelagics	0	0	0	0	0	46,993	93,986	140,978	187,971	234,964	234,964	275,680	316,397	357,113	397,830	438,546
		Demersal	0	5,973	11,947	17,920	23,893	36,054	42,241	48,428	54,615	60,802	60,802	60,802	60,802	60,802	60,802	60,802

Difference	Pelagic fish	2023 - 2030	(Max. catch - Ave. catch)
		After 2031	((Max. catch - (Ave. catch) + ((Ave. catch - Min. catch))
	Demersal	2021 - 2022	(Ave. catch - Min. catch)
		After 2023	((Ave. catch - Min. catch) + (Max. catch - Ave. catch))

A. Stabilization of fish catch (Scenario-2) (Unit: tonnes)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Coastal Fishery	Pelagics	Sardine												24,710	49,419	74,129	98,838	123,548
		Maquereau												4,504	9,007	13,511	18,014	22,518
		Anchois												1,774	3,549	5,323	7,097	8,871
		Chinchard												984	1,968	2,952	3,935	4,919
		Thonides												1,134	2,269	3,403	4,538	5,672
		Autres												2,651	5,302	7,953	10,603	13,254
	Demersal	Loup		11	23	34	46	57	57	57	57	57	57	57	57	57	57	57
		Dorade		44	88	131	175	219	219	219	219	219	219	219	219	219	219	219
		Grondin		222	444	667	889	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111
		Merlu		163	326	488	651	814	814	814	814	814	814	814	814	814	814	814
		Ombrine		201	402	603	804	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005
		Pageot		358	715	1,073	1,430	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788
		Sole		62	123	185	246	308	308	308	308	308	308	308	308	308	308	308
		Autres		1,427	2,853	4,280	5,707	7,133	7,133	7,133	7,133	7,133	7,133	7,133	7,133	7,133	7,133	7,133
Offshore fishery	Demersal	Poulpe		1,514	3,027	4,541	6,054	7,568	7,568	7,568	7,568	7,568	7,568	7,568	7,568	7,568	7,568	7,568
		Calmar		321	641	962	1,282	1,603	1,603	1,603	1,603	1,603	1,603	1,603	1,603	1,603	1,603	1,603
		Seiche		605	1,210	1,815	2,420	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025
		Poisson blanc		885	1,770	2,655	3,540	4,424	4,424	4,424	4,424	4,424	4,424	4,424	4,424	4,424	4,424	4,424
		Crevettes		162	324	486	648	811	811	811	811	811	811	811	811	811	811	811
	Pelagics													4,960	39,975	19,099	25,466	31,832
Total			0	5,973	11,947	17,920	23,893	29,867	29,867	29,867	29,867	29,867	29,867	70,583	141,355	156,235	198,358	240,481
		Pelagics	0	0	0	0	0	0	0	0	0	0	0	40,716	111,488	126,369	168,492	210,615
		Demersal	0	5,973	11,947	17,920	23,893	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867

Difference	Pelagic fish	After 2031	(Ave. catch - Min. catch)
	Demersal	After 2021	(Ave. catch - Min. catch)

A. Stabilization of fish catch (Scenario-3) (Unit: tonnes)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Coastal Fishery	Pelagics	Sardine												0	0	0	0	0
		Maquereau												0	0	0	0	0
		Anchois												0	0	0	0	0
		Chinchard												0	0	0	0	0
		Thonides												0	0	0	0	0
		Autres												0	0	0	0	0
	Demersal	Loup		11	23	34	46	57	57	57	57	57	57	57	57	57	57	57
		Dorade		44	88	131	175	219	219	219	219	219	219	219	219	219	219	219
		Grondin		222	444	667	889	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111	1,111
		Merlu		163	326	488	651	814	814	814	814	814	814	814	814	814	814	814
		Ombrine		201	402	603	804	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005	1,005
		Pageot		358	715	1,073	1,430	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788	1,788
		Sole		62	123	185	246	308	308	308	308	308	308	308	308	308	308	308
		Autres		1,427	2,853	4,280	5,707	7,133	7,133	7,133	7,133	7,133	7,133	7,133	7,133	7,133	7,133	7,133
Offshore fishery	Demersal	Poulpe		1,514	3,027	4,541	6,054	7,568	7,568	7,568	7,568	7,568	7,568	7,568	7,568	7,568	7,568	7,568
		Calmar		321	641	962	1,282	1,603	1,603	1,603	1,603	1,603	1,603	1,603	1,603	1,603	1,603	1,603
		Seiche		605	1,210	1,815	2,420	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025	3,025
		Poisson blanc		885	1,770	2,655	3,540	4,424	4,424	4,424	4,424	4,424	4,424	4,424	4,424	4,424	4,424	4,424
		Crevettes		162	324	486	648	811	811	811	811	811	811	811	811	811	811	811
	Pelagics													0	0	0	0	0
Total			0	5,973	11,947	17,920	23,893	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867
		Pelagics	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		Demersal	0	5,973	11,947	17,920	23,893	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867	29,867

Difference	Pelagic fish		0	
	Demersal	After 2021	(Ave. catch - Min. catch)	

Production value with Project

A. Stabilization of fish catch (Scenario-1) (Unit: 1,000 DH)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Coastal Fishery	Pelagics	Sardine	887,717	887,717	887,717	887,717	887,717	911,067	934,417	957,766	981,116	1,004,466	1,004,466	1,004,466	1,004,466	1,004,466	1,004,466	1,004,466
		Maquereau	94,901	94,901	94,901	94,901	94,901	98,909	102,917	106,925	110,933	114,941	114,941	114,941	114,941	114,941	114,941	114,941
		Anchois	113,893	113,893	113,893	113,893	113,893	124,323	134,753	145,182	155,612	166,041	166,041	166,041	166,041	166,041	166,041	166,041
		Chinchard	115,513	115,513	115,513	115,513	115,513	115,106	114,698	114,291	113,883	113,476	113,476	113,476	113,476	113,476	113,476	113,476
		Thonides	172,453	172,453	172,453	172,453	172,453	176,838	181,223	185,608	189,993	194,378	194,378	194,378	194,378	194,378	194,378	194,378
		Autres	121,126	121,126	121,126	121,126	121,126	137,971	154,815	171,659	188,504	205,348	205,348	205,348	205,348	205,348	205,348	205,348
	Demersal	Loup	8,380	8,380	8,380	8,380	8,380	8,469	8,559	8,649	8,738	8,828	8,828	8,828	8,828	8,828	8,828	8,828
		Dorade	41,327	41,327	41,327	41,327	41,327	40,329	39,331	38,333	37,335	36,337	36,337	36,337	36,337	36,337	36,337	36,337
		Grondin	22,136	22,136	22,136	22,136	22,136	22,750	23,365	23,979	24,593	25,207	25,207	25,207	25,207	25,207	25,207	25,207
		Merlu	108,620	108,620	108,620	108,620	108,620	109,319	110,018	110,717	111,415	112,114	112,114	112,114	112,114	112,114	112,114	112,114
		Ombrine	62,175	62,175	62,175	62,175	62,175	63,895	65,616	67,336	69,056	70,776	70,776	70,776	70,776	70,776	70,776	70,776
		Pageot	95,704	95,704	95,704	95,704	95,704	91,355	87,006	82,657	78,307	73,958	73,958	73,958	73,958	73,958	73,958	73,958
		Sole	100,093	100,093	100,093	100,093	100,093	102,419	104,746	107,073	109,399	111,726	111,726	111,726	111,726	111,726	111,726	111,726
		Autres	741,305	741,305	741,305	741,305	741,305	734,518	727,731	720,944	714,157	707,370	707,370	707,370	707,370	707,370	707,370	707,370
Offshore fishery	Demersal	Poulpe	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,341,133	1,306,350	1,271,566	1,236,783	1,202,000	1,202,000	1,202,000	1,202,000	1,202,000	1,202,000	1,202,000
		Calmar	138,904	138,904	138,904	138,904	138,904	147,923	156,942	165,961	174,981	184,000	184,000	184,000	184,000	184,000	184,000	184,000
		Seiche	469,441	469,441	469,441	469,441	469,441	457,353	445,265	433,177	421,088	409,000	409,000	409,000	409,000	409,000	409,000	409,000
		Poisson blanc	255,694	255,694	255,694	255,694	255,694	245,625	235,555	225,486	215,416	205,347	205,347	205,347	205,347	205,347	205,347	205,347
		Crevettes	562,018	562,018	562,018	562,018	562,018	574,595	587,172	599,750	612,327	624,904	624,904	624,904	624,904	624,904	624,904	624,904
	Pelagics		84,250	84,250	84,250	84,250	84,250	92,489	100,728	108,967	117,206	125,445	125,445	125,445	125,445	125,445	125,445	125,445
		Total	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,596,386	5,621,206	5,646,025	5,670,844	5,695,663	5,695,663	5,695,663	5,695,663	5,695,663	5,695,663	5,695,663
		Pelagics	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,656,702	1,723,551	1,790,399	1,857,247	1,924,095	1,924,095	1,924,095	1,924,095	1,924,095	1,924,095	1,924,095
		Demersal	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,939,684	3,897,655	3,855,626	3,813,597	3,771,568	3,771,568	3,771,568	3,771,568	3,771,568	3,771,568	3,771,568
Production value:	Pelagic fish	After 2023	(Ave. catch x Ave. price) + ((Max. catch x Min. price) - (Ave. catch x Ave. price))															
	Demersal	After 2023	(Ave. catch x Ave. price) + ((Max. catch x Min. price) - (Ave. catch x Ave. price))															

A. Stabilization of fish catch (Scenario-2) (Unit: 1,000 DH)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Coastal Fishery	Pelagics	Sardine	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717
		Maquereau	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901
		Anchois	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893
		Chinchard	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513
		Thonides	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453
		Autres	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126
	Demersal	Loup	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380
		Dorade	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327
		Grondin	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136
		Merlu	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620
		Ombrine	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175
		Pageot	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704
		Sole	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093
		Autres	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305
Offshore fishery	Demersal	Poulpe	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916
		Calmar	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904
		Seiche	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441
		Poisson blanc	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694
		Crevettes	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018
	Pelagics		84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250
		Total	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567
		Pelagics	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854
		Demersal	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713
Production value:	Pelagic fish	Constant	(Ave. catch x Ave. price)															
	Demersal	Constant	(Ave. catch x Ave. price)															

A. Stabilization of fish catch (Scenario-3) (Unit: 1,000 DH)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Coastal Fishery	Demersal	Loup	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380	8,380
		Dorade	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327	41,327
		Grondin	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136	22,136
		Merlu	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620	108,620
		Ombrine	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175	62,175
		Pageot	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704	95,704
		Sole	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093	100,093
		Autres	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305	741,305
Offshore fishery	Demersal	Poulpe	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916	1,375,916
		Calmar	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904	138,904
		Seiche	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441	469,441
		Poisson blanc	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694	255,694
		Crevettes	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018	562,018
		Total	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713
		Demersal	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713
Production value:	Demersal	Constant	(Ave. catch x Ave. price)															

Production value without Project

A. Stabilization of fish catch (Scenario-1) (Unit: 1,000 DH)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Coastal Fishery	Pelagics	Sardine	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	852,749	817,782	782,814	747,846	712,878
		Maquereau	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	89,220	83,539	77,858	72,177	66,496
		Anchois	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	103,724	93,554	83,385	73,215	63,046
		Chinchard	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	113,605	111,698	109,790	107,882	105,974
		Thonides	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	140,558	108,664	76,769	44,875	12,980
		Autres	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	108,668	96,210	83,751	71,293	58,835
	Demersal	Loup	8,380	7,774	7,168	6,562	5,957	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351
		Dorade	41,327	41,609	41,890	42,172	42,453	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735
		Grondin	22,136	20,569	19,001	17,433	15,866	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298
		Merlu	108,620	107,164	105,709	104,253	102,798	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342
		Ombrine	62,175	58,557	54,938	51,319	47,700	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082
		Pageot	95,704	83,387	71,069	58,752	46,435	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117
		Sole	100,093	99,677	99,261	98,845	98,429	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013
		Autres	741,305	742,276	743,246	744,217	745,187	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158
Offshore fishery	Demersal	Poulpe	1,375,916	1,320,533	1,265,150	1,209,766	1,154,383	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000
		Calmar	138,904	120,523	102,142	83,761	65,381	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000
		Seiche	469,441	471,553	473,665	475,777	477,888	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000
		Poisson blanc	255,694	250,830	245,966	241,102	236,238	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374
		Crevettes	562,018	553,404	544,791	536,178	527,565	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952
	Pelagics		84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	79,366	74,483	69,599	64,715	59,832
		Total	5,571,567	5,467,709	5,363,851	5,259,992	5,156,134	5,052,276	5,052,276	5,052,276	5,052,276	5,052,276	5,052,276	4,950,313	4,848,350	4,746,387	4,644,425	4,542,462
		Pelagics	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,487,891	1,385,929	1,283,966	1,182,003	1,080,041
		Demersal	3,981,713	3,877,855	3,773,997	3,670,138	3,566,280	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421
Production value:	Pelagic fish	After 2031	(Ave. catch x Ave. price) + ((Min. catch x Max. price) - (Ave. catch x Ave. price))															
	Demersal	After 2021	(Ave. catch x Ave. price) + ((Min. catch x Max. price) - (Ave. catch x Ave. price))															

A. Stabilization of fish catch (Scenario-2) (Unit: 1,000 DH)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Coastal Fishery	Pelagics	Sardine	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	887,717	852,749	817,782	782,814	747,846	712,878
		Maquereau	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	94,901	89,220	83,539	77,858	72,177	66,496
		Anchois	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	113,893	103,724	93,554	83,385	73,215	63,046
		Chinchard	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	115,513	113,605	111,698	109,790	107,882	105,974
		Thonides	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	172,453	140,558	108,664	76,769	44,875	12,980
		Autres	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	121,126	108,668	96,210	83,751	71,293	58,835
	Demersal	Loup	8,380	7,774	7,168	6,562	5,957	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351
		Dorade	41,327	41,609	41,890	42,172	42,453	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735
		Grondin	22,136	20,569	19,001	17,433	15,866	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298
		Merlu	108,620	107,164	105,709	104,253	102,798	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342
		Ombrine	62,175	58,557	54,938	51,319	47,700	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082
		Pageot	95,704	83,387	71,069	58,752	46,435	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117
		Sole	100,093	99,677	99,261	98,845	98,429	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013
		Autres	741,305	742,276	743,246	744,217	745,187	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158
Offshore fishery	Demersal	Poulpe	1,375,916	1,320,533	1,265,150	1,209,766	1,154,383	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000
		Calmar	138,904	120,523	102,142	83,761	65,381	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000
		Seiche	469,441	471,553	473,665	475,777	477,888	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000
		Poisson blanc	255,694	250,830	245,966	241,102	236,238	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374
		Crevettes	562,018	553,404	544,791	536,178	527,565	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952
	Pelagics		84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	84,250	79,366	74,483	69,599	64,715	59,832
		Total	5,571,567	5,487,709	5,363,851	5,259,992	5,156,134	5,052,276	5,052,276	5,052,276	5,052,276	5,052,276	5,052,276	4,950,313	4,848,350	4,746,387	4,644,425	4,542,462
		Pelagics	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,589,854	1,487,891	1,385,929	1,283,966	1,182,003	1,080,041
		Demersal	3,981,713	3,877,855	3,773,997	3,670,138	3,566,280	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421
Production value:	Pelagic fish	After 2031	(Ave. catch x Ave. price) + ((Min. catch x Max. price) - (Ave. catch x Ave. price))															
	Demersal	After 2021	(Ave. catch x Ave. price) + ((Min. catch x Max. price) - (Ave. catch x Ave. price))															

A. Stabilization of fish catch (Scenario-3) (Unit: 1,000 DH)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Coastal Fishery	Demersal	Loup	8,380	7,774	7,168	6,562	5,957	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351	5,351
		Dorade	41,327	41,609	41,890	42,172	42,453	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735	42,735
		Grondin	22,136	20,569	19,001	17,433	15,866	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298	14,298
		Merlu	108,620	107,164	105,709	104,253	102,798	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342	101,342
		Ombrine	62,175	58,557	54,938	51,319	47,700	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082	44,082
		Pageot	95,704	83,387	71,069	58,752	46,435	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117	34,117
		Sole	100,093	99,677	99,261	98,845	98,429	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013	98,013
		Autres	741,305	742,276	743,246	744,217	745,187	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158	746,158
Offshore fishery	Demersal	Poulpe	1,375,916	1,320,533	1,265,150	1,209,766	1,154,383	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000	1,099,000
		Calmar	138,904	120,523	102,142	83,761	65,381	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000	47,000
		Seiche	469,441	471,553	473,665	475,777	477,888	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000	480,000
		Poisson blanc	255,694	250,830	245,966	241,102	236,238	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374	231,374
		Crevettes	562,018	553,404	544,791	536,178	527,565	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952	518,952
		Total	3,981,713	3,877,855	3,773,997	3,670,138	3,566,280	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421
		Demersal	3,981,713	3,877,855	3,773,997	3,670,138	3,566,280	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421
Production value:	Demersal	After 2021	(Ave. catch x Ave. price) + ((Min. catch x Max. price) - (Ave. catch x Ave. price))															

Benefit

A. Stabilization of fish catch (Scenario-1)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Coastal Fishery	Pelagics	Sardine	0	0	0	0	0	23,350	46,700	70,049	93,399	116,749	116,749	151,717	186,684	221,652	256,620	291,588
		Maquereau	0	0	0	0	0	4,008	8,016	12,024	16,032	20,040	20,040	25,721	31,402	37,083	42,764	48,445
		Anchois	0	0	0	0	0	10,430	20,859	31,289	41,718	52,148	52,148	62,317	72,487	82,656	92,826	102,995
		Chinchard	0	0	0	0	0	-407	-815	-1,222	-1,630	-2,037	-2,037	-129	1,778	3,686	5,594	7,502
		Thonides	0	0	0	0	0	4,385	8,770	13,155	17,540	21,925	21,925	53,820	85,714	117,609	149,503	181,398
		Autres	0	0	0	0	0	16,844	33,689	50,533	67,377	84,221	84,221	96,680	109,138	121,596	134,055	146,513
	Demersal	Loup	0	606	1,211	1,817	2,423	3,118	3,208	3,298	3,387	3,477	3,477	3,477	3,477	3,477	3,477	3,477
		Dorade	0	-282	-563	-845	-1,126	-2,406	-3,404	-4,402	-5,400	-6,398	-6,398	-6,398	-6,398	-6,398	-6,398	-6,398
		Grondin	0	1,568	3,135	4,703	6,271	8,452	9,067	9,681	10,295	10,909	10,909	10,909	10,909	10,909	10,909	10,909
		Merlu	0	1,456	2,911	4,367	5,822	7,977	8,676	9,375	10,073	10,772	10,772	10,772	10,772	10,772	10,772	10,772
		Ombrine	0	3,619	7,237	10,856	14,475	19,814	21,534	23,254	24,974	26,694	26,694	26,694	26,694	26,694	26,694	26,694
		Pageot	0	12,317	24,635	36,952	49,270	57,238	52,889	48,539	44,190	39,841	39,841	39,841	39,841	39,841	39,841	39,841
		Sole	0	416	832	1,248	1,664	4,406	6,733	9,060	11,386	13,713	13,713	13,713	13,713	13,713	13,713	13,713
		Autres	0	-971	-1,941	-2,912	-3,882	-11,640	-18,427	-25,214	-32,001	-38,788	-38,788	-38,788	-38,788	-38,788	-38,788	-38,788
Offshore fishery	Demersal	Poulpe	0	55,383	110,766	166,150	221,533	242,133	207,350	172,566	137,783	103,000	103,000	103,000	103,000	103,000	103,000	103,000
		Calmar	0	18,381	36,761	55,142	73,523	100,923	109,942	118,961	127,981	137,000	137,000	137,000	137,000	137,000	137,000	137,000
		Seiche	0	-2,112	-4,223	-6,335	-8,447	-22,647	-34,735	-46,823	-58,912	-71,000	-71,000	-71,000	-71,000	-71,000	-71,000	-71,000
		Poisson blanc	0	4,864	9,728	14,592	19,456	14,251	4,181	-5,888	-15,958	-26,027	-26,027	-26,027	-26,027	-26,027	-26,027	-26,027
		Crevettes	0	8,613	17,226	25,839	34,452	55,643	68,220	80,798	93,375	105,953	105,953	105,953	105,953	105,953	105,953	105,953
	Pelagics		0	0	0	0	0	8,239	16,478	24,717	32,956	41,195	41,195	46,079	50,962	55,846	60,730	65,613
Total			0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201
		Pelagics	0	0	0	0	0	66,848	133,696	200,545	267,393	334,241	334,241	436,204	538,167	640,129	742,092	844,055
		Demersal	0	103,858	207,717	311,575	415,433	477,263	435,234	393,204	351,175	309,146	309,146	309,146	309,146	309,146	309,146	309,146

Benefit: (Production value with project) - (Production value without project)

A. Stabilization of fish catch (Scenario-2) (Unit: 1,000 DH)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Coastal Fishery	Pelagics	Sardine	0	0	0	0	0	0	0	0	0	0	0	34,968	69,936	104,904	139,871	174,839
		Maquereau	0	0	0	0	0	0	0	0	0	0	0	5,681	11,362	17,043	22,724	28,405
		Anchois	0	0	0	0	0	0	0	0	0	0	0	10,169	20,339	30,508	40,678	50,847
		Chinchard	0	0	0	0	0	0	0	0	0	0	0	1,908	3,816	5,724	7,631	9,539
		Thonides	0	0	0	0	0	0	0	0	0	0	0	31,895	63,789	95,684	127,578	159,473
		Autres	0	0	0	0	0	0	0	0	0	0	0	12,458	24,917	37,375	49,833	62,292
	Demersal	Loup	0	606	1,211	1,817	2,423	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029
		Dorade	0	-282	-563	-845	-1,126	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408
		Grondin	0	1,568	3,135	4,703	6,271	7,838	7,838	7,838	7,838	7,838	7,838	7,838	7,838	7,838	7,838	7,838
		Merlu	0	1,456	2,911	4,367	5,822	7,278	7,278	7,278	7,278	7,278	7,278	7,278	7,278	7,278	7,278	7,278
		Ombrine	0	3,619	7,237	10,856	14,475	18,094	18,094	18,094	18,094	18,094	18,094	18,094	18,094	18,094	18,094	18,094
		Pageot	0	12,317	24,635	36,952	49,270	61,587	61,587	61,587	61,587	61,587	61,587	61,587	61,587	61,587	61,587	61,587
		Sole	0	416	832	1,248	1,664	2,080	2,080	2,080	2,080	2,080	2,080	2,080	2,080	2,080	2,080	2,080
		Autres	0	-971	-1,941	-2,912	-3,882	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853
Offshore fishery	Demersal	Poulpe	0	55,383	110,766	166,150	221,533	276,916	276,916	276,916	276,916	276,916	276,916	276,916	276,916	276,916	276,916	276,916
		Calmar	0	18,381	36,761	55,142	73,523	91,904	91,904	91,904	91,904	91,904	91,904	91,904	91,904	91,904	91,904	91,904
		Seiche	0	-2,112	-4,223	-6,335	-8,447	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559
		Poisson blanc	0	4,864	9,728	14,592	19,456	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320
		Crevettes	0	8,613	17,226	25,839	34,452	43,066	43,066	43,066	43,066	43,066	43,066	43,066	43,066	43,066	43,066	43,066
	Pelagics		0	0	0	0	0	0	0	0	0	0	0	4,884	9,767	14,651	19,534	24,418
Total			0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105
		Pelagics	0	0	0	0	0	0	0	0	0	0	0	101,963	203,925	305,888	407,851	509,813
		Demersal	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292

Benefit: (Production value with project) - (Production value without project)

A. Stabilization of fish catch (Scenario-3) (Unit: 1,000 DH)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Coastal Fishery	Demersal	Loup	0	606	1,211	1,817	2,423	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029	3,029
		Dorade	0	-282	-563	-845	-1,126	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408	-1,408
		Grondin	0	1,568	3,135	4,703	6,271	7,838	7,838	7,838	7,838	7,838	7,838	7,838	7,838	7,838	7,838	7,838
		Merlu	0	1,456	2,911	4,367	5,822	7,278	7,278	7,278	7,278	7,278	7,278	7,278	7,278	7,278	7,278	7,278
		Ombrine	0	3,619	7,237	10,856	14,475	18,094	18,094	18,094	18,094	18,094	18,094	18,094	18,094	18,094	18,094	18,094
		Pageot	0	12,317	24,635	36,952	49,270	61,587	61,587	61,587	61,587	61,587	61,587	61,587	61,587	61,587	61,587	61,587
		Sole	0	416	832	1,248	1,664	2,080	2,080	2,080	2,080	2,080	2,080	2,080	2,080	2,080	2,080	2,080
		Autres	0	-971	-1,941	-2,912	-3,882	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853	-4,853
Offshore fishery	Demersal	Poulpe	0	55,383	110,766	166,150	221,533	276,916	276,916	276,916	276,916	276,916	276,916	276,916	276,916	276,916	276,916	276,916
		Calmar	0	18,381	36,761	55,142	73,523	91,904	91,904	91,904	91,904	91,904	91,904	91,904	91,904	91,904	91,904	91,904
		Seiche	0	-2,112	-4,223	-6,335	-8,447	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559	-10,559
		Poisson blanc	0	4,864	9,728	14,592	19,456	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320	24,320
		Crevettes	0	8,613	17,226	25,839	34,452	43,066	43,066	43,066	43,066	43,066	43,066	43,066	43,066	43,066	43,066	43,066
		Total	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
		Demersal	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292

Benefit: (Production value with project) - (Production value without project)

Project Year (1st year = 2014)			7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year			**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
	Scinario-1	With Project	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,596,386	5,621,206	5,646,025	5,670,844	5,695,663	5,695,663	5,695,663	5,695,663	5,695,663	5,695,663	5,695,663
		Without Project	5,571,567	5,467,709	5,363,851	5,259,992	5,156,134	5,052,276	5,052,276	5,052,276	5,052,276	5,052,276	5,052,276	4,950,313	4,848,350	4,746,387	4,644,425	4,542,462
		Benefit	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201
	Scinario-2	With Project	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567	5,571,567
		Without Project	5,571,567	5,467,709	5,363,851	5,259,992	5,156,134	5,052,276	5,052,276	5,052,276	5,052,276	5,052,276	5,052,276	4,950,313	4,848,350	4,746,387	4,644,425	4,542,462
		Benefit	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	825,180	927,143	1,029,105
	Scinario-3	With Project	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713	3,981,713
		Without Project	3,981,713	3,877,855	3,773,997	3,670,138	3,566,280	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421	3,462,421
		Benefit	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292

(2) Development of deep-sea fishery resources (for reference)

B. Exploitation of Deepsea Fisheries Resource

Plan A (up to 1,500 m)

Project Year (1st year = 2014)		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year		**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Production exploitable (ton)	Crevette Royal	0.0	0.0	0.0	0.0	0.0	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9	68.9
	Sable Noir	0.0	0.0	0.0	0.0	0.0	755.5	830.2	904.8	979.5	1,054.2	1,054.2	1,054.2	1,054.2	1,054.2	1,054.2	1,054.2
Expected price(DH/kg)	Crevette Royal	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47
	Sable Argente	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38
Expected benefit (1,000 DH)	Crevette Royal	0	0	0	0	0	6,577	6,577	6,577	6,577	6,577	6,577	6,577	6,577	6,577	6,577	6,577
	Sable Noir	0	0	0	0	0	4,064	4,466	4,868	5,270	5,672	5,672	5,672	5,672	5,672	5,672	5,672
	Total	0	0	0	0	0	10,641	11,043	11,445	11,846	12,248	12,248	12,248	12,248	12,248	12,248	12,248

Note:

Exploitable production: After 2023 (Potential Stock (ton) x 50% in 500 - 1,500m) - (Actual average catch)

Expected price: Average price at fishing port during last 5 years

Plan B (up to 1,200 m)

Project Year (1st year = 2014)		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year		**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Production exploitable (ton)	Crevette Royal	0.0	0.0	0.0	0.0	0.0	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3	33.3
	Sable Noir	0.0	0.0	0.0	0.0	0.0	136.2	272.3	408.5	544.6	680.8	680.8	680.8	680.8	680.8	680.8	680.8
Expected price(DH/kg)	Crevette Royal	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47	95.47
	Sable Argente	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38	5.38
Expected benefit (1,000 DH)	Crevette Royal	0	0	0	0	0	3,177	3,177	3,177	3,177	3,177	3,177	3,177	3,177	3,177	3,177	3,177
	Sable Noir	0	0	0	0	0	733	1,465	2,198	2,930	3,663	3,663	3,663	3,663	3,663	3,663	3,663
	Total	0	0	0	0	0	3,909	4,642	5,374	6,107	6,839	6,839	6,839	6,839	6,839	6,839	6,839

Note:

Exploitable production: After 2023 (Potential Stock (ton) x 50% in 500 - 1,200m) - (Actual average catch)

Expected price: Average price at fishing port during last 5 years

Production during last 5 years (2007-2011)

	Production (kg)			Value (DH)			Unit Price (DH/kg)		
	Average	Max.	Min.	Average	Max.	Min.	Average	Max.	Min.
Crevette Royal	76,478	196,639	19,046	6,090,835	11,117,842	2,102,301	95.47	111.38	56.54
Sable Argente	564,218	925,193	203,242	2,889,171	4,604,152	1,174,190	5.38	5.78	4.98

Source: ONP

Potential Stock estimated based on results of Spanish research VISCONDI D'EZA 2004-2006

	Estmated Standing Stock (ton)			
	500-800m	800-1,200m	1,200-1,500m	1,500-2,000m
Crevette Royal	40.8	178.7	71.2	5.6
Sable Noir	0.0	1,361.6	746.8	0.0

(3) Valorization of unused deep-sea fishery resources (for reference)

C. Valorisation of unused deepsea fisheries resource

Plan A (up to 1,500 m)

Project Year (1st year = 2014)	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Alepocephalus bairdii (Plan-A)	0	0	0	0	0	1,908	3,816	5,724	7,633	9,541	9,541	9,541	9,541	9,541	9,541	9,541
Alepocephalus rostratus (Plan-A)	0	0	0	0	0	493	985	1,478	1,970	2,463	2,463	2,463	2,463	2,463	2,463	2,463
Deania calcea (Plan-A)	0	0	0	0	0	1,681	3,362	5,043	6,723	8,404	8,404	8,404	8,404	8,404	8,404	8,404
Total	0	0	0	0	0	4,082	8,163	12,245	16,326	20,408	20,408	20,408	20,408	20,408	20,408	20,408

Average price: 1.52 DH/kg (assumed to be same as average price of sardine during last 5 years)

Plan B (up to 1,200 m)

Project Year (1st year = 2014)	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Anticipated Calendar Year	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Alepocephalus bairdii (Plan-B)	0	0	0	0	0	389	779	1,168	1,557	1,947	1,947	1,947	1,947	1,947	1,947	1,947
Alepocephalus rostratus (Plan-B)	0	0	0	0	0	160	321	481	642	802	802	802	802	802	802	802
Deania calcea (Plan-B)	0	0	0	0	0	1,526	3,053	4,579	6,105	7,632	7,632	7,632	7,632	7,632	7,632	7,632
Total	0	0	0	0	0	2,076	4,152	6,228	8,304	10,380	10,380	10,380	10,380	10,380	10,380	10,380

Average price: 1.52 DH/kg (assumed to be same as average price of sardine during last 5 years)

Potential Stock estimated based on results of Spanish research VISCONDI D'EZA 2004-2006

Species	Estmated Standing Stock (ton)			
	500-800m	800-1,200m	1,200-1,500m	1,500-2,000m
Alepocephalus bairdii	0.0	2,561.5	9,992.2	8,132.3
Alepocephalus rostratus	0.0	1,055.2	2,185.1	0.0
Deania calcea	1,175.4	10,041.8	1,016.5	0.0

12	13	14	15	16
2025	**2026**	**2027**	**2028**	**2029**
1,255.4	2,510.7	3,766.1	5,021.5	6,276.8
324.0	648.1	972.1	1,296.2	1,620.2
1,105.8	2,211.7	3,317.5	4,423.3	5,529.2
2,685.2	5,370.5	8,055.7	10,740.9	13,426.2

12	13	14	15	16
2025	**2026**	**2027**	**2028**	**2029**
256.2	512.3	768.5	1,024.6	1,280.8
105.5	211.0	316.6	422.1	527.6
1,004.2	2,008.4	3,012.5	4,016.7	5,020.9
1,365.9	2,731.7	4,097.6	5,463.4	6,829.3

(4) Stable operation of fish processing plants (Valorization borne by stabilization of fish catch)

Export value (1,000 DH)

		2005	2006	2007	2008	2009	2010	Average (2006-2010)	Max. (2006-2010)	Min. (2006-2010)
Consevé	Sardine	2,328,787	2,699,523	2,506,367	3,096,607	3,173,626	3,302,712	2,955,767	3,302,712	2,506,367
	Maquereau	335,940	415,349	402,727	387,473	468,318	467,678	428,309	468,318	387,473
	Thon	54,924	134,588	81,080	35,059	17,213	20,921	57,772	134,588	17,213
	Autres	2,003	1,681	920	3,209	22,942	207,719	47,294	207,719	920
	Total	2,721,654	3,251,141	2,991,094	3,522,348	3,682,099	3,999,030	3,489,142	4,113,337	2,911,973
Sémi-conservé	Anchois	876,676	903,368	868,365	966,564	1,136,485	1,114,786	997,914	1,136,485	868,365
	Sardine	14,273	16,297	12,418	10,130	13,385	22,616	14,969	22,616	10,130
	Others	13,213	42,354	29,986	25,164	5,286	3,697	21,297	42,354	3,697
	Total	904,162	962,019	910,769	1,001,858	1,155,156	1,141,099	1,034,180	1,201,455	882,192
Congelé	Mollusques	2,931,512	3,095,660	3,519,194	4,322,364	3,280,173	2,903,144	3,424,107	4,322,364	2,903,144
	Poisson	374,176	613,541	546,177	787,351	876,396	932,178	751,129	932,178	546,177
	Crustaces	601,842	700,096	757,989	719,593	671,871	794,820	728,874	794,820	671,871
	Filet / Chair	31,095	42,854	60,699	47,068	25,730	27,587	40,788	60,699	25,730
	Total	3,938,625	4,452,151	4,884,059	5,876,376	4,854,170	4,657,729	4,944,897	6,110,061	4,146,922
Frais	Poisson frais	1,066,766	1,143,133	1,208,380	1,160,246	1,056,246	819,426	1,077,486	1,208,380	819,426
	Poisson vivant	130,815	140,459	135,335	87,424	33,321	40,356	87,379	140,459	33,321
	Crustaces	224,323	312,936	453,894	330,043	307,392	628,249	406,503	628,249	307,392
	Mollusques	137,572	101,134	73,298	96,916	86,827	47,223	81,080	101,134	47,223
	Filet / Chair	4,476	1,029	202	240	122	622	443	1,029	122
	Total	1,563,952	1,698,691	1,871,109	1,674,869	1,483,908	1,535,876	1,652,891	2,079,251	1,207,484

Export volume (tonnes)

		2005	2006	2007	2008	2009	2010	Average (2006-2010)	Max. (2006-2010)	Min. (2006-2010)
Conservé	Sardine	108,001	120,490	102,263	117,881	114,649	164,109	123,878	164,109	102,263
	Maquereau	9,442	10,583	10,443	10,249	11,436	14,521	11,446	14,521	10,249
	Thon	1,489	3,488	1,926	664	257	417	1,350	3,488	257
	Autres	103	30	41	48	1,621	12,038	2,756	12,038	30
	Total	119,035	134,591	114,673	128,842	127,963	191,085	139,431	194,156	112,799
Sémi-conservé	Anchois	13,799	14,174	13,910	14,928	14,605	17,708	15,065	17,708	13,910
	Sardine	472	521	450	367	461	1,198	599	1,198	367
	Others	683	2,632	1,703	1,717	130	105	1,257	2,632	105
	Total	14,954	17,327	16,063	17,012	15,196	19,011	16,922	21,538	14,382
Congelé	Mollusques	59,063	20,480	18,216	19,096	15,787	20,314	18,779	20,480	15,787
	Poisson	47,858	88,275	68,728	109,205	119,476	135,354	104,208	135,354	68,728
	Crustaces	5,332	5,415	6,016	6,122	7,140	7,476	6,434	7,476	5,415
	Filet / Chair	1,508	1,616	2,593	1,621	1,223	919	1,594	2,593	919
	Total	113,761	115,786	95,553	136,044	143,626	164,063	131,014	165,903	90,849
Frais	Poisson frais	27,232	33,540	49,972	27,009	22,894	16,724	30,028	49,972	16,724
	Poisson vivant	3,683	3,792	4,087	2,282	745	557	2,293	4,087	557
	Crustaces	4,219	6,070	9,013	5,758	4,181	6,261	6,257	9,013	4,181
	Mollusques	3,271	2,294	1,570	1,766	2,018	1,058	1,741	2,294	1,058
	Filet / Chair	1,107	19	2	5	2	14	8	19	2
	Total	39,512	45,715	64,644	36,820	29,840	24,614	40,327	65,385	22,522

D. Valorisation borne by stabilization of fish catch

	Average Catch (2006-2010)		Average Export (2006-2010)		Added value (1,000 DH)	Proportion of export volume to total catch
	Volume (ton)	Value (1000DH)	Volume (ton)	Value (1000DH)		
Sardine	592,748	962,547	124,478	2,970,736	2,008,189	21%
Maquereau	63,244	93,202	11,446	428,309	335,107	18%
Anchois	18,665	114,161	15,065	997,914	883,753	81%
Mollusques	68,601	2,957,105	20,520	3,505,187	548,081	30%
Crustaces	9,812	766,119	12,690	1,135,377	369,258	129%

D. Valorisation borne by stabilization of fish catch (Scenario-1)

Project Year (1st year = 2014)		**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
Anticipated Calendar Year		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Sardine	conservé/sémi-conservé					16,195	32,390	48,586	64,781	80,976	80,976	98,556	116,136	133,716	151,296	168,876
Maquereau	conservé					5,015	8,645	12,967	17,289	21,612	21,612	25,931	30,250	34,568	38,887	43,206
Anchois	sémi-conservé					22,977	176,620	264,930	353,240	441,550	441,550	509,353	577,156	644,959	712,761	780,564
Mollusques	frais/congelé	5,829	11,659	17,488	23,317	29,147	36,114	43,081	50,048	57,015	63,981	63,981	63,981	63,981	63,981	63,981
Crustaces	frais/congelé	7,890	15,781	36,280	56,780	77,279	89,888	102,497	102,497	102,497	102,497	102,497	102,497	102,497	102,497	102,497
Total		13,720	27,439	53,768	80,097	150,613	343,657	472,061	587,855	703,650	710,617	800,319	890,020	979,722	1,069,424	1,159,126
Pelagics		0	0	0	0	44,188	217,655	326,483	435,310	544,138	544,138	633,840	723,542	813,243	902,945	992,647
Demersal		13,720	27,439	53,768	80,097	106,426	126,002	145,578	152,545	159,512	166,479	166,479	166,479	166,479	166,479	166,479

D. Valorisation borne by stabilization of fish catch (Scenario-2)

Project Year (1st year = 2014)		**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
Anticipated Calendar Year		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Sardine	conservé/sémi-conservé											17,580	35,160	52,740	70,320	87,900
Maquereau	conservé											4,319	8,638	12,957	17,276	21,595
Anchois	sémi-conservé											67,803	135,606	203,408	271,211	339,014
Mollusques	frais/congelé	5,829	11,659	17,488	23,317	29,147	29,147	29,147	29,147	29,147	29,147	29,147	29,147	29,147	29,147	29,147
Crustaces	frais/congelé	7,890	15,781	23,671	31,561	39,451	39,451	39,451	39,451	39,451	39,451	39,451	39,451	39,451	39,451	39,451
Total		13,720	27,439	41,159	54,878	68,598	68,598	68,598	68,598	68,598	68,598	158,300	248,001	337,703	427,405	517,107
Pelagics		0	0	0	0	0	0	0	0	0	0	89,702	179,404	269,105	358,807	448,509
Demersal		13,720	27,439	41,159	54,878	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598

D. Valorisation borne by stabilization of fish catch (Scenario-3)

Project Year (1st year = 2014)		**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
Anticipated Calendar Year		**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**
Sardine	conservé/sémi-conservé											0	0	0	0	0
Maquereau	conservé											0	0	0	0	0
Anchois	sémi-conservé											0	0	0	0	0
Mollusques	frais/congelé	5,829	11,659	17,488	23,317	29,147	29,147	29,147	29,147	29,147	29,147	29,147	29,147	29,147	29,147	29,147
Crustaces	frais/congelé	7,890	15,781	23,671	31,561	39,451	39,451	39,451	39,451	39,451	39,451	39,451	39,451	39,451	39,451	39,451
Total		13,720	27,439	41,159	54,878	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598
Pelagics		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Demersal		13,720	27,439	41,159	54,878	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598	68,598

8-2. Calculation of EIRR

(1) In case of STEP

SCINARIO-1 (Increase of fish catch to the highest level of the last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,282	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	426,918	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,282	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-426,918	-39,536	69,941	173,784	276,877	378,029	509,923	535,156	559,131	583,529	606,238	608,641	711,156	826,066	928,023	1,026,756	1,131,938	1,131,933	1,131,928	1,131,923	1,128,693	1,131,913	1,131,908	1,131,902	1,131,897	1,128,667

EIRR = 27.7%

PLAN B (Maintain fish catch at the average of the last 5 yaer production) (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						15,458	17,815	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	368,301	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-368,301	-36,981	73,117	176,964	280,060	382,142	513,213	538,449	562,427	586,829	610,367	611,947	714,466	829,378	931,339	1,030,902	1,135,261	1,135,259	1,135,257	1,135,256	1,132,856	1,135,252	1,135,250	1,135,248	1,135,247	1,132,847

EIRR = 30.0%

SCINARIO-2 (Maintain fish catch at the average of last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,282	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	426,918	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,282	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-426,918	-39,536	69,941	173,784	276,877	378,029	485,104	485,518	484,674	484,253	482,142	484,546	587,061	701,970	789,277	902,660	1,007,843	1,007,836	1,007,833	1,007,827	1,004,597	1,007,817	1,007,812	1,007,807	1,007,802	1,004,572

EIRR = 28.4%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						15,458	17,815	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	368,301	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-368,301	-36,981	73,117	176,964	280,060	382,142	488,394	488,811	487,970	487,552	486,272	487,852	590,370	705,283	792,593	906,806	1,011,166	1,011,164	1,011,162	1,011,160	1,008,760	1,011,157	1,011,155	1,011,153	1,011,151	1,008,751

EIRR = 28.7%

SCINARIO-3 (Maintain fish catch at average of last 5 yaer production only for demersal fishes)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
Cost	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	426,918	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Benefit	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-426,918	-39,536	69,941	173,784	276,877	378,029	485,104	485,518	484,674	484,253	482,142	484,546	485,098	498,045	498,040	494,809	498,029	498,024	498,019	498,014	494,784	495,004	497,999	497,994	497,988	494,758

EIRR = 25.0%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						15,458	17,615	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
Cost	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	368,301	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Benefit	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-368,301	-36,981	73,117	176,964	280,060	382,142	488,394	488,811	487,970	487,552	486,272	487,852	488,407	501,357	501,356	498,956	501,352	501,350	501,349	501,347	498,947	501,343	501,341	501,340	501,338	498,938

EIRR = 27.5%

Exchange rate: 1 DH = 8.8 Yen

1 US$ = 78.17 Yen

(2) In case of General untied

SCINARIO-1 (Increase of fish catch to the highest level of the last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
Cost	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	228,475	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201
Benefit	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-228,475	-39,536	69,941	173,784	276,877	378,029	509,923	535,156	559,131	583,529	606,238	608,641	711,156	826,066	928,023	1,026,758	1,131,938	1,131,933	1,131,928	1,131,923	1,128,693	1,131,913	1,131,908	1,131,902	1,131,897

EIRR = 26.4%

PLAN B (Maintain fish catch at the average of the last 5 yaer production) (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							15,458	17,615	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
Cost	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	198,696	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201
Benefit	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201	1,153,201
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-198,696	-36,981	73,117	176,964	280,060	382,142	513,213	538,449	562,427	586,829	610,367	611,947	714,466	829,378	931,339	1,030,902	1,135,261	1,135,259	1,135,257	1,135,256	1,132,856	1,135,252	1,135,250	1,135,248	1,135,247

EIRR = 28.5%

SCINARIO-2 (Maintain fish catch at the average of last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,499	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	228,475	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
Benefit	Stabilization of fish catch							0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105
	Deepsea fisheries resource							0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-228,475	-39,536	69,941	173,784	276,877	378,029	485,104	485,518	484,674	484,253	482,142	484,546	587,061	701,970	789,277	902,660	1,007,843	1,007,838	1,007,833	1,007,827	1,004,597	1,007,817	1,007,812	1,007,807	1,007,802

EIRR = 25.2%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							15,458	17,615	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,499	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	198,696	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105	1,029,105
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-198,696	-36,981	73,117	176,964	280,060	382,142	488,394	488,811	487,970	487,552	486,272	487,852	590,370	705,283	792,593	906,806	1,011,166	1,011,164	1,011,162	1,011,160	1,008,760	1,011,157	1,011,155	1,011,153	1,011,151

EIRR = 27.3%

SCINARIO-3 (Maintain fish catch at average of last 5 yaer production only for demersal fishes)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,499	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	228,475	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-228,475	-39,536	69,941	173,784	276,877	378,029	485,104	485,518	484,674	484,253	482,142	484,546	485,098	498,045	498,040	494,809	498,029	498,024	498,019	498,014	494,784	498,004	497,999	497,994	497,988

EIRR = 23.8%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							15,458	17,615	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	198,696	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-198,696	-36,981	73,117	176,964	280,060	382,142	488,394	488,811	487,970	487,552	486,272	487,852	488,407	501,357	501,356	498,956	501,352	501,350	501,349	501,347	498,947	501,343	501,341	501,340	501,338

EIRR = 26.0%

Exchange rate: 1 DH = 8.8 Yen

1 US$ = 78.17 Yen

8-3. Sensitivity Analysis

(1) In case of fuel price 100% up

a) In case of STEP

SCINARIO-1 (Increase of fish catch to the highest level of the last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	434,016	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,128,168	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,128,168	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-434,016	-56,024	56,034	159,877	262,785	363,937	496,016	521,249	545,224	569,437	592,146	594,734	697,249	816,437	918,395	1,016,942	1,122,310	1,097,272	1,167,481	1,167,476	1,164,061	1,167,466	1,167,461	1,167,455	1,167,450	1,164,035

EIRR = 25.9%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	375,399	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,128,168	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,128,168	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-375,399	-51,691	60,989	164,835	267,746	369,829	501,084	526,321	550,299	574,515	598,054	599,819	702,337	821,529	923,490	1,022,868	1,127,412	1,102,377	1,172,589	1,172,587	1,170,002	1,172,584	1,172,582	1,172,580	1,172,578	1,169,993

EIRR = 29.2%

SCINARIO-2 (Maintain fish catch at the average of last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	434,016	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,004,073	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,004,073	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-434,016	-56,024	56,034	159,877	262,785	363,937	471,197	471,611	470,767	470,161	468,050	470,638	573,153	692,342	779,649	892,847	998,215	973,177	1,043,386	1,043,380	1,039,965	1,043,370	1,043,365	1,043,360	1,043,355	1,039,940

EIRR = 25.6%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	375,399	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,004,073	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,004,073	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,285	1,074,286
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-375,399	-51,691	60,989	164,835	267,746	369,829	476,265	476,682	475,841	475,239	473,959	475,723	578,242	697,433	784,744	898,772	1,003,316	978,282	1,048,494	1,048,492	1,045,907	1,048,488	1,048,486	1,048,485	1,048,483	1,045,898

EIRR = 27.9%

SCINARIO-3 (Maintain fish catch at average of last 5 yaer production only for demersal fishes)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	434,016	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-434,016	-56,024	56,034	159,877	262,785	363,937	471,197	471,611	470,767	470,161	468,050	470,638	471,191	488,417	488,411	484,996	488,401	488,396	488,391	488,386	484,971	488,376	488,370	488,365	488,360	484,945

EIRR = 24.1%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	375,399	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
Benefit	Stabilization of fish catch						0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-375,399	-51,691	60,989	164,835	267,746	369,829	476,265	476,682	475,841	475,239	473,959	475,723	476,279	493,508	493,506	490,921	493,503	493,501	493,499	493,497	490,912	493,494	493,492	493,490	493,488	490,903

EIRR = 26.5%

Exchange rate: 100 Yen = 8.8 DH

1 US$ = 78.17 Yen

A-8-16

b) In case of General untied

SCINARIO-1 (Increase of fish catch to the highest level of the last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	235,573	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,128,168	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,128,168	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-235,573	-56,024	56,034	159,877	262,785	363,937	496,016	521,249	545,224	569,437	592,146	594,734	697,249	816,437	918,395	1,016,942	1,122,310	1,097,272	1,167,481	1,167,476	1,164,061	1,167,466	1,167,461	1,167,455	1,167,450

EIRR = 25.7%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	205,794	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,128,168	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	544,111	568,930	593,749	618,568	643,387	643,387	745,350	847,313	949,275	1,051,238	1,153,201	1,128,168	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382	1,198,382
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-205,794	-51,691	60,989	164,835	267,746	369,829	501,084	526,321	550,299	574,515	598,054	599,819	702,337	821,529	923,490	1,022,868	1,127,412	1,102,377	1,172,589	1,172,587	1,170,002	1,172,584	1,172,582	1,172,580	1,172,578

EIRR = 27.8%

SCINARIO-2 (Maintain fish catch at the average of last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	235,573	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,004,073	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,004,073	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-235,573	-56,024	56,034	159,877	262,785	363,937	471,197	471,611	470,767	470,161	468,050	470,638	573,153	692,342	779,649	892,847	998,215	973,177	1,043,386	1,043,380	1,039,965	1,043,370	1,043,365	1,043,360	1,043,355

EIRR = 24.5%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	205,794	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,004,073	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	621,254	723,217	810,529	927,143	1,029,105	1,004,073	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286	1,074,286
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-205,794	-51,691	60,989	164,835	267,746	369,829	476,265	476,682	475,841	475,239	473,959	475,723	578,242	697,433	784,744	898,772	1,003,316	978,282	1,048,494	1,048,492	1,045,907	1,048,488	1,048,486	1,048,485	1,048,483

EIRR = 26.6%

SCINARIO-3 (Maintain fish catch at average of last 5 yaer production only for demersal fishes)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	235,573	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-235,573	-56,024	56,034	159,877	262,785	363,937	471,197	471,611	470,767	470,161	468,050	470,638	471,191	488,417	488,411	484,996	488,401	488,396	488,391	488,386	484,971	488,376	488,370	488,365	488,360

EIRR = 22.9%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	205,794	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
Benefit	Stabilization of fish catch						0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	103,858	207,717	311,575	415,433	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292	519,292
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-205,794	-51,691	60,989	164,835	267,746	369,829	476,265	476,682	475,841	475,239	473,959	475,723	476,279	493,508	493,506	490,921	493,503	493,501	493,499	493,497	490,912	493,494	493,492	493,490	493,488

EIRR = 25.2%

Exchange rate: 100 Yen = 8.8 DH

1 US$ = 78.17 Yen

(2) In case of decrease of benefits (Benefits only from octopus, shrimp and small pelagic)

a) In case of STEP

SCINARIO-1 (Increase of fish catch to the highest level of the last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,282	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	426,918	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,282	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	487,865	538,684	603,376	668,069	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	487,865	538,684	603,376	668,069	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-426,918	-39,536	30,079	94,060	157,291	218,581	309,207	333,034	355,603	378,595	399,897	402,301	453,671	517,437	582,124	643,587	711,499	711,494	711,489	711,484	708,254	711,474	711,468	711,463	711,458	708,228

EIRR = 21.3%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						15,458	17,815	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	368,301	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	487,865	538,684	603,376	668,069	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	487,865	538,684	603,376	668,069	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-368,301	-36,981	33,255	97,240	160,474	222,694	312,497	336,327	358,899	381,894	404,027	405,607	456,981	520,749	585,440	647,733	714,822	714,820	714,818	714,817	712,417	714,813	714,811	714,809	714,808	712,408

EIRR = 23.3%

SCINARIO-2 (Maintain fish catch at the average of last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,282	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	426,918	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,282	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	370,800	421,618	474,345	551,004	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	370,800	421,618	474,345	551,004	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-426,918	-39,536	30,079	94,060	157,291	218,581	285,794	286,208	285,363	284,943	282,832	285,235	336,606	400,371	453,093	526,521	594,434	594,429	594,424	594,419	591,188	594,408	594,403	594,398	594,393	591,163

EIRR = 19.5%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						15,458	17,815	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	368,301	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	370,800	421,618	474,345	551,004	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	370,800	421,618	474,345	551,004	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-368,301	-36,981	33,255	97,240	160,474	222,694	289,083	289,500	288,660	288,242	286,962	288,541	339,916	403,684	456,409	530,668	597,757	597,755	597,753	597,751	595,351	597,748	597,746	597,744	597,742	595,342

EIRR = 21.4%

SCINARIO-3 (Maintain fish catch at average of last 5 yaer production only for demersal fishes)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	426,918	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303	24,534
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-426,918	-39,536	30,079	94,060	157,291	218,581	285,794	286,208	285,363	284,943	282,832	285,235	285,788	298,735	298,729	295,499	298,719	298,714	298,709	298,704	295,474	295,694	298,688	298,683	298,678	295,448

EIRR = 17.7%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						15,458	17,615	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
	O&M (AMA)					13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	368,301	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954	20,354
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-368,301	-36,981	33,255	97,240	160,474	222,694	289,083	289,500	288,660	288,242	286,962	288,541	289,097	302,047	302,045	299,645	302,042	302,040	302,038	302,037	299,637	302,033	302,031	302,029	302,028	299,628

EIRR = 19.8%

Exchange rate: 100 Yen = 8.8 DH

1 US$ = 78.17 Yen

b) In case of General untied

SCINARIO-1 (Increase of fish catch to the highest level of the last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	228,475	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	487,865	538,684	603,376	668,069	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	487,865	538,684	603,376	668,069	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-228,475	-39,536	30,079	94,060	157,291	218,581	309,207	333,034	355,603	378,595	399,897	402,301	453,671	517,437	582,124	643,587	711,499	711,494	711,489	711,484	708,254	711,474	711,468	711,463	711,458

EIRR = 20.4%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							15,458	17,615	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,498	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	198,696	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	487,865	538,684	603,376	668,069	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	487,865	538,684	603,376	668,069	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762	732,762
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-198,696	-36,981	33,255	97,240	160,474	222,694	312,497	336,327	358,899	381,894	404,027	405,607	456,981	520,749	585,440	647,733	714,822	714,820	714,818	714,817	712,417	714,813	714,811	714,809	714,808

EIRR = 22.2%

SCINARIO-2 (Maintain fish catch at the average of last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,499	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	228,475	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	370,800	421,618	474,345	551,004	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	370,800	421,618	474,345	551,004	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-228,475	-39,536	30,079	94,060	157,291	218,581	285,794	286,208	285,363	284,943	282,832	285,235	336,606	400,371	453,093	526,521	594,434	594,429	594,424	594,419	591,188	594,408	594,403	594,398	594,393

EIRR = 18.7%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							15,458	17,615	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,499	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	198,696	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	370,800	421,618	474,345	551,004	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	370,800	421,618	474,345	551,004	615,696	615,696	615,696	615,696	615,696	615,696	615,696	615,696
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-198,696	-36,981	33,255	97,240	160,474	222,694	289,083	289,500	288,660	288,242	286,962	288,541	339,916	403,684	456,409	530,668	597,757	597,755	597,753	597,751	595,351	597,748	597,746	597,744	597,742

EIRR = 20.4%

SCINARIO-3 (Maintain fish catch at average of last 5 yaer production only for demersal fishes)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							18,013	20,791	20,896	20,901	24,331	21,211	21,116	21,221	21,127	24,457	21,237	21,242	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,499	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	228,475	39,536	33,917	33,933	34,698	37,405	34,188	33,774	34,618	35,039	37,150	34,746	34,194	21,247	21,252	24,482	21,262	21,268	21,273	21,278	24,508	21,288	21,293	21,298	21,303
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-228,475	-39,536	30,079	94,060	157,291	218,581	285,794	286,208	285,363	284,943	282,832	285,235	285,788	298,735	298,729	295,499	298,719	298,714	298,709	298,704	295,474	298,694	298,688	298,683	298,678

EIRR = 16.9%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							15,458	17,615	17,716	17,718	20,218	17,922	17,824	17,925	17,827	20,327	17,931	17,933	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
	O&M (AMA)						13,832	12,670	13,127	13,037	13,797	13,073	12,976	12,658	13,397	13,912	12,693	13,509	12,952	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						10,499	8,853	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	198,696	36,981	30,741	30,753	31,515	33,292	30,898	30,481	31,322	31,740	33,020	31,440	30,884	17,934	17,936	20,336	17,940	17,941	17,943	17,945	20,345	17,949	17,950	17,952	17,954
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-198,696	-36,981	33,255	97,240	160,474	222,694	289,083	289,500	288,660	288,242	286,962	288,541	289,097	302,047	302,045	299,645	302,042	302,040	302,038	302,037	299,637	302,033	302,031	302,029	302,028

EIRR = 18.8%

Exchange rate: 100 Yen = 8.8 DH

1 US$ = 78.17 Yen

(3) In case of fuel price 100% up and decrease of benefits

a) In case of STEP

SCINARIO-1 (Increase of fish catch to the highest level of the last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	434,016	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	494,657	552,267	609,876	667,486	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	494,657	552,267	609,876	667,486	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-434,016	-56,024	16,172	80,153	143,199	204,489	295,300	319,127	341,695	364,503	385,805	388,393	446,556	521,391	578,996	633,191	694,205	694,200	694,195	694,190	690,775	694,180	694,175	694,170	694,165	690,749

EIRR = 20.5%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						23,308	25,464	25,568	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	375,399	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	494,657	552,267	609,876	667,486	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	494,657	552,267	609,876	667,486	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-375,399	-51,691	21,127	85,111	148,160	210,380	300,368	324,198	346,770	369,581	391,714	393,478	451,644	526,483	584,091	639,116	699,307	699,305	699,303	699,302	696,717	699,298	699,296	699,294	699,293	696,708

EIRR = 22.4%

SCINARIO-2 (Maintain fish catch at the average of last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	434,016	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	377,591	435,201	372,708	444,968	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	377,591	435,201	372,708	444,968	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-434,016	-56,024	16,172	80,153	143,199	204,489	271,887	272,301	271,456	270,851	268,740	271,328	329,490	404,326	341,827	410,673	471,688	471,683	471,677	471,672	468,257	471,662	471,657	471,652	471,647	468,232

EIRR = 18.0%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						23,308	25,464	25,568	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	375,399	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	377,591	435,201	372,708	444,968	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	377,591	435,201	372,708	444,968	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-375,399	-51,691	21,127	85,111	148,160	210,380	276,955	277,372	276,531	275,929	274,648	276,413	334,579	409,418	346,922	416,598	476,789	476,787	476,786	476,784	474,199	476,780	476,778	476,777	476,775	474,190

EIRR = 19.9%

SCINARIO-3 (Maintain fish catch at average of last 5 yaer production only for demersal fishes)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	186,244	187,773	402,588																									
	O&M (new vessel)						27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	186,244	187,773	434,016	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932	34,347
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
Balance (Benefit - Cost)		-389	-8,348	-186,244	-187,773	-434,016	-56,024	16,172	80,153	143,199	204,489	271,887	272,301	271,456	270,851	268,740	271,328	271,881	289,106	289,101	285,686	289,091	289,086	289,081	289,076	285,660	289,065	289,060	289,055	289,050	285,635

EIRR = 16.6%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	389	8,348	158,451	159,396	343,971																									
	O&M (new vessel)						23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
	O&M (AMA)					18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)					13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	389	8,348	158,451	159,396	375,399	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804	28,388
Benefit	Stabilization of fish catch						0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
Balance (Benefit - Cost)		-389	-8,348	-158,451	-159,396	-375,399	-51,691	21,127	85,111	148,160	210,380	276,955	277,312	276,531	275,929	274,648	276,413	276,969	294,198	294,196	291,611	294,192	294,191	294,189	294,187	291,602	294,183	294,182	294,180	294,178	291,593

EIRR = 18.7%

Exchange rate: 100 Yen = 8.8 DH

1 US$ = 78.17 Yen

A-8-22

b) In case of General untied

SCINARIO-1 (Increase of fish catch to the highest level of the last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	235,573	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	494,657	552,267	609,876	667,486	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	494,657	552,267	609,876	667,486	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-235,573	-56,024	16,172	80,153	143,199	204,489	295,300	319,127	341,695	364,503	385,805	388,393	446,556	521,391	578,996	633,191	694,205	694,200	694,195	694,190	690,775	694,180	694,175	694,170	694,165

EIRR = 19.7%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	205,794	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	494,657	552,267	609,876	667,486	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	0	63,996	127,993	191,989	255,985	343,395	366,808	390,221	413,634	437,047	437,047	494,657	552,267	609,876	667,486	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096	725,096
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-205,794	-51,691	21,127	85,111	148,160	210,380	300,368	324,198	346,770	369,581	391,714	393,478	451,644	526,483	584,091	639,116	699,307	699,305	699,303	699,302	696,717	699,298	699,296	699,294	699,293

EIRR = 21.5%

SCINARIO-2 (Maintain fish catch at the average of last 5 year production)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	235,573	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	377,591	435,201	372,708	444,968	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	377,591	435,201	372,708	444,968	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-235,573	-56,024	16,172	80,153	143,199	204,489	271,887	272,301	271,456	270,851	268,740	271,328	329,490	404,326	341,827	410,673	471,688	471,683	471,677	471,672	468,257	471,662	471,657	471,652	471,647

EIRR = 17.2%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	205,794	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	377,591	435,201	372,708	444,968	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	377,591	435,201	372,708	444,968	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578	502,578
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-205,794	-51,691	21,127	85,111	148,160	210,380	276,955	277,372	276,531	275,929	274,648	276,413	334,579	409,418	346,922	416,598	476,789	476,787	476,786	476,784	474,199	476,780	476,778	476,777	476,775

EIRR = 19.1%

SCINARIO-3 (Maintain fish catch at average of last 5 yaer production only for demersal fishes)

PLAN A (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	186,987	371,360	204,145																								
	O&M (new vessel)							27,641	30,419	30,524	30,529	34,144	30,839	30,745	30,850	30,755	34,270	30,865	30,870	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	186,987	371,360	235,573	56,024	47,825	47,840	48,790	51,497	48,095	47,681	48,525	49,131	51,242	48,653	48,101	30,875	30,880	34,296	30,891	30,896	30,901	30,906	34,321	30,916	30,921	30,926	30,932
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0		0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-186,987	-371,360	-235,573	-56,024	16,172	80,153	143,199	204,489	271,887	272,301	271,456	270,851	268,740	271,328	271,881	289,106	289,101	285,686	289,091	289,086	289,081	289,076	285,660	289,065	289,060	289,055	289,050

EIRR = 15.9%

PLAN B (1,000 DH)

Project Year		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Cost	Investment	1,536	25,311	3,619	159,074	314,361	174,366																								
	O&M (new vessel)							23,308	25,464	25,566	25,568	28,253	25,771	25,673	25,775	25,677	28,362	25,780	25,782	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
	O&M (AMA)						18,111	16,949	17,406	17,316	18,261	17,352	17,255	16,936	17,676	18,376	16,972	17,788	17,231	0	0	0	0	0	0	0	0	0	0	0	0
	O&M (CAI)						13,317	11,435	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	1,536	25,311	3,619	159,074	314,361	205,794	51,691	42,870	42,881	43,829	45,605	43,026	42,609	43,450	44,053	45,333	43,569	43,013	25,784	25,786	28,371	25,789	25,791	25,793	25,795	28,379	25,798	25,800	25,802	25,804
Benefit	Stabilization of fish catch						0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
	Deepsea fisheries resource						0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Total	0	0	0	0	0	0	0	63,996	127,993	191,989	255,985	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982	319,982
Balance (Benefit - Cost)		-1,536	-25,311	-3,619	-159,074	-314,361	-205,794	-51,691	21,127	85,111	148,160	210,380	276,955	277,372	276,531	275,929	274,648	276,413	276,969	294,198	294,186	291,611	294,192	294,191	294,189	294,187	291,602	294,183	294,182	294,180	294,178

EIRR = 17.9%

Exchange rate: 100 Yen = 8.8 DH

1 US$ = 78.17 Yen

8-4. Socio-Economic Impact Analysis

SOCIO-ECONOMIC IMPACT ANALYSIS

1. Valueur de production en mille DH

Espèce de poisson	2006	2007	2008	2009	2010	Moyenne
Sardine	773,931	712,878	891,454	1,004,466	1,022,041	880,954
Poulpe	1,505,000	1,099,000	1,998,000	1,202,000	853,000	1,331,400
Crevette	460,361	530,809	694,603	501,832	606,792	558,879

2. Valuer d'exportation en mille dollars

Espèce de poisson	2005	2006	2007	2008	2009	Moyenne
Sardine	281,081	340,922	332,338	454,343	460,753	373,887
Poulpe	236,535	252,235	316,749	436,720	304,229	309,294
Crevette	65,189	78,817	114,163	121,582	113,094	98,569

3. Navires de pêches opérationnelle

Type de navires	Nombre de flotte opérationnelle (Unité)				Total tonnage brut (TJB)				Nombre de pêcheurs estimés (personnes)			
	2008	2009	2010	Moyenne	2008	2009	2010	Moyenne	2008	2009	2010	Moyenne
Pêceh côtiere												
Total pêche côtiere	1,835	1,840	1,863	1,846	115,919	111,722	112,264	113,302	102,344	102,616	99,852	101,604
Senneur	478	628	625	577	40,850	50,775	49,089	46,905	36,066	46,637	43,662	42,062
(Proportion to total)	26.0%	34.1%	33.5%	31.3%	35.2%	45.4%	43.7%	41.4%				
Pêche hautirière												
Total pêche hautirière	344	339	329	337	140,523	107,275	103,574	117,124	8,535	8,306	7,444	8,095
Cephalopodier	265	260	256	260	119,915	88,030	86,576	98,174	7,283	6,816	6,222	6,785
(Proportion to total)	77.0%	76.7%	77.8%	77.2%	85.3%	82.1%	83.6%	83.8%				
Crevettier	60	60	58	59	12,876	12,876	12,576	12,776	782	997	904	883
(Proportion to total)	17.4%	17.7%	17.6%	17.6%	9.2%	12.0%	12.1%	10.9%				

Note: Nombre de pêcheurs par type de flottes a été estimé par la proportion de total tonnage brut de flotte.

4. Etablissements de l'industrie de la pêche

	Exportations en poids (tonnes)			Proportion à total (%)			Nombre d'unités des établissements			Nombre d'employées estimés		
	2009	2010	Moyenne	2009	2010	Moyenne	2009	2010	Moyenne	2009	2010	Moyenne
CONSERVES												
Total	127,963	191,086	159,525				43	43	43		9,971	9,971
Sardine conservé	114,649	164,109	139,379	89.6%	85.9%	87.4%	39	37	38	8,933	8,563	8,748
SEMI-CONSERVES												
Total	15,196	39,011	27,104				33	34	34	8,861		8,861
Sardine sémi-conservé	461	1,198	830	3.0%	3.1%	3.1%	1	1	1	269	272	270
POISSON CONGELE												
Total	209,380	203,779	206,580				191	191	191	6,621	23,875	15,248
Mollusques congélés	81,541	60,030	70,786	38.9%	29.5%	34.3%	74	56	65	2,579	7,033	4,806
Crustaces congélés	7,140	7,476	7,308	3.4%	3.7%	3.5%	7	7	7	226	876	551

ANNEX 9. OUTLINE OF STEP LOAN PROJECT IN NEIGHBORING COUNTRY

(FOR REFERENCE ONLY)

Overview of STEP

- STEP is an ODA loan scheme with an aim to introduce advanced technologies and know-how of Japanese firms.
- STEP requires internationally competitive bidding process with participation of Japanese firms

Terms	Content
Interest Rate Repayment Period	• Interest Rate : 0.2% • Repayment Period : 40years (with grace period of 10 years) • Ref: Under general terms for Morocco, interest rate is 1.4% with repayment period of 25 years (including grace period of 7years)
Country of Origin of Goods and Services	• Not less than 30% of the total amount of contract(s) financed by STEP loan must be accounted for by either (a) goods from Japan and services provided by Japanese firms, or (b) goods from Japan only, according to the nature of project.
Finance ratio	• Up to 100% of the total project cost (eligible portion) can be financed
Procurement Conditions	• Prime contractors must be Japanese firms. • Joint ventures (JVs) with firms incorporated in recipient countries are also allowed to be a prime contractor under the condition that a Japanese firm is the lead partner. • Subcontractors may be from any country

Japan International Cooperation Agency

Advantages of STEP

- Advantages of STEP can be summarized as following four points.

1 Low Cost	• Interest rate : 0.2% ➢ **1.2% less interest rate** compared to general terms(1.4%) ➢ Can be financed at fixed and lower rate compared to other donors whose loans are mainly **EURIBOR or LIBOR based**
2 Faster Schedule	• Preparation of detailed design and bidding document can be supported by JICA's technical assisstance, which **can shorten overall schedule** ➢ Under general terms, selection of consultants who will prepare bidding document will normally require about 1 year after the signature of L/A
3 Participation of local firms	• Though STEP requires 30% of total contract amount to be procured from Japanese firms, other **70% of the contract amount can be procured from domestic and foreign firms** • Also, **domestic and foreign firms can participate as subcontractors** while a Japanese firms needs to be the prime contractor
4 Grant Portion	• Cost of preparation of bidding document will be granted from JICA • Technical assistance that is related to the project can be funded by JICA

STEP: Case Studies of neighboring countries

- Case Studies of STEPS in neighboring countries are as follows

Project	EGYPT (2012) : Greater Cairo Metro Line No. 4 Project	TUNISIA (2005) : Photovoltaic Rural Electrification and Water Supply Project
Overview/ Background	The Egyptian government has asked Japan to finance the new line of Metro in its capital. With an aim to diversify technology portfolio, Japanese firms where chosen to create the new No.4 line of Cairo Metro. (Previous lines were financed by France) Final approval of STEP was made by Minister of International Cooperation. (**Total Yen Loan: 32,717Million**)	To install photovoltaic generation equipment, water pumps, and desalination equipment to about 500 households in the rural farming area, and to some 60 water wells located in the southern farming area. The final approval was made by the president at that time. (**Total Yen Loan: 1,731Million**)
1 Low Cost	• 0.2% (**Reduction of 3,238 Million Yen of Interest cost** compared to general terms (1.4%) *)	• 0.4% (**Reduction of 387 Million Yen of Interest cost** compared to general terms (1.5%)*)
2 Faster Schedule	• **16 months faster schedule** (JICA Support for detailed design (D/D))	
3 Participation of Local Firms	• (Procurement has not yet started)	• Basic components were procured locally
4 Grant Portion	• **Support for feasibility study** • **Support for detailed design and for bidding document** • Technical assistance for disaster prevention system	• Support for Feasibility Study
Impact	• This first introduction of STEP has encouraged Japanese firms to engage in business with Egypt. Now, the second STEP based project is under consideration.	• The first STEP project has paved the way to the second STEP Project "National Television Broadcasting Center Project".

*Theoretical simulation under assumption that all the disbursements are conducted just before the beginning of the grace period

ANNEX 10. LIST OF PERSONS MET BY THE SURVEY TEAM

Ministère de l'Economie et des Finaces（MEF)			
Direction du Budget	DB-MEF	Youssef FARHAT	Directeur Adjoint
		Moha BICHA	Chef de Division de l'Asie, de l'Afrique et des Amériques
		Mohamed LAMGHARI	Chef de Service de l'Asie, de l'Afrique et des Amériques
		Abdelouahab BELMADANI	Chef de Service de Dept des Pêches Maritimes
Ministère des Affaires Etrangères (MAE)			
Direction des Affaires Asiatiques et d'Oceanie	DAAO	Mohammed MESKAOUNI	Head of Division Far-East, South East Asia and Oceania
		Nawal ARIFI	Chef de Service
Ministères de l'Agriculture et de la Pêche Maritime / DEPARTEMENT DE LA PECHE MARITIME (DPM)			
Direction de la Coopération et des Affaires Juridiques	DCAJ	Abdelouahed BENABBOU	Directeur de la Coopération et des Affaires Juridiques
		Youssef OUATI	Chef Division de la Coopération
		Zahra ROCHDI	Chef de la Division des Affaires Juridiques
		Yassine EL AROUSSI	Chef du Service de la Coopération Bilatérale
		Aomar BOURHIM	Homologue Expert Japonais
		Atsushi ISHIKAWA	JICA Expert
Direction des Pêches Martimes et de l'Aquaculture	DPMA	Zakia DRIOUECH	Directrice des Pêches Maritimes et de l'Aquaculture
		Ahmed JOUKER	Head of the Division of the Management of Fisheries Agreements
		Taoufik EL KTIRI	Chef de la Division de la Protection des Ressources Halieutiques
		Fatima Zahra HASSOUNI	Chef Service
		Najib CHIADMI	Chef Service
Instutut National de Recherche Halieutique	INRH	Mustapha FAIK	Directeur Général
		Souad KIFANI	Secretaire Générale
		Abdelmalek FARAJ	Chef du Dépatement des Ressources Halieutiques
		Karim HILMI	Chef du Departement Océanographique et Aquaculture
		Mounir ITAOUI	Chef du Département d'Appui à la Recherche
		Najib CHAROUKI	Chef de URD Diagnostic et Etat d'Exploitation des Ressources
		Omar ETTAHIRI	Chef de URD Oceanographique
		Ali AFERYAD	Chef Division d'Approvisionnement, Logistique, et Gestion des Navires
		Mohamed AMRANI	Chef Division Administrative, Financiere, et Comptable
		Ali BENHRA	Chef de Laboratoire d'Ecotoxicologie
		Abdellatif BOUMAAZ	Chef de Laboratoire Prospection des Ressources Demersales
		Ahmed MAKAOUI	URD
		Driss BENAZZI	Chef Service Gestion des Navires
		Hideki TOJO	JICA Expert
Centre Regionale de l'INRH Adagir	CR/INRH-Agadir	Abdelhak LAHNIN	Chef du Centre
		Hamid CHFIRI	Chef du L.R.H. / INRH Agdir
		Salaheddine EL AYOUBI	Chef du Labo Prospection Ressources Halieutiques
		Tadanori FUJINO	JICA Expert
Centre Regional de l'INRH Tanger	CR/INRH-Tanger	Benyouness ABDELLAOUI	GIS/remote sensing fisheries and oceanography laboratory
		Mohamed MALOULI	
Délégation des Pêches Maritimes d'Agadir	DPM Agadir	Jalila MOUFQIA	Déléguée des Pêches Maritimes d'Agadir
Délégation des Pêches Maritimes de Tanger	DPM Tanger	Youssef KECHA	Chef Service Pêches Maritimes Tanger
		Mohamed KAMEL	Ingénieur Halieutique Principal
N/R Charif Al Idrissi	CAI	Abdelouahed NMILY	Captain
		Abdelaziz SOUSSI	Chef mecanicien
		Abdelmajid DRIDI	Biologiste
		Saad RACHDI	Technicien Biologiste
N/R Al Amir Moulay Abdallah	AMA	Hassan AMNZIL	Second Captain
		Mohamed AIT HSSAINE	Chef Mecanicein
Centre Technique / INRH Casablanca	CT INRH Casa	Lahmam MADANI	Maitre Ramendeur
		Hassan SEMLALI	Seocnd Capitain
		Abdelouahed KHALEKI	Mechanicein Navigant
Instutut Superieur des Pêches Maritimes	ISPM	Brahim BOUDINAR	Directeur
		Salah GOUJGAL	Capitaine (Navire école)
Ministères de l'Equippement et du Transport			
Agence Nationale des Ports	ANP Casa	Said AL HASSANI	Directeur du Departement Développement de la Place Portuaire
		Rachid ELLAIA	Directeur du Dep. Police & Sûreté/Commandant du Port de Casablanca
		Najat HARRARI	
		LAFKIRI	
Agence National des Ports / Direction Régionale	ANP Agadir	Mohamed HASSOU	Directeur
		Abdelaziz LANSARI	Chef de Département Police et Sûreté / Commandant du Port d'Agadir
		Anouar HARRAK	Directeur Régional de l'Atlantique Sud et Directeur du Port d'Agadir
Institut Supérieur des Etudes Maritimes	ISEM	Abdelilah CHMITI	Directeur des Etudes

ONGs

Chambre des Pêches Maritimes de l'Atlantique-Centre. Agadir	CPMA	Abderrahmane SARROUD	Président
		Youssef KADIMI	Secretaire Général
		Abdelfattah ZINE	Directeur CPMA
Association des Armateurs de la Pêche Côtière Port de Tanger	AAPC Tanger	Mohamed KHAIRI	Président
Syndicat Professionnel des Armateurs à la Pêche Industrielle d'Agadir	SPAPIA	Mohamed AFERRHAL	Directeur Délégué
Féderation Regional Sud de la Pêche Côtière - Agadir		Mohamed ASID	
Fédération Marocain de la Pêche Côtière - Agadir		Abdelkhahek JIKH	
Pêcheur - El Jadida		Mohammed EL GHAZOUANI	Pêcheur

Sociétés Privées

Chantiers Ateliers du Maroc	CAM	Ahmed BEGGUAR	Directeur des Affaires Navales
Ateliers & Chanteirs d'Agadir & du Souss	ACAS	Abdellah EL KONNADI	Responsable Activité Maritime
Chantier Naval Agadir Founty	CNAF	Mounir KHATIRI	Respoonsable Technique
ISFOMA S.A.R.L Electrique Maritime - Télécom	ISFOMA	Haddou OUYAHYA	Président Directeur Général (P.D.G)
		El Mokhtar OUYAHYA	Service Commercial
		Jamila BENYAHYA	International Service Manager
Société Radio Electronique Maritime	SOREMAR	Mohammed ADDICHI	Directeur Technico-cmmercial

Organisation Régionale

Conférence Ministérielle sur la Coopé ration Halieutique entre les Etats Africains Riverains de l'Océan Atlantique	COMHAFAT	Hachim EL AYOUBI	Secrétaire Exécutif
		Masaki OIKAWA	Fisheries Expert

Gouvernement Japonais

Ambassade du Japon au Maroc	EOJ	Tomoya SAITO	Premier Secrétaire
		Satoshi IKOMA	Premier Secrétaire (Coopération, Politique)
		Takeru IIDA	Deuxième Secrétaire
Agence Japonaise de Coopération Internationale	JICA MAROC	Eihiko OBATA	Représentant Résident
		Motoharu WAKABAYASHI	Premier Adjoint au Représentant Résident
		Takemichi KOBAYASHI	Premier Adjoint au Représentant Résident
		Yuko MORIKAWA	Adjointe au Représentant Résident
		Mayumi ANDO NDIAYE	Adjointe au Représentant Résident
		Kimiyo YAMAURA	Chargée de programme de prêts APD
		Siham MALKI	Program Officer

ANNEX 11. LIST OF SURVEY TEAM MEMBERS

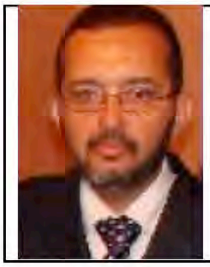
JICA
Middle East & Europe Dept.

PREPARATORY SURVEY
ON
THE FISHERY RESEARCH VESSEL PROJECT
IN
THE KINGDOM OF MOROCCO

Consortium
OAFIC
FBSEA

JICA SURVEY TEAM

OAFIC		*Fishing Boat and System Engineering Association (FBSEA)*	
	***Mr. Hiroshi FUKAO*** ***Team Leadership / Marine Survey & Navigation Plan / Economic & Financial Analysis***		***Mr. Yoshiki KONDO*** ***Naval Architecture and Cost Estimation***
	***Mr. Kazunori UWATOKO*** ***Deputy Team Leadership / Navigation and O&M Plan (2)***		***Mr. Masaaki SHIBATA*** ***Outfitting Equipment and Cost Estimation***
	***Mr. Hideyuki WATANABE*** ***Navigation and O&M Plan (1)***		***Mr. Hideki TSUBATA*** ***Survey Equipment, Fishing Equipment and Cost Estimation***

	***Mr. Abdelfattah RIACHE*** ***Interpreter / Coordinator***

Survey Period: August 2012 – March 2013