

Annex I

Technical, operational and economic characteristics of selected fishing vessels – by country

1. CHINA

TABLE 25
Technical and operational characteristics of Chinese fishing units

Type of vessel	Length (m)	GRT	Kw	On board storage facilities	Fishing gear	Crew	Ownership
Bottom pair trawler	25 - 28	80 - 95	185	Fishhold 24 m ³ + freezing 3t/day	Trawl	15	Shared in village
Single board trawler	26	65	110		Trawl	6	Shared in village
Set netter	29.5	67	150	26 m ³	Set net	16	Shared
Stow netter	30.5	107	200	37 tons	Set net	12	Shared
Purse seiner & set net	36	153	185	n.c	1 purse seiner, 4 set nets	14	Shared
Purse seiner	27.8 42.4	37.6 80	280 440	12.4 m ³ 137 m ³	2 purse seines	5 + 22	State owned company
Squid jigger	43.5	270	440	167 m ³	10 - 12 jigging machines with 30 x 2 hooks	28 - 30	State owned company

Type of vessel	Distance of fishing grounds	Fishing days	Average duration of fishing trips	Fishing seasons (off-seasons)
Bottom pair trawler	8 n mi	200	7 - 10 days	Jan-May and Sept.-Dec (Jun-Aug)
Single board trawler	8 n mi	200	10	Jan-May and Sep-Dec (Jul-Aug)
Setnetter	20 n mi	210	12 - 14	Jan-Jun and Oct-Dec (Jul-Sept)
Stow netter	25 n mi	250	11 - 14	Jan-May and Sept.-Dec (Jun-Aug)
Purse seiner & set net	150 n mi	258	11	Jan-Jun and Oct-Dec (Jul-Sept)
Purse seiner	12 n mi	250	40 - 50	Jan-Feb and Jun-Dec (Mar-May)
Squid jigger	150 n mi	250		15 May-15 Jan (15 Jan-15 May)

TABLE 26
Economic and financial performance of Chinese fishing vessels (in US\$)

Type of vessel	Bottom pair trawler 25 - 2 m	Otterboard trawler 26 m	Set netter 29.5 m	Stow netter 30.5 m
Total Earnings	64 605	33 976	61 759	46 506
Fuel & lubricants	24 096	15 060	2 702	8 434
Harbour dues	72	108	2 410	2 410
Labour share, wages	25 904	6 747	3 614	3 614
Gear expenses	2 410	2 241	2 530	18 795
Repairs and maintenance	4 819	3 614	4 940	7 349
Fishing licence	482	313	482	361
Vessel insurance	482	241	3 012	3 012
General expenses	1 807	4 217	2 048	1 851
Taxes	1 012	988	4 217	4 217
Total costs of operation	61 084	33 529	25 955	50 043
Gross cash flow	3 521	447	35 804	- 3 537
Depreciation	9 398	1 735	1 133	6 284
Interest	11 277	2 082	1 183	7 108
Net profit	- 17 154	- 3 370	33 488	- 16 929

Type of vessel	Purse seiner & set net	Purse seiner (3 boats)	Squid Jigger
Total Earnings	133 205	558 165	371 137
Fuel & lubricants	15 060	61 311	40 770
Harbour dues	93	10 341	9 469
Labour share, wages	79 518	157 471	70 277
Gear expenses	28 916	30 344	83 511
Repairs and maintenance	16 867	90 724	60 081
Fishing licence	771	7 229	361
Vessel insurance	602		
General expenses	2 651	13 474	9 639
Taxes	1 518	9 085	5 873
Total costs of operation	145 996	379 979	279 981
Gross cash flow	- 12 791	178 186	91 156
Depreciation	3 470	11 640	4 819
Interest	3 470	16 942	5 870
Net cash flow	- 19 731	149 604	80 467

2. KOREA

TABLE 27
Technical and operational characteristics of Korean fishing units

Type of vessels	GRT Average	KW Average	On board facilities/ processing and storage	Fishing gear	Crew	Sharing system
Offshore stow net	74	345	Freezer storage = 120 m ³ Freez. cap. = 13 t/day	3 sets of nets HR 54 m	8	Minimum wages + share
Offshore jigging	77	396	Freezer storage = 110 m ³ Freez. cap = 26 t/day	300 - 900 hooks	12	"
Large purse seine	126	742	Fishhold = 250 m ³	Seine 900 - 1000 m x 200 - 300 m	73	Fixed wages + share
Anchovy mid-water trawl	35	262		Trawl 700 m	58	Fixed wages
Large otter trawl	139	1 068	130 m ³ + freez. cap. = 32 t/day	Trawl Net mouth 131 - 147 m HR 34 - 48 m	16	Fixed wages + share
Large pair-trawl	90	463	130 m ³ + freez. cap. = 32 t/day	Trawl HR 54 - 114 m	23	"
Danish seine (average)	69	292	100 m ³ + Freez. cap. = 13 t/day HR 50 - 104 m	Seine	8 - 9	Minimum wages + share
Eastern Sea Trawl	60	427	Fishhold = 60 m ³	Trawl Net mouth 129 m HR 27 - 31 m	8	"

Type of vessel	Fishing days	Days at sea	Fishing seasons (off-seasons)
Offshore stow net	165	231	All year
Offshore jigging	150	168	"
Large purse seine	210	254	"
Anchovy mid-water trawl	196	196	Jul-Mar (Apr-Jun)
Large otter trawl	201	226	All year
Large pair trawl	229	243	"
Large Danish seine	180	195	"
W.Southern Sea middle Danish seine	212	235	"
Eastern Sea middle Danish seine	159	159	"
Eastern Sea trawl	186	193	"

TABLE 28
Economic and financial performance of Korean fishing vessels (in US\$)

Investment (in US\$)

Investments	Hull, engine and propulsion	Fishing gears and accessories	Deck equipment and others	Total value
Type of vessel				
Offshore Stow net	124 659	38 751	9 013	172 423
Offshore Jigging	232 546	41 345	18 220	292 111
Large purse Seine	3 454 756	292 868	545 538	4 293 162
Anchovy mid-water trawl	625 494	123 736	155 351	904 581
Large otter trawl	1 362 791	49 346	25 192	1 437 329
Large pair trawl	408 862	75 606	25 656	510 124
Large Danish seine	99 230	13 923	18 069	131 222
W-South. Sea - middle Danish seine	250 251	14 332	11 043	275 626
Eastern Sea - middle Danish seine	169 230	8 000	11 897	189 127
Eastern Sea trawl	143 590	14 359	12 171	170 120

Economic and financial performance

Type of vessel	Offshore Stow netter	Offshore Jigger	Eastern Sea Trawler
Total earnings	225 399	216 192	215 694
Fuel	52 308	47 626	29 773
Other running costs	14 137	11 218	6 172
Labour share, wages	86 906	89 163	69 152
Other labour charges	6 188	6 435	3 330
Gear expenses	23 048	15 299	9 813
Repairs and maintenance	17 982	13 754	10 305
General expenses	8 361	6 468	5 643
Taxes	1 373	1 656	840
Total costs of operation	210 303	191 619	135 028
Gross cash flow	15 096	24 573	80 666
Depreciation	5 946	11 661	6 538
Interest (1)	5 632	9 542	5 557
Net profit	3 518	3 370	68 571

(1) Average amount for repayment on six year loan 80 percent of investment. Interest rate seven percent.

Type of vessel	Large Purse seiner	Anchovy mid-water trawler	Large otter board trawler	Large pair trawler
Total Earnings	4 113 017	1 168 173	1 166 634	964 621
Fuel	599 839	182 661	231 873	238 694
Other running costs	102 768	44 673	27 919	35 566
Labour share, wages	1 104 821	435 532	246 913	204 896
Other labour charges	137 726	24 017	45 203	21 043
Gear expenses	155 230	72 568	67 609	68 316
Repairs and maintenance	404 600	59 810	60 010	75 793
General expenses	140 534	38 135	39 450	44 686
Taxes	65 145	11 950	16 350	14 112
Total costs of operation	2 710 663	869 346	735 327	703 106
Gross cash flow	1 402 354	298 827	431 307	261 515
Depreciation	150 890	28 009	54 314	19 943
Interest (1)	140 242	29 549	46 952	16 664
Net cash flow	1 111 222	241 269	330 041	224 908

(1) Average amount for repayment on six year loan 80 percent of investment. Interest rate seven percent.

Type of vessel	Large Danish seiner	W-South Sea middle Danish seiner	Eastern Sea middle Danish seiner
Total Earnings	362 046	286 841	172 646
Fuel	70 973	46 643	18 049
Other running costs	14 480	14 876	5 198
Labour share, wages	93 770	86 619	59 481
Other labour charges	10 443	11 463	2 854
Gear expenses	26 948	18 819	6 590
Repairs and maintenance	25 604	16 164	11 552
General expenses	11 841	8 217	5 281
Taxes	3 627	2 210	603
Total costs of operation	257 686	205 011	109 608
Gross cash flow	104 360	81 830	63 038
Depreciation	4 973	9 446	6 256
Interest (1)	4 287	9 004	6 178
Net profit	95 100	63 380	50 604

(1) Average amount for repayment on six year loan 80 percent of investment. Interest rate seven percent.

3. THAILAND

TABLE 29
Technical and operational characteristics of Thai fishing units

Type of vessel	Length (m)	Tonnage (GRT)	Volume fish hold (metric tons)	Fishing Gear			Crew size	
				quantity	wide	long		deep
Otterboard Trawl								
< 14 m	11.2	8	4	2	12		1	4
14 - 18 m	16.8	28	23	2	16		3	8
18 - 25 m	19.6	50	31.5	2	20		6	16
Pair Trawl								
14 - 18 m	18	36	16.7	2	15		3	14
18 - 25 m	21.2	58	60	3	20		6	21
Push Net								
< 14 m	11.2	3	1.6	2	9	14	4	2
14 - 18 m	16.8	25	2.3	3	12	24	8	4
18 - 25 m	20.2	45	5.6	3	15	35	14	5
Purse Seine								
< 14 m	13	15	3.2	1	250		40	13
14 - 18 m	18	30	16	1	600		80	25
18 - 25 m	21.5	45	49.3	1	800		110	34
Anchovy Falling net								
< 14 m	13.3	10	3.7	1	12	16	25	4

Ownership & operation

Type of vessel	Ownership	Fishing days/year	Average duration of fishing trip (days)	Fishing seasons
Otterboard Trawl				
< 14 m	Individual	201	4	All year
14 - 18 m	Individual	250	10	All year
18 - 25 m	Individual	289	11	All year
Pair Trawl				
14 - 18 m	Individual	250	10	All year
18 - 25 m	Individual	280	11	All year
Push Net				
< 14 m	Individual	180	1	All year
14 - 18 m	Individual	208	2	All year
18 - 25 m	Individual	267	6	All year
Purse Seine				
< 14 m	Individual	120	1	May-October
14 - 18 m	Individual	256	2	All year
18 - 25 m	Individual	230	10	All year
Anchovy Falling Net				
< 14 m	Individual	144	1	May-October

TABLE 30
Economic and financial performance of Thai fishing vessels (in US\$)

Investment costs (in US\$)

Type of vessel	Hull	Deck equipment	Engine and propulsion	Fishing gear and equipment	Total
Otterboard Trawl					
< 14 m	4 794	561	1 520	1 121	7 995
14 - 18 m	23 559	3 180	4 670	4 629	36 038
18 - 25 m	26 351	5 548	14 096	10 521	56 516
Pair Trawl					
14 - 18 m	16 409	3 195	8 834	3 986	32 423
18 - 25 m	40 432	9 530	25 676	10 778	86 417
Push Net					
< 14 m	3 133	452	1 440	2 211	7 236
14 18 m	21 216	690	5 784	4 743	32 433
18 - 25 m	27 413	1 976	12 529	12 962	54 881
Purse Seine					
< 14 m	3 514	434	1 622	14 932	20 501
14 - 18 m	17 476	7 708	8 973	37 446	71 603
18 - 25 m	38 803	14 459	20 656	26 231	100 150
Anchovy Falling Net					
< 14 m	4 351	461	1 216	2 806	8 834

Economic and financial performance

Type of vessel	Otterboard Trawler			Pair Trawler
	< 14 m	14 - 18 m	18 - 25 m	14 - 18 m
Total earnings	21 072	63 478	88 672	114 622
Fuel	7 178	23 270	34 722	48 448
Lubricant	368	881	1 289	725
Harbour dues	34	115	313	23
Food	2 190	2 842	3 081	4 051
Labour share, wages	4 195	11 884	16 948	29 029
Gear expenses	1 545	2 846	3 805	4 735
Repairs & maintenance	1 798	4 925	6 554	9 426
Licence fee	26	52	57	90
General expenses	1 632	7 600	8 529	13 141
Taxes	60	95	97	122
Total costs of operation	19 026	54 510	75 395	109 790
Gross cash flow	2 046	8 968	13 277	4 832
Depreciation	244	993	2 719	1 794
Interest	562	493	529	1 532
Net profit	1 240	7 482	10 029	1 506

Type of vessel	Pair Trawler		Push net	
	18 - 25 m	< 14 m	14 - 18 m	18 - 25 m
Total earnings	204 033	12 520	38 838	55 032
Fuel	51 864	4 453	18 703	26 579
Lubricant	1 738	182	386	593
Harbour dues	34	43	304	434
Food	5 512	798	1 671	1 851
Labour share, wages	32 975	2 950	7 361	9 834
Gear expenses	5 597	1 362	1 783	4 107
Repairs & maintenance	11 396	1 585	4 384	4 517
Licence fee	90	17	20	66
General expenses	18 509	259	1 707	3 546
Taxes	165	25	41	41
Total costs of operation	127 880	11 674	36 360	51 568
Gross cash flow	76 153	846	2 478	3 464
Depreciation	4 297	158	944	1 374
Interest	2 005	417	775	959
Net profit	69 851	271	759	1 131

Type of vessel	Purse seiner		Anchovy Falling net	
	< 14 m	14 - 18 m	18 - 25 m	< 14 m
Total earnings	40 703	124 916	158 547	11 698
Fuel	5 500	23 176	19 309	1 323
Lubricant	395	1 355	1 584	232
Harbour dues	49	405	541	41
Food	2 465	5 466	7 259	477
Labour share, wages	12 562	38 677	43 525	3 080
Gear expenses	2 838	5 696	9 20	1 224
Repairs & maintenance	946	3 649	9 850	1 308
Licence fee	13	88	102	4
General expenses	2 087	7 167	7 347	1 230
Taxes		95	185	
Total costs of operation	26 855	85 774	99 322	8 919
Gross cash flow	13 848	39 142	59 225	2 779
Depreciation	305	1 250	1 988	375
Interest	1 351	2 584	5 973	544
Net profit	12 192	35 308	51 264	1 860

4. INDONESIA

TABLE 31
Technical and operational characteristics of Indonesian fishing units

	Central Java purse seiner	Central Java purse seiner	East Java purse seiners	Pole and liner	Pole and liner	Tuna longliner	Gillnetter
Ownership	private	private	private	private	private	private	private
Material of hull	wood	wood	wood	wood	wood	wood	wood
Length of vessel (m)	15.5	27.6	19	13	25	26	17
Gross tonnage	30 - 40	100 - 120	29	10 - 15	40 - 50	67	26
Engine (HP)	120	310	2 x 30 OB	82	346	343	108
Fish hold							
Capacity (tons)	18	82	28	9	29	29	24
Preservation material	ice, salt	ice, salt		ice	ice	ice	ice
No of crew							
Skipper	1	1	1	1	1	1	1
Engineer	1	1	2	1	1	1	1
Master	1	1	2				
Cook	1	1	39	1	1	1	
Crew	23	35		13	29	9	6
Dimensions of fishing gear	300 m long, 40 m deep	400 - 600 m long, 60 m deep	300 m long, 40 m deep				
Peak season (months)	5	5	3	4	4	5	3
Fishing trips	4	4	60	12	10	3	3
Days per trip	7 - 10	10 - 20	1	2	2	60 - 70	30
Mid season (months)	4	4	3	5	5	4	5
Fishing trips	5	3	45	7	6	2	3
Days per trip	10 - 15	20 - 30	1	3	4	40 - 50	40
Low season (month)	3	3	6	3	3	3	4
Fishing trips	3	2	102	5	3	1	2
Days per trip	15 - 20	30 - 40	1	4	5	20 - 30	35

TABLE 32
Economic and financial performance of Indonesian fishing vessels (in US\$)

*Investment cost (in US\$)*¹⁵

	Central Java purse seiner, 30 - 40 GT		Central Java purse seiner, 100 - 120 GT		East Java purse seiners, 29 GT		Pole and liner 10 - 15 GT		Pole and liner 40 - 50 GT		Tuna longliner		Gillnetter	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Hull, fishhold	11	15 260	11	28 128	11	18 516	11	1 719	11	14 844	11	63 125	10	7 396
Deck equipment							6	52	6	526				
Engine	7	12 708	7	12 241	7	7 578	7	5 761	7	20 925	7	8 713	7	5 031
Propulsion	7		7		3	781	7		7		7		7	
Fishing gear	4	6 573	4	13 126	4	9 082	4	57	4	148	7	6 473	10	4 554
Other equipment							7	313	7	5 104	5	7 753	5	1 177
Total		34 531		53 494		35 957		7 902		36 953		86 064		18 159

¹⁵ A = life time (yrs), B = cost.

Economic and financial performance (in US\$)

	Central Java purse seiner, 30 - 40 GT		Central Java purse seiner, 100 - 120 GT		East Java purse seiners, 29 GT		Pole and liner 10 - 15 GT		Pole and liner 40 - 50 GT		Tuna longliner		Gillnetter	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Total earnings	31	158	62	955	32	657	23	825	45	372	88	882	18	484
Fuel	2	841	9	282	3	154	2	604	4	993	12	450	2	521
Lubricant		294		1 263		802		276		427		603		319
Harbour dues		5		5								147		113
Food	2	235	3	891			3	458	5	339	48	265	1	090
Labour share, wages, social insurance	8	901	22	731	12	627	10	557	15	461	11	330	3	024
Gear repair and maintenance		285		563		661		50		81		170		232
Vessel repair and maintenance		735		1 755		1 383		1 729		3 406		39 375		2 703
Ice and salt	1	128	1	818		650		721	1	130	3	359		940
Licence fees		8		9				6		14		142		104
General expenses		309		422				128		172		2 080		123
Total operational expenses	17	426	43	561	19	434	20	274	32	756	67	086	11	799
Gross cash flow	13	732	19	394	13	223	3	551	12	612	21	796	6	685
Depreciation	4	901	7	843	3	190	1	218	5	085	9	878	2	149
Interest		863		1 337		899		198		924		2 152		454
Net profit before taxes	7	968	10	214	9	134	2	135	6	607	9	766	4	082

5. INDIA

TABLE 33
Technical and operational characteristics of Indian fishing units

Type of vessel	Length (m)	KW	On-board facilities / storage	Fishing gear	Crew	Ownership	Fishing days
Wooden kattumaram Orissa	5.5			Trammel nets	4	Individual	240
FRP boat Orissa	8.5	5		Nets + Hooks and lines		"	300
Dolnetter Maharashtra	9/12	37/44	Ice hold	Bag net (50 m x 20m)	6 - 7	"	160
Gill-netter/Trawler Gujarat	16.8	87	10 tons	Trawls + Gillnets 500/1000m x 10/20m	7 - 9	"	245
Trawler Gujarat	16.8	87	10 tons	Trawls	7 - 9	"	200
Trawler / Sona boat Orissa	12.8	88	6 tons	Trawls head rope 19,80m	8	"	200
Purse seiner Karnataka	14.6	79	10 m ³	Purse seine 300/450mx30/45m	25	"	200
Tuna Long liner	36	590	110 m ³	Longline			180

TABLE 34
Financial and economic characteristics of Indian fishing units

Investment costs (in US\$)

Investments	Hull	Engine and propulsion	Fishing gear	Total value
Depreciation rate	4 %	10 %	20 %	
Type of vessel				
Wooden Catamaran 5.5 m	390		229	619
FRP Boat 8.5 m	2 444	732	1 500	4 676
Dolnetter 9/12 m	2 927	1 463	1 829	6 219
Gill-netter / Trawler	17 366	7 991	7 082	32 439
Stern Trawler 16.8 m	17 366	7 991	2 735	28 092
Sona boat 12.8 m	28 561	7 805	3 658	40 024
Purse seiner 14.6 m	40 114	7 878	18 171	66 163
Tuna longliner 36 m	426 829	182 927	36 585	646 341

Economic and financial performance

Type of vessel	Wooden Catamaran 5.5 m	FRP boat 8.5 m	Dolnetter 9/12 m	Gillnetter Trawler 16.8 m
Total earnings	3 161	7 526	12 073	29 745
Fuel		1 932	1 024	10 853
Lubricant		386	261	186
Harbour dues			98	88
Ice			922	1 643
Food				956
Costs of sell.fish		226	146	
Other running costs		150		269
Labour share, wages	362	52	2 682	2 732
Other labour charges				146
Gear expenses	76			963
Repairs & maintenance	39	658	439	1 790
Vessel insurance	15	140	280	1 089
General expenses	131	12	2	
Total costs of operation	623	3 556	5 854	20 715
Gross cash flow	2 538	3 970	6 219	9 030
Depreciation	15	471	263	1 478
Interest	32	82	322	1 678
Net profit	2 491	3 417	5 634	5 874

Type of vessel	Stern Trawler 16.8 m	Sona boat 12.8 m	Purse seiner 14.6 m	Tuna Longliner 36 m
Total earnings	31 082	37 835	44 634	824.390
Fuel	10 853	8 049	5 976	170 732
Lubricant	186	2 012	976	-
Harbour dues	88			2 439
Ice	1 643	1 463	1 829	
Food	956	976	4 878	-
Costs of sell.fish		1 131		136 585
Other running costs	269	757	1 717	5 366
Labour share, wages	2 732	2 439	11 158	82 927
Other labour charges	146			
Gear expenses	311	1 218	5 996	-
Repairs & maintenance	1 790	2 021	2 439	85 366
Vessel insurance	937	1 201	1 098	-
General expenses	-	24	-	69 512
Total costs of operation	19 911	21 291	36 067	552 927
Gross cash flow	11 171	16 544	8 567	271 463
Depreciation	2 041	1 667	6 026	35 366
Repayment	495	2 070	1 165	27 287
Net profit	8 635	12 807	1 376	208 810

6. SENEGAL

TABLE 35
Technical and operational characteristics of Senegalese fishing Units

Industrial fishing

Type of vessel	Length (m)	Tonnage (GRT)	KW	On board facilities/storage	Fishing gear	Crew size	Ownership
Coastal seiner	24 - 31	80	295	Ice + fishhold (50t)	seine (620 - 950m)	15 - 20	Company owned
Pelagic trawler	62 - 104	1 900 - 4 900	1 470 - 4 270	Freezing +storage 5700t	Trawl (150 - 480m)	25 - 30	Chartered vessel
Coastal trawler (demersal / ice)	27 - 49	120 - 480	295 - 1 470	Ice + fishhold (66t)	Trawl (48m)	15 - 25	Company owned
Coastal trawler (demersal / freezer)	32 - 47	160 - 540	370 - 1 990	Freezing 6t/day + storage: 100t	Trawl (60m)	20 - 25	Company owned
Deep sea trawler (ice)	27 - 39	120 - 390	295 - 920	Ice + fishhold (100t)	Trawl (72m)	13 - 22	Company owned
Deep sea trawler (Freezer)	27 - 38	120 - 415	570 - 1 360	Freezing: 2t/day + storage 100t	Trawl (83m)	13 - 22	Company owned
Off-shore fishing (pelagic)							
Seiners	36 - 77	210 - 3730	730 - 2 940	Freezing + storage 400 - 1000t	Seine (1 500m)	21 - 28	Company owned
Pole and Liner	20 - 45	80 - 380	220 - 730	Ice + fishhol (40 - 90t)	Poles and lines	17 - 33	Company owned
Longliner	20 - 60	80 - 410	295 - 1 100	Ice or freezing	Longlines 1500 - 3500 hooks	20 - 40	Company owned

Type of vessel	Fishing days	Average duration of fishing trips	Fishing seasons
Coastal seiner	78/year	12 - 13 hours	All year
Pelagic trawler	270	3 months	"
Coastal trawler (demersal/ice)	101	5 days	Maximum Oct-June
Coastal trawler (demersal/freezer)	234	17 days	"
Deep sea trawler (ice)	203	6 days	"
Deep sea trawler (freezer)	240	40 days	"
Offshore fishing (pelagic)			
Seiner	120	40 days	Feb-May
Pole and liner	120	7 - 17 days	Nov-Feb
Longliner (ice)	180	15 - 20 days	
Longliner (freezer)	240	8 months	

Artisanal fishing

Type of vessel	Length (m)	KW	On board facilities / storage	Fishing gear	Crew size	Sharing system
Purse seiners (2 canoes fishing together)	12 - 15 m 18 - 20 m	3 engines x 54	up to 20 t no ice	Seine 200 - 270 m x 42 - 48 m	18 (average)	1/3 for the net 2/3 shared between crew boat, engines
Encircling gillnetters	10 - 17	1 engine x 10/35	3 - 7 t fishhold no ice	250 - 450 m x 7 - 12 m	6/8	1 share/man 1 share/canoe 1 share/engine 1 share/net
Handliners	12 - 14 m	1 engine x 35/55	2 - 4 t ice + fishhold	Handlines	10	1 share/man 1 share/canoe 1 share/engine
Multipurpose canoes	7 - 2 m	1 engine x 10/20	0.5/107 t insulated boxes (only for breams)	Gillnets handlines pots	6	1 share/man 1 share/canoe 1 share/engine 1 share/net

Type of vessel	Fishing days	Average duration of fishing trips	Fishing seasons
Purse seiners	20 - 23 days per month	8 - 10 hours	All year (maximum Nov-May)
Encircling gillnetters	"	"	"
Handliners	3 trips per month	6 - 7 days	All year
Multipurpose canoes	28 days per month	8 - 10 hours	"

TABLE 36
Financial and economic characteristics of individual fishing units

Investment costs, industrial fishing (in US\$)

Deep sea trawler 22 m (1996)	Investment in US\$	Depreciation rate and amount	
Hull	692 730	4 %	27 710
Engine and propulsion	181 820	10 %	18 180
Deck equipment and safety	63 640	10 %	6 360
Equipment for navigation, fish detection and communication	23 640	10 %	2 360
Fish preservation and storage	100 000	4 %	4 000
Fishing gear and equipment	29 090	20 %	5 820
Total	1 090 920		64 430
Purse seiner for small pelagic (1998)	Investment in US\$	Depreciation/year	
Total	508 000		25 400

Economic and financial performance, industrial fishing (in US\$)

Type of vessel	Deep sea trawler	Purse seiner (small pelagic fish)
Earnings	554 240	101 700
Fuel and lubricants	164 407	25 424
Harbour dues	8 475	
Other running costs	29 153	
Labour share, wages and charges	105 085	33 898
Repairs and maintenance	76 271	20 338
Vessel insurance		5 932
Fishing licence		1 017
General expenses	69 323	8 475
Taxes	30 508	
Total costs of operation	483 222	95 084
Gross cash flow	71 018	6 616
Depreciation	50 847	25 424
Interest (1)	44 600	20 788
Net profit	- 24 429	- 39 596

(1) Average amount for repayment on 13-year loan 80 percent of investment. Interest rate 9.5 percent.

Investment costs and depreciation, artisanal fishing (in US\$)

Investments	Canoe	Engines	Fishing gear	Other equipment	Total value
Purse seiner	3 220	3 050	4 240	340	10 850
Encircling gillnetter	2 370	2 540	2 540	340	7 790
Handliner	3 220	3 050	340	2 030	8 640
Multipurpose canoe	1 440	1 020	850	170	3 480
Depreciation					
Canoe	412	339	412	206	
Engine	1 525	1 271	1 525	508	

Economic and financial performance, artisanal fishing (in US\$)

Type of vessel	Purse seiner	Encircling gillnetter	Handliner	Multipurpose canoe
Total earnings	30 510	20 340	64 400	10 170
Fuel	2 491	2 034	5 085	407
Ice			2 203	68
Food	407	339	1 525	119
Bait			763	152
Other running costs	186	85	847	339
labour charges	16 454	13 005	44 986	7 053
Gear expenses	847	508		169
Repairs and maintenance	1 254	983	1 254	458
Vessel insurance	424	254	339	85
Total costs	22 063	17 208	57 002	8 850
Gross cash flow	8 447	3 132	7 398	1 320
Depreciation	1 937	1 610	1 937	714
Interest(1)	846	608	674	271
Net profit	5 664	914	4 787	335

(1) Average amount for repayment on two-year loan 80 percent of investment. Interest rate 13 percent.

7. NORWAY

TABLE 37
Technical and operational characteristics of Norwegian fishing units

Type of vessel	Length (m)	GRT	On board facilities	Fishing gear
Factory trawler	60.7	754	Freezing	Trawl
Freshfish trawler	46.7	328	Ice + fishhold	Trawl
Purse seiner	25.2	116		Purse seine
Norway pout trawler	35.3	195		Trawl
Gillnetter, Handliner	10	10	Ice + fishhold	Gillnets, handlines
Gillnetter, Handliner	15.4	28	"	"
Danish seiner	17.6	42		Danish seine
Coastal vessel S. Norway	10.1	10	Ice + fishhold	Gillnets, handlines, longlines
"	14.8	26	"	"
Longliners N. Norway	10.6	11	"	longline
"	15.1	24	"	"
Shrimp trawler	11.1	14	Ice + fishhold	Trawl
"	15.3	26	"	"

TABLE 38
Economic and financial performance of Norwegian fishing vessels (in US\$)

Type of vessel	Factory trawler 60.7 m	Freshfish trawler 46.7 m	Purse seiner 25.2 m	Norway pout trawler 35.3 m
Total earnings	5 060 472	2 348 565	854 810	736 070
Fuel and lubricant	387 361	216 071	40 633	115 186
Bait, ice, salt, packaging materials	136 309	17 661	3 832	21 266
Other running costs	98 131	51 976	13 936	13 610
Labour shares, wages	1 451 613	744 935	345 180	245 747
Social insurance	39 349	15 153	8 487	5 483
Other labour charges	189 629	86 760	29 147	28 524
Gear expenses	199 382	150 269	54 110	58 263
Repairs & maintenance	697 055	307 156	73 931	115 645
Vessel insurance	73 898	47 901	24 567	26 286
General expenses	841 463	252 675	61 864	47 152
Total costs of operation	4 115 190	1 890 557	655 687	677 162
Gross cash flow	945 282	458 008	199 123	58 908
Depreciation	414 840	174 439	69 924	102 026
Net financial expenses	258 636	109 434	67 489	74 125
Net profit	271 806	174 135	61 710	- 117 243

Type of vessel	Gillnetter Handliner 10 m	Gillnetter Handliner 15.4 m	Danish seiner 17.6 m	Coastal vessel South Norway 10.1 m	Coastal vessel South Norway 14.8 m
Total earnings	61 438	244 462	299 318	62 697	193 391
Fuel & lubricant	2 387	7 473	13 826	2 637	7 449
Bait, ice, salt	235	777	509	218	1 338
Other running costs	1 249	2 429	5 094	1 397	1 800
Labour share, wages	32 389	120 683	138 849	32 595	92 358
Social insurance	357	2 633	3 062	269	1 834
Other labour charges	2 000	8 050	9 945	2 000	6 826
Gear expenses	3 942	21 137	10 163	5 736	9 913
Repairs & maintenance	6 524	27 300	39 573	6 537	22 062
Vessel insurance	1 548	4 469	7 657	1 576	3 023
General expenses	3 839	13 695	18 888	4 179	9 689
Total costs of operation	54 470	208 646	247 566	57 144	156 292
Gross cash flow	6 968	35 816	51 752	5 553	37 099
Depreciation	3 132	11 046	24 495	3 749	14 258
Net financial expenses	1 858	7 949	21 831	1 605	7 243
Net profit	1 978	16 821	5 426	199	15 598

Type of vessel	Longliner North Norway 10.6 m	Longliner North Norway 15.1 m	Shrimp trawler 11.1 m	Shrimp trawler 15.3 m
Total earnings	81 958	244 774	63 033	123 107
Fuel & lubricant	2 649	6 798	3 904	11 505
Bait, ice, salt	2 094	8 501	224	118
Other running costs	1 315	3 936	646	1 713
Labour share, wages	43 107	128 469	33 039	57 687
Social insurance	462	1 815	132	1 298
Other labour charges	2 639	7 896	2 020	4 657
Gear expenses	3 270	7 489	4 028	5 240
Repairs & maintenance	6 350	18 575	8 835	13 009
Vessel insurance	1 801	3 927	1 086	2 404
General expenses	7 907	21 423	3 801	7 759
Total costs of operation	71 594	208 829	57 715	105.390
Gross cash flow	10 364	35 945	5 318	17 717
Depreciation	3 140	9 867	3 454	12 907
Net financial expenses	3 154	7 579	1 721	2 396
Net profit	4 070	18 499	143	2 414

8. GERMANY

TABLE 39
Technical and operational characteristics of German fishing vessels

Fleet segment	Length (m)	Tonnage GT	Engine KW	On board facilities/storage	Fishing gear	Crew	Ownership	Days at sea per year	Duration of trip (days)
Coastal fishery									
Inshore vessel	10 - 12	10	100	Ice	Gillnets, traps	2	individual	100 - 120	1
Cutter deep sea fishery									
Trawler	15 - 20	40	150			2 - 3		150	2 - 5
	22 - 25	130	200	Ice, insulated hold	Trawl nets	3 - 4	individual	180	4 - 6
	28 - 32	200	550			4 - 5		180	7 - 9
Shrimper	15 - 20	40	160	Ice, cooking facilities for shrimps	Beam trawls	2 - 3	individual	120 - 150	1 - 3
Deep-sea trawler fishery									
Pelagic trawler	60 - 90	4 566	2 937	Sorting, freezing storage	Pelagic trawls	35	Company	294	23
Groundfish trawler	60 - 80	2 180	2 602	Sorting, processing, freezing storage	Bottom trawls	33	Company	270	46

Volume, value and composition of catch

Type of vessel	Inshore and cutter deep sea fisheries				Shrimp fishery	Trawler deep sea fisheries	
	Inshore vessel 10 - 12 m	Trawling cutter 15 - 20 m	Trawling cutter 22 - 25 m	Trawling cutter 28 - 32 m	Shrimper 15 - 20 m	Pelagic trawler 60 - 80 m	Groundfish trawler 60 - 80 m
Volume (t.)	12	225	360	900	65	27 340	3 780
Value (1000 US\$)	54.03	169.7	278.4	451.8	162.8	9 634.7	5 499.4
Main species	Flatfish (sole, plaice), cod	Demersal fish (cod, haddock)	Demersal fish (cod, haddock)	Demersal fish (saithe, cod)	Shrimps (<i>Crangon crangon</i>), sole	Mackerel, herring, anchovy, sardinella	Redfish, cod, halibut
Processing state	Fresh	Fresh	Fresh	Fresh	Fresh Cooked	Frozen	Frozen processe

TABLE 40
Financial and economic performance of German fishing units (in US\$)

Investment costs

type of vessel	Initial value	Actual value	Replacement value	Depreciation	Interest
Inshore 10 - 12 m	no info	102 300	340 900	13 636	3 977
Cutter 15 - 20 m	no info	306 800	1 136 400	45 455	12 500
Cutter 22 - 25 m	no info	500 000	2 272 700	90 909	19 886
Cutter 28 - 32 m	no info	909 100	3 409 100	136 364	36 364
Shrimp trawler 15 - 20 m	no info	306 800	1 022 700	40 909	12 500
Pelagic trawler 60 - 80 m	17 556 800	10 738 600	26 363 600	1 704 545	136 364
Groundfish trawler 60 - 80 m	5 681 800	2 613 600	6 534 100	681 818	62 500

Economic and financial performance

Type of vessel	Inshore and cutter deep sea fisheries			
	Inshore vessel 10 - 12 m	Trawling cutter 15 - 20 m	Trawling cutter 22 - 25 m	Trawling cutter 28 - 32 m
Total earnings	54 034	169 716	278 409	451 818
Fuel & lubricants	6 307	8 636	24 318	38 636
Ice			2 216	4 545
Marketing costs	2 955		27 330	37 670
labour charges	13 466	44 204	80 455	124 602
Gear expenses and repairs & maintenance	3 693		26 591	70 057
Vessel insurance	2 045	23 580	10 000	18 352
General expenses	6 307		7 955	18 920
Total costs of operation	34 773	76 420	178 865	312 782
Gross cash flow	19 261	93 296	99 544	139 036
Depreciation	13 636	45 455	90 909	136 364
Interest	3 977	12 500	19 886	36 364
Net profit	1 648	35 341	- 11 251	- 33 692

Type of vessel	Shrimper 15 - 20 m	Pelagic trawler 60 - 80 m	Groundfish trawler 60 - 80 m
Total earnings	162 841	9 634 659	6 284 659
Fuel & lubricants	10 568	513 636	533 523
Ice, packaging materials	170		
Marketing costs	2 102	289 204	80 682
Labour share, wages and social insurance	38 523	2 950 568	2 592 614
Other labour charges		76 136	76 136
Gear expenses	23 239	463 636	134 091
Repairs and maintenance	-	1 106 818	811 932
Vessel insurance	6 136	222 727	107 955
General expenses	10 227	1 243 182	1 428 977
Total costs of operation	90 965	6 865 907	5 765 910
Gross cash flow	71 876	2 768 752	518 749
Depreciation	40 909	1 704 545	681 818
Interest	12 500	136 364	62 500
Net profit	18 467	927 843	- 225 569

9. FRANCE

TABLE 41
Technical and operational characteristics of French fishing units

Type of vessel	Length	KW	On board facilities/ storage	Fishing gear	Crew	Ownership	Fishing days
Handliners	8 - 10 m	50	Insulated fish hold	Spare hooks	1	Individual	200
Gillnetters	10 - 12 m	80	"	-	2	"	180
Gillnetters	12 - 20 m	100	Ice + insulated fish hold	Spare nets	4 - 5	"	180
Coastal seiners	15 m	150	"	-	7	Individual /2 - 3 partners	165
Coastal trawlers	12 - 14 m	200	"	-	2	Individual	200
Coastal trawlers	14 - 16 m	250	"	-	3	Individual	210
Deep sea trawlers(fish)	15 - 17.5 m	300	"	1 spare trawl	4	Individual/ 2 - 3 partners	225
Deep sea trawlers (Norway lobster)	17 - 19 m	350	"	"	5	"	225
Deep sea trawlers	19 - 20.5 m	400	"	"	5 - 6	"	250
Deep sea trawlers	20.5 - 24 m	450	"	"	5 - 6	Individual/2 - 3 partners/ company	250
Purse-seiners Mediterranean sea	27 - 33 m	700 - 800	Ice + seawater 60 m ³ average fishhold 120 m ³	Purse seine 1600/2000 m x 185/230 m	12 - 14	Individual	140 - 150

TABLE 42
Economic and financial performance of French fishing units (in US\$)

Type of vessel	Handliners 8-10 m	Gillnetters 10-12 m	Gillnetters 12-20 m	Coastal seiners 15 m
Total earnings	83 014	167 500	369 302	636 181
Fuel	2 148	4 866	12 553	7 375
Harbour dues	98	61	334	1 542
Costs of selling fish	3 252	6 370	15 191	40 905
Other running costs	1 979	2 447	9 599	9 511
Labour share, wages	15 454	68 695	141 625	293 791
Social insurance	6 247	10 760	25 695	35 690
Gear expenses	4 968	16 437	35 589	32 069
Repairs and maintenance	6 381	11 292	31 115	47 187
General expenses	7 117	11 795	23 505	18 982
Total costs / expenses	47 644	132 723	295 206	487 052
Gross cash flow	35 370	34 777	74 096	149 129
Depreciation	9 773	20 627	31 180	31 955
Interest	1 898	4 631	9 946	9 029
Net profit	23 699	9 519	32 970	108 145

Type of vessel	Coastal trawlers 12 - 24 m	Coastal trawlers 14 - 16 m	Deep sea trawlers (fish) 15 - 17.5 m	Deep sea trawlers (Norway lobster) 17 - 19 m
Total earnings	158 613	244 264	450 171	583 423
Fuel	10 787	17 946	34 277	54 680
Harbour dues	20	180	9 742	32 117
Costs of selling fish	6 233	11 098	21 465	27 031
Other running costs	2 455	5 845	20 404	31 633
Labour share, wages	65 174	98 336	170 120	200 452
Social insurance	8 069	13 315	22 597	29 086
Gear expenses	8 158	12 535	20 838	25 135
Repairs and maintenance	15 169	27 695	50 084	57 794
General expenses	12 974	16 800	26 222	38 487
Total costs of operation	129 039	203 750	375 749	496 415
Gross cash flow	29 574	40 514	74 422	87 008
Depreciation	18 206	31 538	29 688	75 136
Interest	4 884	7 611	6 840	25 799
Net profit	6 484	1 365	37 894	- 13 927

Type of vessel	Deep sea trawler 19 - 20.5 m	Deep sea trawler 20.5 - 24 m	Purse seiner Mediterranean 27 - 33 m
Total earnings	642 084	801 808	728 814
Fuel	60 378	80 110	72 881
Harbour dues	23 435	27 943	1 695
Costs of selling fish	33 212	41 341	
Other running costs	29 305	33 811	50 847
Labour share, wages	225 389	258 409	228 814
Social insurance	30 095	36 513	50 847
Gear expenses	33 141	37 714	8 475
Repairs and maintenance	69 595	89 579	33 898
General expenses	42 856	55 437	59 322
Total costs of operation	547 406	660 857	506 779
Gross cash flow	94 678	140 951	222 035
Depreciation	29 557	63 233	118 644
Interest	8 419	22 413	16 949
Net profit	56 702	55 305	86 442

10. SPAIN

TABLE 43
Technical and operational characteristics of Spanish fishing units

Type of vessel	Length	KW	On board facilities	Fishing gear	Crew	Ownership	Fishing days
Semi-industrial trawlers (average)	20/25 m	300/500	Ice + insulated hold	2 trawls	8/9	Individual	250 /255
Industrial trawlers (average)	25/35 m	450/1050			10/12	Individual, 23 partners or company	210
Pole & liners (average)	15/25 m	100/300		Frooks and liners	15	Individual or 2 - 3 partners	170
Tuna seiners							
56 m	56	3000		1 seine	20	Company	295
64 m	64	3500	Freezing in brine + freezer storage	"	25	"	285
70 m	70	4500		"	23	"	270

TABLE 44
Economic and financial performance of Spanish fishing units (in US\$)

Investment costs

	Trawler 30 m 236 GRT	Trawler 37 m 242 GRT	Pole and liner	Tuna seiner 69m
Hull	90 790	178 870		
Equipment	268 540	470 860		
Main engine	255 750	779 750		
Fishing gear	129 800	88 150		
Electronic devices	35 200	110 190		
Handwork	575 440	693 830		
Total	1 355 520	2 321 650	1 102 000	15 631 700

Depreciation:

In Spain, depreciation is calculated over 25 years for hull and equipment.

Interest:

Average amount for repayment on 13-year loan 80% of actual investment.

Interest rate 5%.

Economic and financial performance

Type of vessel	Trawler 25/35 m	Trawler 25/35 m	Trawler 20/35 m	Trawler 30/45 m	Trawler 30/45 m
Fishing zones ICES	IX	IX	VIII	VI,VII,VIII	VI,VII,VIII
Year	1998	1999	1998	1999	2000 (provis.)
Landings (tons)	110	110	150	250	250
Total earnings	547 590	537 080	520 040	831 190	745 140
Fuel & lubricant	76 128	75 446	70 942	124 678	111 771
Ice & food	8 681	8 951	8 125	5 306	4 757
Other running costs	14 023	14 066	14 807	17 519	15 705
Labour share	176 030	175 188	169 339	216 108	193 737
Social insurance	52 755	52 429	50 802	23 384	20.964
Repairs, maintenance, vessel insurance, general expenses	46 077	46 035	48 075	164 591	147 554
Taxes	21 362	20 140	16 858	20 258	21 116
Gross cash flow	152 534	144 825	141 092	259 346	229 536
Depreciation	90 152	86 316	87 703	173 590	151 088
Interest	22 704	21 099	22 084	48 125	39 235
Net profit	39 678	37 410	31 305	37 631	39 213

(1) 1998: 1 US\$ = 0,90 Euros.

1999: 1 US\$ = 0,94 Euros.

2000: 1 US\$ = 1,08 Euros.

Type of vessel	Pole & liner 18 m	Pole & liner 24 m	Tuna seiner 56 m	Tuna seiner 64 m	Tuna seiner 70 m
Year	1999	1999	1998	1998	1998
Landings (t)	64	153	4500	5000	6000
Total earnings	204 750	367 850	6 000 000	6 666 670	8 000 000
Fuel	12 659	39 468	467 833	505 167	584 500
Lubricant		3 271	32 667	51 333	58 333
Harbour dues		11 394	25 170	31 500	38 767
Bait, ice, salt	1 598	4 936	65 333	59 500	70 000
Food	15 984	5 459	103 833	62 286	115 500
Costs of selling fish (1)		1 372	1 102 997	1 464 167	1 614 400
Other running costs		1 131	15 167	19 833	12 833
Labour share	81 902	169 415	707 000	1 116 500	1 146 833
Social insurance	5 115	35 745	177 333	252 000	178 500
Other labour charges		3 723	145 833	89 833	222 833
Gear expenses	3 197	4 936	128 333	89 381	115 500
Repairs and maintenance	13 427	14 362	351 167	624 167	700 000
Vessel insurance	3 197	4 787	92 167	72 333	121 333
General expenses		1 596	474 833	256 670	483 000
Taxes	4 324	2 711	419 407	337 838	387 338
Gross Cash flow	63 347	63 544	1 690 927	1 634 162	2 150 330
Depreciation	55 319	58 511	712 311	845 874	1 246 541
Interest	21 664 (2)	22 914 (2)	163 778	194 555	286 180
Net profit	- 13 636	- 17 881	814 838	593 733	617 609

(1) Discharging and selling.

(2) Estimate.

11. ANTIGUA & BARBUDA

TABLE 45
Techno-economic and operational characteristics of Antiguan & Barbudian fishing units

Characteristics	Type of boat				
	Open	Cabin	Sloop	Launch wood	Launch fibreglass
Length (m)	5.7	6.8	11.2	11.8	9.5
Type of engine	Outboard	Outboard	Inboard	Inboard	Inboard
Power (Kw)	37	59	92	122	133
Fish Storage (Kg)	178	124	930	930	1006
Number of traps	40	40	150	150	150
Dimension of trap (m ³)	1.7	1.7	1.7	1.7	1.7
Trap hauler	No	Sometimes	Yes	Yes	Yes
Crew size	2	2	3	3	3
Ownership	Individual				
Fishing days	120	120	104	104	104
Average duration of trips (hours)	4 - 6	4 - 6	48	48	48
N° of traps hauled	20 - 40	20 - 40	150	150	150

TABLE 46
Financial and economic performance of Antiguan & Barbudian fishing units (in US\$)

Investment costs

Investment	Hull	Engine	Fishing equipment	Traps	Total
Open boat	6 240	3 560 (Outboard)	430	3 380	13 610
Cabin	8 520	5 220 (Outboard)	1 970	3 770	1 9540
Sloop	2 4440	9 630 (Inboard)	4 760	4 780	4 3610
Launch (wood)	27 630	14 000 (Inboard)	3 890	15 480	61 000
Launch (fibreglass)	37 500	20 050 (Inboard)	4 570	10 770	72 890
Depreciation Rate	15 %	Outboard: 30 % Inboard: 10 %	10 %		

N.B: Costs of investment and price for fuel are higher in Barbuda compared with Antigua.

Economic and financial performance

Type of boat	Open	Cabin	Sloop	Launch wood	Launch fibreglass
Length (m)	6.5	6.7	10.4	10.6	11.8
Power (KW)	37	59.7	85	127.8	178.1
Total earnings	36 790	28 760	28 530	83 790	79 080
Fuel	2 771	4 029	5 016	6 920	10 053
Lubricant	464	688	200	126	374
Ice	264	614	1 908	4 281	1 960
Food	348	533	859	1 067	1 433
Bait	1 474	1 644	4 267	5 973	4 971
Total labour charges	1 807	1 111	2 370	15 289	2 889
Trap replacement	2 142	1 057	3 551	5 413	5 752
Repairs & maintenance	398	523	2 658	1 974	3 256
Vessel insurance	74			518	769
Fishing licence	40	41	63	64	72
General expenses	7	9	9	9	9
Total costs of operations	9 789	10 249	20 901	41 634	31 538
Gross cash flow	27 001	18 511	7 629	42 156	47 542
Depreciation	2 048	3 060	5 106	5 934	8 850
Interest (1)	361	568	2 281	2 656	2 674
Net profit	24 592	14 883	242	33 566	36 018

(1) Average amount for repayment on five-year loan 80 percent of investment. Interest rate 8 percent.

Type of boat	Open Antigua	Open Barbuda
Length (m)	6.3	6.9
Power (KW)	37.8	35.8
Total earnings	29 280	48 060
Fuel	2 754	2 796
Lubricant	454	479
Ice	440	
Food	415	249
Bait	1 438	1 529
labour charges	2 133	1 319
Trap replacement	1 465	3 157
Repairs and maintenance	344	480
Vessel insurance		185
Fishing licence	38	42
General expenses	9	4
Total costs of operation	9 490	10 240
Gross cash flow	19 790	37 820
Depreciation	2 010	2 104
Interest (1)	347	381
Net profit	17 433	35 335

(1) Idem former table.

12. BARBADOS

TABLE 47
Technical and operational characteristics of Barbadian fishing vessels

Characteristics	Dayboat	Iceboat
Length (m)	9	12
Power (KW)	60	135
Fish storage	no fish hold	10 m ³ for 5 tons fish + ice
Fishing gear	- Up to 3 gillnets 18 - 36 m long 3 m deep 4 cm stretched mesh - dipnet - handline - FAD	- Up to 6 gillnets 18 - 36 m long 3 m deep 4 cm stretched mesh - dipnet - handline - FAD
Crew	2	3
Ownership	Individual or 2 person partnership	Individual or 2 person partnership
Sharing system	- Boat 50 % - Crew: 2 shares for remaining 50 %	- Boat 50 % - Crew: 3 shares for remaining 50 %
Average fishing trip	1 day	7 days
Fishing days per year	125	100 to 125
Fishing seasons and off-seasons	Season: Nov.-Jul. Off-season: Aug.-Oct.	Season: Nov.-Jul. Off-season: Aug.-Oct.

TABLE 48
Financial and economic performance of Barbadian fishing vessels (in US\$)

Investment costs

	Hull	Propulsion	Equipment	Fishing gear	Total
Depreciation rate	4 %	10 %	10 %	20 %	
Investment costs (in US\$)					
- Dayboat	7 500	12 500	1 500	500	22 500
- Iceboat	50 000	18 000	10 000	2 500	90 000

Economic and financial performance

	Type of vessel	
	Dayboat	Ice boat
Total earnings	17 270	45 320
Fuel & lubricant	3 125	3 625
Food	313	1 813
Landing tax	305	800
Ice		3 625
Labour share	6 920	11 139
Total labour charges	6 920	11 139
Repairs & maintenance	1 250	3 250
Vessel insurance	1 500	3 600
Total costs of operations	13 413	27 852
Gross cash flow	3 857	17 468
Depreciation	1 790	5 940
Interest (1)	1 170	4 505
Net profit	897	7 023

13. TRINIDAD & TOBAGO

TABLE 49
Technical and operational characteristics of Trinidadian fishing units

Type of vessel	Length (m)	KW	Onboard facilities /storage	Fishing gear	Crew	Fishing trip (days)	Fishing days/year
Artisanal trawler	7.9 - 10.4	35 - 80	Portable boxes with ice, average capacity: 31 kg	1 Trawl headrope: 10.7 m mesh size 3.5 cm	2	1	145
Semi-industrial trawler	9.3 - 12.1	120 - 180	Ice hold with storage capacity 5 tons	1 Trawl headrope 12.90 m mesh size 3.5 cm	3	1	195
Industrial trawler	10.9 - 23.6	270 - 310	Ice hold with storage capacity 8 - 12 tons	2 Trawls headrope 15 m mesh size 3.5 cm	4	15	207

Ownership: individual for the three types of fishing. Some individual may own more than one vessel.

TABLE 50
Financial and economic performance of Trinidadian fishing units (in US\$)

Investment costs

Investment	Hull, engine, fishing gear	Shore-based equipment	Total
Depreciation rate	10 %	20 %	
Cost of investment (in US\$)			
Artisanal trawler	8 602	125	8 728
Semi-industrial trawler	48 387	3 052	51 440
Industrial trawler	95 968	3 540	99 508

Economic and financial performance

Type of vessel	Artisanal	Semi-industrial	Industrial
Total earnings	24 231	65 337	78 280
Fuel	7 773	27 213	35 041
Lubricants	1 102	1 258	2 863
Ice	807	2 672	5 007
Food		903	1 916
Costs of selling fish	335	1 059	308
Other running costs	805	2 153	2 224
Labour charges, wages	5 676	10 553	8 852
Gear expenses	1 634	6 454	11 836
Repairs & maintenance	2 303	5 932	8 478
Vessel insurance		484	2 361
General expenses	529	290	2 390
Total costs of operation	20 964	58 971	81 276
Gross cash flow	3 267	6 366	- 2 996
Depreciation	885	5 445	10 219
Interest (1)	551	3 367	6 514
Net profit	1 831	- 2 446	- 19 729

14. ARGENTINA

TABLE 51
Techno-economic and operational characteristics of Argentinian fishing units

Type of vessel	Length (m)	KW	On board facilities/storage	Fishing gear	Crew size (1)	Fishing days
Ice trawlers						
25 m	25	515	Ice + fishhold 64 tons	Bottom trawl	10	
30 m	30	661	Ice + fishhold 100 tons	"	13	
35 m	35	956	Ice + fishhold 170 tons	"	18	234

(1) Estimate

TABLE 52
Financial and economic performance of Argentinian fishing units (in US\$)

Investment costs

Investments in US\$	Hull, engine and propulsion, fishing gear
Type of vessel	
Ice trawler 25 m	780 000
" 30 m	1 200 000
" 35 m	2 000 000

Economic and financial performance

Type of vessel	Trawler 25 m	Trawler 30 m	Trawler 35 m
Total earnings	553 011	864 000	1 468 000
Fuel	97 796	125 738	181 621
Harbour dues	40 555	58 008	97 320
Ice, freezing, preservation of catch	42 451	66 330	112 761
Labour shares, wages	109 200	162 240	238 680
Social insurance	58 800	87 360	128 520
Repairs and maintenance	53 783	67 082	117 114
Vessel insurance	5 131	6 480	10 540
General expenses	29 860	46 656	73 440
Total costs of operation	666 890	733 930	1 280 390
Gross cash flow	115 435	244 106	508 804
Depreciation	31 200	48 000	80 000
Interest (1)	31 600	48 600	81 000
Net profit	52 635	147 506	347 804

(1) Average amount for repayment on eight-year loan 80 percent of investment. Interest rate 9 %.

15. PERU

TABLE 53
Technical and operational characteristics of Peruvian fishing units

Types of fishing	N° of vessels	m ³ average	On board facilities	Ownership	Fishing days
Purse seiners					
Sardine, anchovy (fishmeal)	598	272	no conservation 95 % RSW 5 %	Company	192
<i>Since 1992, new boats are built with RSW conservation system; the average reaches 350 m³</i>					
Anchovy, Sardine, Horsemackerel, Mackerel	16	430	RSW 80 % Ice 20 %	Company	192
<i>New boats built since 1995:</i>					
Purse-seiners/Trawlers					
Horsemackerel, Mackerel	49	348	RSW 61 % Ice 39 %	Company	192
<i>Major type was built in 1995 with 867 m³ for direct human consumption</i>					
Trawlers					
Hake	63	102	Ice 95 % Freezing 5 %	Company	192
<i>Majority of boats were built between 1960 and 1975; only 12 since 1985 (average 200 m³)</i>					

TABLE 54
Financial and economic performance of Peruvian fishing units (in US\$)

Investment costs

Investments	Hull	Engine and other equipment	Fishing gear	Total value
Depreciation rate	4 %	6.6 %	10 %	
Type of vessel				
Purse seiners				
350 m ³	1 448 500	151 500	258 000	1 858 000
650 m ³	4 038 000	402 000 (1)	400 000	4 840 000
Trawlers				
102 m ³	168 000	52 500	25 000	245 500
120 m ³	198 000	67 000	25 500	290 500

Economic and financial performance

Type of vessel	Purse seiner			Trawler	
	200 m ³	350 m ³	650 m ³	102 m ³	120 m ³
Conservation	Ice	RSW	RSW	Ice	Ice
Landings (tons)	8 640	41 011	77 760	4 061	4 752
Total earnings	846 720	1 722 470	3 264 920	536 026	627 264
Fuel	329 523	441 151	618 722	252 578	286 032
Lubricant	33 776	45 218	63 419	25 889	29 318
Food	10 133	27 131	38 051	15 534	17 298
Labour share	192 617	381 792	684 804	118 812	139 035
Social insurance	66 044	130 907	235 145	40 737	47 672
Repairs & maintenance	13 272	35 190	83 108	4 770	5 601
Fishing licence	3 802	18 045	34 214	2 113	2 486
Vessel insurance	9 611	49 330	128 502	6 518	7 713
General expenses	16 934	14 124	26 127	8 684	10 162
Taxes	28 740	57 172	108 691	2 600	6 258
Total costs operations	704 452	1 200 060	2 020 783	478 235	551 575
Gross cash flow	142 268	522 410	1 244 137	57 791	75 689
Depreciation	17 697	93 840	221 620	12 720	14 937
Interest (1)	57 509	295 170	768 903	39 001	46 150
Net profit	67 062	133 400	253 614	6 070	14 602

(1) Average amount for repayment on five-year loan 60% of investment. Interest rate 17%.