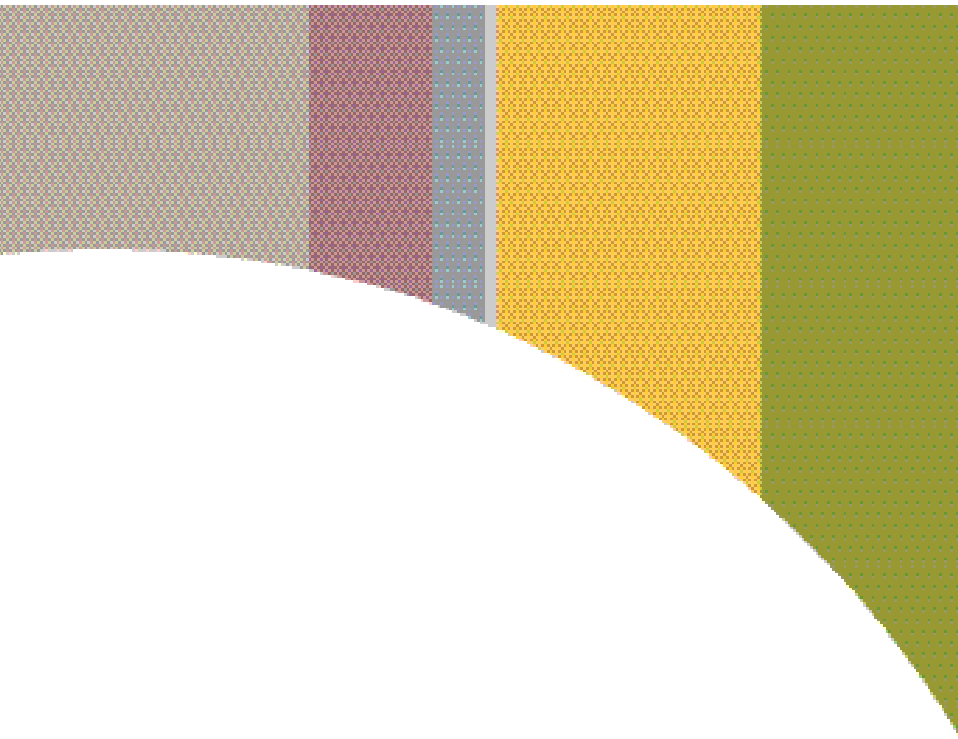


Korean Coastal and Offshore Fishery Census



[]



해양수산부
국립수산과학원
National Fisheries Research &
Development Institute



가 240

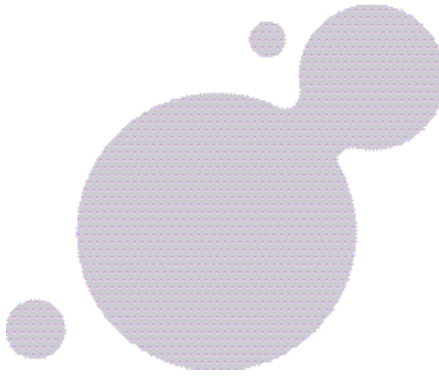
가

가

2002 ~ 2004 3

가

2004. 12.



發 刊 辭

가
,

가 .

, EEZ

EEZ

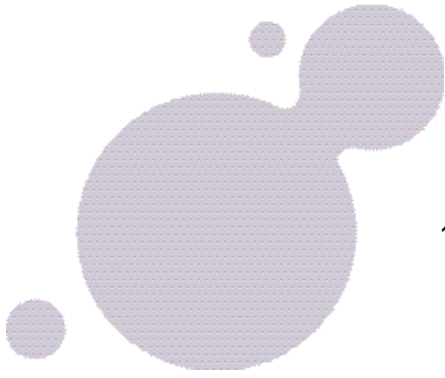
2002 2004

()가

가

EEZ .

2004. 12.



1.

2002 2

,
, 2002 5 ,
, ()
, ,
.

, 2002 9 2004 12 ,
.
: 11

2.

가.

- ,
.
(1) : 가 , ,
, ,
.
(2) : 가 , ,
,
(3) : () 가 ,
, ,
.
(4) : ,
, .

3.

가
2003 12 , 2002 12 .
, 2004 8
, 2003 12
.
, ,
1 , ,
, 1 , 8 .
1 9 .

1.	가 .	15
2.		15
3.		16
4.		17

1.	가 .	
	가.	21
	.	22
	.	23
	.	24
	.	24
2.		
	가.	
	1)	
	가)	25
	)	31
	)	36
	)	41
	)	46
	)	50

2)		
가)	.....	53
)	.....	57
)	.....	61
)	.....	64
3)		
가)	.....	67
)	.....	69
4)		
가)	.....	71
)	.....	71
.		
1)	.....	73
2)	.....	75

3.

가.		
1)	.....	83
2)	.....	84
.		
1)	.....	86
2)	.....	87
3)	.....	88

4.			
가.			
1)			
가)		.....	127
)		.....	128
)		.....	131
2)			
가)		.....	135
)		.....	136
)		.....	140
)	가	가	..... 143
3)			
가)		.....	146
)		.....	146
)		.....	148
)		.....	149
.			
1)			
가)		.....	151
)		.....	153
)		.....	156
)		가.....	159
2)			
가)		.....	165
)	가	.....	166
)		.....	168
)		가	..... 171

CHAPTER 1

1. 가 .
- 2.
- 3.
- 4.

(Mitutoyo, CD-15)

0.1cm

(Sartorius, M-5500S) 0.01g

(immature), (maturing), (mature), (spent) 4
(gonadosomatic index : GSI) / x100

(w)/ (W)x (w)】

Gilson (Love and Westphal, 1981)

가 1cm

, 50% logistic

3.

가.

mm

3 , 3~5 , 5~8 3

mm

m

4.

가.

가

가

가

CHAPTER 2

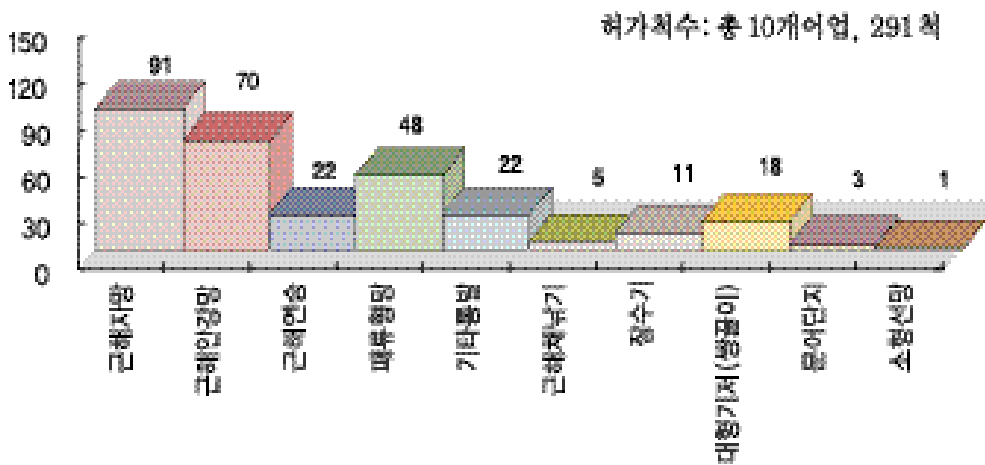
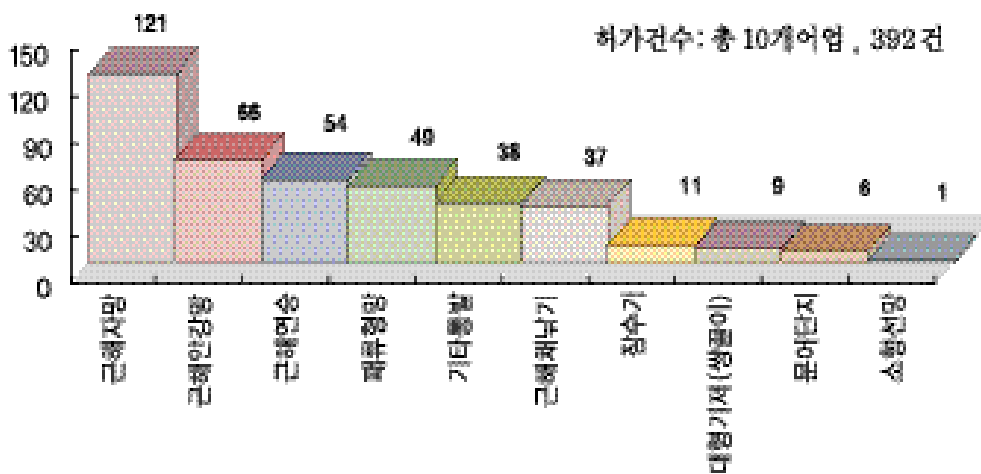
1. 가 .
- 2.
- 3.
- 4.

[1.

가 .

]

가.



1-1. 가

10 가 392 , 가 291 . 가
 121 가 , 66 ,
 54 , 49 , 38 , 37 , 11 .
 10 가 91 가 ,
 70 , 48 , 22 ,
 () 18 , 11 , ,
 10 .

1-1.

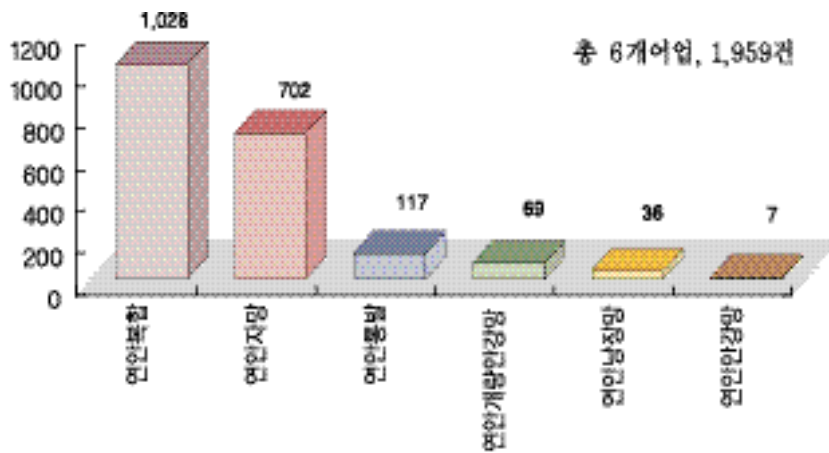
(:)

	1998	1999	2000	2001	2002	2003	
	23,753	20,728	16,265	9,743	10,809	8,796	15,016
	7,436	5,559	5,651	3,749	4,895	3,811	5,183
	12,121	11,458	6,699	3,332	3,667	3,298	6,762
	94	200	338	12	2	24	112
	168	196	442	196	542	272	303
	5	12	25	9	17	2	12
	157	117	149	95	125	105	125
()	3,772	3,186	2,961	2,350	1,561	1,284	2,519

(1998~2003)

15,016

가 , 1998 23,753 가 , 2003 8,796
 가 . 45.0% 가
 6,762 .



1-2. 가

6 가 1,959 가
 1,028 가 , 702 ,
 117 , 69 , 36 , 7 .

1-2.

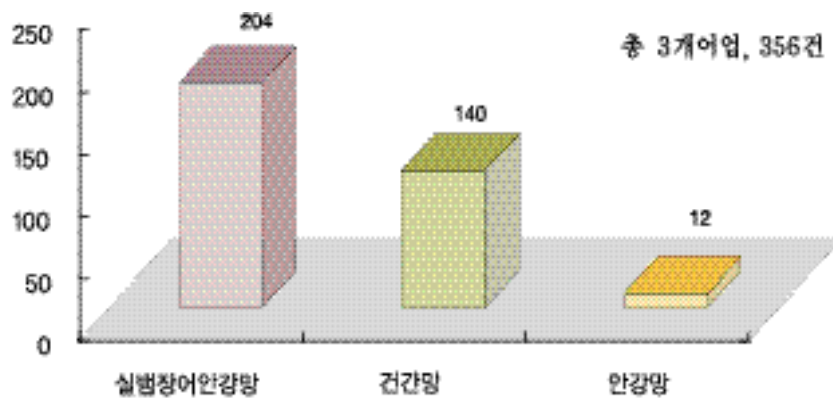
(:)

	1998	1999	2000	2001	2002	2003	
	9,120	11,583	11,067	14,024	17,765	7,329	12,260
	-	-	-	-	-	535	535
	2,871	3,482	4,334	7,506	9,688	3,768	5,275
	992	685	1,324	1,236	1,298	1,523	1,176
	5,223	7,406	5,386	5,276	6,773	1,503	5,261
	34	10	23	6	6	-	13

(1998~2003)

12,260

, , 2002 17,763 가 , 2003 7,329 가 .



1-3. 가

3 가 356 . 가

204 가 , 140 , 12

1-3.

	1998	1999	2000	2001	2002	2003	
	670	3,764	2,826	3,718	2,899	983	2,477
	-	-	-	-	-	88	15
	182	2,096	1,793	2,800	1,858	525	1,542
	-	-	-	-	-	10	2
	488	1,668	1,033	918	1,041	360	918

(1998~2003) 2,477
 , 1999 3,764 가 , 1998 670 가 .
 62.3% 가
 1,542 . 2001 2,800 가
 , 1998 182 가 .
 , 15 0.6% , 2 (0.1%),
 918 (37.1%) .

2003 , 1998 1,018

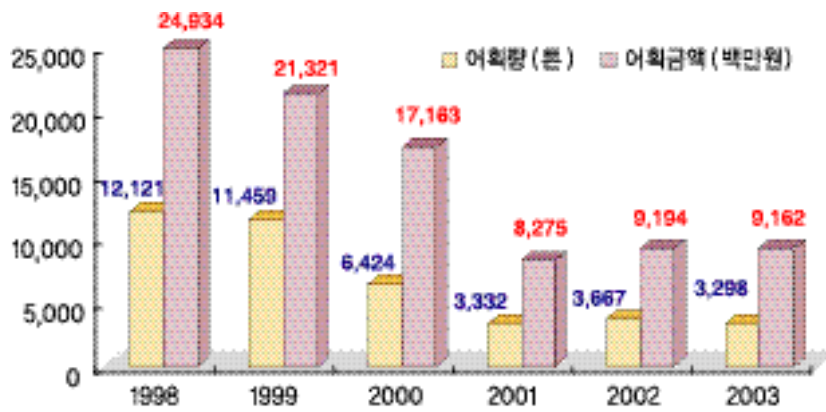
2003 , 가 105 , 가
 1,591ha .

1-3.

	1998	1999	2000	2001	2002	2003	
	5,691	6,100	4,990	3,240	4,468	4,666	4,859

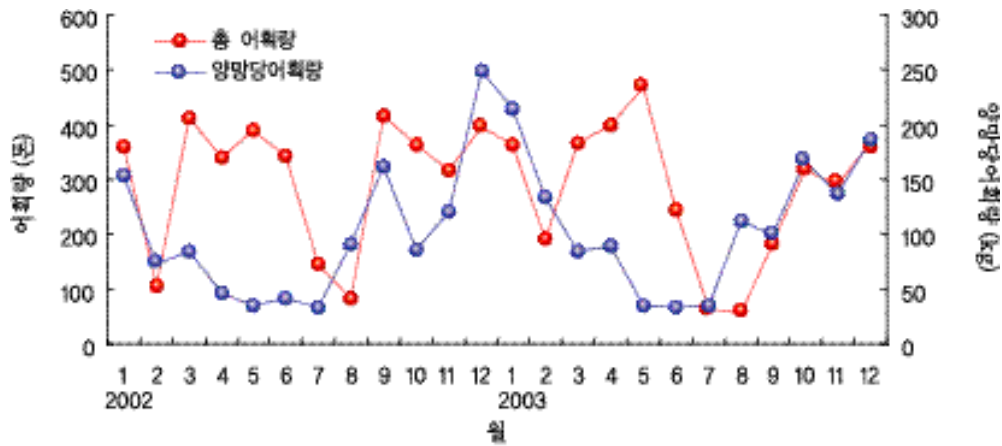
[2]

- 가.
- 1)
- 가)



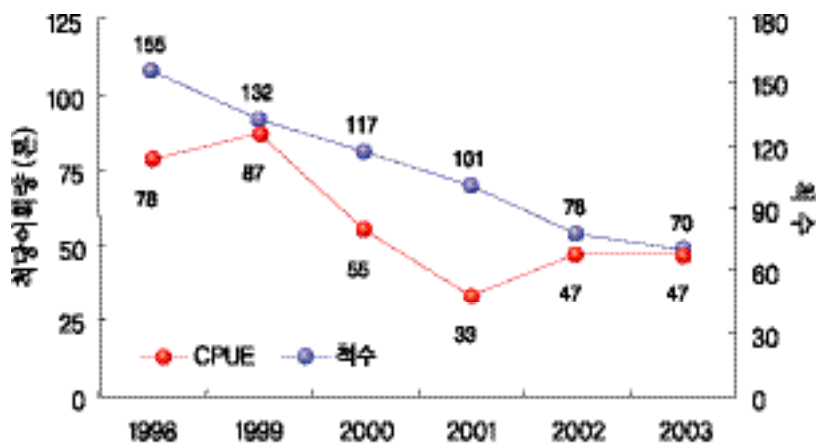
2-1.

가 . 1998 12,121
 , 2003 3,298 가
 . 1998 249 가 , 2001
 83 가 . 2002~2003 92 가



2-2.

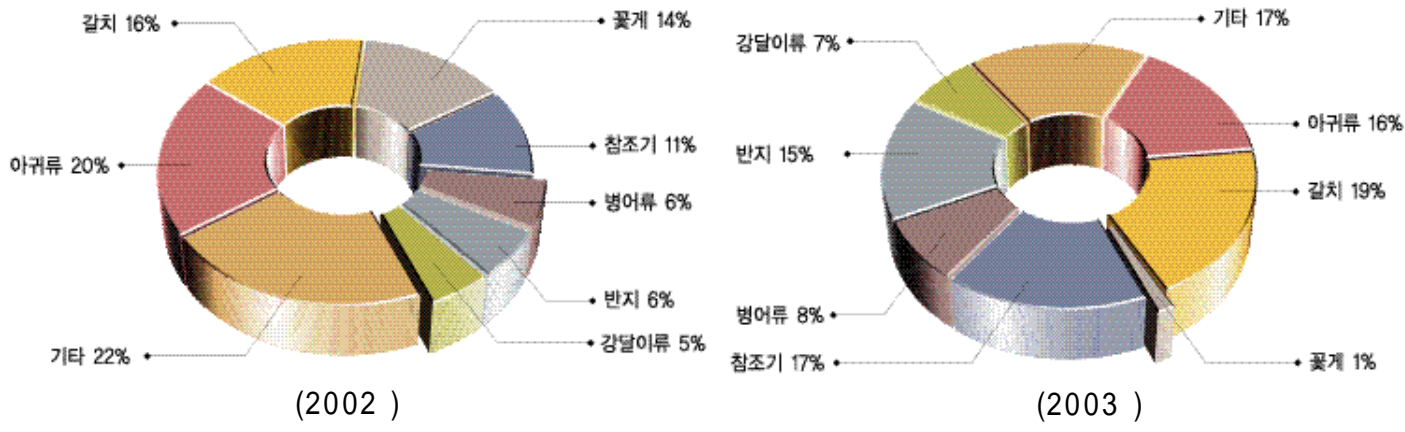
2002 3,667 , 2003 3,298
 (CPUE) 2002 78kg , 2003 83kg
 가 .
 , 3~5 9~12
 가
 9~2



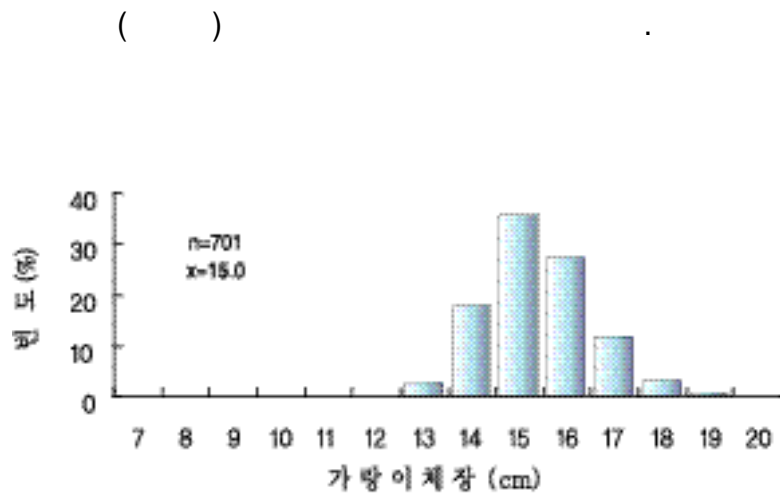
2-3. ()

CPUE()
 1998 155 2003 70
 . CPUE 1998 78 1999 87 가 2001 33 가
 , 2002 2003 47 가 CPUE
 가 가

2002 가 20% 가 , 16%, 14%,
 11%, 가 6% , 2003 가 19% 가
 , 17%, 16%, 가 15% . 1%
 2002

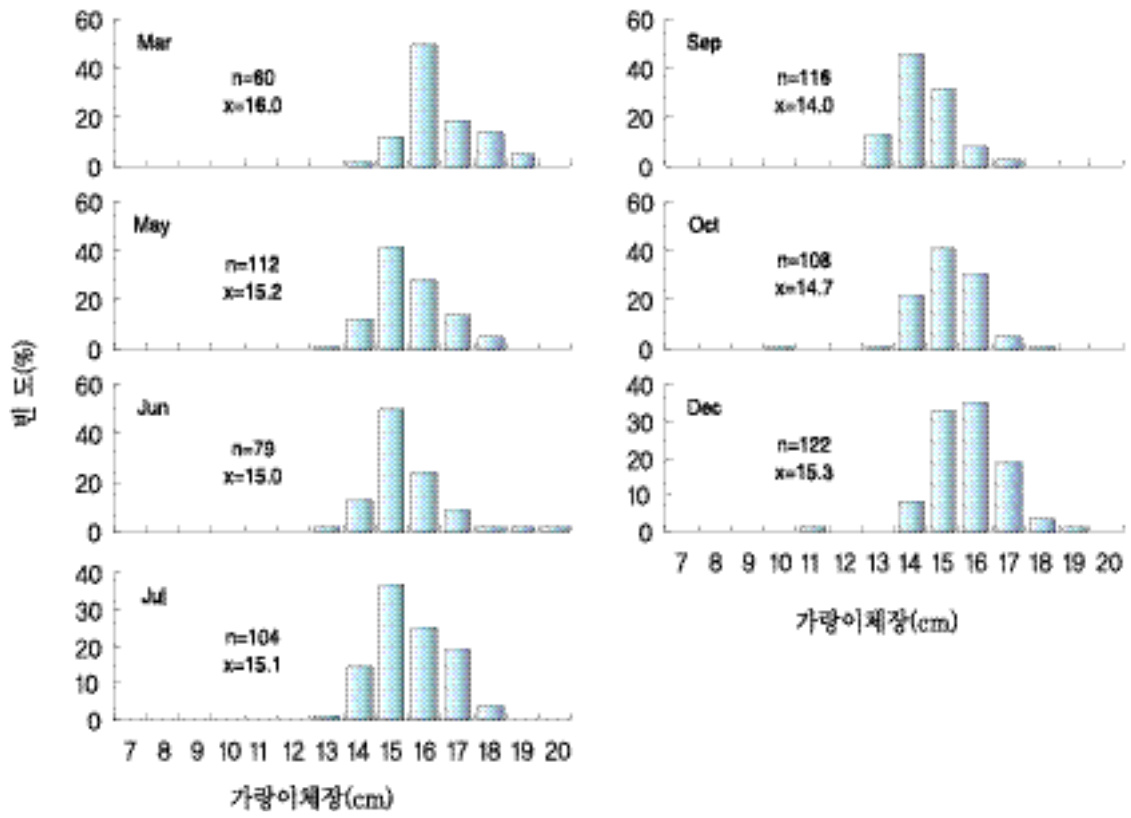


2-4.

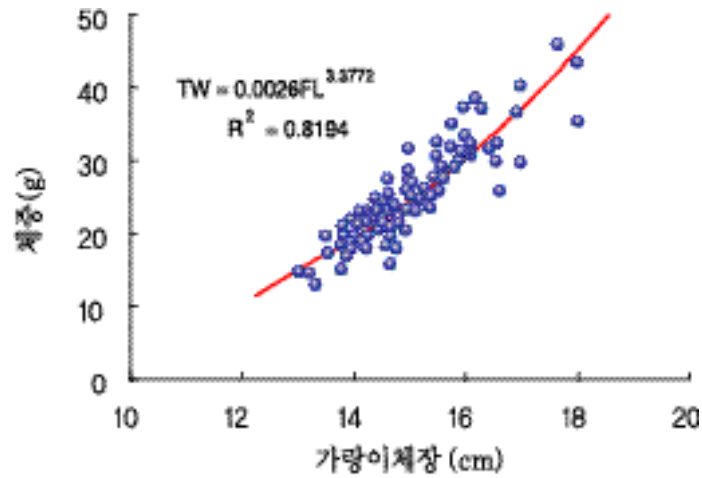


2-5.

크기 (cm)	빈도 (%)	크기 (cm)	빈도 (%)
15.1~16.0	50.0%	16.0~17.0	35.8%
14.1~15.0	42.0%	15.1~16.0	35.2%
14.1~15.0	49.4%	14.1~15.0	35.8%
13.1~14.0	45.7%	13.1~14.0	35.2%



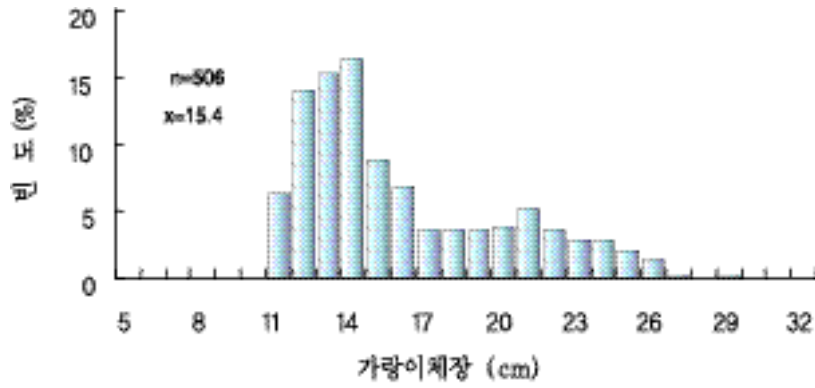
2-6.



2-7.

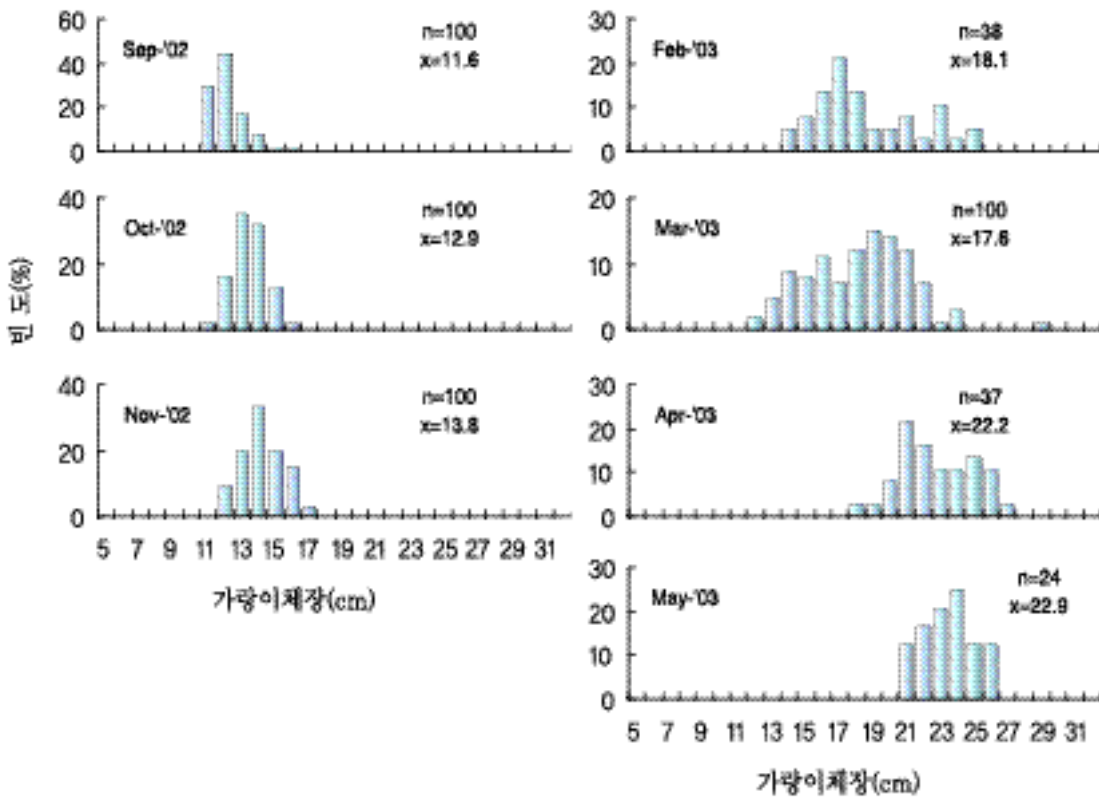
100

$TW=0.0026FL^{3.3772}$ ($R^2=0.8194$) (TW: , FL:가)



2-8.

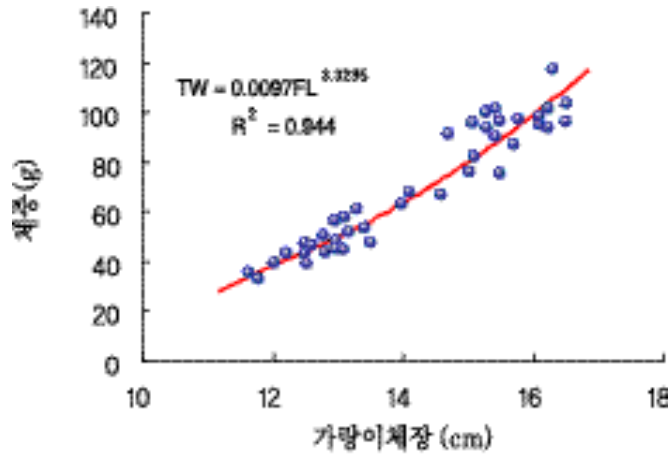
2002 9 ~ 2003 5
 , 가 15.4cm(10.2~28cm) , 13.1~14.0cm 가
 16.4% 가 .



2-9.

, 2002 9 가 11.6cm(10.2~15.0cm)
 가 , mode 11.1~12.0cm 44.0% . 10 가
 12.9cm(10.6~15.0cm) 12.1~13.0cm 가 35.0% 가 . 11

가 13.8cm(11.2~16.0cm) mode 13.1~14.0cm 33.0% .
 2003 2 가 18.1cm(13.2~24.0cm), mode 16.1~17.0cm 21.1%
 . 3 가 17.6cm(11.3~28.0cm) 18.1~19.0cm 가
 15.0% . 4 가 22.2cm(17.6~26.0cm) , 5 22.9cm
 (20.5~25.0cm) 가 .



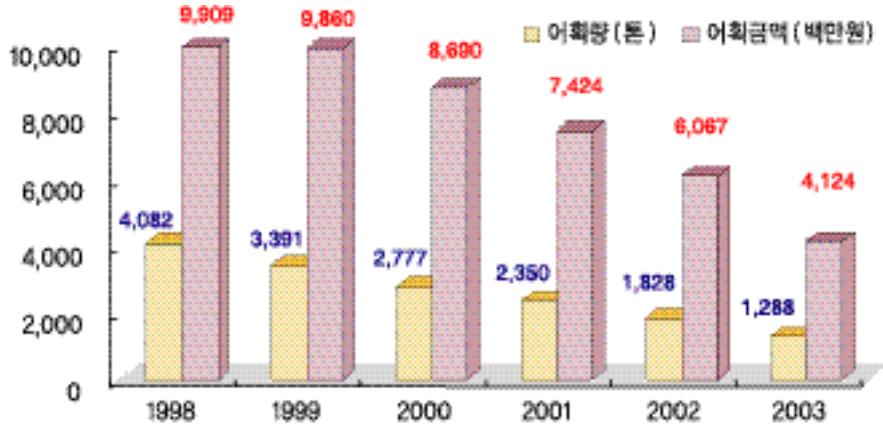
2-10. .

45 -

TW=0.0097FL^{3.3295} (R²=0.944)(TW: , FL:가) .

, 1980 50,000 1994
 24,000 , 2003 3,298 , ,

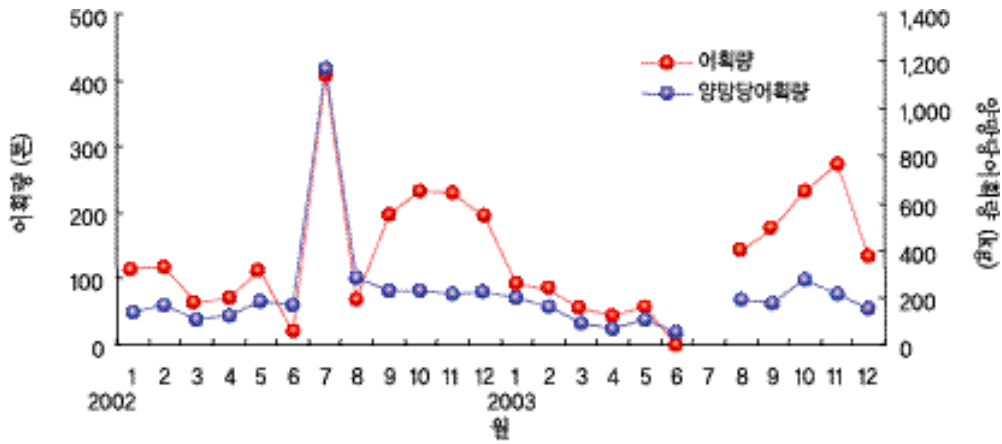
)



2-11.

()

1998
 4,082 가 , 2000 2,777 , 2002 1,828
 2003 1,288 가 1998
 99 가 2000 87 , 2002 61
 2003 1998 42% 41



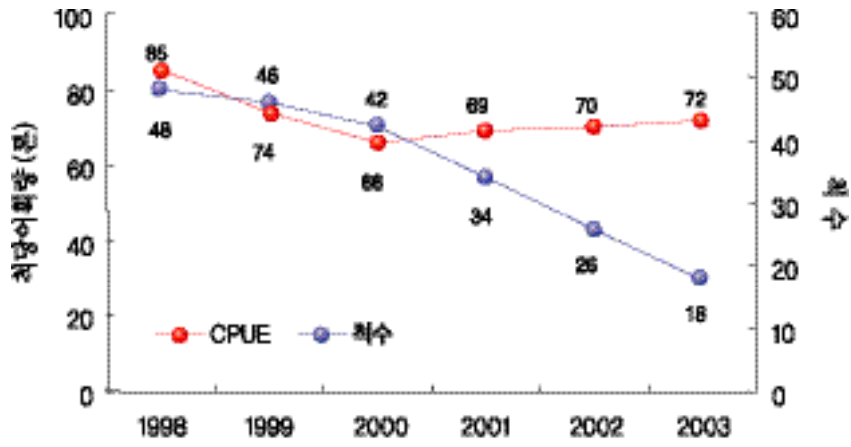
2-12.

()

2002 1,828 , 2003 1,288 30%
 (CPUE) 2002 219kg ,
 2003 169kg
 , 9~12 가
 , 3~6 . 2002 7 가

100~300g
2002 7 1,17kg 가

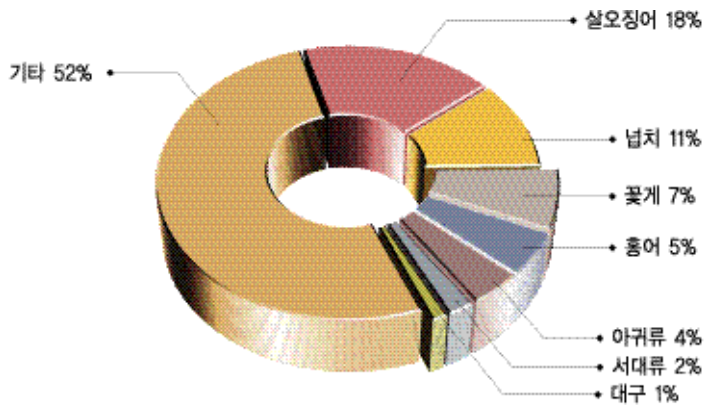
9~12



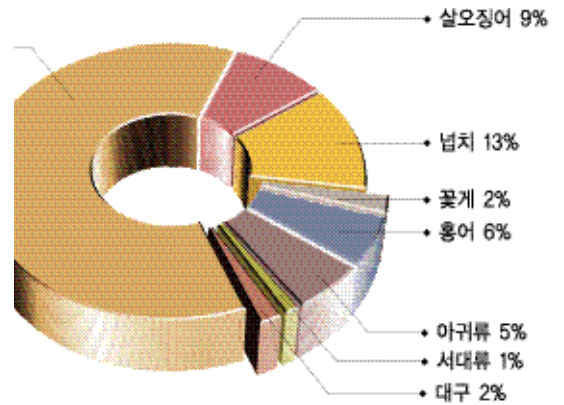
2-13.

CPUE()

1998 48 , 2002 26 , 2000 66 , 2003 18 . CPUE 1998 85 , 2000 42 , 2003 18 가



2002



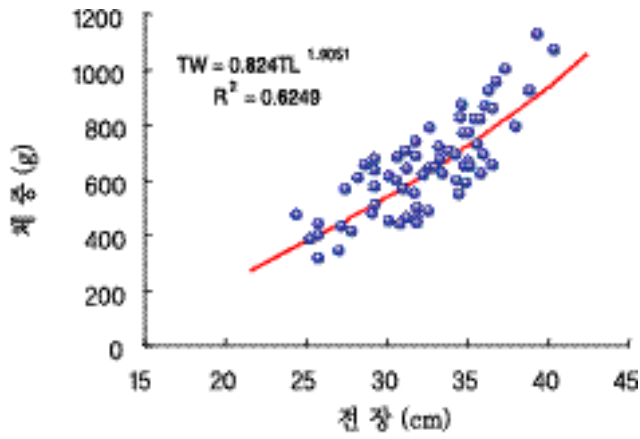
2003

2-14.

2002 가 5% , 2003 가 5% . 2002 가 18% 가 , 2003 가 13% 가 , 11%, 7%, 9%, 6%, 50%

150~152

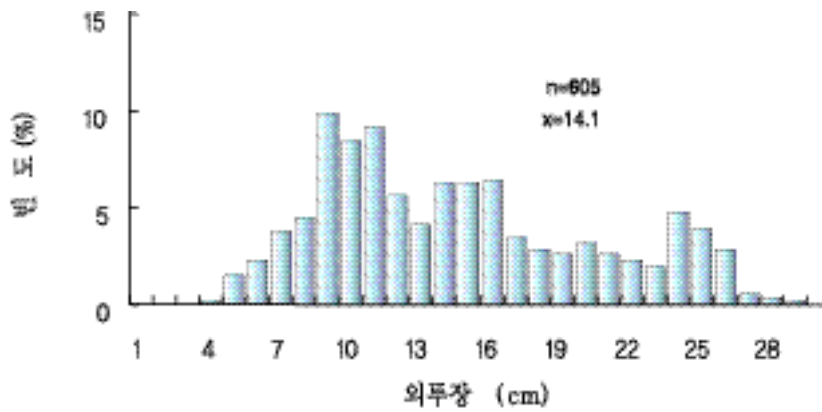
160~162, 171~172



2-17.

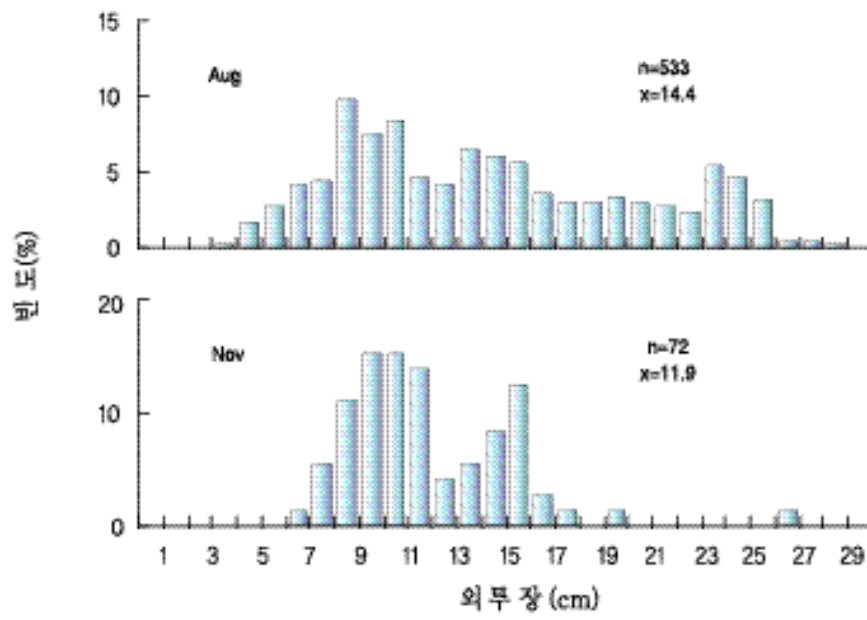
79

$TW=0.824TL^{1.9051}(R^2=0.6249)$ (TW: , TL:)



2-18.

8 11 605
 , 14.1cm(3.8~28.0cm) , 8.1~9.0cm 가 9.9%
 가

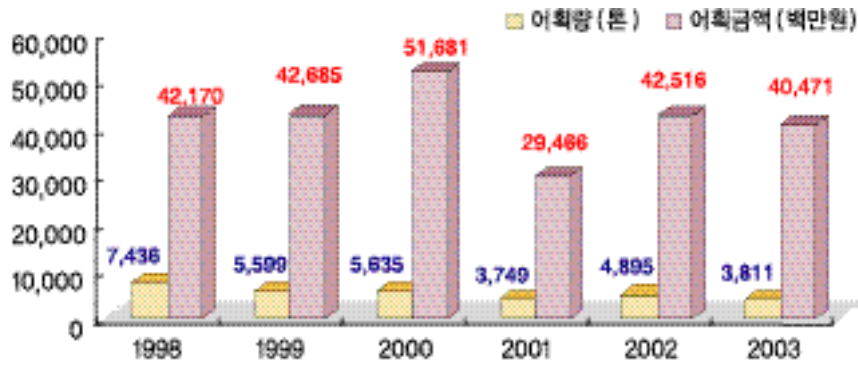


2-19.

가 9.8% , 10.1~11.0cm 가 15.3% 가 14.4cm(3.8~28.0m) 가 11.9cm(6.5~26.cm) 8.1~9.0m

2003 1,288 , 1980 29,000 CPUE 2003 23%

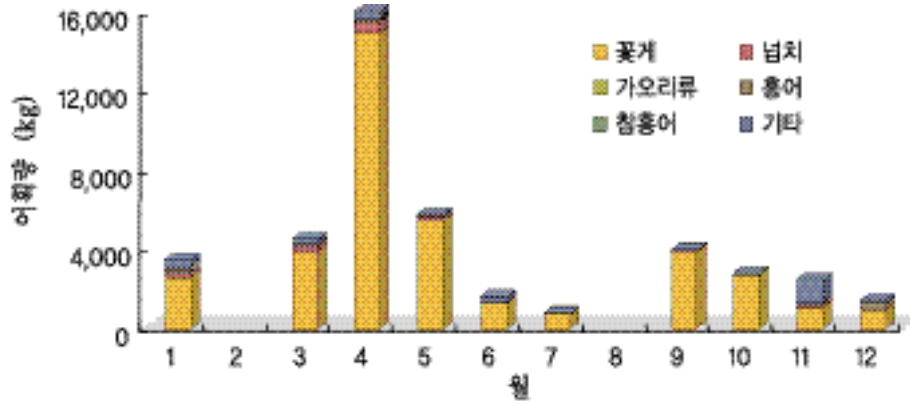
)



2-20.

()

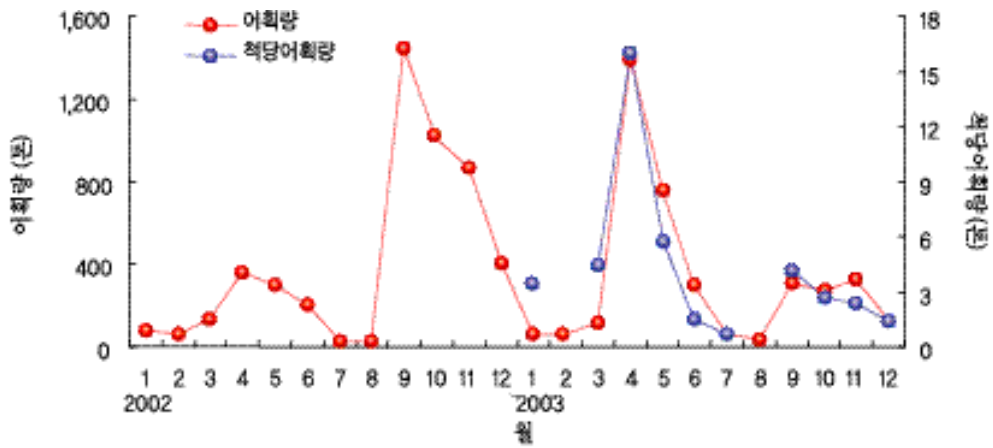
가 , 1998 7,436
 , 1999 5,599
 , 2000 5,635
 가 , 2001 3,749 가 .



2-21.

()

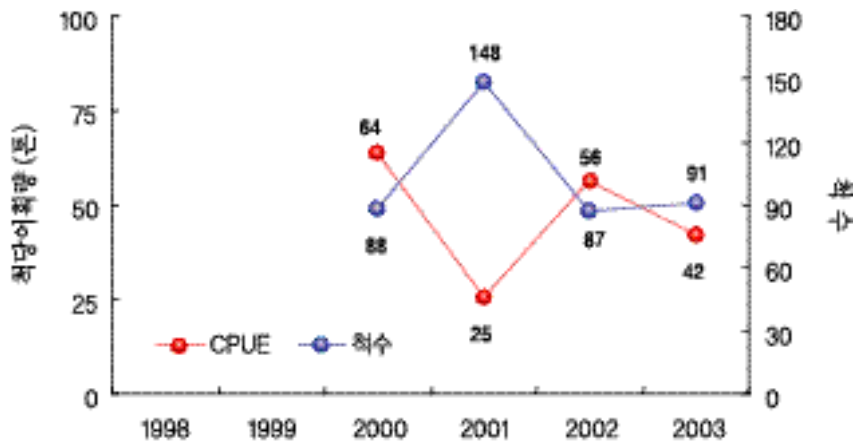
4 15,957kg 가 , 5 3 5,726kg 4,470kg
 . 7 726kg 가
 . 8 가
 45~100%



2-22.

()

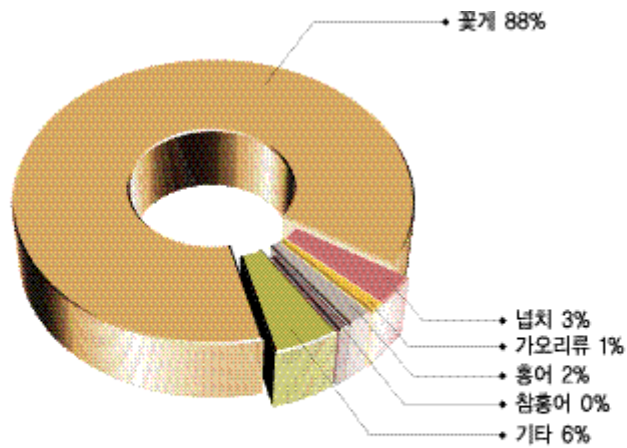
2002 4,895 , 2003 3,811 22%
 (CPUE) 2003 4.90
 4 15.96 가 CPUE
 2002 9 2003 4 가



2-23.

()

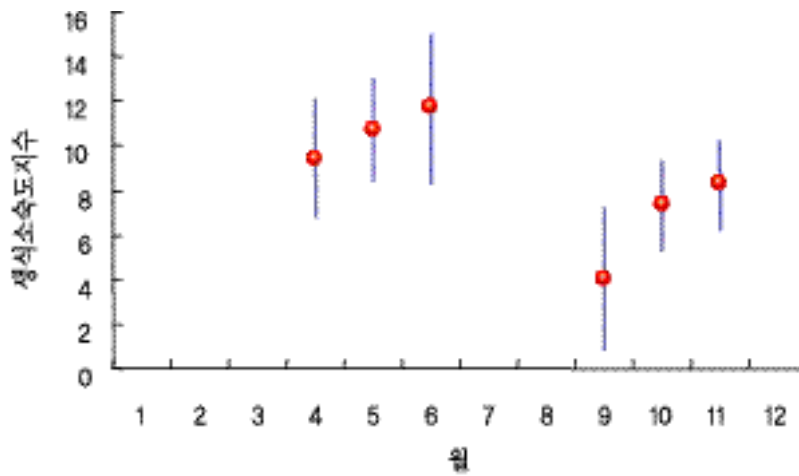
CPUE()
 2000 88 2001 148 가
 , 2002 87 . 2003 91 가 . CPUE
 2000 64 가 가 2001 25 , 2002
 56 가 . 2003 42 .



2-24.

2003년 2월, 가 2%, 가 1%, 가 88%, 3%,

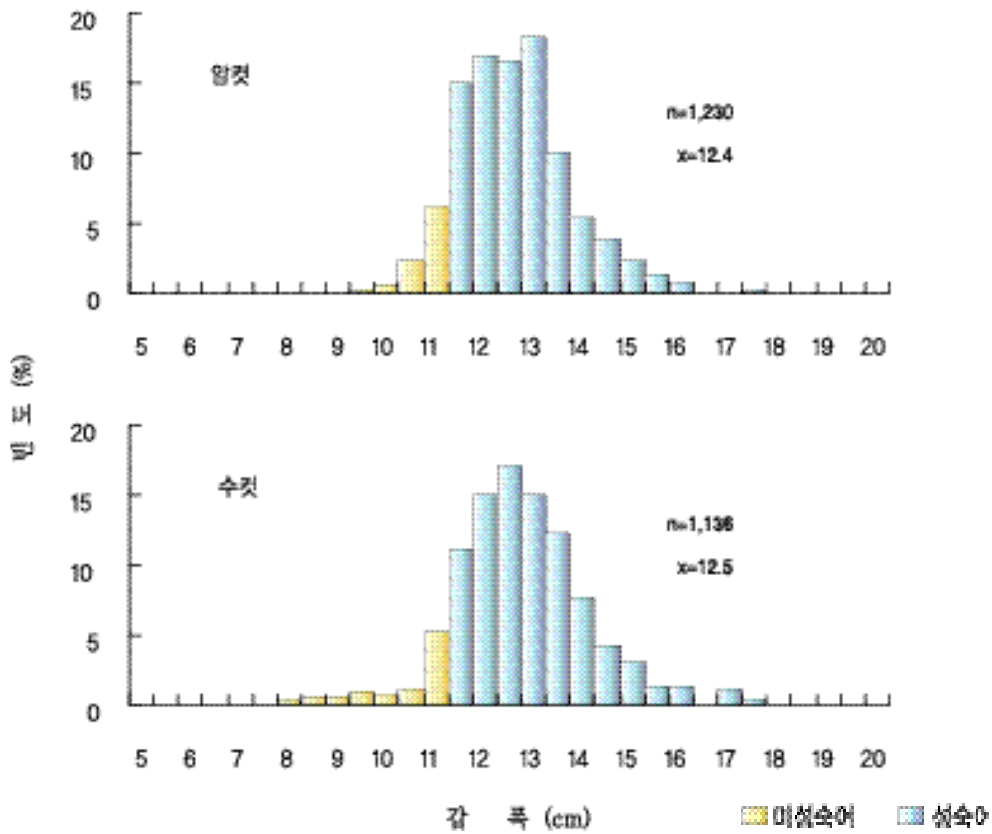
150~153



2-25.

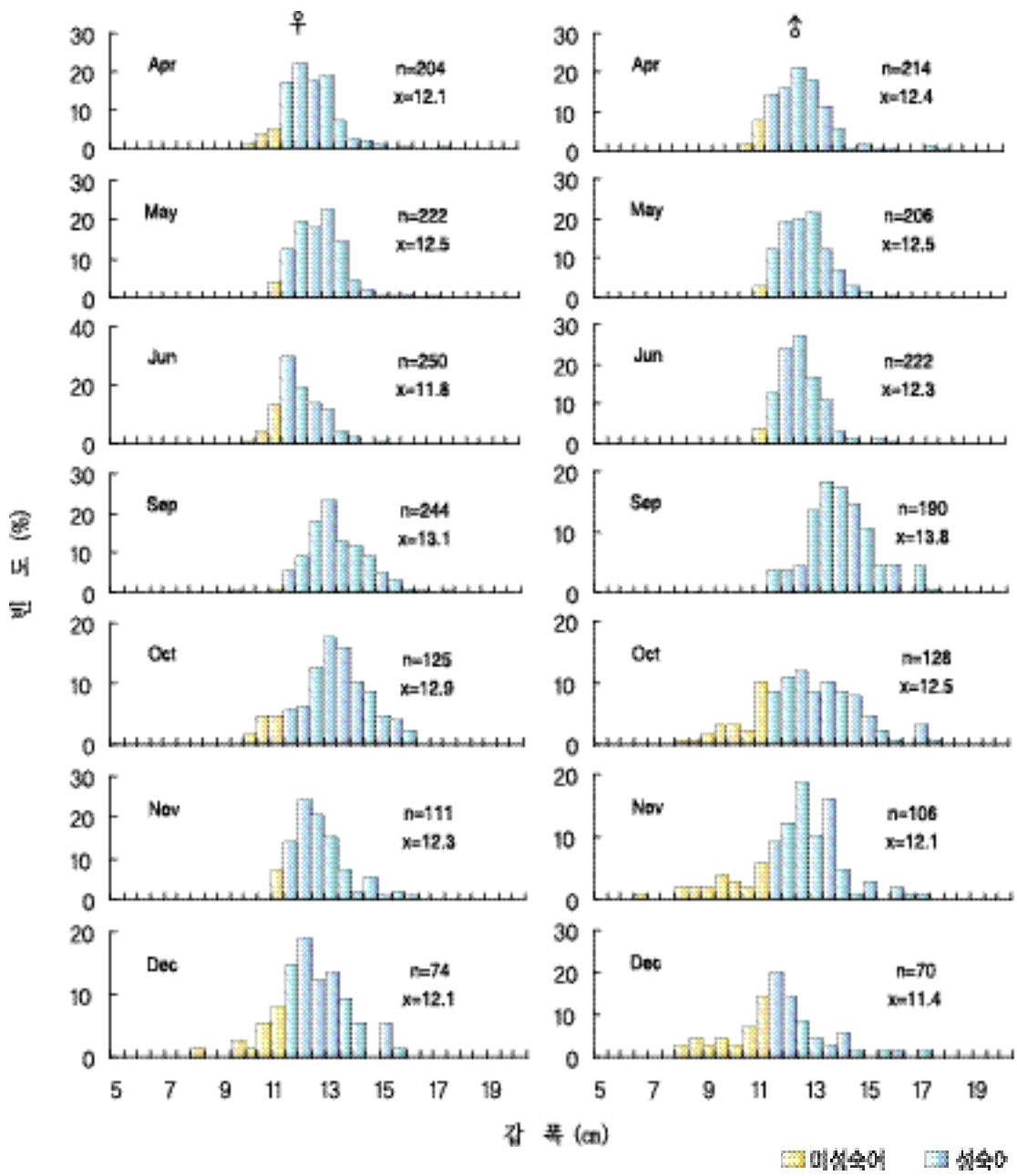
(단위: 개체수 / 10³ × 1,000)
 4월 9.5, 5월 10.8, 6월 11.7, 9월 4.1, 10월 7.3, 11월 8.2
 가 9월 4.1, 5~7

2003 4~12 , 1,230 1,36
 , 12.4cm(7.9~17.5m) , mode 12.6~13.0m
 18.2% . 11cm 9.3% .
 12.5cm(6.5~17.7m) , mode 12.1~12.5m 17.2% .
 9.8% .



2-26.

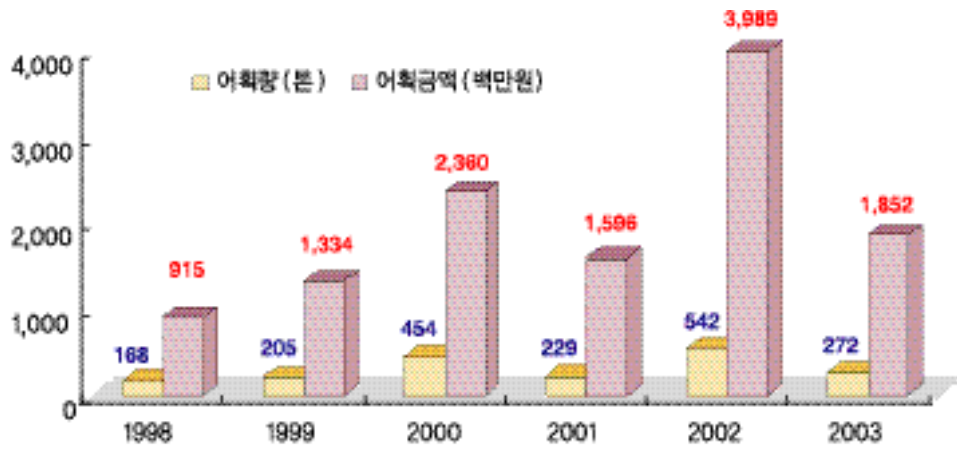
4 12.1cm(9.7~17.5m) mode
 11.6~12.0m 22.1% . 10.3% . 5
 12.5cm(10.6~16.7m) 4.1% . 6 11.8cm
 (9.7~14.7m) 가 , mode 11.1~11.5m 30% .
 18.0% . 9 13.1cm(9.5~17.4m) 가 ,
 1.2% 가 . 10 11 12.9cm(9.9~16.0m), 12.3cm
 (10.7~15.0m) , 11.2% 7.2% . 12 18.9%
 가 , 12.4cm(7.9~17.5m) .
 4~6 , 10~12
 . 20.8~38.6% .



2-27.

1990 4 , 1998 6,237 가
 2003 3,189 .
 2001 2003 3,000
 60~90% , 90%

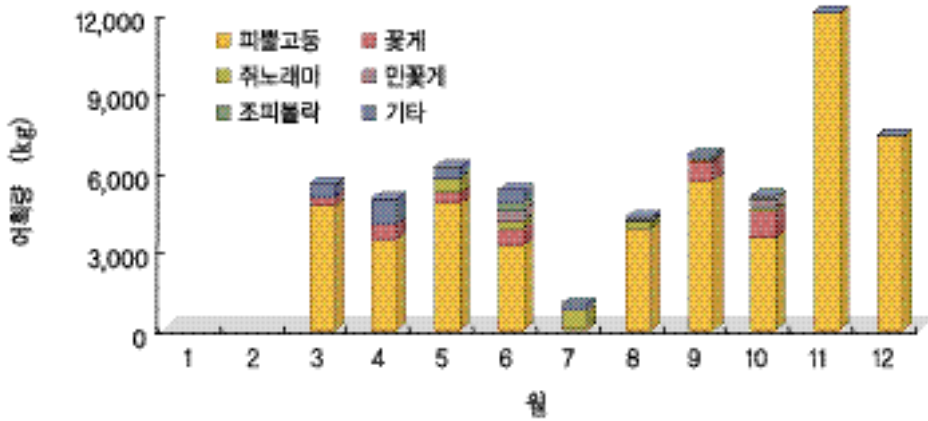
)



2-28.

()

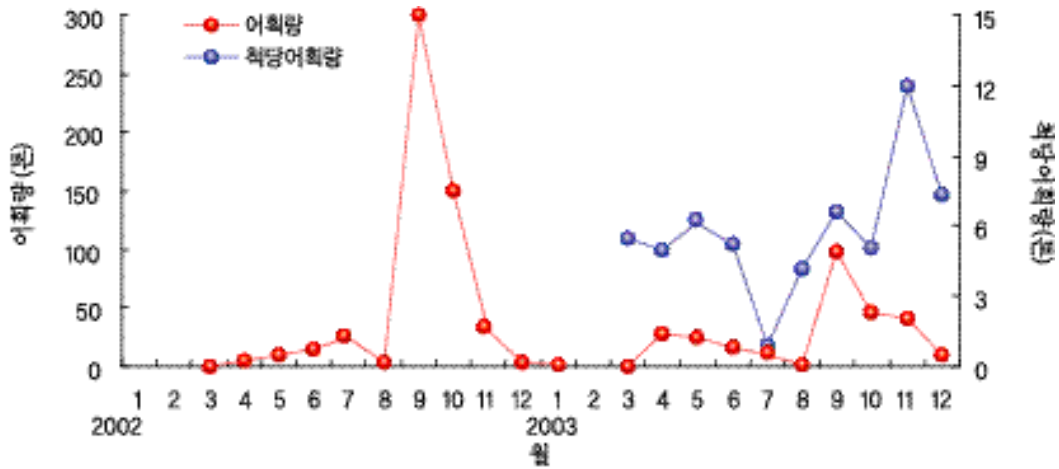
1998
168 2000 454 가 , 2001 229 1998
542 가 , 2003 50% 272 2002



2-29.

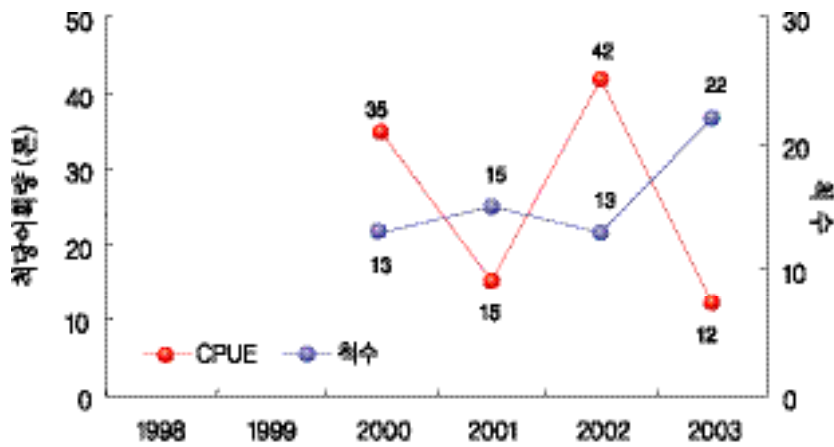
()

11 11,970g 가 , 5 9 , 12
 6,000g . 7 910g 가
 . 9~12 가
 1~2



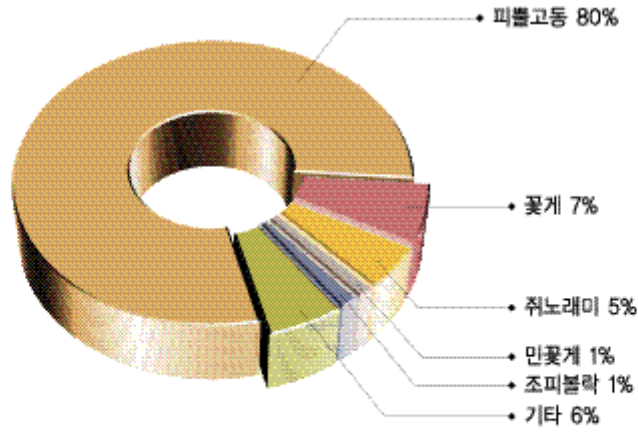
2-30. ()

2002 542 , 2003 272 50%
 (CPUE) 2003 5.44 11 11.98
 가
 2002 2003 9 가
 5~6 11~12



2-31. ()

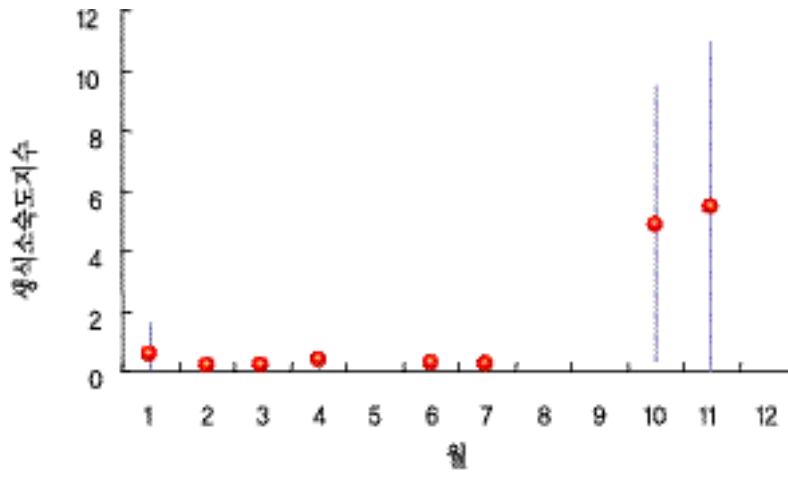
CPUE()
 2000 2002 13~15
 2003 22 가 2000 35
 2001 15 , 2002 42 , 2003 12 가



2-32.

가 80%
 , 7%, 5%, 1%

(/ ×100)
 , 1~7 0.5 가 , 10 4.9 가 , 11
 5.5 가 10~12

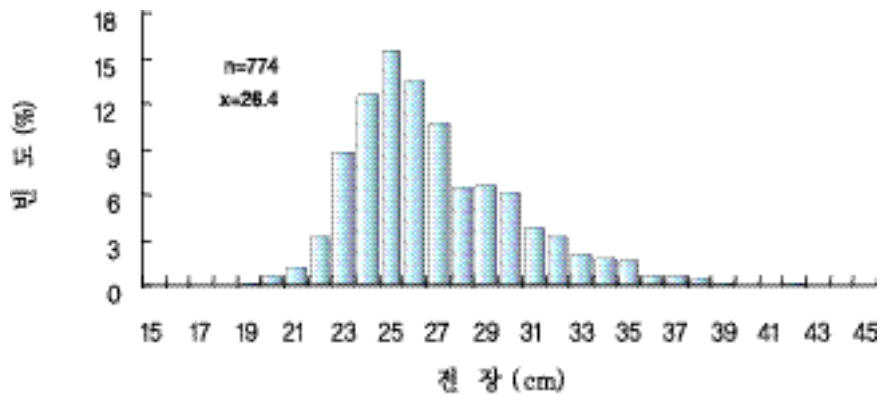


2-30.

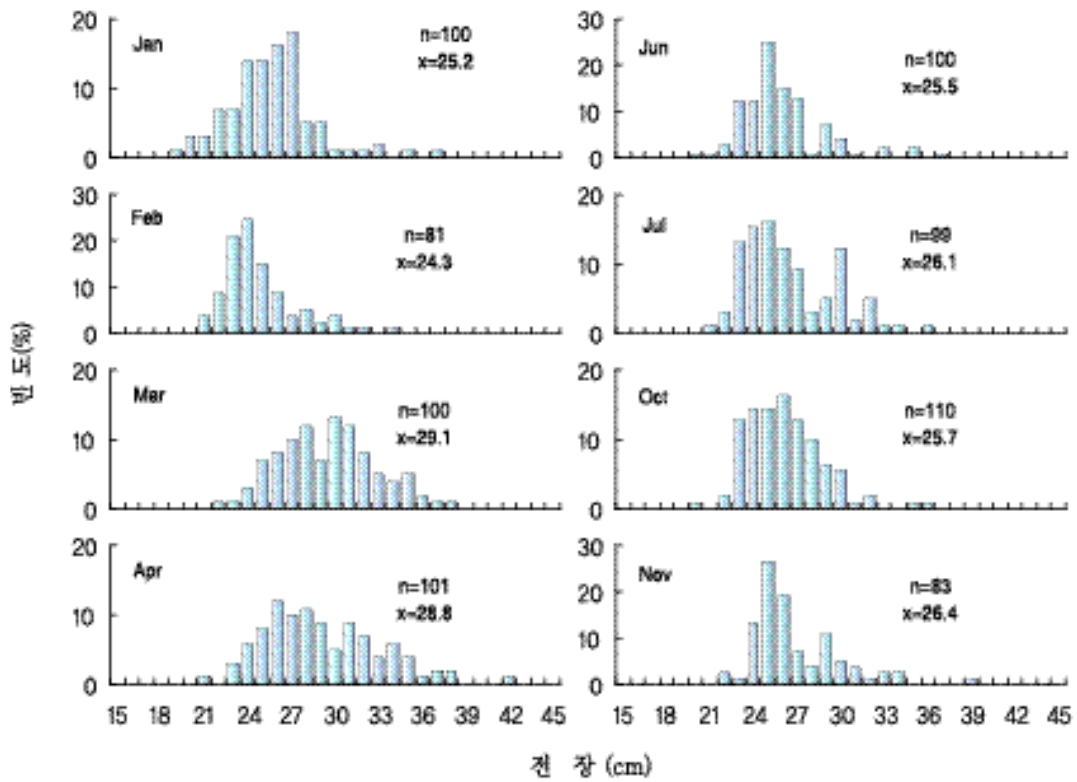
1~11

774

26.4m(19.0~41.0) , mode 24.1~25.0 15.5%

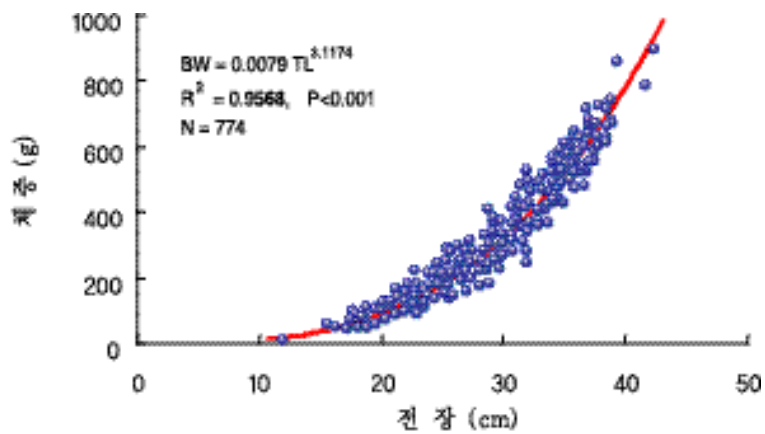


2-31.



2-32.

, 3 29.1cm 가 , 2 24.3cm 가 .

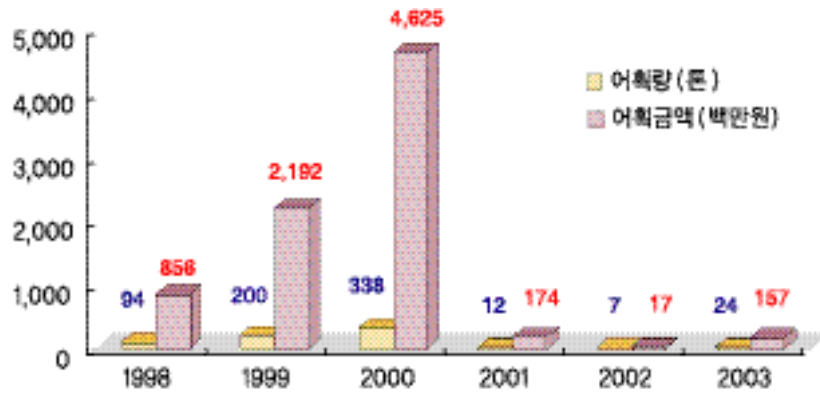


2-33.

774 TW=0.0079TL^{3.1174}(R²=0.9568) 가 .

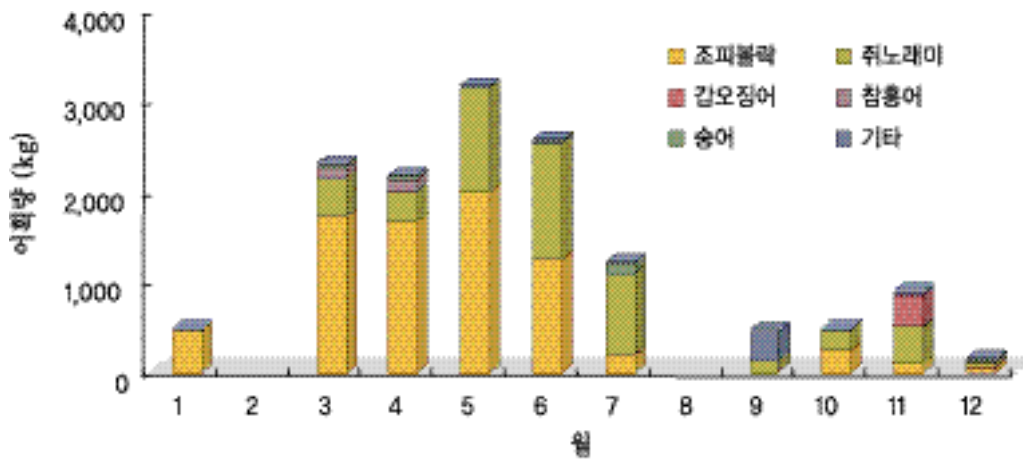
, 1995 3,625
 가 1998 168 . 1999~2003 196~542
 1990 95%
 2003 34%

)



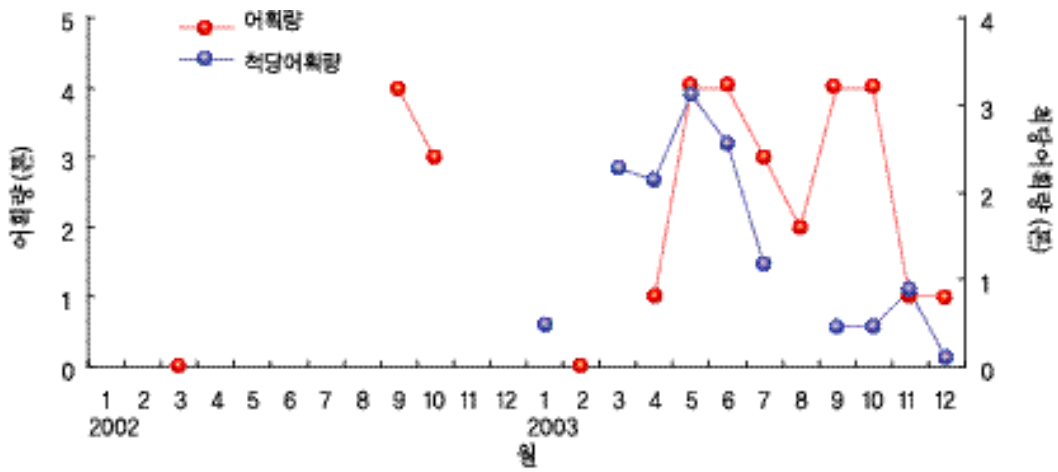
2-34.

94 가 2000 3,385 가 1998
 2002 7 가 , 2003 24
 가 .



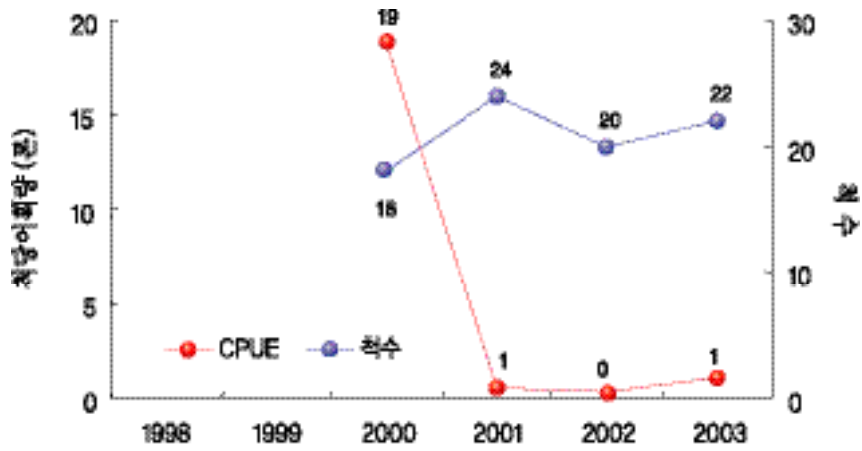
2-35.

5 3,120kg 가 , 12 112kg 가 . 3~6
 2,000kg , 9~12
 1,000kg . 2 8 .



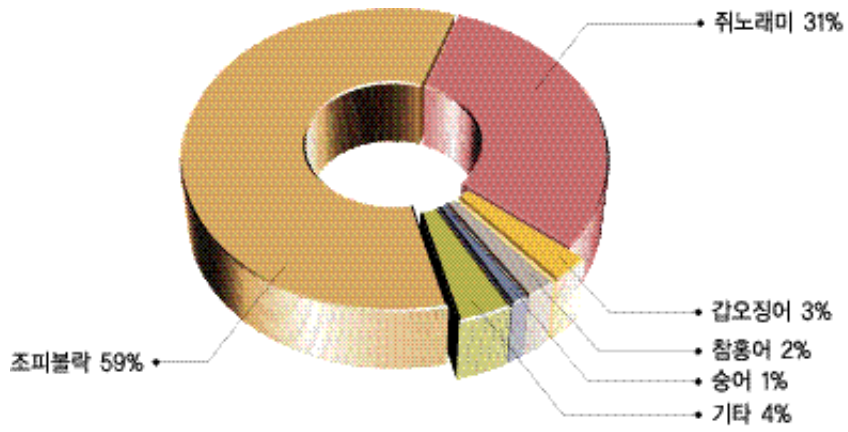
2-36. ()

2002 7 , 2003 24 가
 (CPUE) 2003 1.34 5 3.12 가
 5~6 9~10



2-37. ()

CPUE()
 2000 18 2001 24 가 , 2002,
 2003 20 22 . CPUE 2000 19
 2001~2003 1

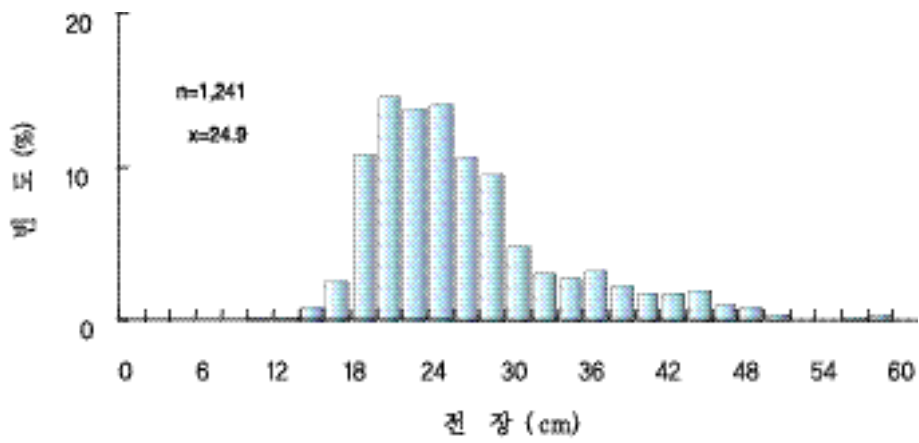


2-38.

3%, 2%, 가 1% , 59% 가 , 31%,

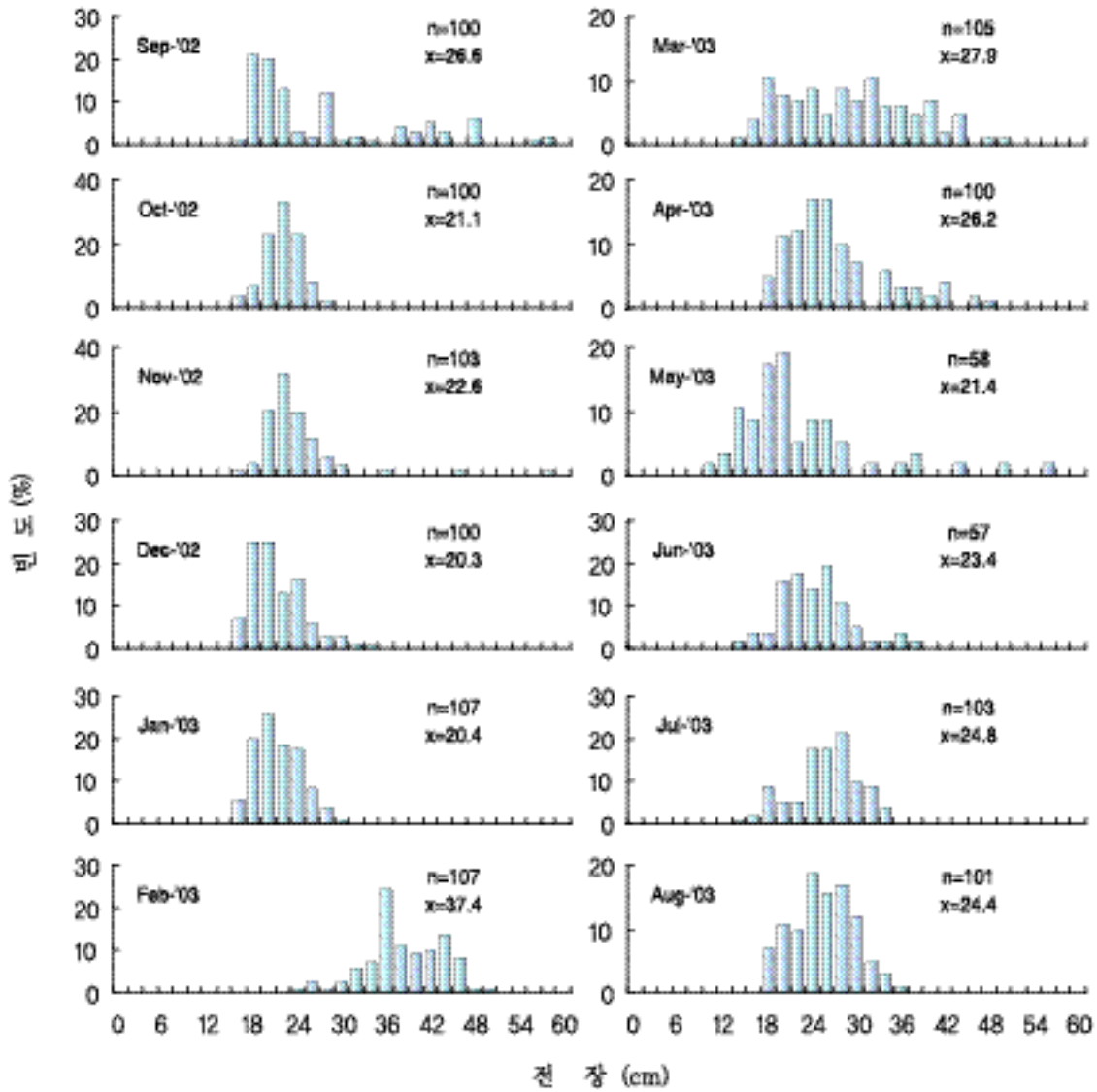
144

151



2-39.

24.9cm(10.0~57.5)



2-40.

2002 9 12 21.1 26.6cm , 2003 1 8 20.4 37.4cm .

1994~2000 200~338 , 1998 94
 7~24 . 1990 2001~2003 90%
 3 0~15

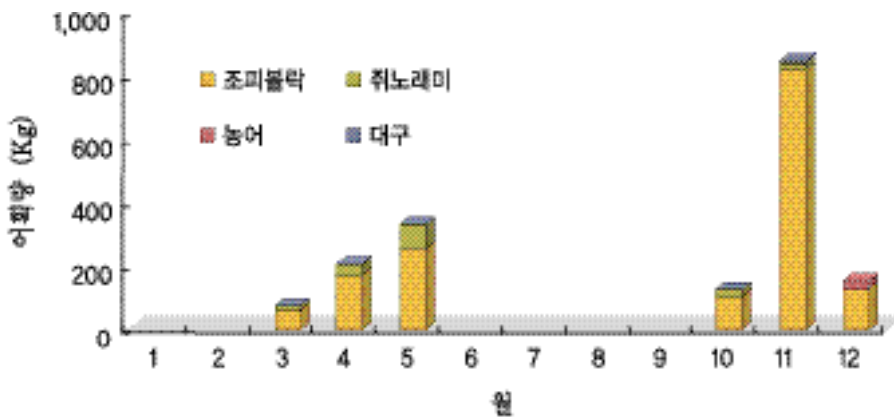
)



2-41.

()

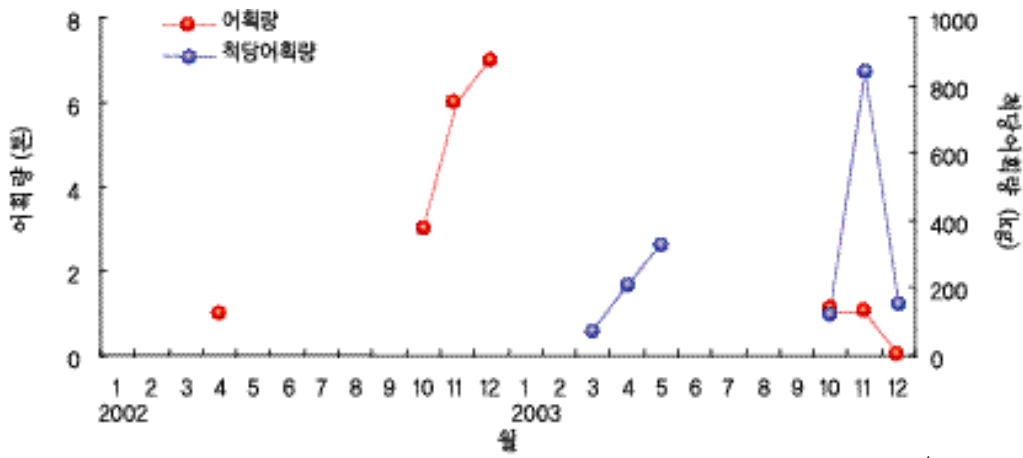
1998 5 1999 12 , 2000 18 가 , 2001 9
 2002 17 가 2003 2 가
 1998 7.8 1999 159 , 2000 246 가 ,
 2003 17 가



2-42.

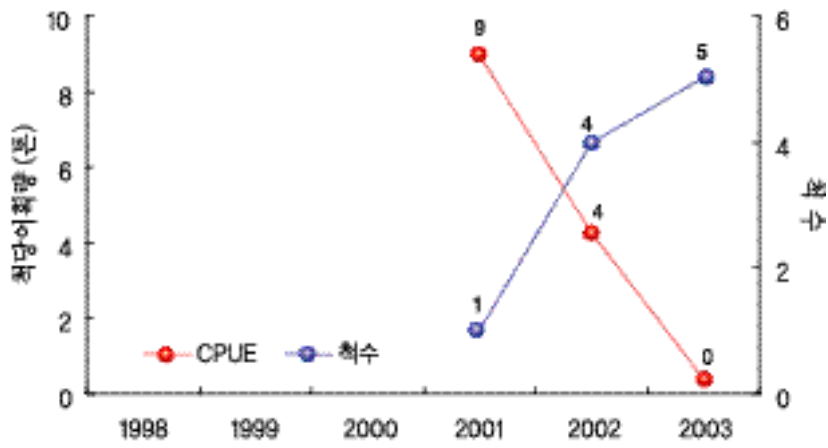
()

11 843kg 가 , 3 70kg 가 . 11
 400kg . 1~2 6~9
 77~97% 가
 가 3~5 18~23%



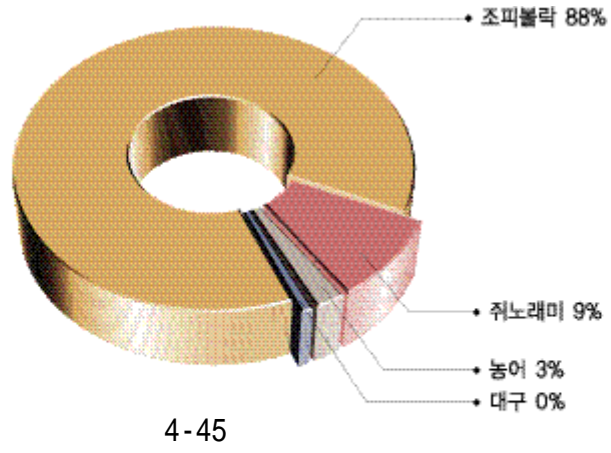
2-43. ()

2002 17 , 2003 2 가 .
 (CPUE) 2003 26kg . 2003 3~5



2-44. ()

CPUE()
 2001 1 2002 4 , 2003 5 가
 . CPUE 2001 9 2003 1



3% , 1% 88% 가 , 9%, 가

163

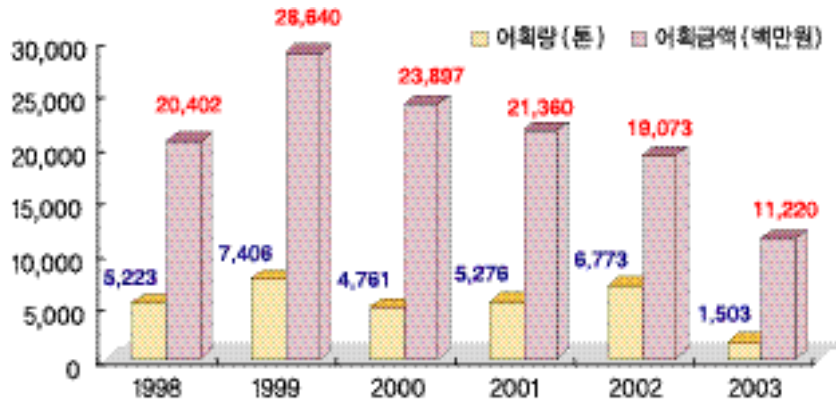
2000 25

. 2000

, 1994 26

2003 2

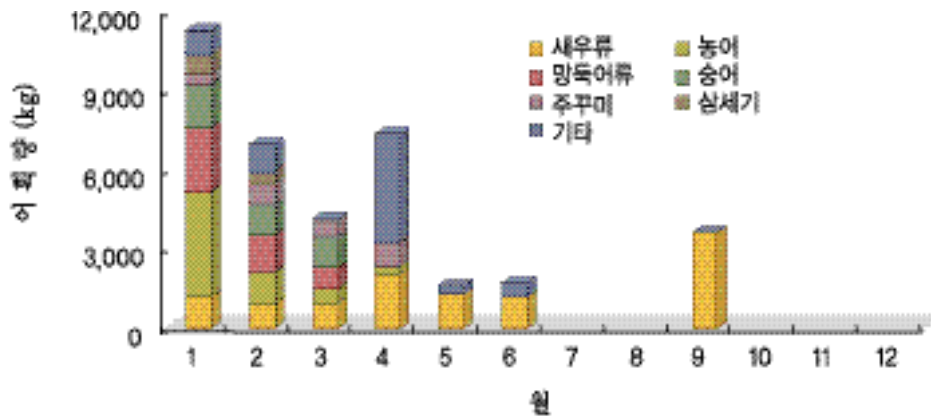
2)
가)



2-46.

()

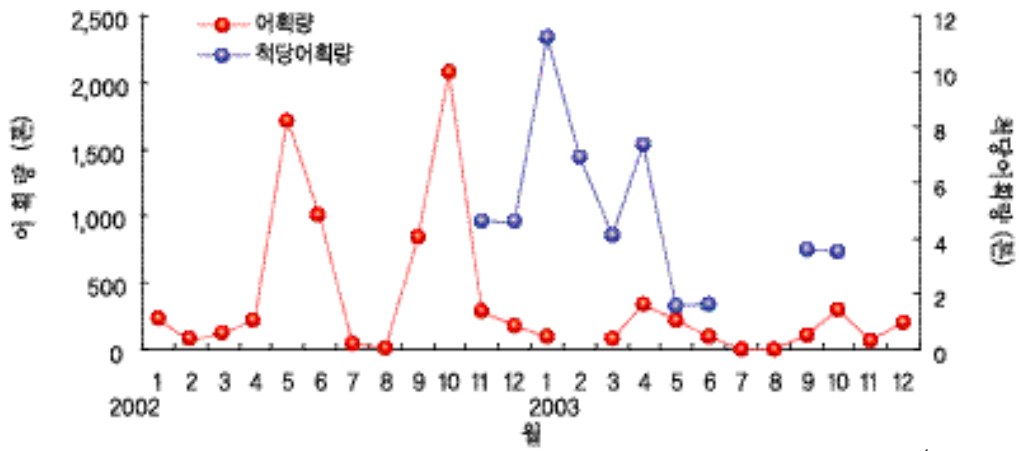
1998
5,223 가 1999 7,406 가 , 2000 4,761
2002 6,773 가 , 2003 1,503



2-47.

()

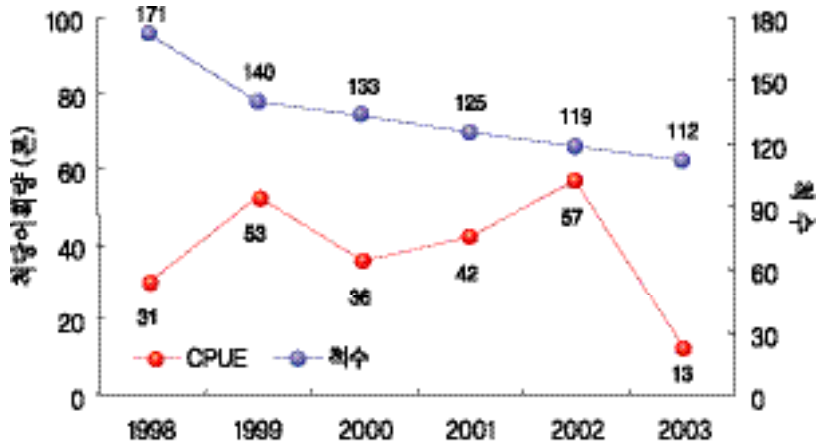
1 11,200kg 가 , 5 1,554kg 가
5~6 3,000kg . 7~8
10~12 가
10~100%



2-48.

2002 6,774 , 2003 1,503 78%
(CPUE) 2003 5.32

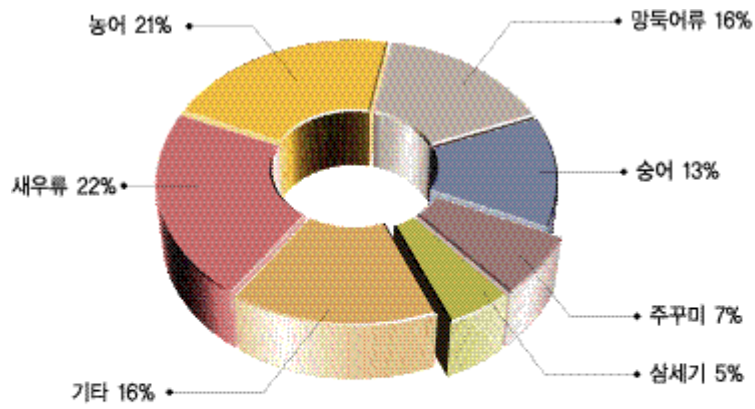
1 가 11.21 , 4~6 9~10



2-49.

CPUE()

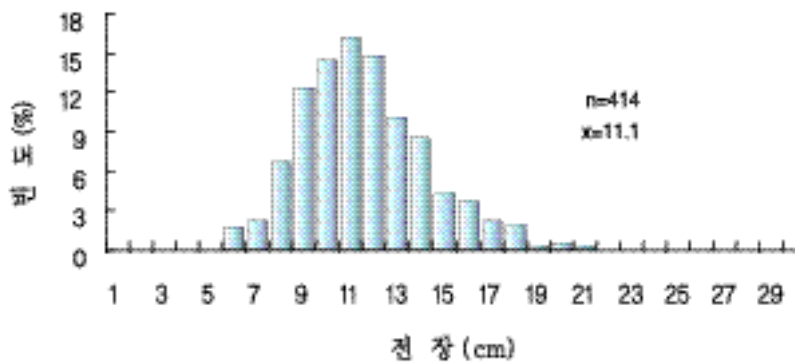
1998 171 , 1999 140 , 2001 125
2003 112 . CPUE 1998 31 1999 53 , 2000
36 2001 2002 42 57 가
2003 13



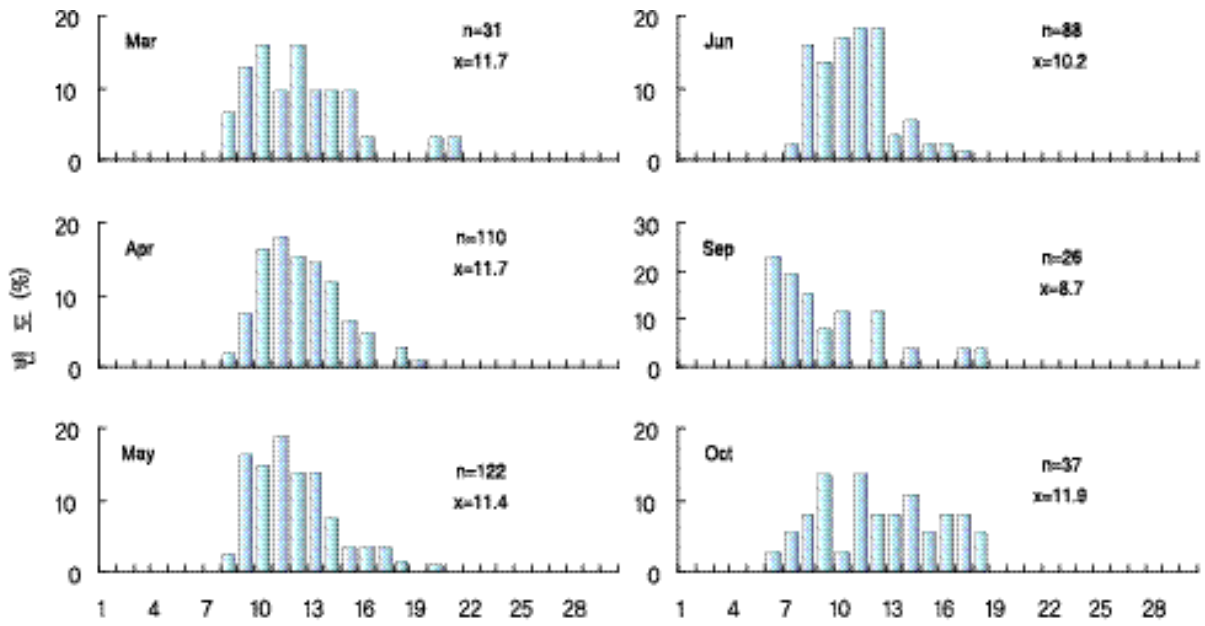
2-50.

가 22% 가
 , , ,
 , 21%, 16%, 13%, 7%, 5%
 가

3~10 414
 11.1cm(5.5~20.0cm) , 10.1~11.0cm 가
 16.2% 가

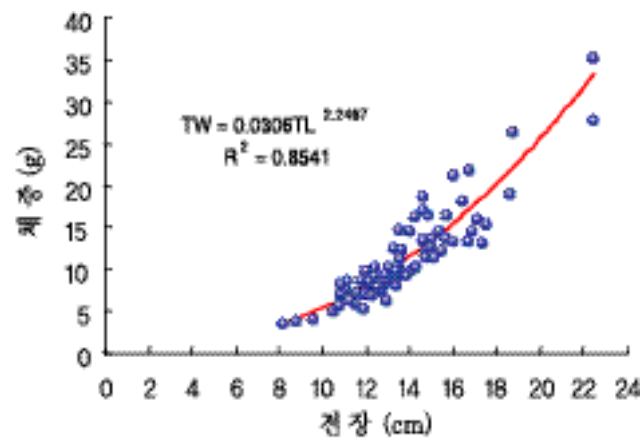


2-51.



2-52.

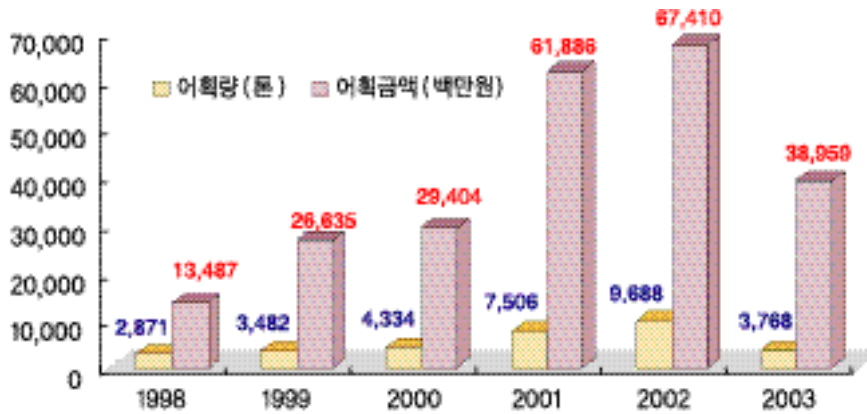
- , $TW() = 0.0306TL^{2.2467} (R^2 = 0.8541)$.



2-53.

1995 10,401
 , 2002 6,773
 가 2003 1,503 .

)

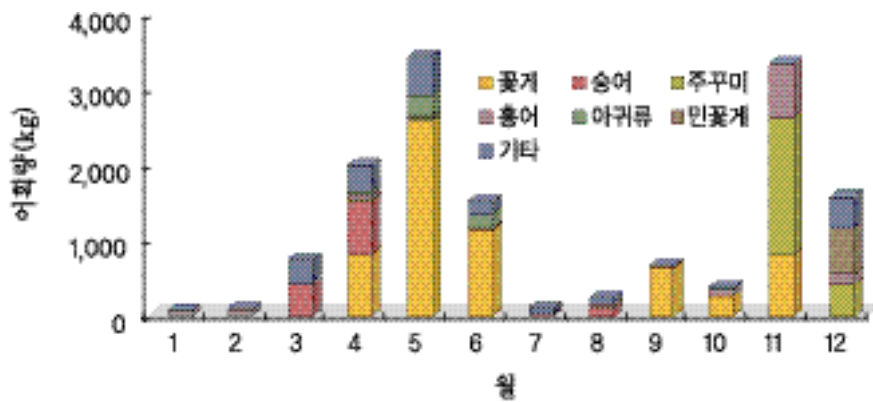


2-54.

()

1998

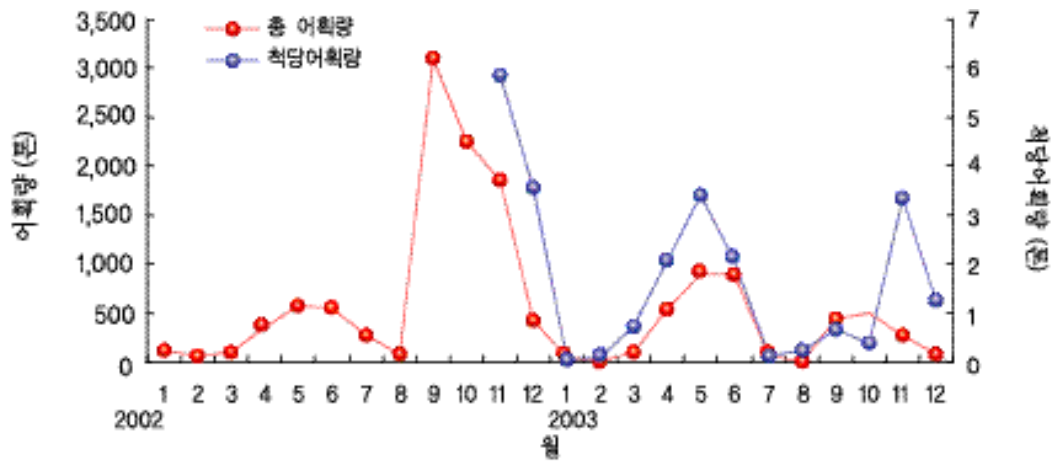
2,871 1999 3,482 , 2000 4,334 2001 7,506 2002 9,688
가 2003 3,768 .



2-55.

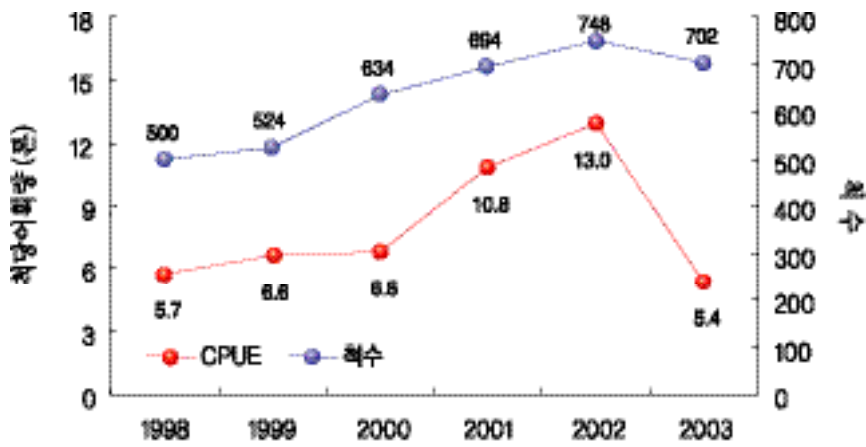
()

, 5 3,420kg 가 , 11 3,312g . 1
2 55kg, 74kg .
4~6 가 11~12
1~2 7~8 가 4~6 9~10
42~77%, 25~94% , 1~2 .
3~4 7~8 27~56% .



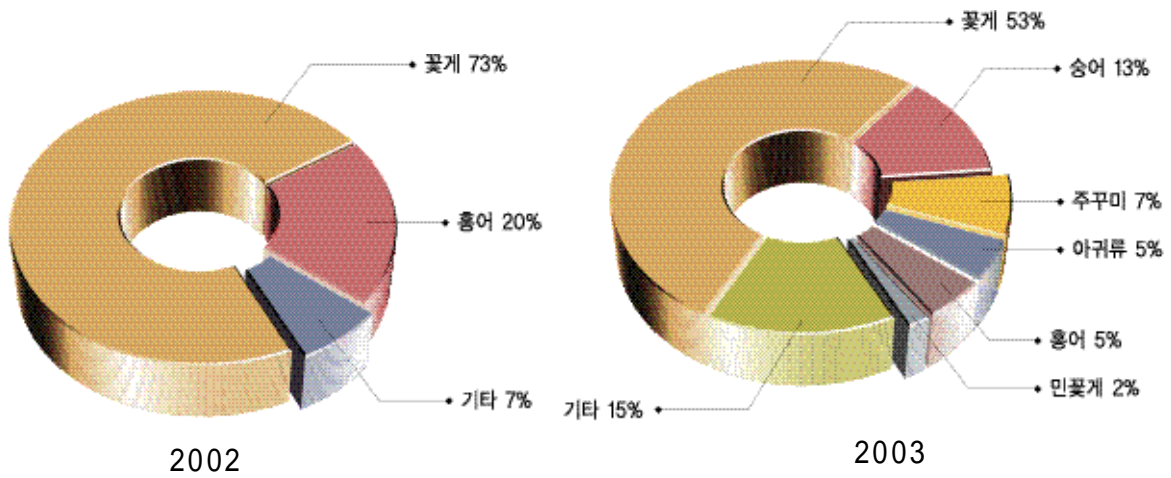
2-56. ()

2002 9,688 , 2003 3,768 61%
 (CPUE) 2003 1.36 5
 11 3.0 , 2002 11 5.85
 CPUE
 , 5~6 9~11 , 1~2 7~8



2-57. ()

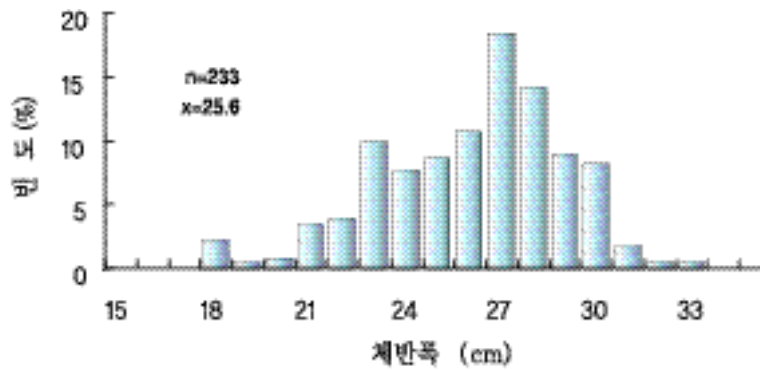
CPUE ()
 1998 500 , 1999 524 , 2000 634 ,
 2001 694 , 2002 748 가 2003 702
 1998 5.7 , 1999 6.6 , 2000 6.8 , 2001
 2002 10.8 , 13.0 가 2003 5.4



2-58.

2002년 11~12월 조사 결과, 꽃게 73%, 홍어 20%, 기타 7%로 나타났다. 2003년 11~12월 조사 결과, 꽃게 53%, 송어 13%, 주꾸미 7%, 아귀류 5%, 홍어 5%, 민꽃게 2%, 기타 15%로 나타났다.

153



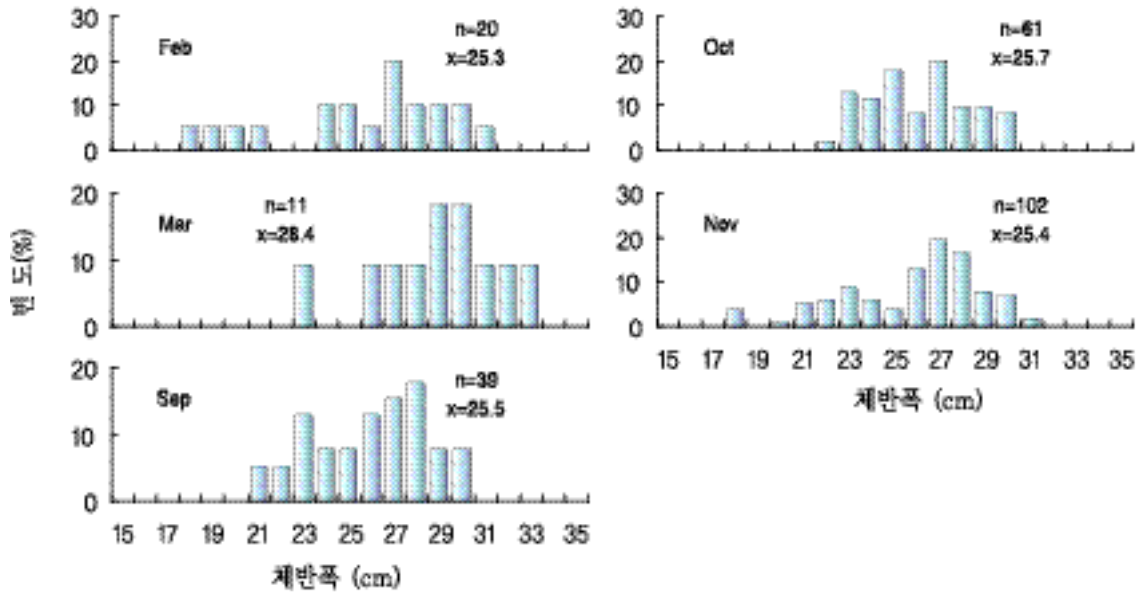
2-59.

2~11

233

25.6cm(17.4~32.6) , 26.1~27.0cm 가 18.5%

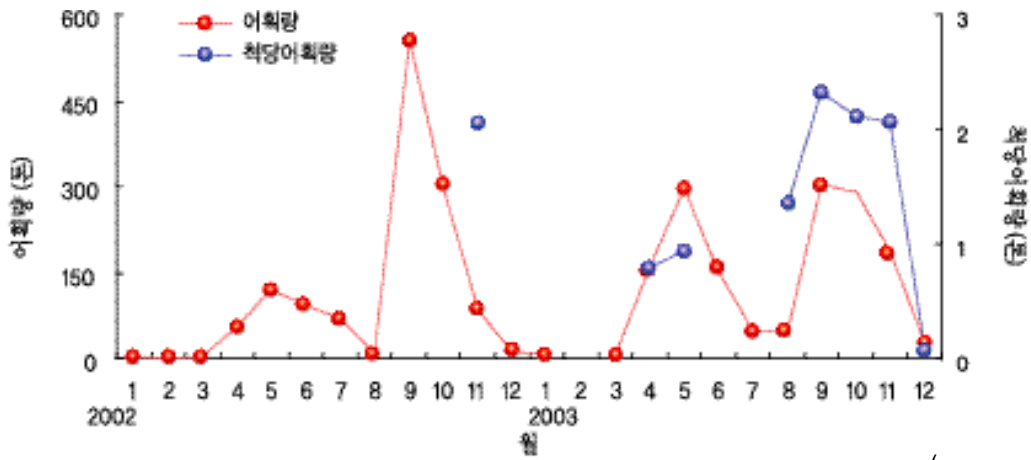
가



2-60.

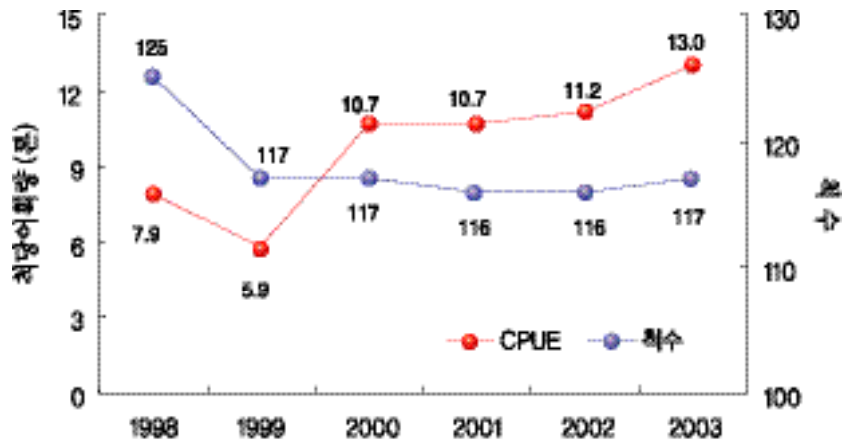
, 2 3 20 11
 25.3cm(17.7~30.3) 28.4cm(22.8~32.3) . 9 25.5cm
 (20.3~29.6) , mode 27.1~28.0 17.9% . 10
 25.7cm(21.8~29.6) , 26.1~27.0cm 가 19.7% . 11
 25.4cm(17.4~30.6) , 26.1~27.0cm 가 19.6%
 가

3,768~9,688 1994~1997 1,176~1,451 2001~2003
 가 2003



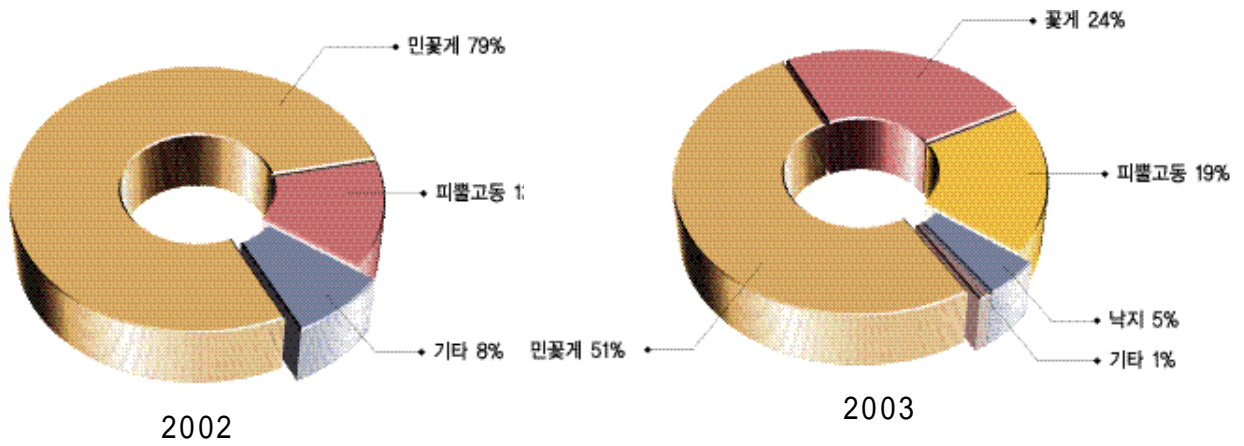
2-63 ()

2002 1,298 , 2003 1,523 17% 가
 (CPUE) 2003 1.37 9
 2.33 가 , 2002 10 6.04 CPUE .
 , 5~6 9~11 , 12~3



2-64. ()

CPUE ()
 1998 125 1999 117
 116~117 가 . CPUE 1998 7.9 1999 5.8
 , 가 2000 10.7 , 2002 11.2 . 2003
 13.0 가 .

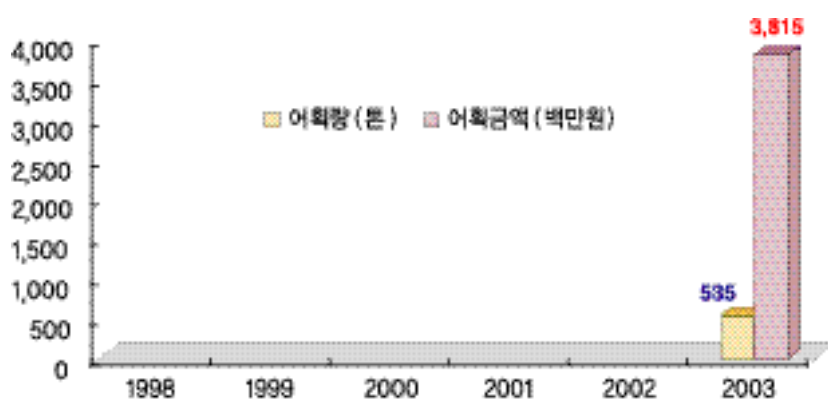


2-65.

2002 가 79% 가 , 11
 2003 가 51% 가 , 24%,
 13% . 2003
 19%, 5% .
 154 153

1999 685 , 1994 2,620
 2001~2003 1,236~1,523 . 2000 1,324 가
 1990 5% () 3
 18~31%

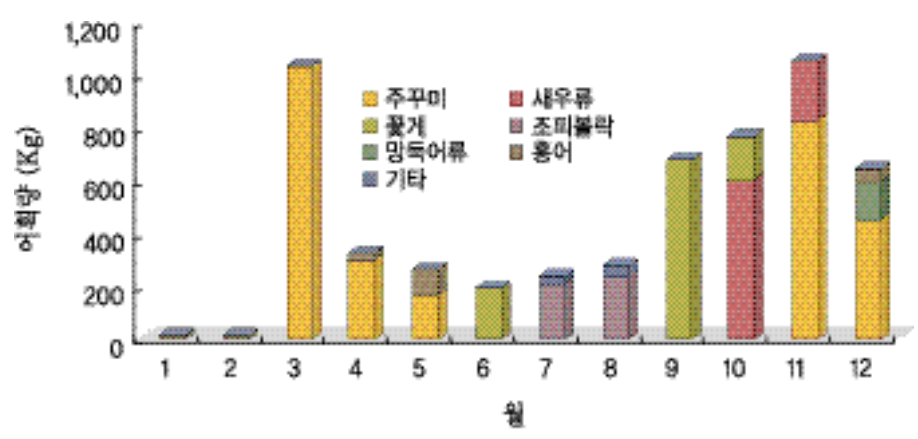
)



2-66.

()

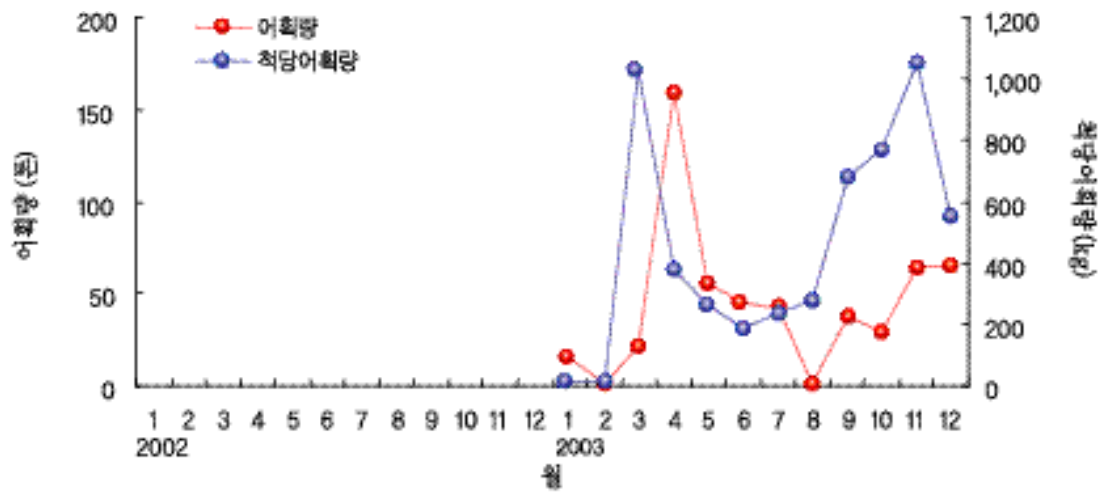
, , , 2003 가
 , 2003 535 , 38



2-67.

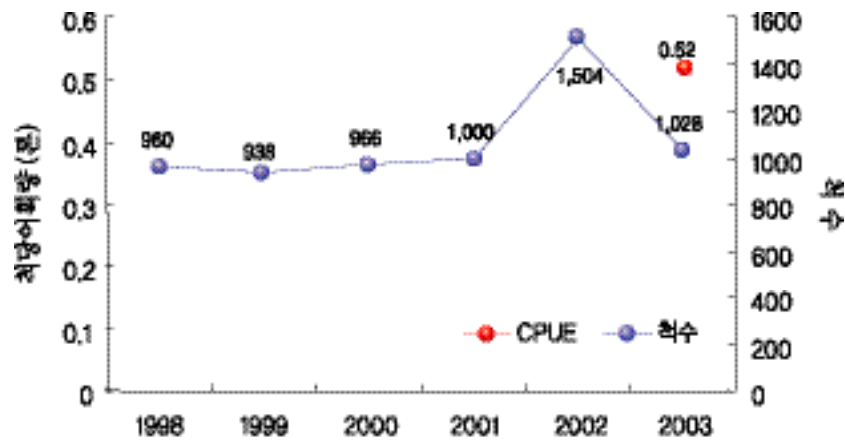
()

3 가 1,02kg 가 , 11
 1,05kg 가 1
 13kg 가 3~4 9~12
 1~2 6~8
 가 3~5 11~12 64~100%
 6 9 가 100%



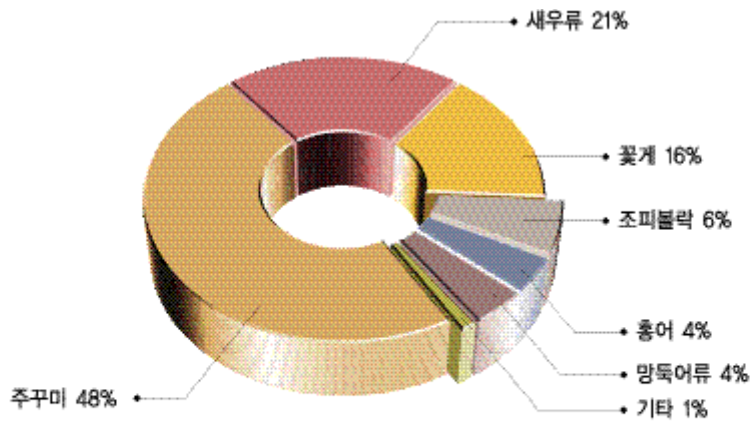
2-68. ()

2003 535 , (CPUE)
 471kg .
 4 ,
 3 11 .



2-69. ()

CPUE ()
 1998 960 , 1999 938 , 2001 1,000
 2002 1,504 가 , 2003 1,028 . CPUE
 2003 0.52 .
 가 2003 CPUE 가 .

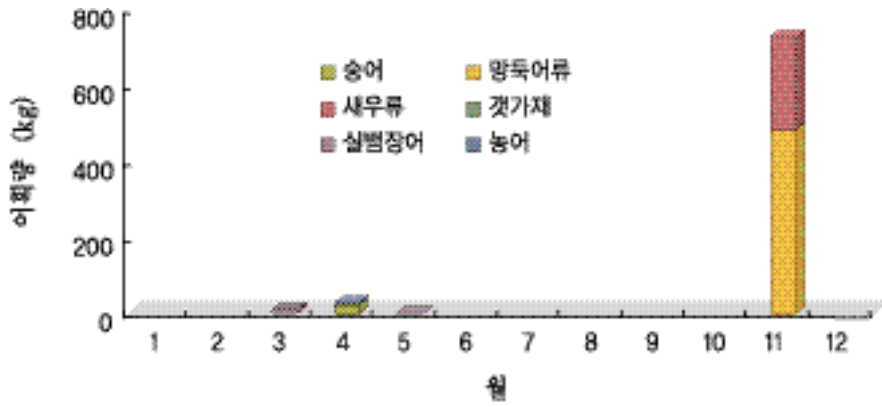


2-70.

16%, 6%, , 가 48% 가 , 가 21%, 가 4%

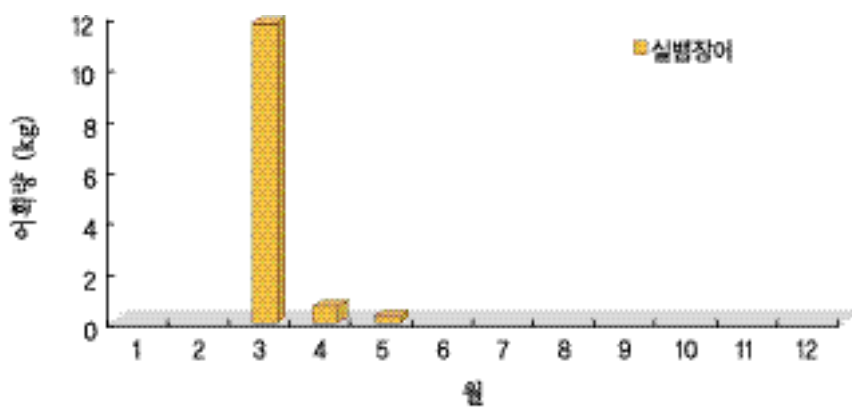
2003 2003 가 가 52%가 .

3)
가)



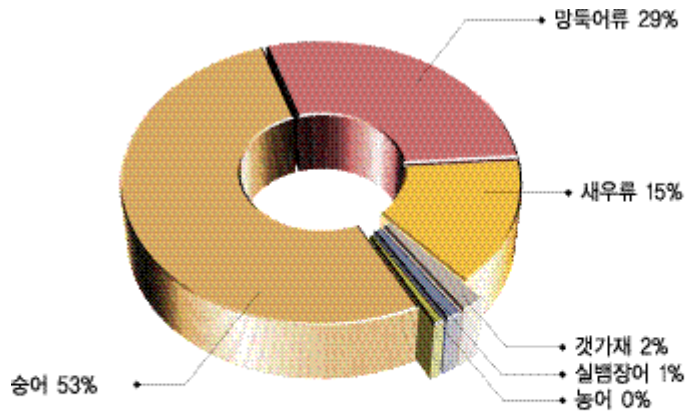
2-71. ()

, 11 725kg 가 5 0.18kg 가
 . 3~5 11 . 3 5
 , 4 가 92%, 가 5%, 3%
 . 11 , 가 66%, 34%



2-72. () ()

() , 3
 11.7kg 가 4 0.63kg, 5 0.18kg .



2-73.

가 53% 가 , 가 29%, 가 15%,
 가 2%, 가 1%, 가 1%

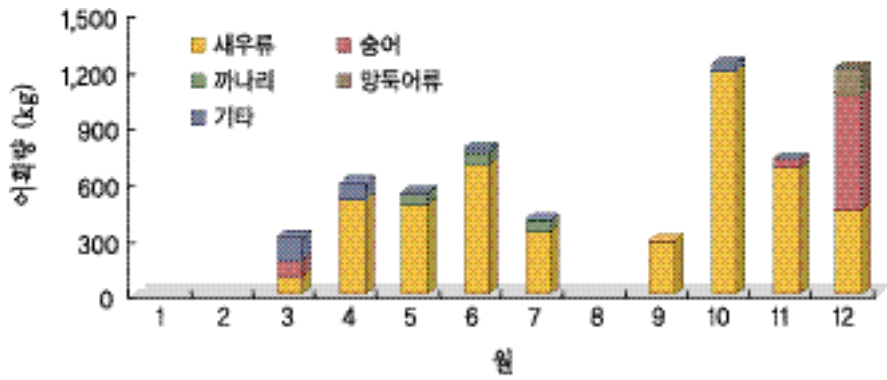
가

3~5

가

)

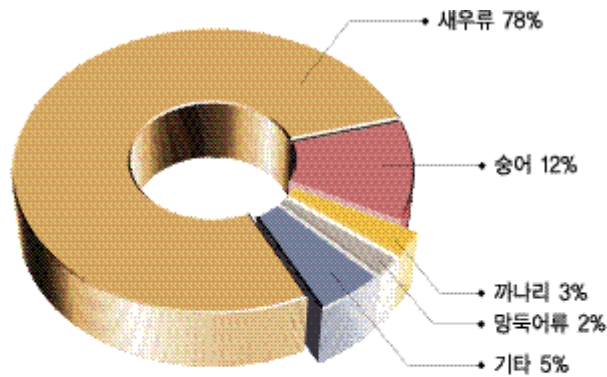
(CPUE)



2-7.

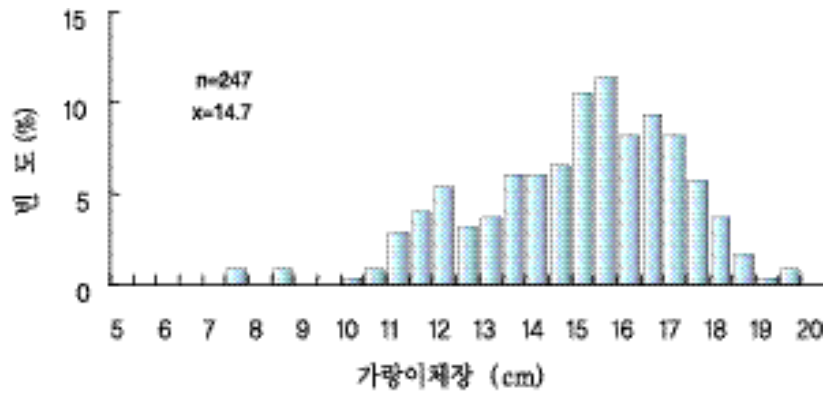
()

10 1,233kg 가 , 12 1,20kg
 . 9 289kg 가 , 1~2 8
 10~12
 가 32~100% , 3 12 가
 30%, 51% . 5~7 9~15%
 , 12 가 11%



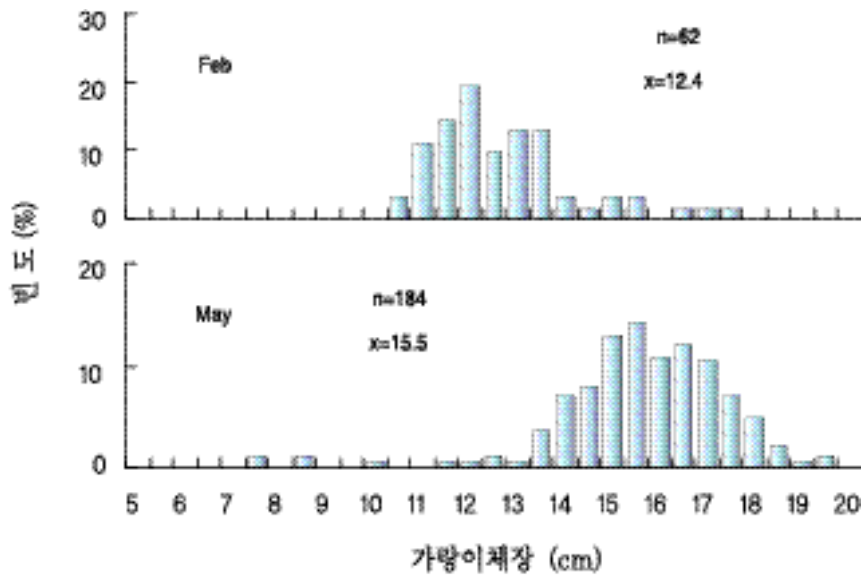
2-75.

가 78% 가 , 가 12%,
 가 3%, 가 2%



2-76.

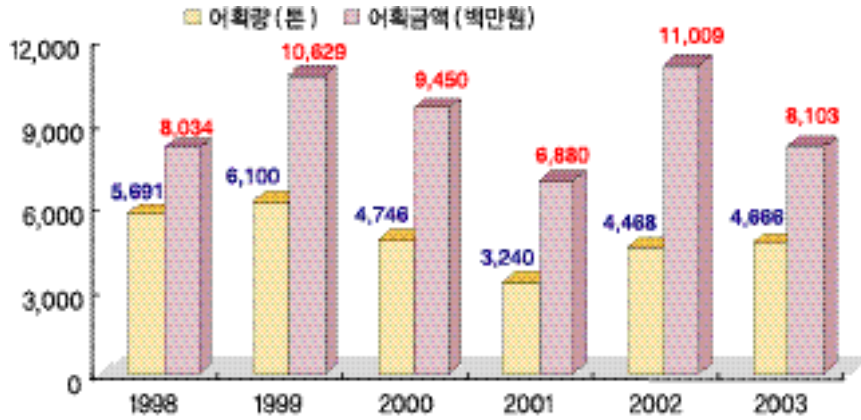
247 가 14.7cm(7.2~19.4m)
 , 15.1~15.5cm 가 11.3% 가



2-77.

2001 2,800 가 2003 525

4)
가)

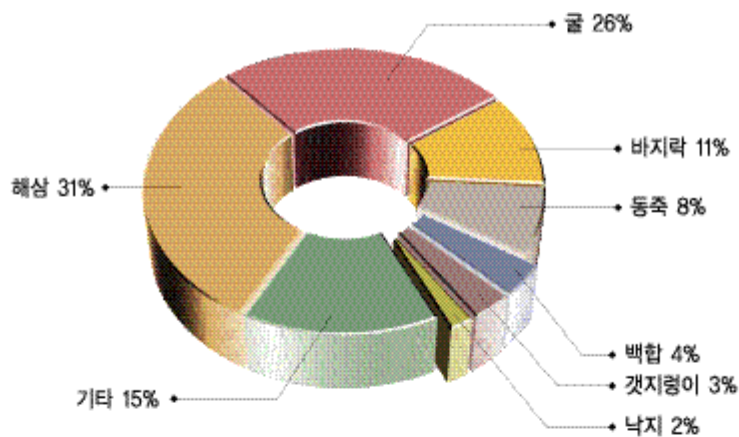


2-78.

()

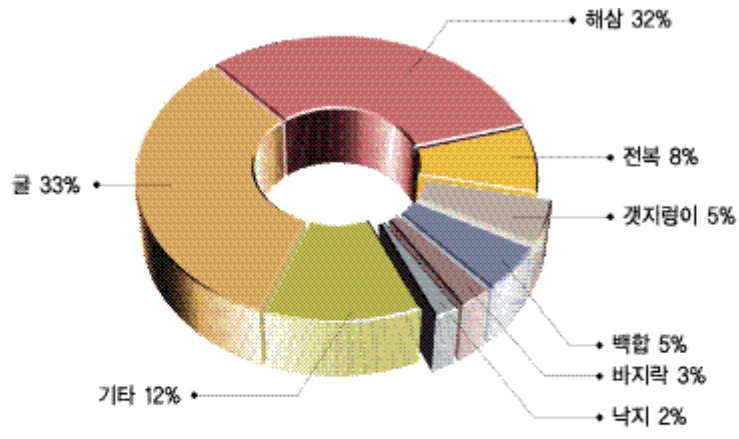
1998 5,691 1999
6,100 가 2001 3,240 가 , 2002
2003 4,468 4,666 . 1998 80
1999 106 가 , 2001 69 가
. 2002 110 가 , 2003 81 .

)



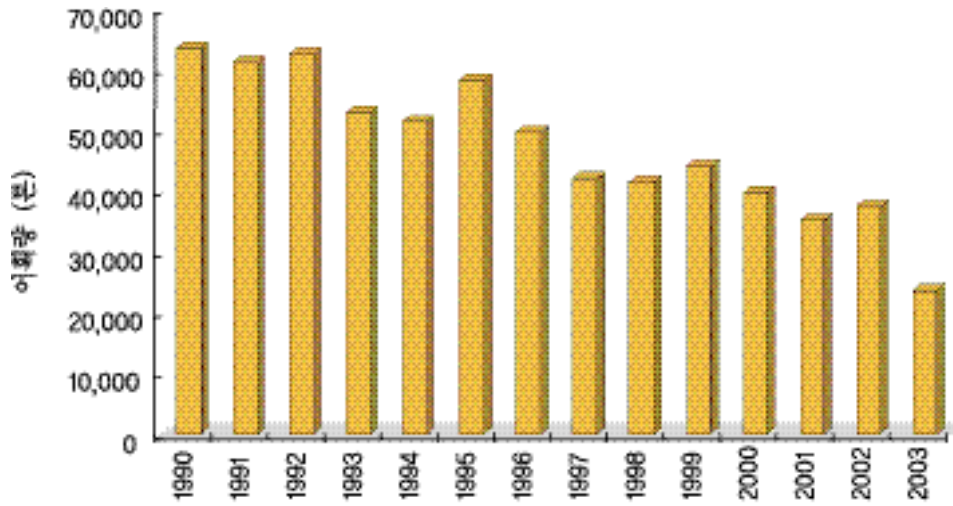
2-79.

2002 , 26%, 11%, 8%, 3%, 가 2% , 31% 가 , , , 가 .



2-80.

2002 , 32%, 8%, 5% , 33% 가
 3%, 가 2%

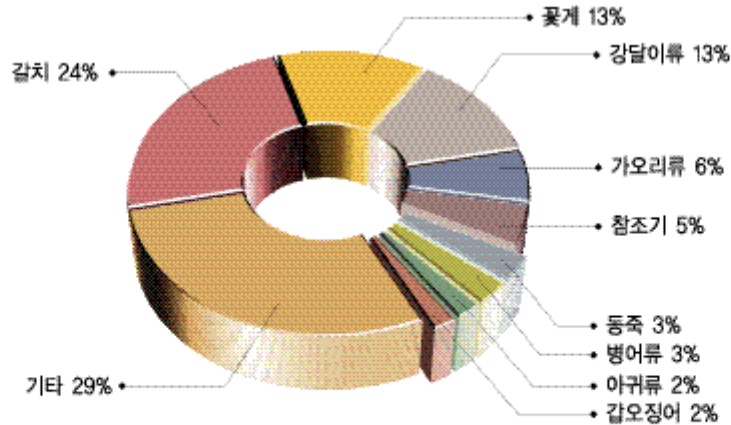


2-81.

1990 2003 1990 63,610
 가 , 2003 23,485 가 . 1990
 , 3 32,018
 47,383 67.6% . 2002 2003 37,548
 23,485 . 1995 가 가

1)

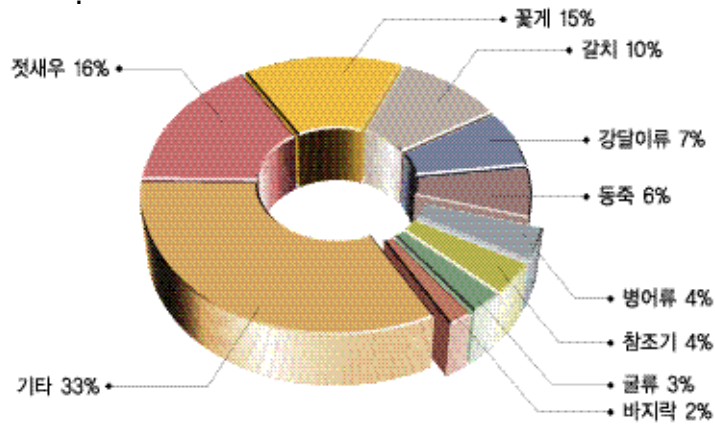
1990 2003 , 1990 가 14,993
 가 , (8,523), (8,229), 가 (3,846), (2,872),
 (2,151), (2,003), (1,446), (1,380) .



2-82.

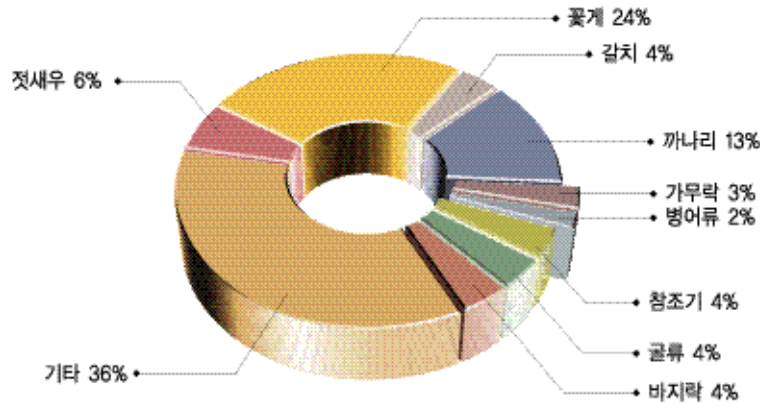
(1990)

1995 가 9,380 가 , (8,555), (5,906),
 (3,838), (3,407), (2,495), (2,199), (1,495), (1,447)
)



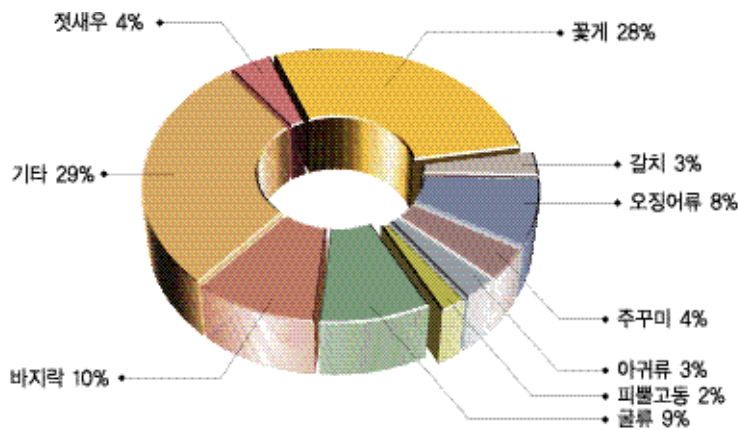
2-83. (1995)

2000 9,538 가 , (5,230), (2,397)
), (1,696), (1,696), (1,506), (1,477), 가 (1,192),
 (90' \



2-84. (2000)

2003 가 6,547 가 , (2,277), (2,053),
 (1,847), (854), (836), (808), (679), (463)
 .
 1990
 가

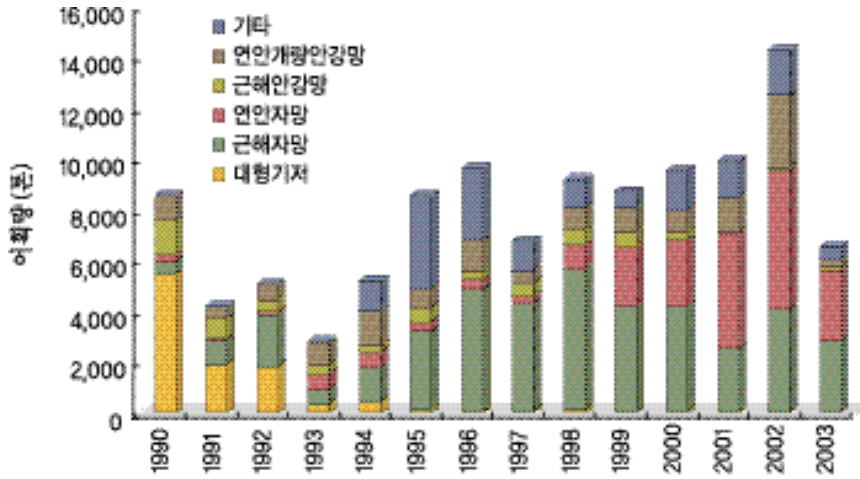


2-85. (2003)

2)

(), (), 가 , , , , , 가 , , ,

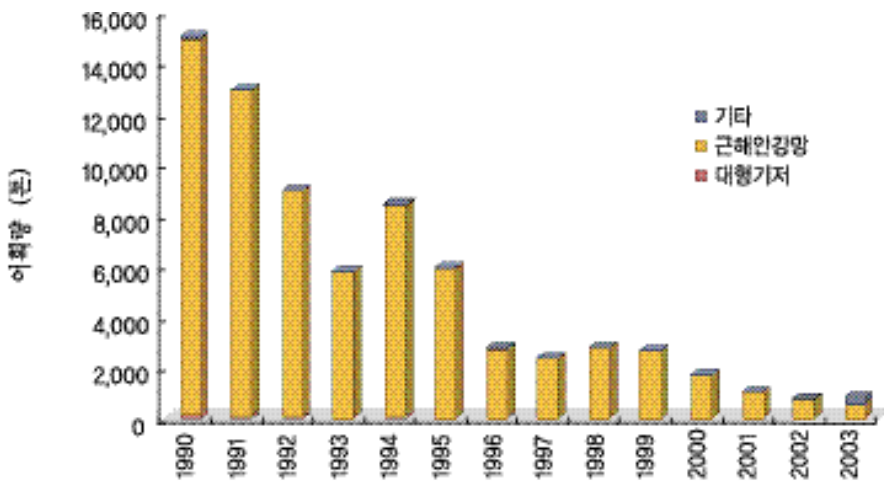
가)



2-86.

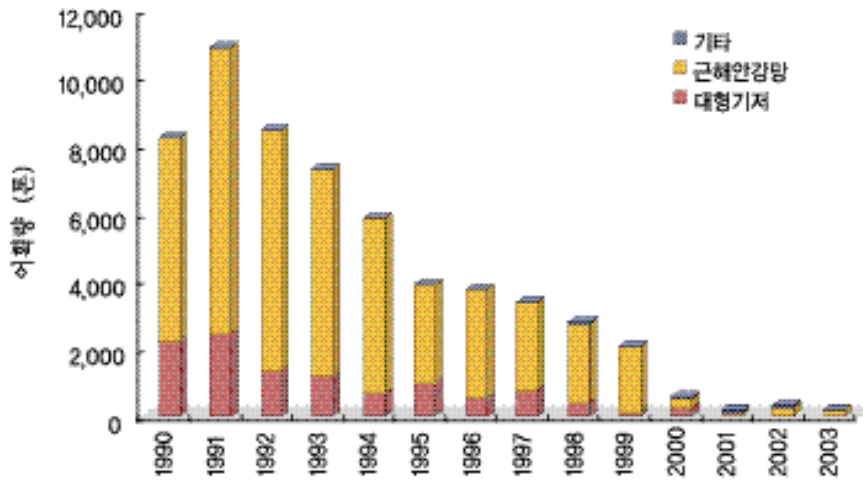
2002 14,281 가 , 1993 2,816
 가 . 1990~1992 37~65%가
 1995 36~62%가 , 3 41%
 가 . 1990 65%

)



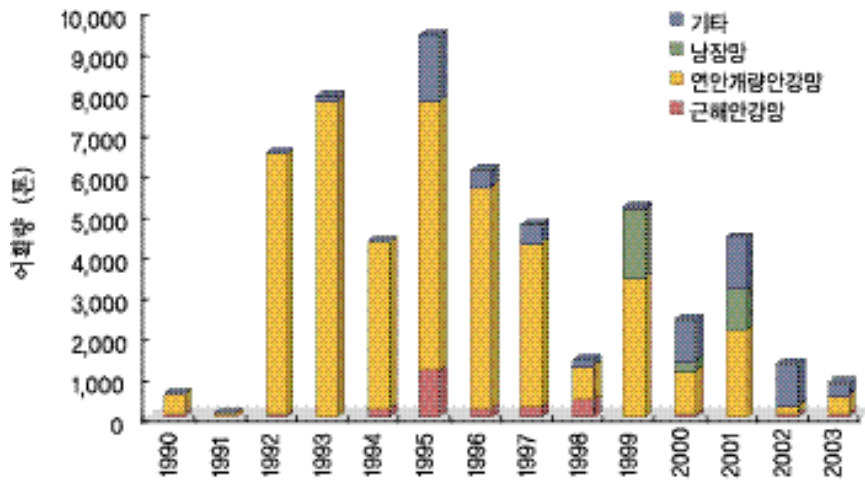
2-87.

1990 14,993 2002 791
 , 2003 808 . 95~99%가



2-88.

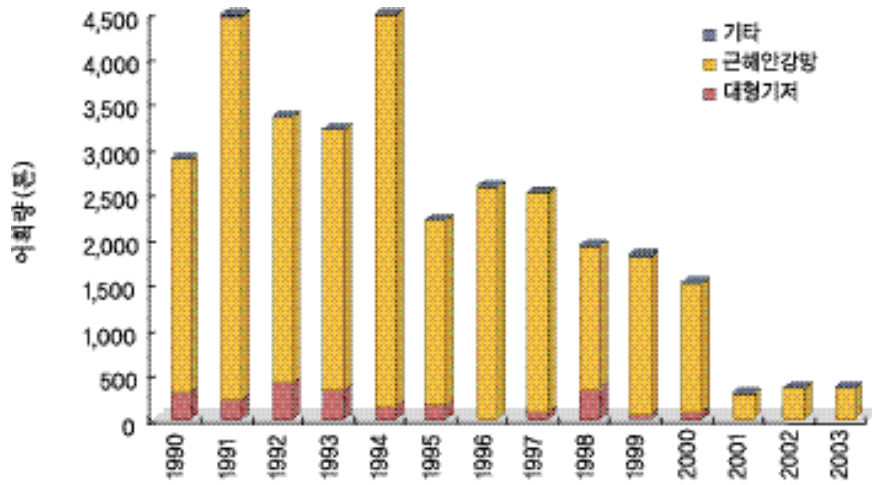
176 가 , 2003 184 , 2001 10,877 50~99% 가



2-89.

1990 1991 91 가 , 2003 836 62~100% 가
 1999 2001 33%, 22%

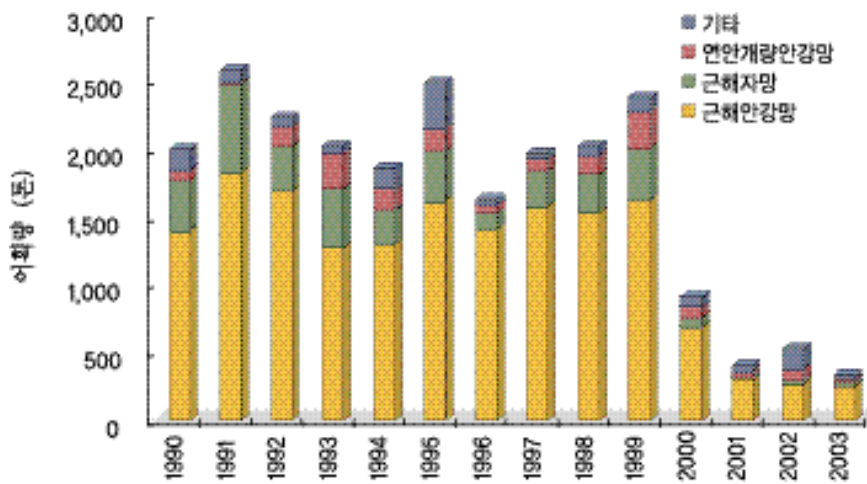
)



2-90.

1994 4,472 가 ,
 2001 272 가 , 2002 2003 344
 82~99%가 , 1990

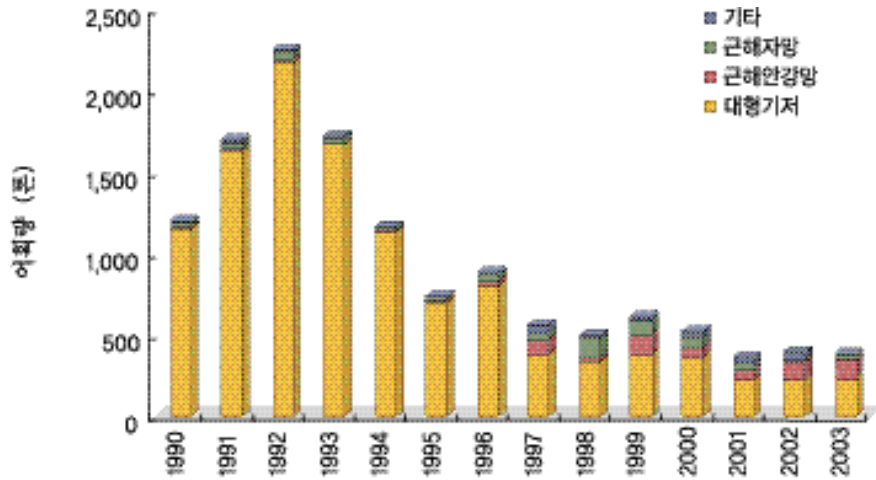
) ()



2-91. ()

() 1991 2,588 가 , 1990
 2,000 2000 2003 339 가
 52~80%가 ,
 1990~1999 10~20% ,
 가 , 2002 14%가

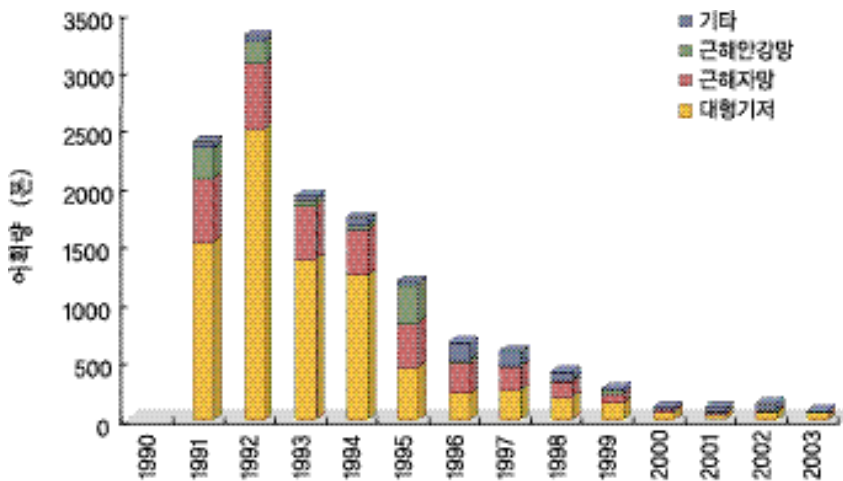
) 가



2-92. 가

가 1992 2,251 2001 361
 가 , 2002 2003 391 , 381
 55~97%
 , 1990~1996
 91~97% , 1997~2003
 55~68% , 7~31%

)



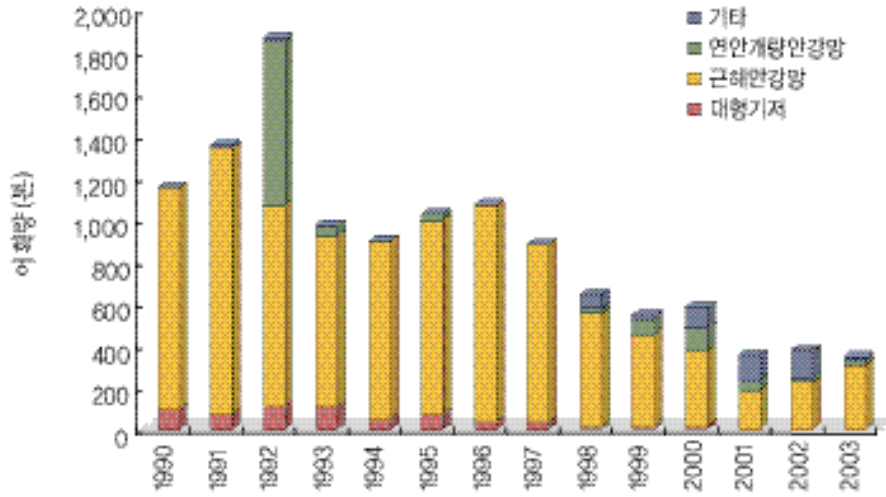
2-93.

1992 3,298 가 ,
 2003 69 , 34~76%
 , 1992 76% 가

13~38%

1995 28%

) ()



2-94. ()

1992 1,860 가

2003 337 가

51~96%가

, 1997

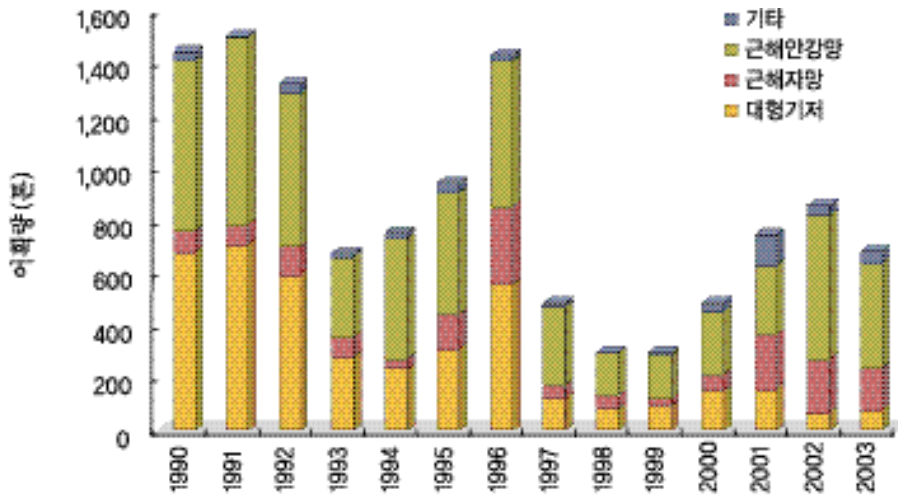
96%

가

1992 2000

42%, 20%

) ()



2-95. ()

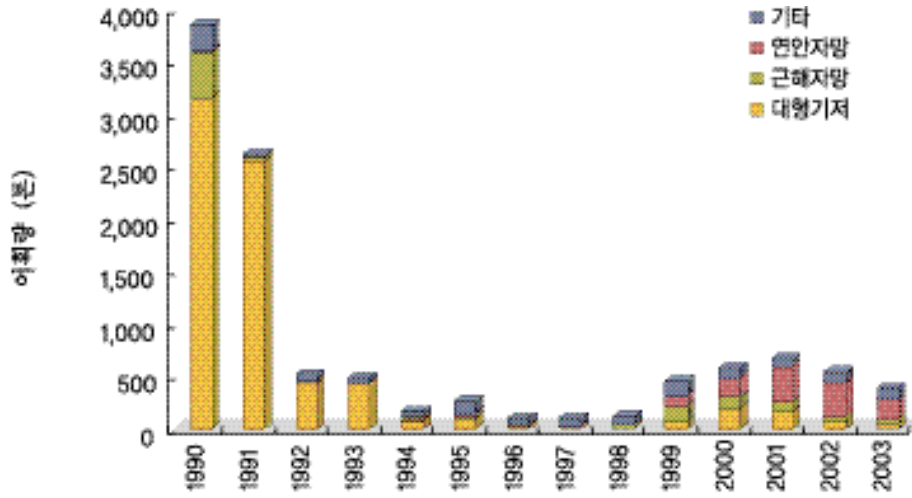
()

1991 1,501 가

, 1999 292

가 1990
 34.7~63.6%
 8.3~47.4% 55.6~94.9%
 2 3
 28.6%, 23.7%, 27.3%

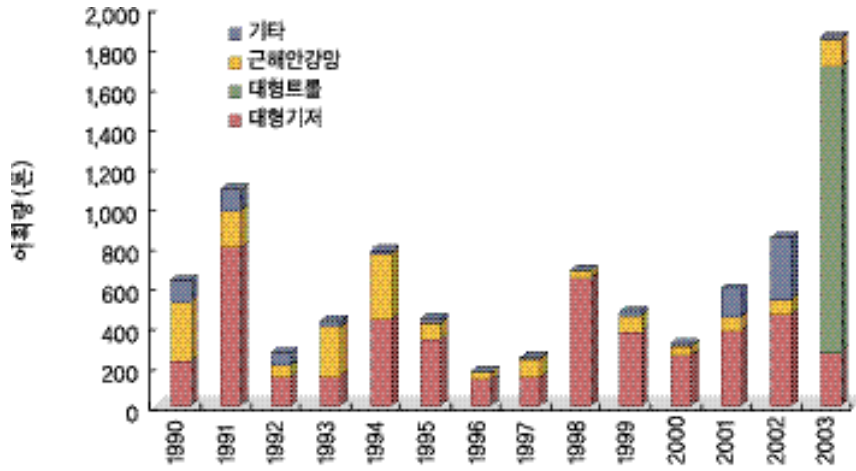
) 가



2-96. 가

가 1990 3,149 가
 1996 94 가 2001 669 가 , 2003
 381 10~98%
 0.1~63%,
 1.5~34%
 1990~1993 82~98% 2003 10%
 1990~1993 1% , 3 48~63%
 가

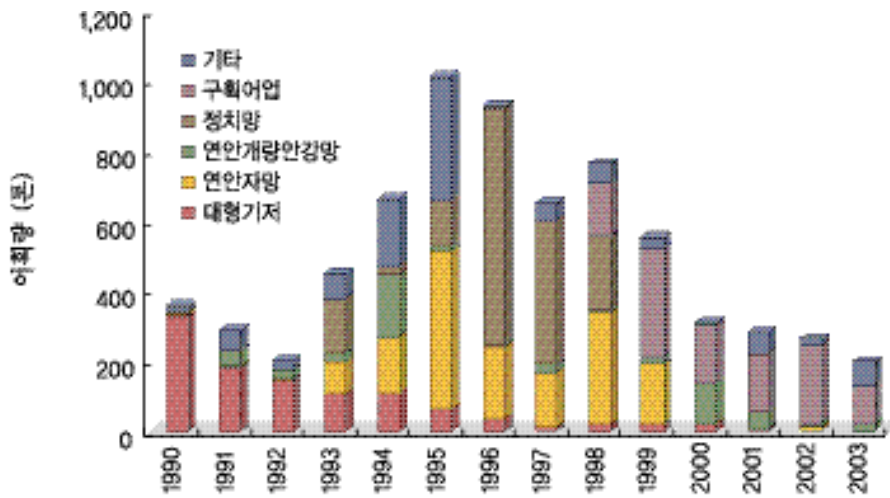
)



2-97.

2003 1,847 가 , 1996 168 가
 14~95%가
 7~60%가
 22~99% 2003 78%,
 14%, 7%가

)



2-98.

1990 356 가 1995 1,011 가
 2003 196 가
 . 1990~1992
 63~92%가 , 1993~1998 21~45%가
 . 1999 2003
 52~86%가 , 1996 72%가

[3.]

가.

1)

, , , ,
 , , , , , , , , , ,
 , , , , , , , , , ,

3-1.

	吳		吳	吳		吳	吳 吳 吳
		吳 吳 吳					
					吳		
	吳 吳						吳

(吳 : , :)

	吴	吴 吴	吴	吴	吴
		吴			吴
	吴	吴			吴
	吴	吴			

(吴 : , :)

1)

3-3.

		()	()	()		
					,	
	,	1~6 9~12	90~110	24~28	54mm()	1
	,		5~8	4~6	,	1~2
	,	8~5	10~20	3~4	50.5mm	2~4
	,	4~6 8~11	60~130	6~7	34~40mm	15~20
	,	4~6 9~11	10~100	5~6	180mm (660mm)	100~300
	, , , 가	4~6 9~11	10~80	5~6	180mm (660mm)	6~12 (400~800m/)
	,	3~12	8~70	4~6	35mm	15,000~ 20,000

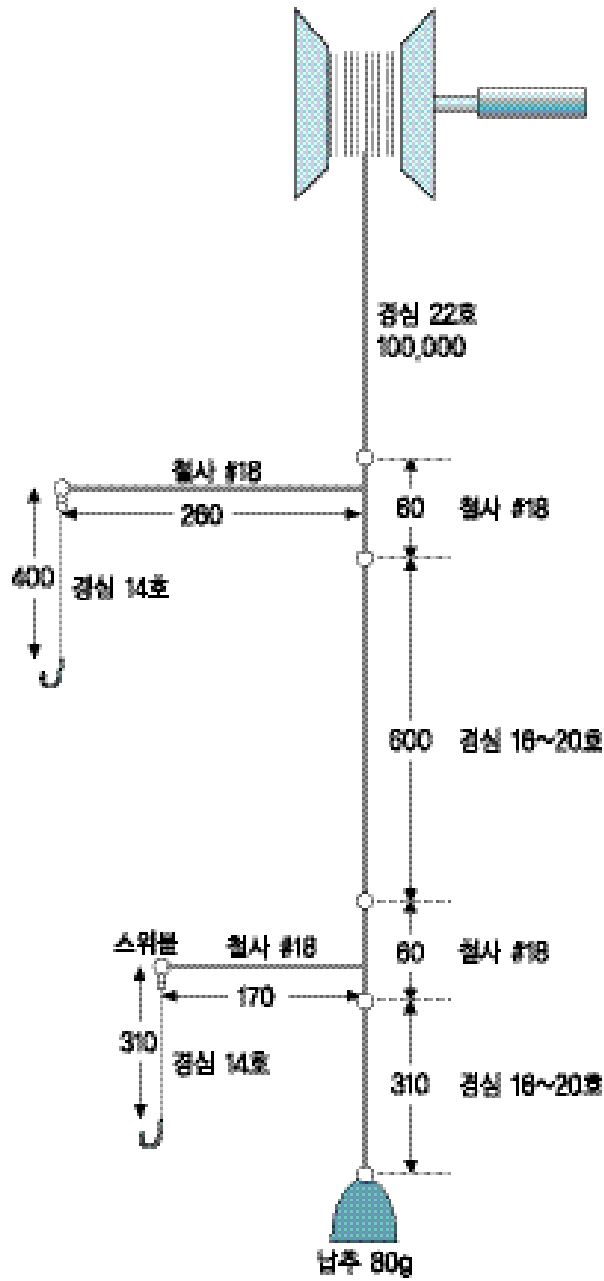
2)

3-4.

		()	()	()		
					,	
	,	3~12	3	1~2	2 /	1 /
()	, ,	3~12	3~8	3~4	60 /	10
		3~5	3	2~3		2,000~20,000
	,	3~12	3~8	3~4	35mm	1,500
	, ,	4~6 8~11	5~8	4~5	10.4~303mm	15~20
	, ,	2~5, 9~11	10~20	2~3	2.5~101mm	2
	, ,		5~8	3~4	2.5~303mm	10
	, ,	4~6 8~11	5~8	4~5	2.5~606mm	15~20
()	, ,가	4~6 9~11	2~3	2~3	151.5mm	20~30
()	, ,가	4~6 9~11	3~5 5~8	2~4	151.5mm (515.2mm)	20~60 , 8 (400~500m/)
()	, ,	4~6 9~11	5~8	3~4	151.5mm (515.2mm)	20~40
()	, ,	5~10	2~3	2~3	90~96mm	6~12
	, , ,		-	1~2	23.3~43.3mm	1~2

3)

가)



: 3~12

: 20~30m, ,

: , ,

: -

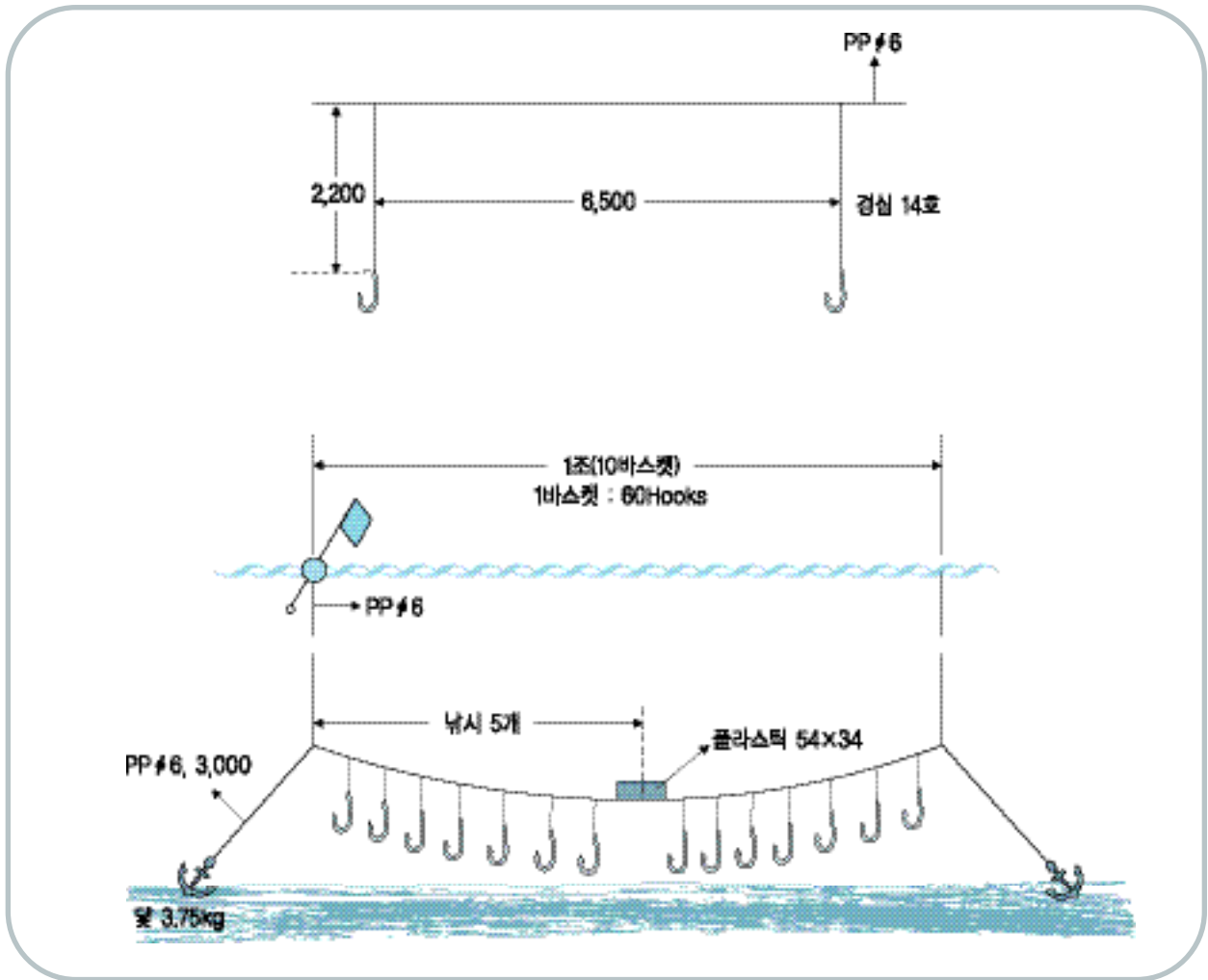
- , ,

-

:

22 100m , 18 T
 16~20 60cm 2 , 31cm
 16~20 . T 6cm
 가 26cm, 가 17cm 14
 40cm, 31cm 가 1 .
 1 1
 가
 . ,
 ,
 .

)



: (6~7), (9~10), (12~3)

: 10~80m, (), (), ()

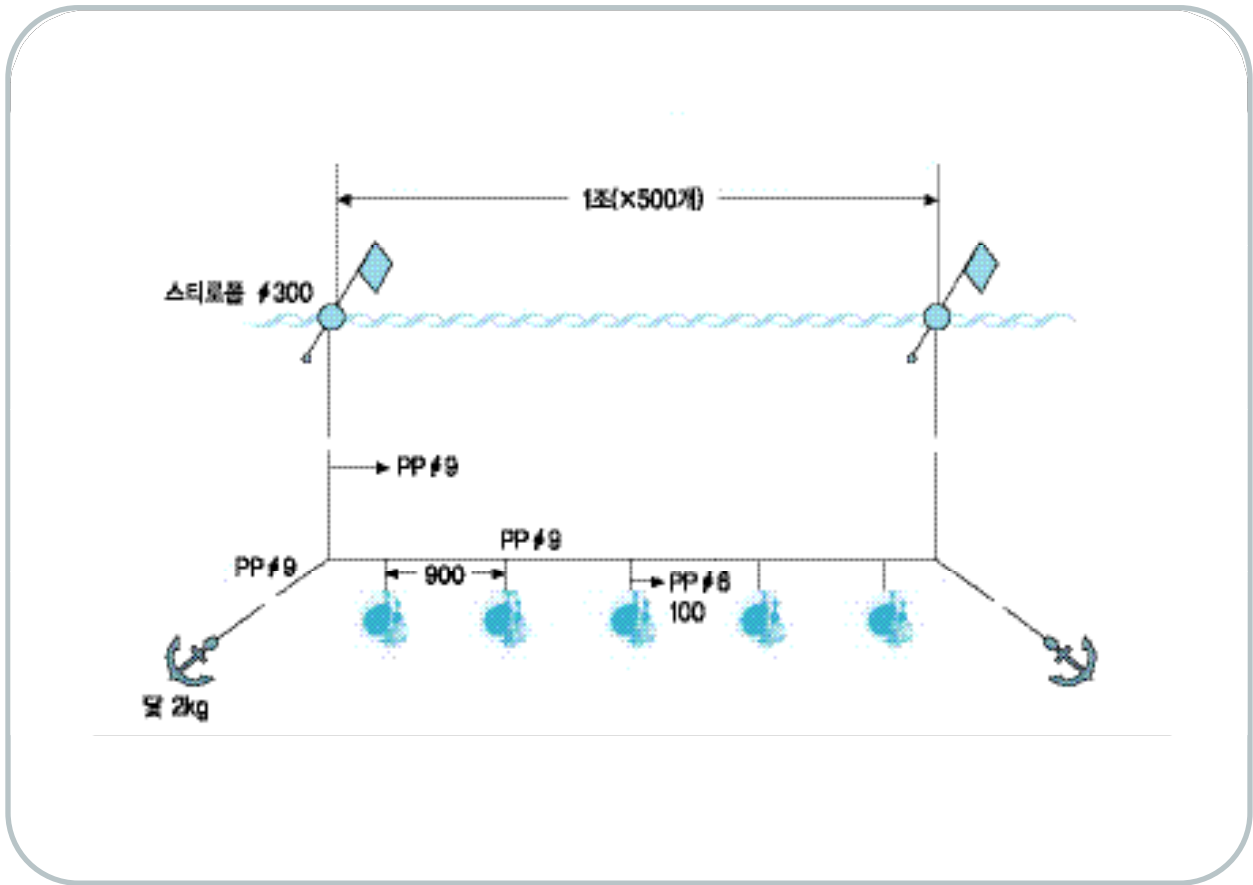
: , ,

: ,

:

220cm PP 6mm 650cm 14
 , 60 . 5
 54x34mm , 1 10 .
 가 가 4.5
 , 2~3 가 .

)



: 3~5

: 5~20m,

:

:

:

PP 6mm

PP 9~10mm

90cm

10cm

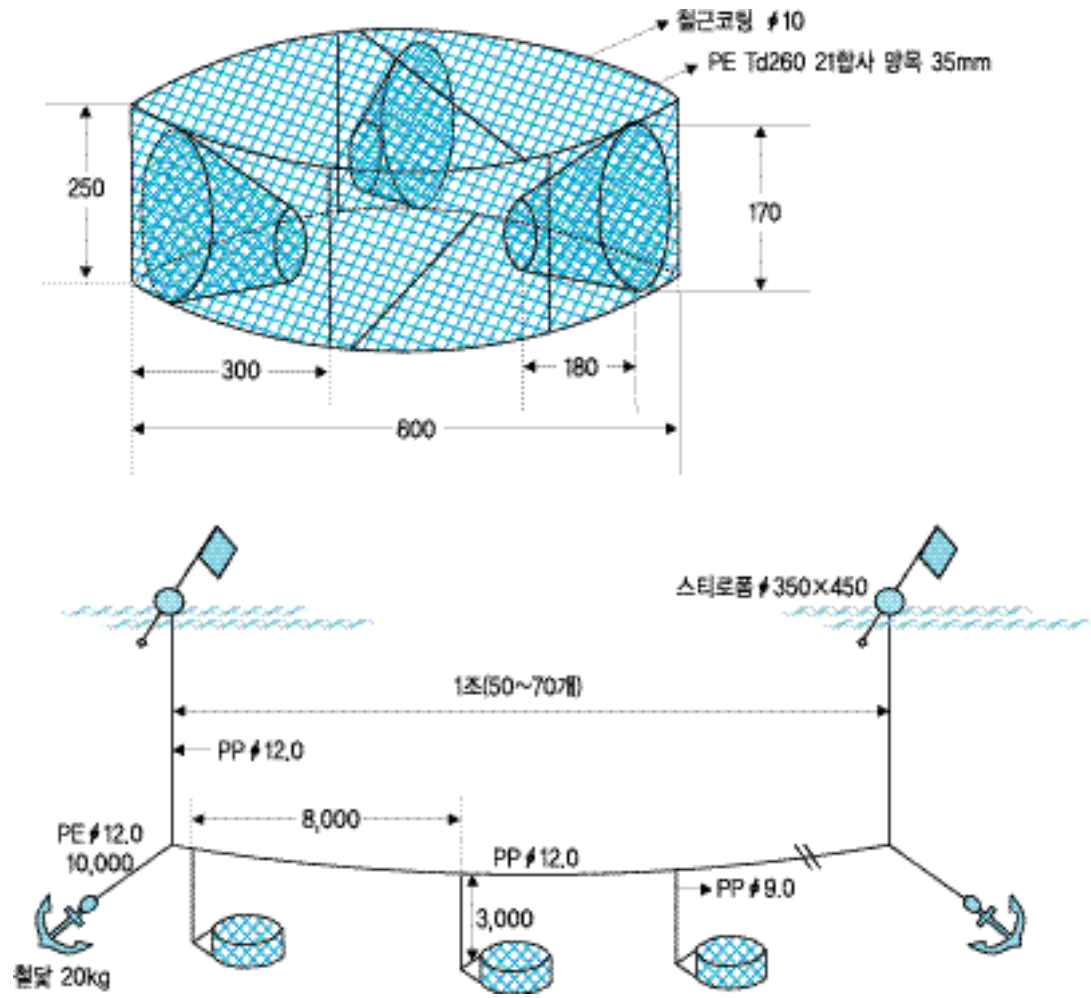
2,000~30,000 , 3

10,000~20,000 400~1,000 1

2

2~3

)



: 3~8 (,), 9~12 ()

: (40~70m, ,), 가 (25~60m,)

: - , ,

가 -

-

: ,

:

PP 9~12mm 8~9m PP 9mm 3m

10mm 55cm, 21cm, 가

60cm, 25cm

, 3

1,500~2,000 , 가

2,000~2,500

PE Td 260 21 35mm

50~70 1

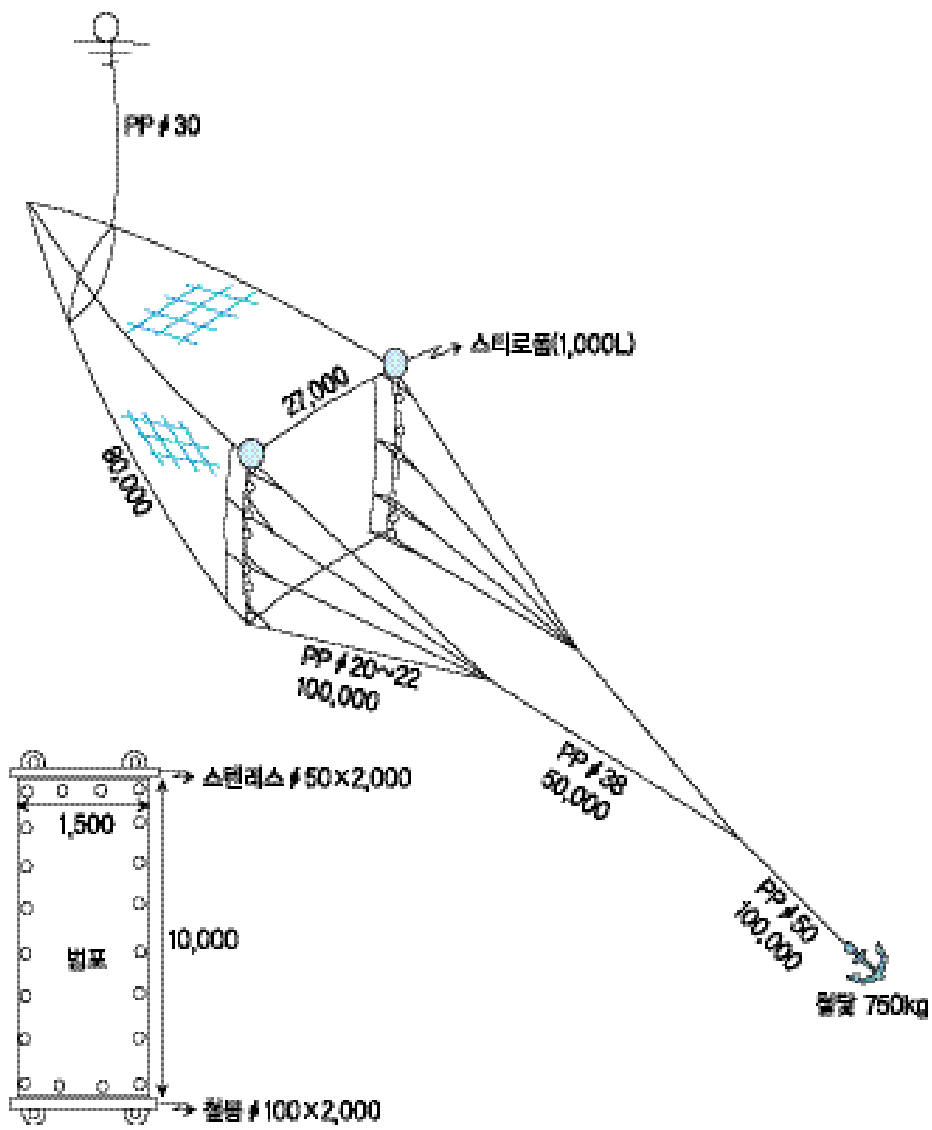
05~06

5~6

,

,

)



: 4~6 , 8~11

: 15~50m, ,

: - , , ,

가 - ,

- ,

:

10m

3

가 27m, 30m .

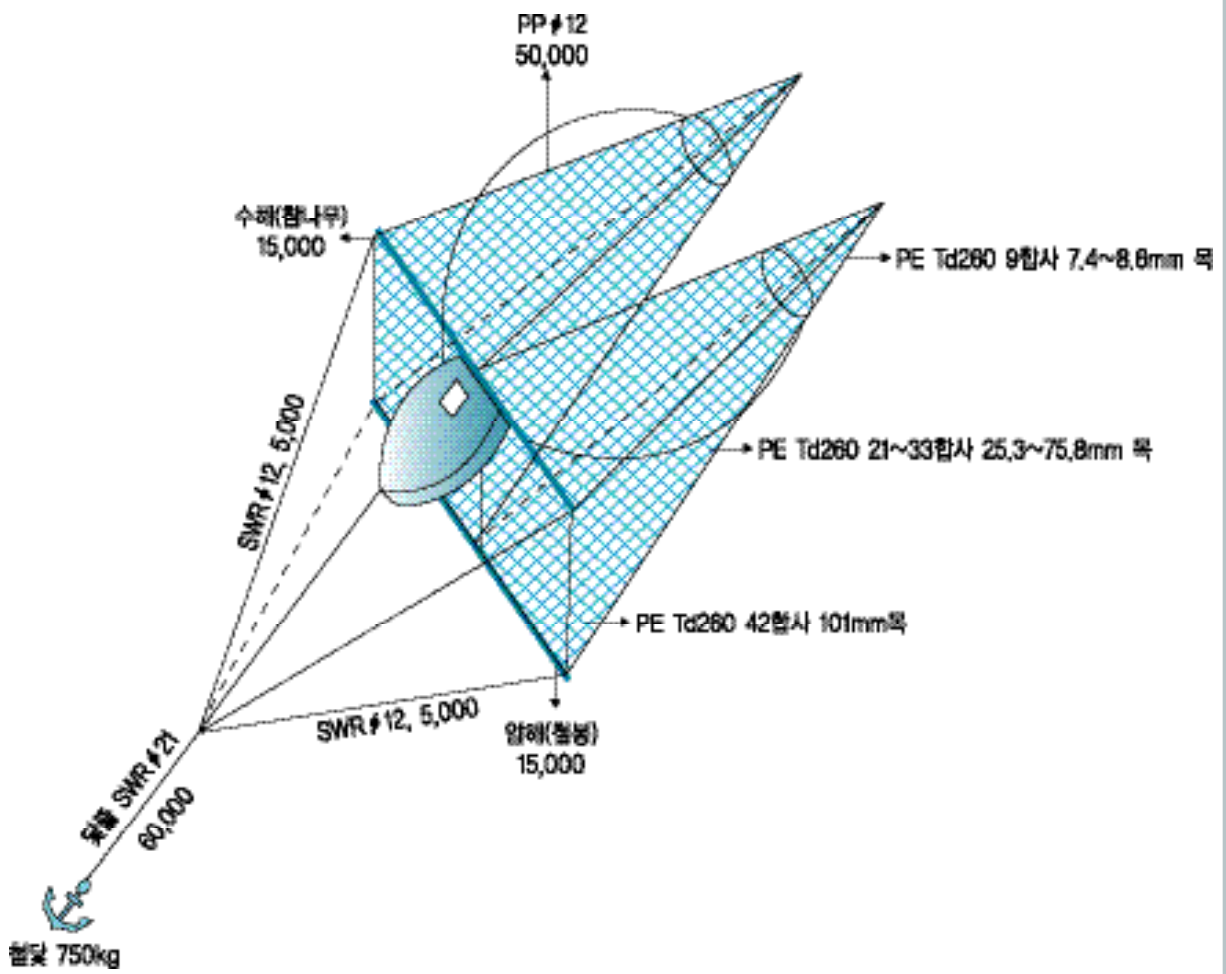
, 가 1.5m,
80m .

1

1

. 1
,가

)



: (2~5), 가 (9~11)

: 5~15m,

: -

가 - , , ,

:

가

가

1

1

4

가

가

1 4

1

1

2

가

가

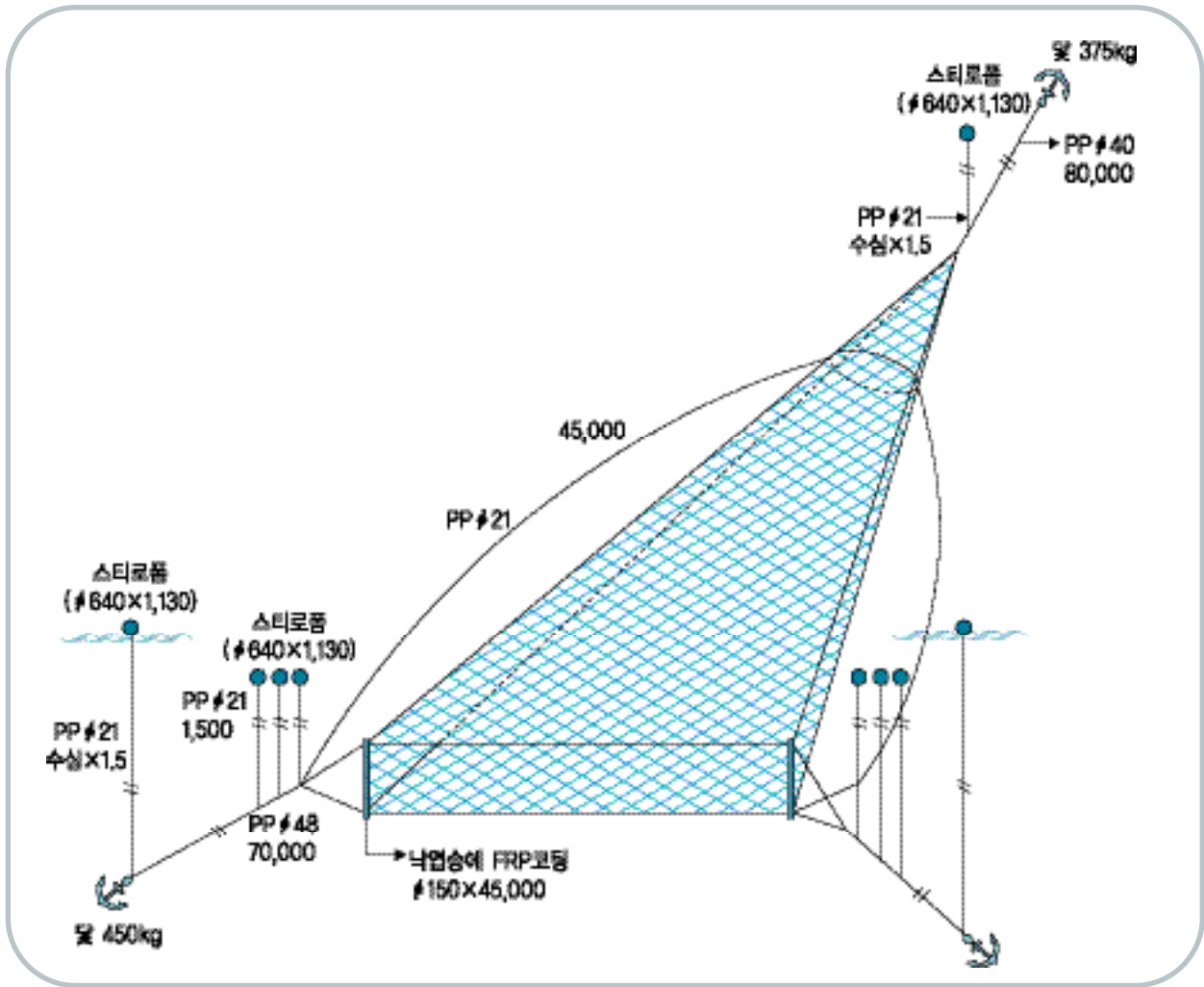
2

30 ,

1

가

)



:

: 10~20m,

: (8~11), (3~10), (12~3), (7~8)

:

FRP

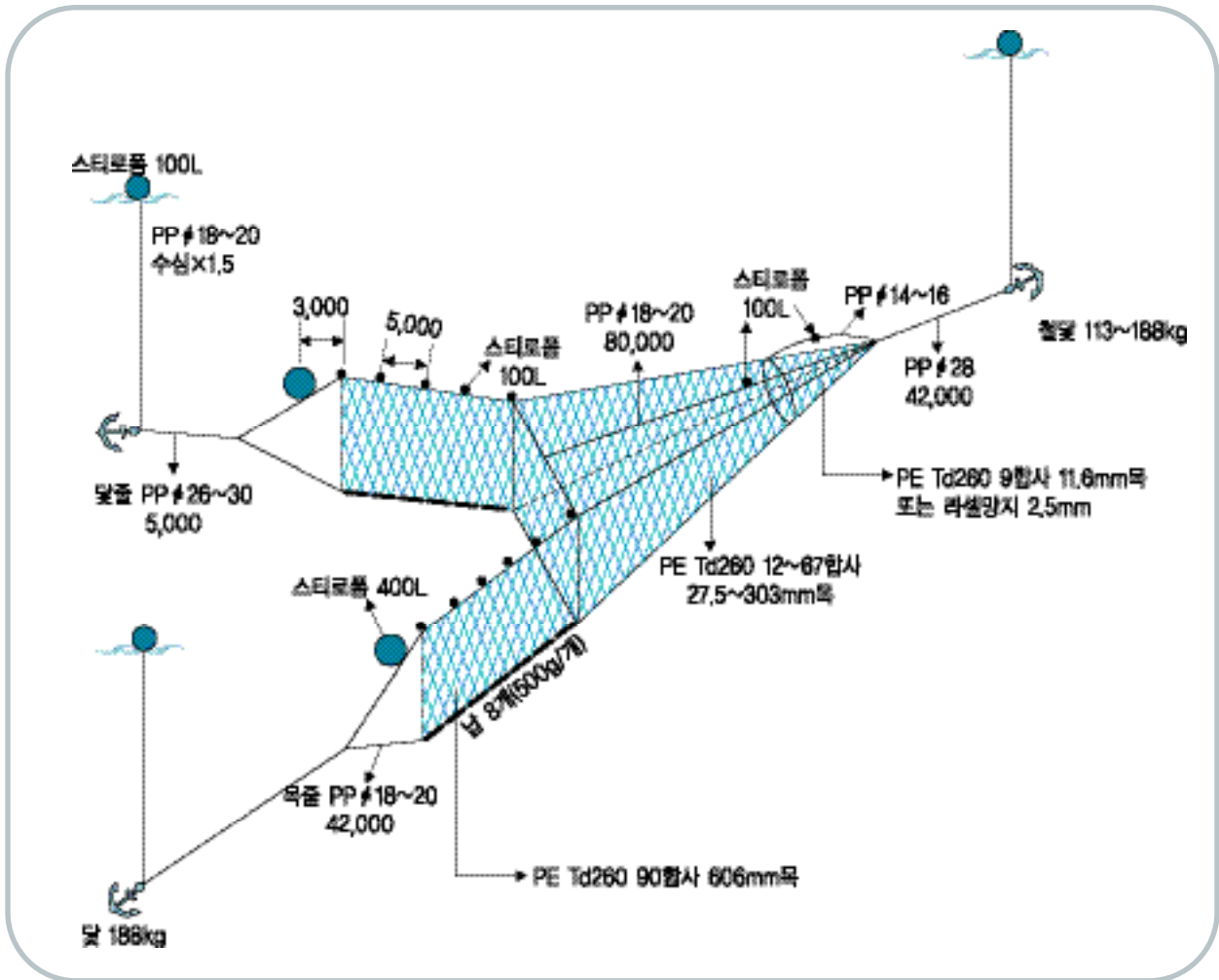
4 가

PE 60 303mm

PE 33 11.6mm 2.5mm

2

)



: 4~6 , 8~11

: 15~50m, ,

: - , , , 가 - , ,

- ,

:

PE 90 606mm
PE 9 11.6mm 2.5mm

2

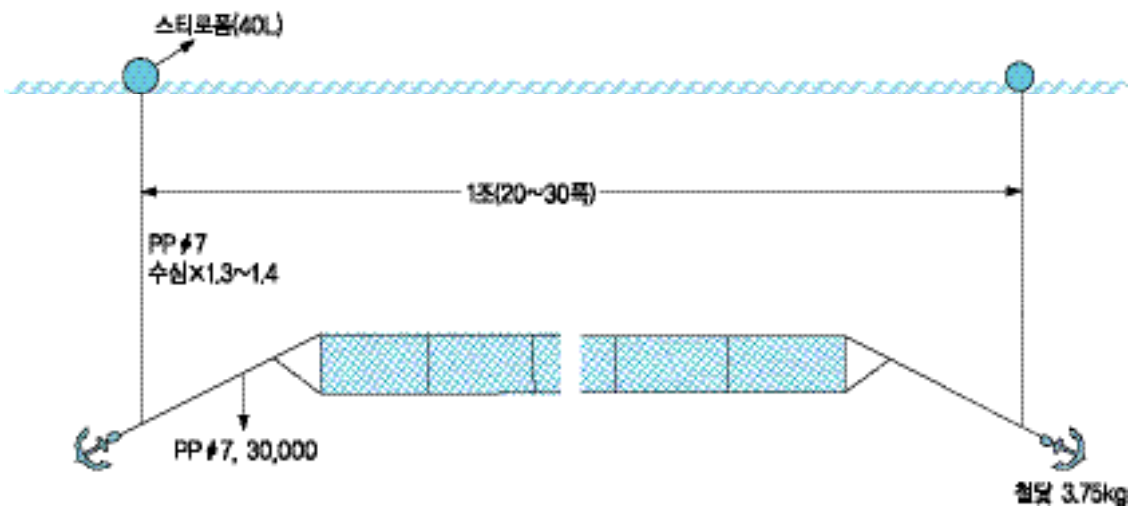
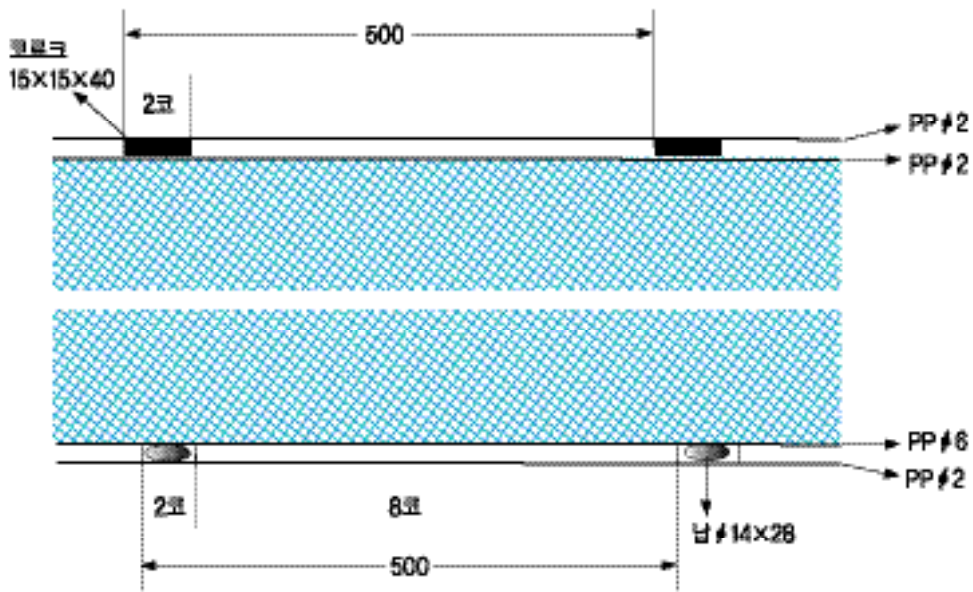
1 1~2

) ()

PP#2, 80,000

12.5코	Nylon 경심#0.3 명목 151.5mm	150,000
-------	-------------------------	---------

PP#6, 85,000



: 4~6 , 9~11

: 15~50m, ,

: , , , 가

:

0.3mm,

151.5mm

56%,

53%

가

3%

1 50~100

1 20~30

. , 20~30

10 1 2~3

가

20~30

가

가

1 40~50 ,

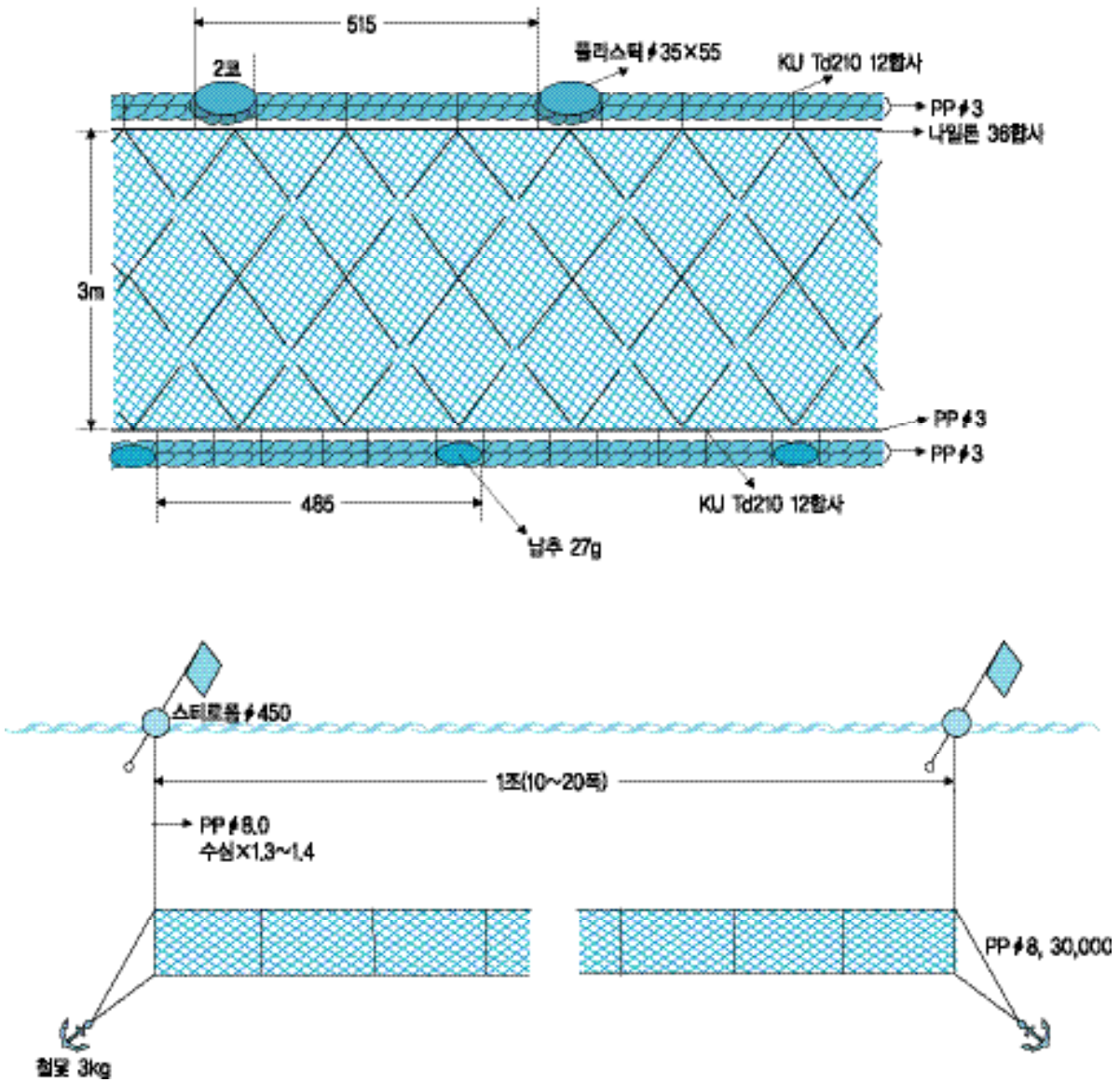
2~3

) ()
 (1) (5)

PP#8.0, 25,000

7코	Knot NY Td210 15합사 망목 515.2mm	69,000
35코	Knot NY Td210 4합사 망목 151.5mm	75,000
7코	Knot NY Td210 15합사 망목 515.2mm	69,000

PP#3.0, 23,100



: 4~6 , 9~11

: 15~40m, ,

: , , , 가

:

3 . 가

Td210 4 , 151.5mm , Td210 15 515.2mm

, 1 25~30m .

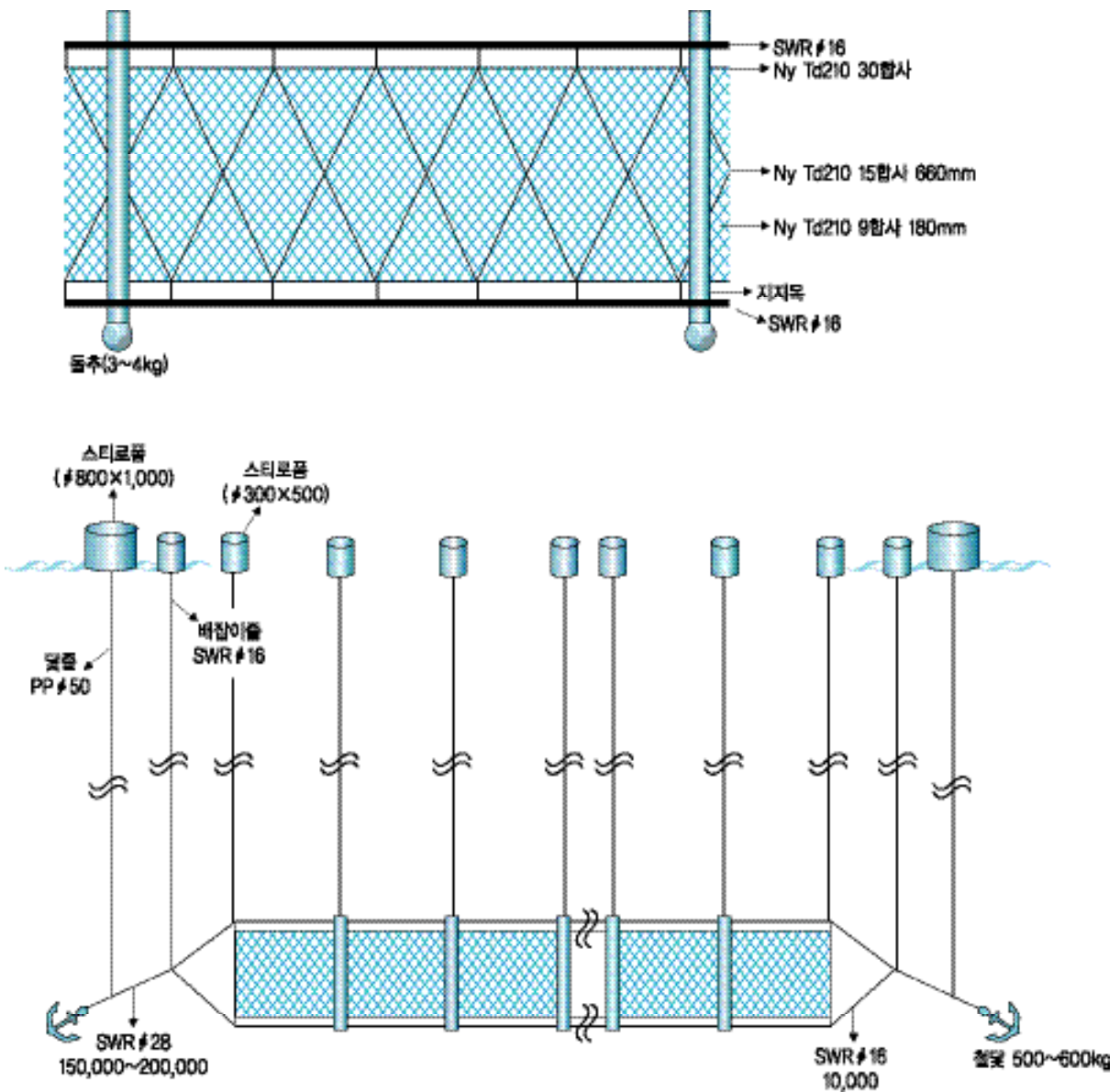
33%, 36% ,

3% .

1 100~200 10~20 1 2~3

6~7 가 7~8 .

(2) (5))



: 4~6 , 9~11

: 15~40m, ,

: , , , 가

:

5

가

()

Td210 3 , 151.5mm ,

Td210 15 515.2mm

. 1

400~500m , 1 8

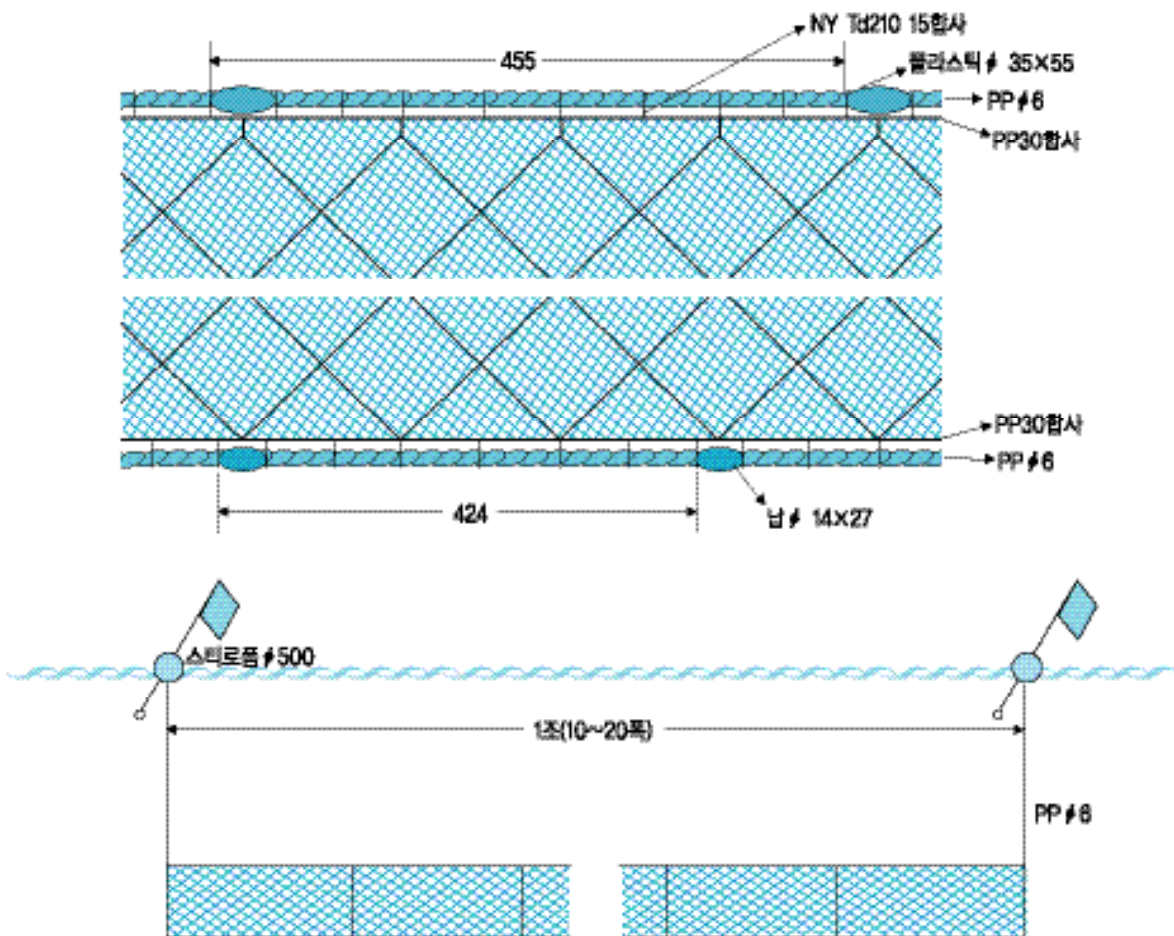
.

) ()

PP#6, 25,000

3코	Knot NY Td210 6합사 망목 515.2mm	68,000
15코	Knot NY Td210 4합사 망목 151.5mm	75,000
3코	Knot NY Td210 6합사 망목 515.2mm	68,000

PP#6, 28,000



: 4~6 , 9~11

: 15~40m, ,

: , , ,

:

Td210 4

151.5mm ,

Td210 6

515.2mm

33%,

37%

4%

1

100

,

,

1

.

1

10~20

, 2

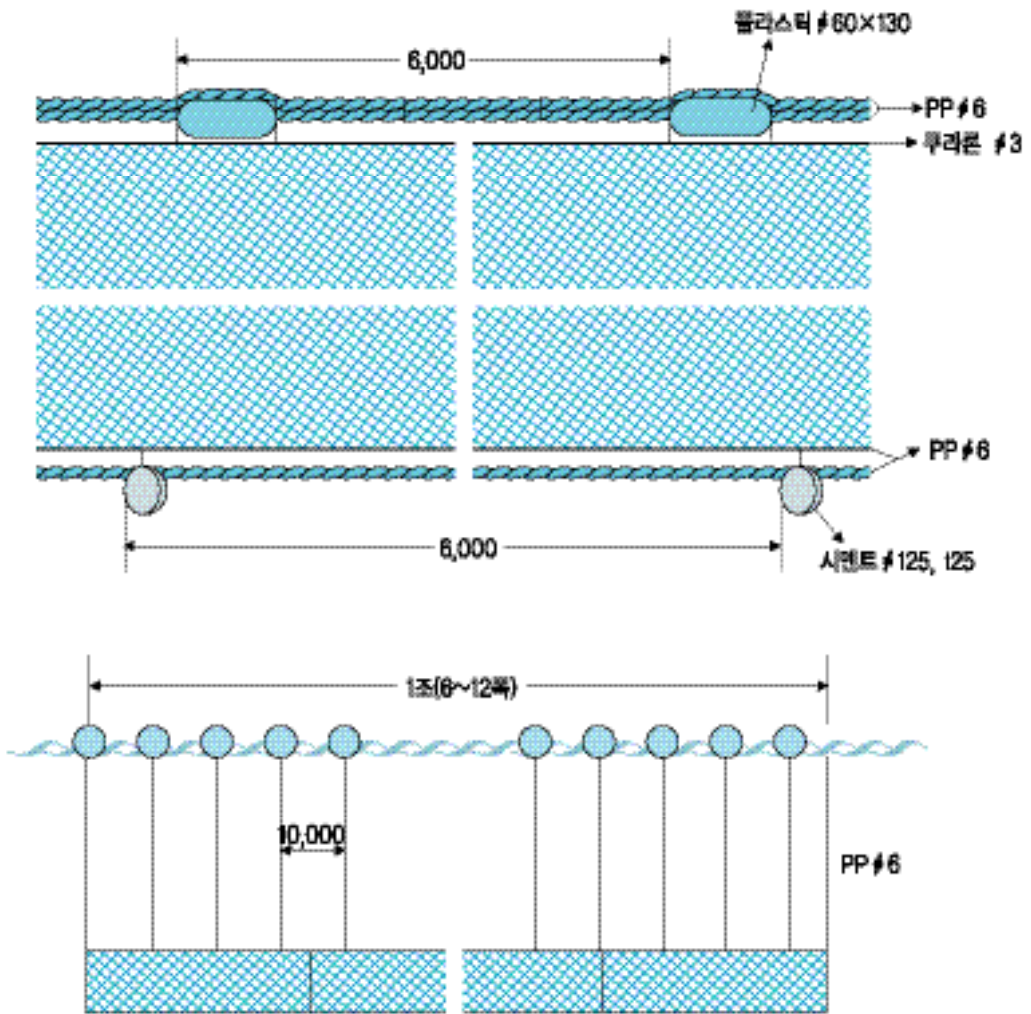
.

)

PP #6, 70,000

13코	Nylon 경심5호 망폭 90~96mm	151,500
-----	-----------------------	---------

PP #6, 80,000



: 5~7 , 8~10

: 10~30m, ,

: , , , ,

:

NY 5 , 90 96mm ,

46% 52% .

1 70m, 13 1 ,

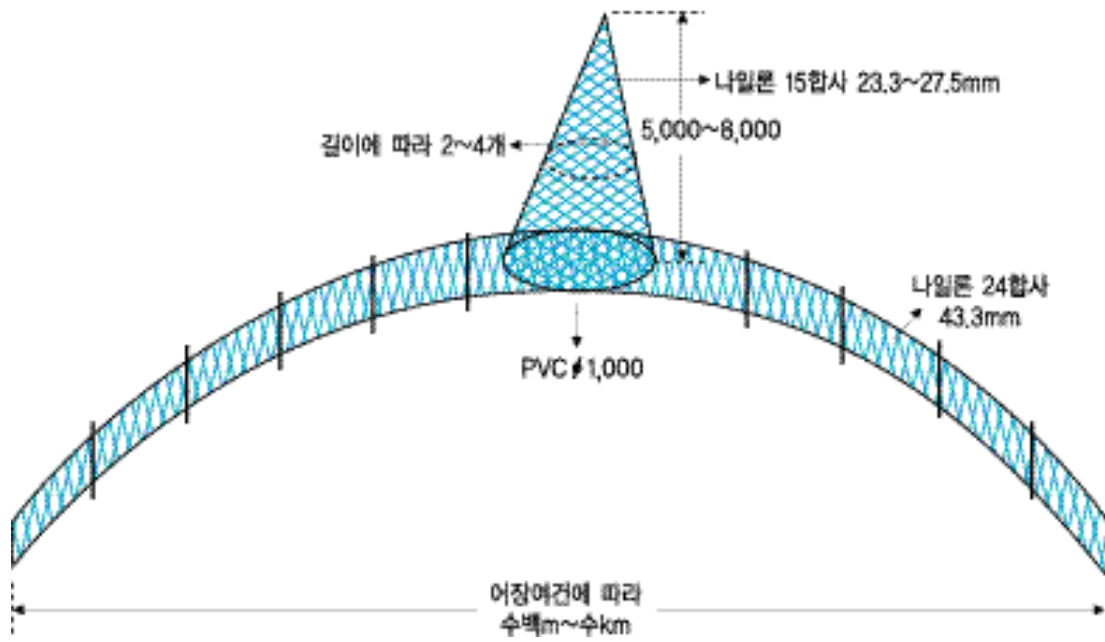
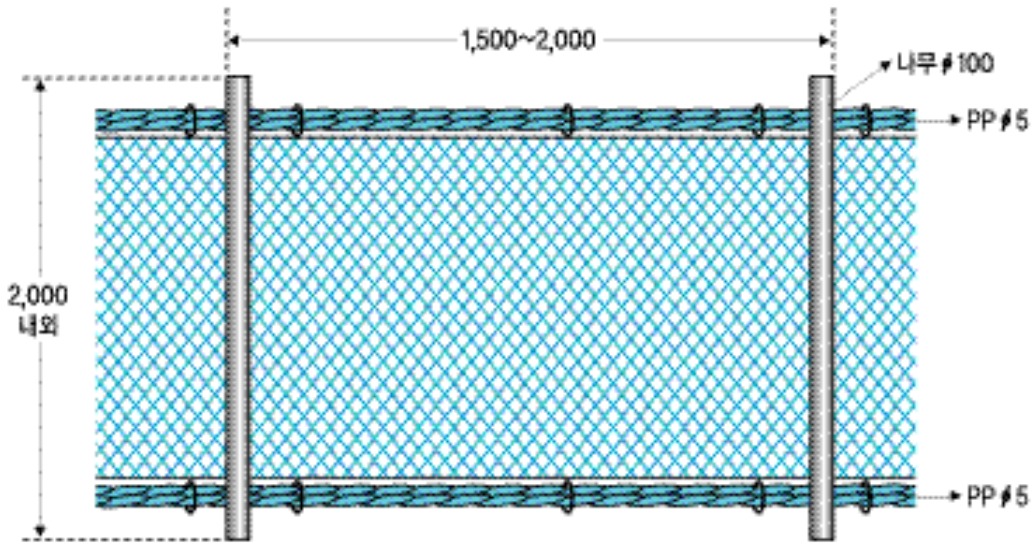
, 6m . 1 10

가

6 7 . 가

6~12 .

)



:

: 0~10m, ,

: , , , , ,

:

가

가

.

가 ,

.

가

V 가

.

,

,

가

,

가

,

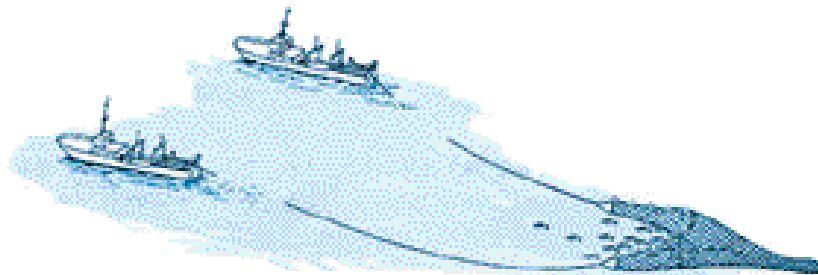
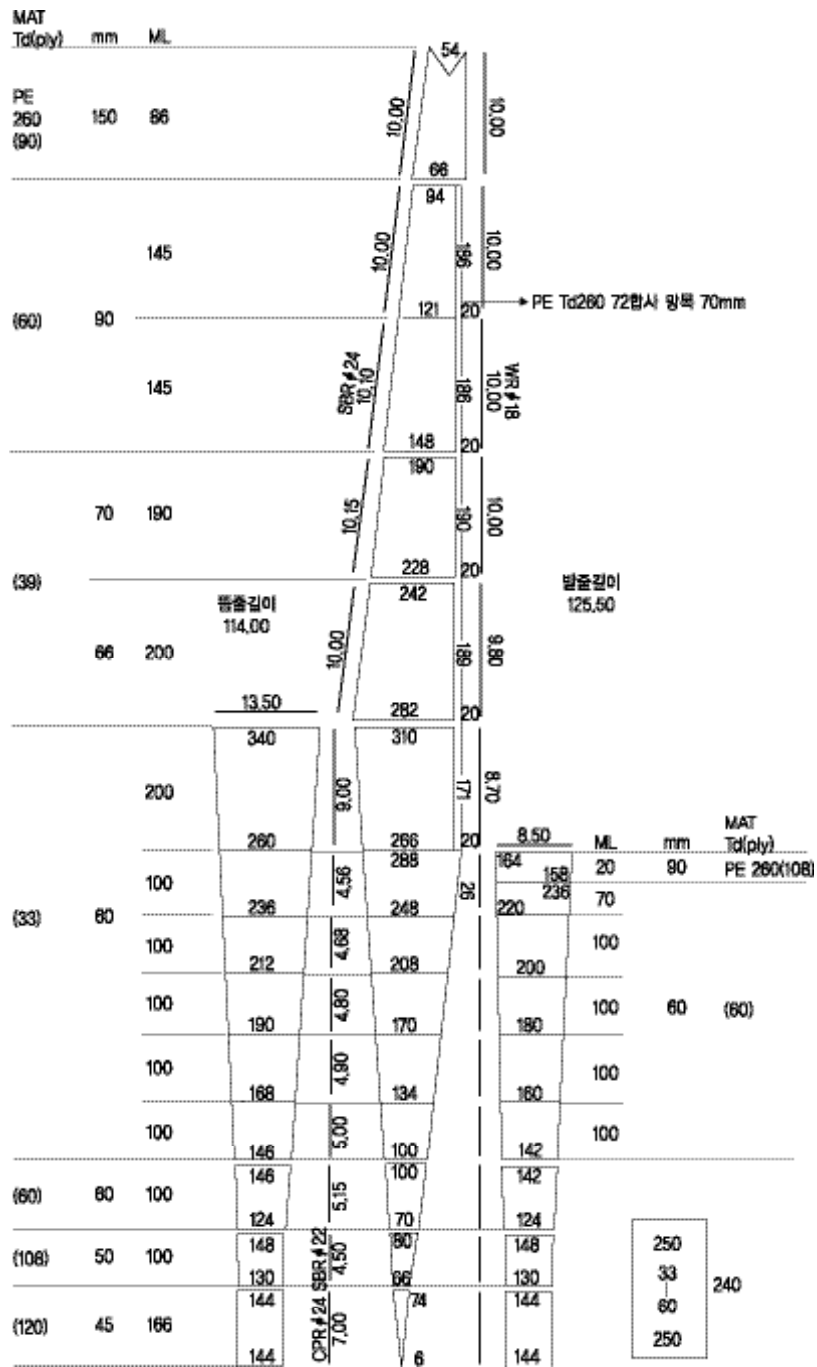
.

1 2

가

.

)



: , 7 8

: 400 100m,

: , , , , , ,

:

가 4 가

, ,

가 6~8m

, 80 140 , 500 1,800 , 12 14 .

. , , .

가

가

V

U

, ,

400 600m

2 3 , 1

2 3 .

가

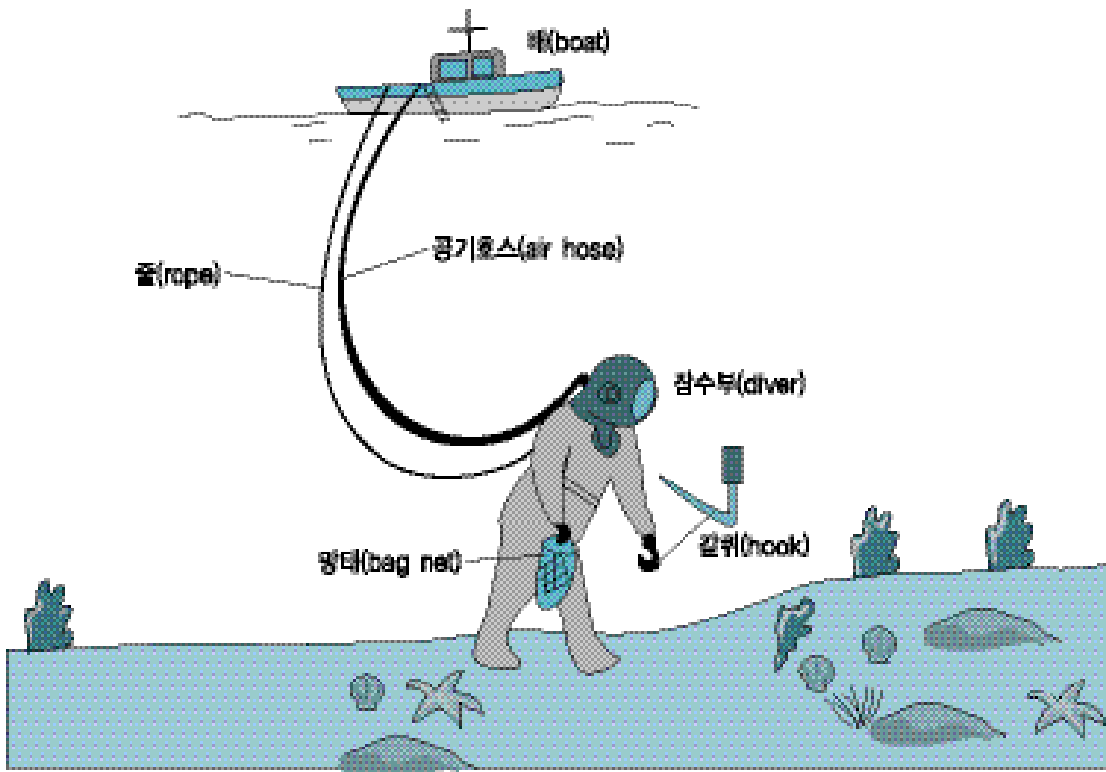
5 10

, , 가

1 7 8 , 1

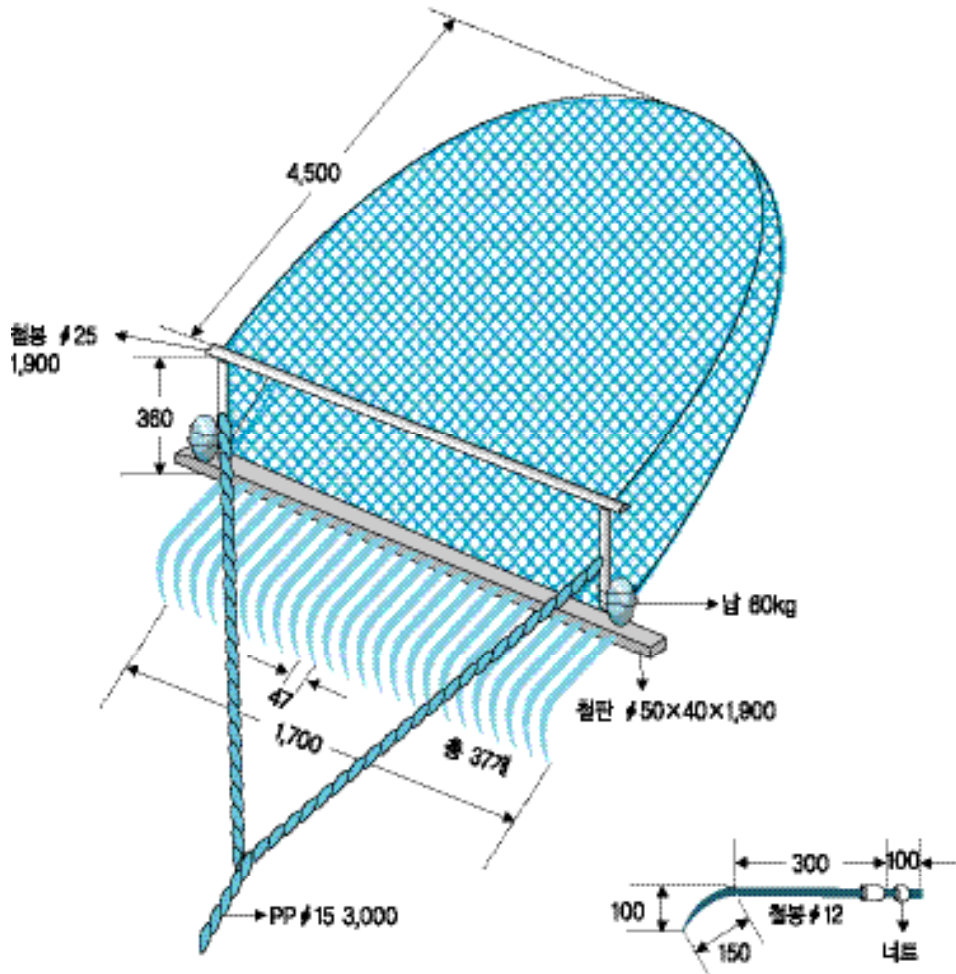
20 .

)



: 4 11 , 7 4 , 11 6 , 11 7
 : 40m
 ()
 : , , ,
 :
 가
 가 . 가 가 ,
 .
 , , (weight), , , ,
 , , 가 .
 .
 가
 . 가
 40m , , 20m 2 3 ,
 20m 1 1 30 .
 5 8 , 150 250 1 2 , 1 , 2 3
 .

)



PP # 12

	380(우)	1,900(상)	380(좌)	1,900(하)
200코	8코	42코	8코	42코
	Knot NY Td210 72합사 망목 60.5mm			



: 8~ 5

: 7 40m,

: , , ,

:

PE

,

.

가

가

, ,

40 42 ,

60kg , 120kg

1

,

1

,

1 2

3 4

2

가 .

1 , 1

1

,

가

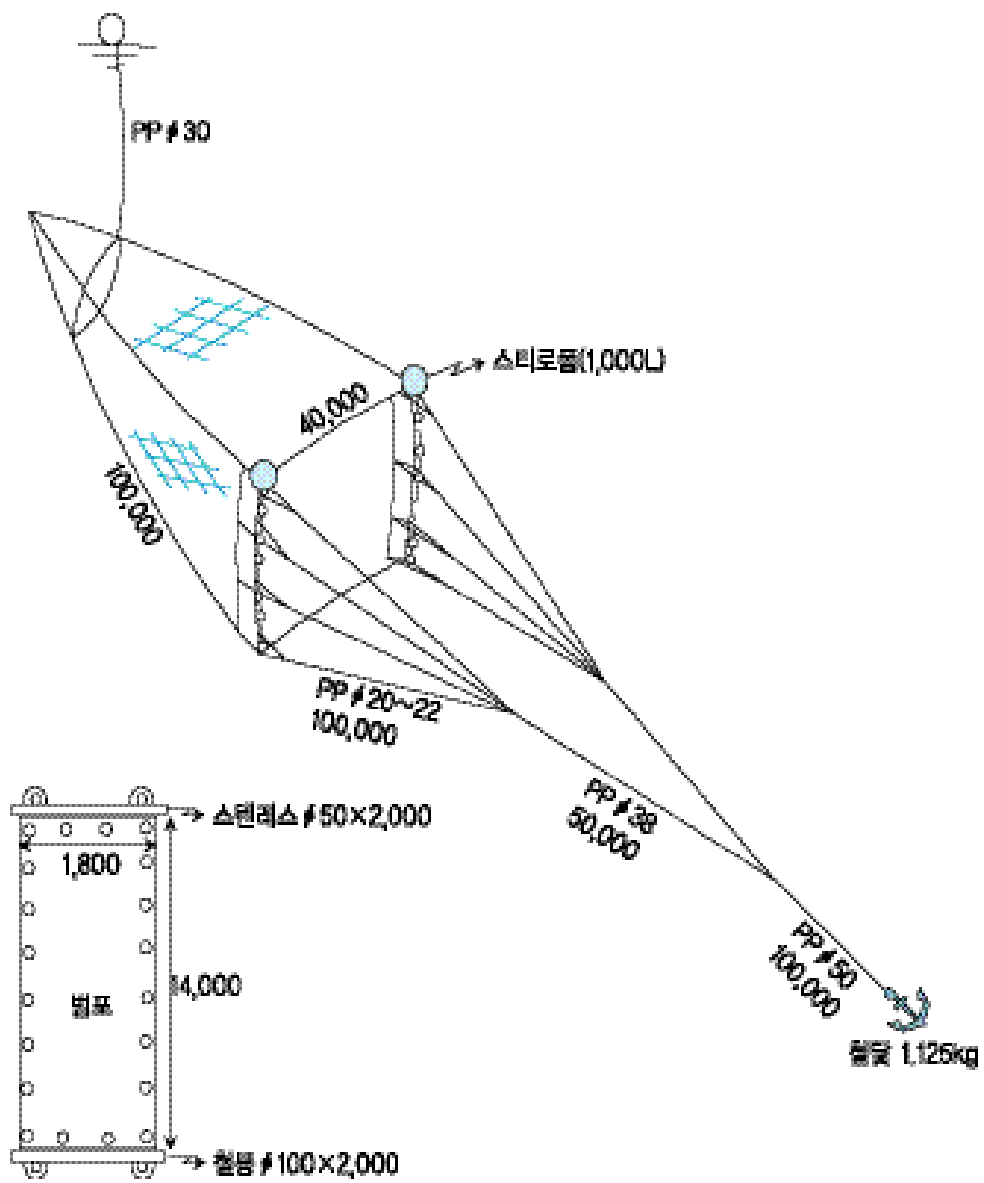
, 1 8 10

10~20

,

3 4 .

)



: 4~6 , 8~11

: 15~50m, ,

: - , , , ,

가 - ,

- ,

:

14~15m

3

가 40m, 45m

가 1.8~2m,
100m

1

1

,가

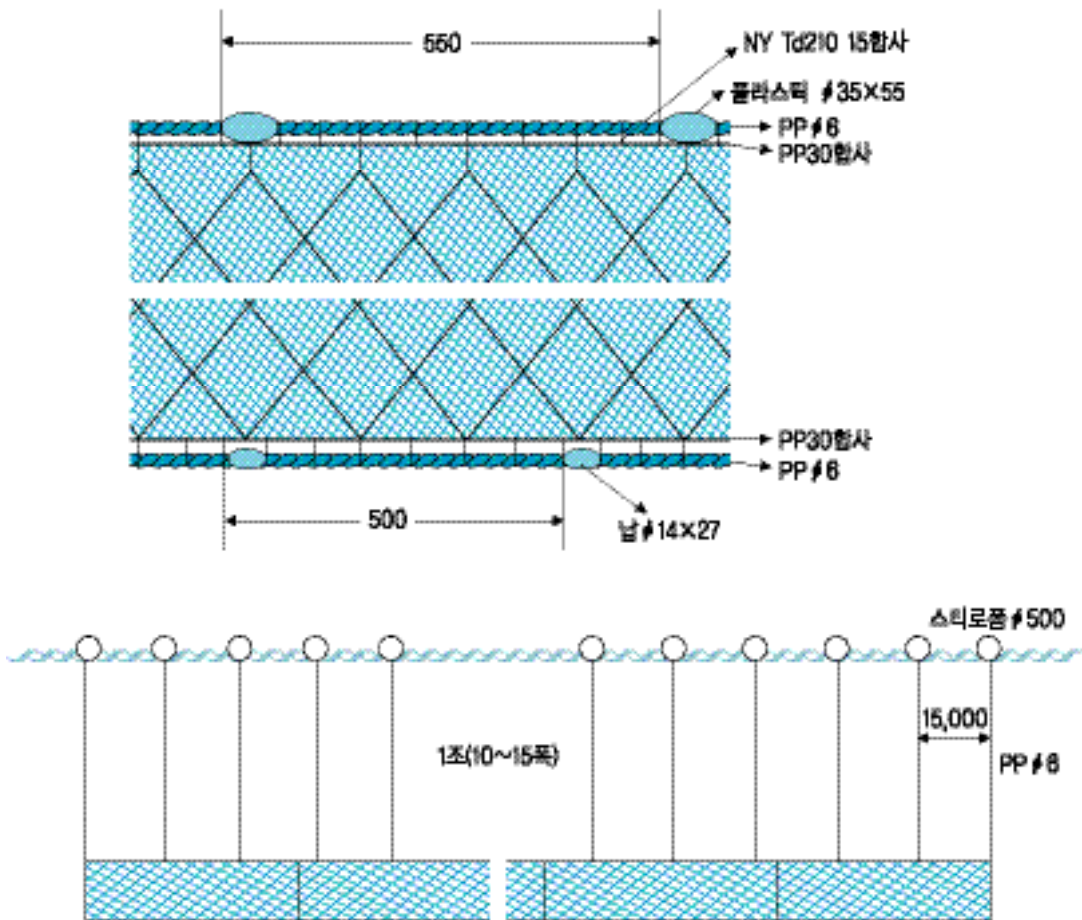
1

)

PP#6, 50,000

5코	나일론 15합사 680mm	
15코	나일론 9합사 180mm	151,500
5코	나일론 15합사 680mm	

PP#6, 55,000



: 4~6 , 9~11

: 20~50m, ,

: , ,

:

9 180mm , 15

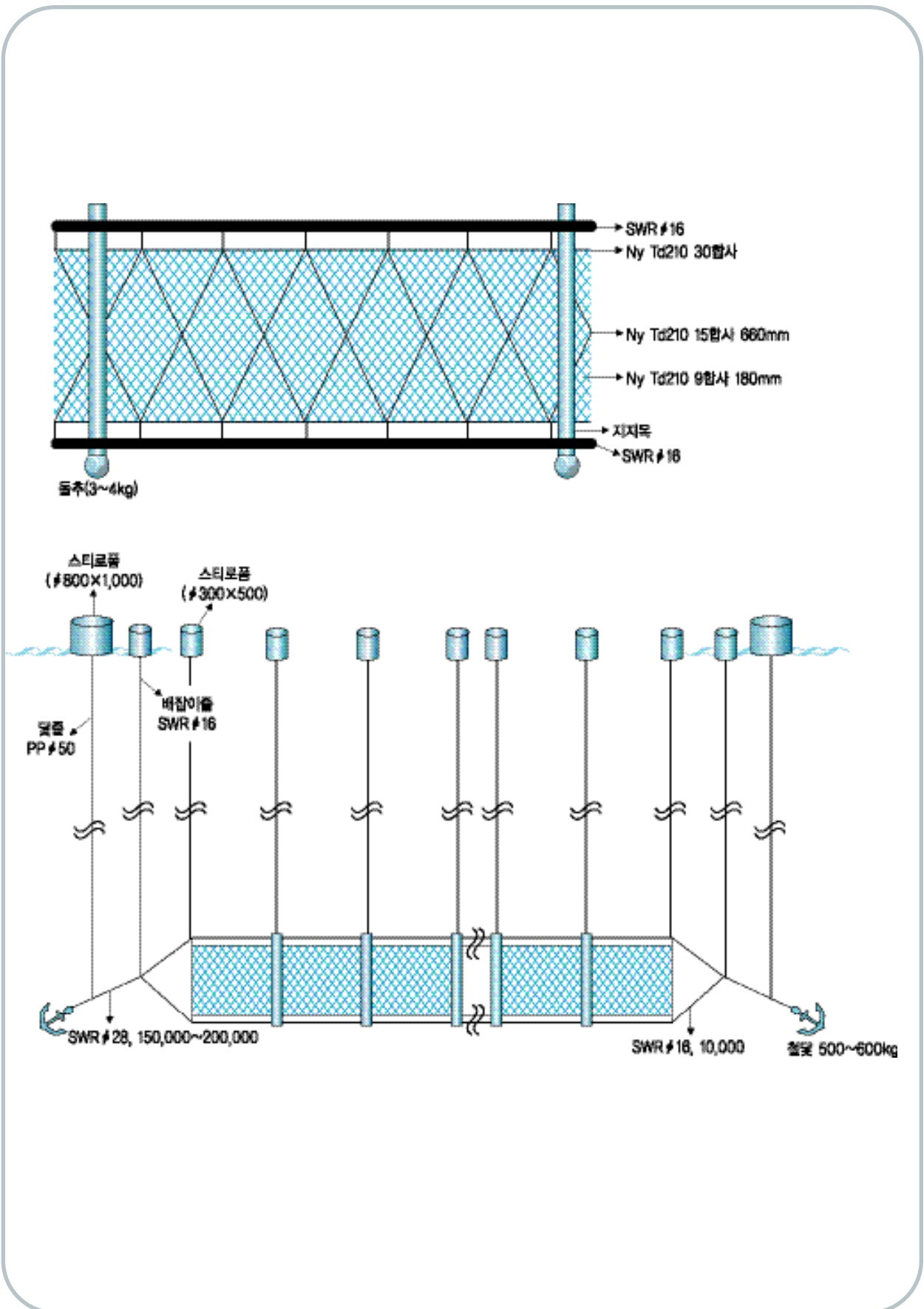
660mm . 33%,

37% 4% . 1 100 ,

, 1 . 1

10~50 , 2 .

) ()



: 4~6 , 9~11

: 20~500m, ,

: , , , 가 ,

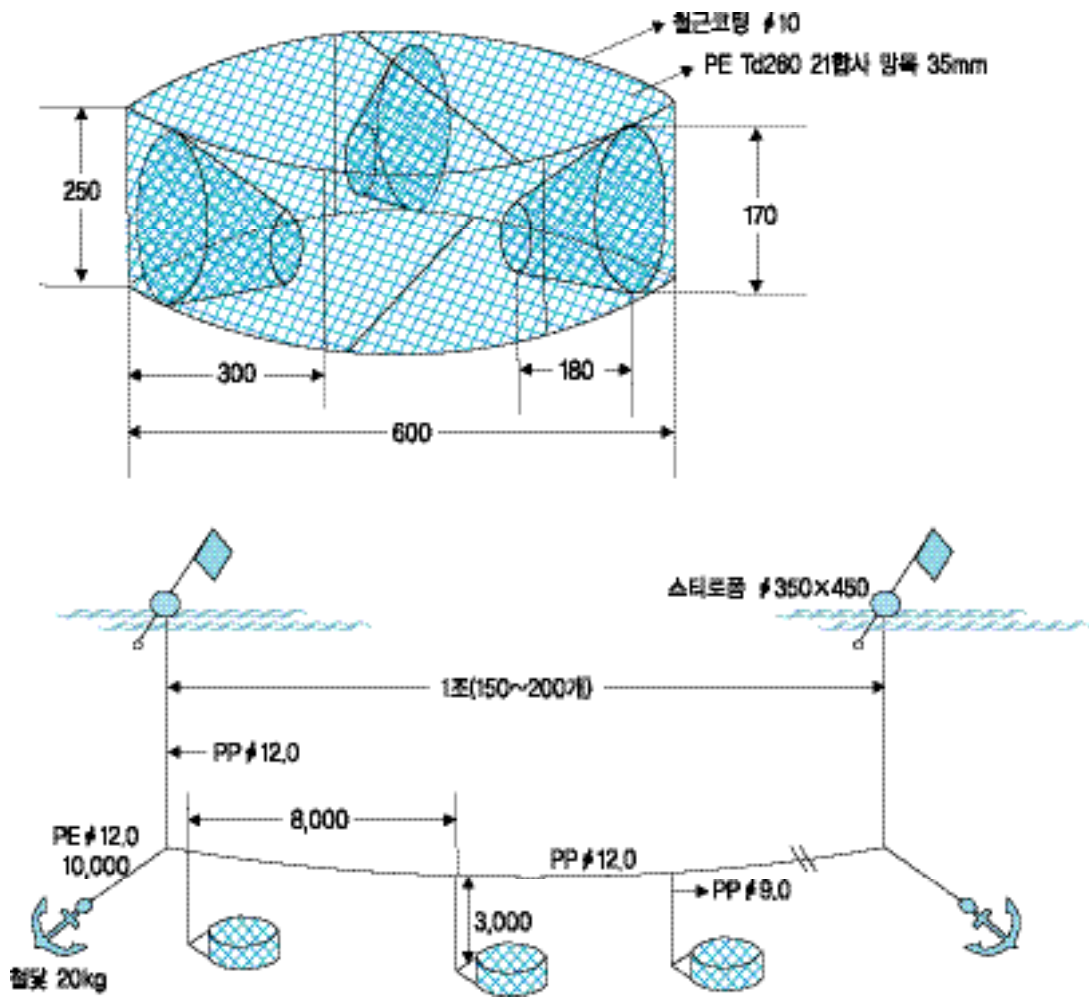
:

()

Td210 9 , 180mm ,
 . 1
 , 1

Td210 15 660mm
400~800m , 1 6~12
5km .

)



: 3~8 (,), 9~12 ()

: (40~70m, ,), 가 (25~60m,)

: - , ,

가 -

: ,

:

PP 12mm 8~9m PP 9mm 3m

10mm 50cm, 20cm, 가

60cm, 25cm , PE Td260 21 35mm

, 3 . 150~200 1

10,000~15,000 .

5~6 ,

,

.

[4.

가.

1)

가)

4-1

가 (53.15) , 가 (98.87) , (65.63) ,
 가 103.00 , 가 (20.67) ,
 가 14.61 , 가 8.60 ,
 (30.25) (17.00) , 가
 (10.33) . 가 42
 , 가 1 .
 1.12 8 . 가
 1.44 , 가 0.80 . 가
 9 , 가 7 .

4-1.

(: ,)

		()							
	103.00	100.60	103.00	74.00	93.00	99.17	24.00	1.44	
	8.60	95.50	11.00	9.16	25.00	8.60	15.00	0.80	
	52.39	98.87	65.63	38.17	53.15	38.94	20.67	1.12	
	33.76	2.29	40.50	31.51	20.89	36.38	4.93	0.45	
	42.00	42.00	21.00	30.00	30.00	25.00	15.00	9.00	
	1.00	15.00	1.00	1.00	2.00	5.00	6.00	7.00	
	14.61	30.25	10.33	13.00	17.00	10.38	11.00	8.00	
	10.61	13.40	8.15	11.77	10.16	6.44	4.58	1.41	

)

- -
4-2
15,912.50
(26,666.67), (23,333.33)
(17,416.67) , 가
(8,500.00) .
452,205.50
(663,166.67
, (539,166.67), (521,250.00) ,
가 (221,240.00) .
25,000.00 7,071.07 ,
가 30,000.00 .
18,000.00 4,242.64 , 가
21,000.00 .
4-3
60,905.00
(133,333.33)
(131,350.00) . 99,375.00
, 가 (190,833.33)
(100,666.67) .
3,000.00 0.00
, 가가 3,000.00 .
10,000.00 14,142.14 , 가
20,000.00 .

4-2.

(:)

		100,000.00	0.41	1,314,000.00	1.00
		0.00	0.00	26,000.00	0.59
		15,912.50	0.04	452,205.50	0.96
		21,569.7	0.08	277,476.14	0.08
()		30,000.00	0.05	705,000.00	0.97
		20,000.00	0.03	579,500.00	0.95
		23,333.33	0.03	663,166.67	0.97
		5,773.50	0.01	72,457.4	0.01
		50,000.00	0.08	1,314,000.00	1.00
		0.00	0.00	260,500.00	0.92
		13,333.33	0.03	539,166.67	0.97
		18,027.76	0.03	370,688.80	0.03
		20,000.00	0.08	686,500.00	1.00
		1,000.00	0.00	148,000.00	0.92
		8,500.00	0.03	361,200.00	0.97
		7,778.17	0.03	206,252.45	0.03
		50,000.00	0.20	945,000.00	1.00
		0.00	0.00	26,000.00	0.80
		17,416.67	0.04	521,250.00	0.96
		20,237.04	0.06	284,255.37	0.06
		100,000.00	0.41	582,000.00	1.00
		0.00	0.00	142,000.00	0.59
		14,375.00	0.05	315,187.50	0.95
		34,993.62	0.15	177,043.97	0.15
		50,000.00	0.18	258,000.00	1.00
		0.00	0.00	170,320.00	0.82
		26,666.67	0.11	221,240.00	0.89
		25,166.11	0.09	45,522.79	0.09
		30,000.00	0.67	21,000.00	0.51
		20,000.00	0.49	15,000.00	0.33
		25,000.00	0.58	18,000.00	0.42
		7,071.07	0.13	4,242.64	0.13

4-3.

(:)

		600,000.00	1.00	500,000.00	1.00
		0.00	0.00	0.00	0.00
		60,905.00	0.29	99,375.00	0.71
		140,161.05	0.40	115,511.72	0.40
		200,000.00	1.00	300,000.00	1.00
		0.00	0.00	1,000.00	0.00
()		133,333.33	0.66	100,666.67	0.34
		115,470.05	0.57	172,627.73	0.57
		120,000.00	1.00	320,000.00	1.00
		0.00	0.00	0.00	0.00
		27,222.22	0.21	94,444.44	0.79
		47,523.09	0.35	103,695.60	0.35
		60,000.00	1.00	60,000.00	1.00
		0.00	0.00	0.00	0.00
		29,000.00	0.60	14,000.00	0.40
		27,928.8	0.55	26,076.81	0.55
		600,000.00	0.93	500,000.00	1.00
		0.00	0.00	30,000.00	0.07
		131,350.00	0.26	190,833.33	0.7
		232,328.25	0.37	129,576.82	0.37
		30,000.00	0.67	110,000.00	1.00
		0.00	0.00	0.00	0.33
		8,750.00	0.17	53,750.00	0.83
		12,464.23	0.25	38,149.14	0.25
		0.00	0.00	15,000.00	1.00
		0.00	0.00	8,000.00	1.00
		0.00	0.00	11,000.00	1.00
		0.00	0.00	3,605.55	0.00
		3,000.00	1.00	20,000.00	0.87
		3,000.00	0.13	0.00	0.00
		3,000.00	0.57	10,000.00	0.43
		0.00	0.61	14,142.14	0.61

(463,416.73) .
 9,648.27 ,
 (152,085.24) (14,924.43) ,
 (-93,237.30),
 (-91,262.73), (-30,81.49) (-15,695.36) .

4-5
 , 가 , , .
 141,434.58 ,
 (389,410.75)
 (183,261.82) .
 108,994.29 ,
 (192,505.25)
 (159,220.27) .
 , 38,707.95
 , 2,026.08 9,795.68 .
 가 21,059.18 , 가
 (26,601.11), (26,168.75)
) (22,628.09) .

4-6
 , .
 , ,
 .
 -25% ,
 10% (22%) .
 (-77%), (-63%), (-58%)
 (-25%) .
 45% ,
 (105%) .
 40% ,
 (85%) .

0.71 ,
 (1.22) (1.08
) . 833%, 236% ,
 31% 35% .
 1.75 1.81 3.03 .

4-5. (:)

												가	
		697,890.00	0.87	510,280.00	0.67	239,400.00	0.44	21,200.00	0.05	49,992.00	0.10	65,700.00	0.52
		7,980.00	0.15	2,145.00	0.08	0.00	0.00	0.00	0.00	300.00	0.00	5,400.00	0.02
		141,434.58	0.41	108,994.29	0.34	38,707.95	0.11	2,026.08	0.01	9,795.68	0.03	21,059.18	0.10
		162,869.7	0.17	112,658.34	0.13	50,377.33	0.10	3,990.63	0.01	11,455.64	0.02	16,347.11	0.09
()		559,582.00	0.66	453,173.00	0.39	57,676.00	0.06	21,200.00	0.05	49,992.00	0.07	35,250.00	0.06
		153,217.00	0.48	40,000.00	0.17	0.00	0.00	0.00	0.00	17,000.00	0.04	9,170.00	0.03
		389,410.75	0.61	192,505.25	0.25	29,678.50	0.03	8,350.00	0.02	31,755.50	0.05	26,168.75	0.04
		174,248.83	0.08	179,908.04	0.10	25,142.23	0.03	10,278.94	0.03	15,546.51	0.02	12,318.69	0.01
		343,800.00	0.57	220,000.00	0.44	129,940.00	0.44	1,040.00	0.01	40,000.00	0.06	65,700.00	0.20
		23,125.00	0.15	35,000.00	0.26	3,542.00	0.02	150.00	0.00	1,500.00	0.01	13,025.00	0.08
		105,604.25	0.42	80,062.50	0.34	24,260.75	0.09	492.50	0.00	9,038.00	0.03	26,601.11	0.12
		100,290.34	0.14	58,803.23	0.06	43,580.47	0.14	268.90	0.00	12,698.63	0.02	19,218.8	0.05
		52,890.00	0.34	206,627.00	0.67	39,165.00	0.13	2,200.00	0.05	9,600.00	0.07	60,272.00	0.29
		8,400.00	0.15	21,600.00	0.36	122.00	0.00	120.00	0.00	3,000.00	0.02	5,400.00	0.02
		35,715.00	0.23	96,318.80	0.52	15,940.80	0.06	1,191.40	0.02	5,880.00	0.04	18,367.80	0.13
		19,589.28	0.07	80,926.43	0.13	16,385.59	0.05	934.38	0.02	2,803.03	0.02	23,411.24	0.11
		697,890.00	0.61	510,280.00	0.53	239,400.00	0.42	6,000.00	0.02	19,500.00	0.04	56,928.00	0.14
		38,270.00	0.18	29,640.00	0.10	28,973.00	0.12	300.00	0.00	1,000.00	0.00	6,400.00	0.02
		183,261.82	0.36	159,220.27	0.34	85,924.55	0.21	2,592.55	0.01	7,955.45	0.02	22,628.09	0.06
		205,664.23	0.16	139,726.94	0.12	63,159.90	0.09	1,989.80	0.01	6,346.48	0.01	17,787.98	0.04
		163,700.00	0.87	201,300.00	0.46	50,980.00	0.12	1,500.00	0.00	16,000.00	0.11	27,450.00	0.14
		43,500.00	0.32	15,000.00	0.08	1,500.00	0.01	100.00	0.00	1,000.00	0.01	6,000.00	0.04
		93,700.25	0.51	60,137.50	0.29	16,294.88	0.07	442.86	0.00	6,900.00	0.04	13,822.38	0.08
		43,626.65	0.16	59,003.12	0.13	16,195.38	0.04	481.69	0.00	6,283.7	0.04	7,370.97	0.04
		20,000.00	0.40	15,000.00	0.30	1,500.00	0.05	50.00	0.00	500.00	0.02	12,996.00	0.52
		7,980.00	0.32	2,145.00	0.09	1,369.00	0.03	0.00	0.00	300.00	0.01	12,900.00	0.26
		13,990.00	0.36	8,572.50	0.19	1,434.50	0.04	25.00	0.00	400.00	0.01	12,940.00	0.39
		8,499.42	0.06	9,089.86	0.15	92.63	0.02	35.36	0.00	141.42	0.01	67.88	0.18

4-6.

				()	
		0.65	2.22	2.72	3.52
		(3.71)	0.00	0.00	0.00
		(0.25)	0.45	0.71	0.40
		0.83	0.67	0.71	0.59
		0.22	0.10	1.64	0.49
		(0.98)	0.10	0.42	0.28
()		(0.25)	0.10	1.08	0.35
		0.56	0.00	0.61	0.12
		(0.00)	2.22	0.50	0.73
		(2.79)	0.30	0.00	0.00
		(0.63)	1.05	0.24	0.25
		0.97	0.89	0.18	0.27
		0.26	0.29	1.12	0.24
		(0.63)	0.02	0.19	0.07
		(0.00)	0.17	0.54	0.13
		0.36	0.14	0.39	0.08
		0.65	1.75	2.72	3.52
		(0.27)	0.03	0.00	0.29
		0.22	0.40	1.22	0.85
		0.29	0.76	0.93	0.91
		0.08	0.75	1.46	0.45
		(3.71)	0.00	0.20	0.00
		(0.58)	0.25	0.58	0.20
		1.29	0.43	0.42	0.14
		(0.66)	0.00	0.12	0.05
		(0.87)	0.00	0.06	0.04
		(0.77)		0.09	0.04
		0.15		0.04	0.01
		0.00	10.00	3.03	0.56
		0.00	6.67	0.47	0.07
			8.33	1.75	0.31
			2.36	1.81	0.35

2)

가)

4-7 ,
 , . , ,
 4.01 .
 가 (6.31) , 가가
 (3.39) . 가 9.77 ,가
 0.86 . 가가
 (2.95) ,가 (1.54) .
 6.27 ,
 (8.50) , 가 (3.00) .
 가 16 , 가
 1 . 가가
 (5.29) , 가가 (2.00) .
 1.91 6.50 . 가
 4.97 ,가 0.59 . 가
 8 ,가 5 .

4-7. (: ,)

		9.77	4.99	7.93	9.77	7.93	4.97
		0.86	1.92	0.86	1.37	4.79	0.59
		4.01	3.39	3.73	3.67	6.31	1.91
		2.42	1.54	2.19	2.95	1.57	1.83
		16.00	11.00	16.00	11.00	5.00	8.00
		1.00	1.00	1.00	1.00	1.00	5.00
		6.27	5.00	8.50	5.75	3.00	6.50
		4.47	5.29	5.15	3.62	2.00	1.05

)

4 - 8
 13,318.18
 (16,666.67) , 가
 (8,333.33) .

4-8. (:)

		35,000.00	0.44	430,000.00	1.00
		0.00	0.00	15,900.00	0.56
		13,318.18	0.19	93,368.18	0.81
		8,096.95	0.12	100,592.69	0.12
		10,000.00	0.16	80,550.00	0.89
		5,000.00	0.11	36,500.00	0.84
		8,333.33	0.13	56,016.67	0.87
		2,886.75	0.03	22,449.41	0.03
		35,000.00	0.44	276,000.00	1.00
		0.00	0.00	15,900.00	0.56
		13,500.00	0.26	90,881.25	0.74
		11,625.10	0.17	106,999.67	0.17
		20,000.00	0.27	430,000.00	0.98
		5,000.00	0.02	27,000.00	0.73
		13,750.00	0.15	120,000.00	0.85
		5,824.82	0.08	130,155.95	0.08
		20,000.00	0.22	81,000.00	0.82
		10,000.00	0.18	46,000.00	0.78
		16,666.67	0.20	66,333.33	0.80
		5,773.50	0.02	18,175.07	0.02
		11,760.00	0.24	56,839.00	0.91
		800.00	0.09	6,400.00	0.76
		4,118.33	0.14	23,664.83	0.86
		4,153.70	0.06	19,519.26	0.06

93,368.18
 (120,000.00) , 가
 (56,016.67) .
 81% , (87%) .

			4,118.33	23,664.83
.		가 가	11,760.00	, 가
800.00	.		가 가	56,839.00 , 가
	6,400.00	.		

4-9			,	,
.		12,666.67	.	
			(25,428.57)	.
	34,863.64	,		
가	(60,187.50)		(36,666.67)	.
			2,175.00	20,381.50
.		가 가	7,350.00	, 가 0
.		가 가	56,839.00	, 가
1,000.00	.			

4-9.

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		150,000.00	1.00	250,000.00	1.00
		0.00	0.00	0.00	0.00
		12,666.67	0.26	34,863.64	0.7
		33,135.08	0.38	54,981.02	0.38
		0.00	0.00	8,000.00	1.00
		0.00	0.00	3,000.00	1.00
		0.00	0.00	5,166.67	1.00
		0.00	0.00	2,565.80	0.00
		150,000.00	1.00	50,000.00	1.00
		0.00	0.00	0.00	0.00
		25,428.57	0.33	20,000.00	0.67
		54,981.41	0.37	18,158.04	0.37
		40,000.00	0.80	250,000.00	1.00
		0.00	0.00	6,000.00	0.20
		8,750.00	0.14	60,187.50	0.86
		16,420.81	0.29	78,873.29	0.29
		9,000.00	1.00	110,000.00	1.00
		0.00	0.00	0.00	0.00
		6,000.00	0.67	36,666.67	0.33
		5,196.15	0.58	63,508.53	0.58
		7,350.00	0.72	56,839.00	1.00
		0.00	0.00	1,000.00	0.28
		2,175.00	0.26	20,381.50	0.7
		2,727.96	0.29	22,472.43	0.29

4 - 10

25,000.00 ,

가

(40,187.50) .

4,727.27 ,

(12,125.00) .

7,291.67 13,089.83 .

		170,000.00	1.00	40,000.00	1.00	50,000.00	0.45
		0.00	0.00	0.00	0.00	0.00	0.00
		25,000.00	0.80	4,727.27	0.14	5,136.36	0.05
		37,758.32	0.33	10,793.22	0.29	14,781.89	0.14
		8,000.00	1.00	0.00	0.00	0.00	0.00
		3,000.00	1.00	0.00	0.00	0.00	0.00
		5,166.67	1.00	0.00	0.00	0.00	0.00
		2,565.80	0.00	0.00	0.00	0.00	0.00
		50,000.00	1.00	7,000.00	1.00	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00
		19,125.00	0.86	875.00	0.14	0.00	0.00
		19,022.07	0.38	2,47.87	0.38	0.00	0.00
		170,000.00	1.00	40,000.00	0.73	50,000.00	0.38
		4,500.00	0.13	0.00	0.00	0.00	0.00
		40,187.50	0.71	12,125.00	0.22	7,875.00	0.07
		55,571.02	0.35	15,642.78	0.28	17,618.8	0.14
		60,000.00	0.55	0.00	0.00	50,000.00	0.45
		0.00	0.55	0.00	0.00	0.00	0.45
		20,000.00	0.55	0.00	0.00	16,666.67	0.45
		34,641.02	0.00	0.00	0.00	28,867.51	0.00
		29,400.00	1.00	56,839.00	1.00	0.00	0.00
		0.00	0.00	0.00	0.00	0.00	0.00
		7,291.67	0.44	13,089.83	0.56	0.00	0.00
		11,302.32	0.41	21,986.15	0.41	0.00	0.00

)

4 - 11

77,587.17

(99,228.03)

49,869.43

(81,670.00) (56,299.50)

27,717.73

(42,928.53) (30,806.44)

112,824.40 5,108.91

107,715.49

4-11.

(:)

	388,500.00	206,500.00	262,445.00
	5,680.00	3,410.00	(86,500.00)
	77,587.17	49,869.43	27,717.73
	98,919.25	59,673.78	80,759.55
	30,359.90	15,674.00	16,092.20
	14,577.40	8,134.30	6,443.10
	23,945.90	11,538.83	12,407.07
	8,295.70	3,822.58	5,212.59
	388,500.00	206,500.00	262,445.00
	5,680.00	3,410.00	(86,500.00)
	76,694.56	45,888.13	30,806.4
	131,463.56	77,390.68	100,096.86
	256,000.00	162,174.00	222,650.00
	23,450.00	11,350.00	(65,700.00)
	99,228.03	56,299.50	42,928.53
	99,548.98	51,845.45	91,895.53
	110,000.00	145,000.00	22,705.70
	38,099.55	43,116.00	(35,000.00)
	75,899.75	81,670.00	(5,770.25)
	36,092.7	55,276.35	28,860.23
	635,810.32	7,845.00	631,118.56
	1,501.96	984.80	(1,909.04)
	112,824.40	5,108.91	107,715.49
	256,290.4	2,602.11	256,462.87

4-12

가

21,914.11

(28,578.50) (28,493.00)

18,686.68

(44,044.33) (21,550.00)

2,829.91 , 252.45

510.00

4-12.

(:)

												가	
		77,500.00	0.84	110,000.00	0.72	37,932.00	0.23	2,700.00	0.02	5,400.00	0.04	34,416.00	0.53
		2,560.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.00	0.03
		21,914.11	0.57	18,686.68	0.18	2,829.91	0.04	252.45	0.00	510.00	0.01	5,344.45	0.17
		24,159.64	0.21	29,673.96	0.25	7,97.64	0.06	607.73	0.01	1,222.22	0.01	7,392.42	0.13
		8,504.20	0.79	274.00	0.03	1,651.00	0.11	24.00	0.00	320.00	0.03	6,288.00	0.40
		6,159.30	0.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,517.00	0.14
		7,466.17	0.68	91.33	0.01	698.00	0.05	8.00	0.00	106.67	0.01	3,168.67	0.25
		1,195.34	0.16	158.19	0.02	854.53	0.05	13.86	0.00	184.75	0.02	2,702.99	0.14
		77,500.00	0.80	110,000.00	0.53	3,500.00	0.02	2,700.00	0.02	2,000.00	0.01	13,800.00	0.23
		2,560.00	0.35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	600.00	0.06
		18,200.63	0.63	21,550.00	0.13	437.50	0.00	462.50	0.00	250.00	0.00	4,075.00	0.16
		27,734.75	0.18	41,881.70	0.24	1,237.4	0.01	969.4	0.01	707.11	0.00	5,634.27	0.06
		68,500.00	0.84	54,000.00	0.35	37,932.00	0.23	500.00	0.01	1,500.00	0.03	34,416.00	0.53
		5,350.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1,350.00	0.04
		28,578.50	0.59	13,287.50	0.14	6,050.00	0.06	121.25	0.00	350.00	0.01	7,912.25	0.20
		20,707.02	0.20	18,952.68	0.15	12,952.47	0.08	187.19	0.01	580.64	0.01	10,847.41	0.19
		70,500.00	0.49	60,000.00	0.72	5,000.00	0.04	700.00	0.01	5,400.00	0.04	5,136.00	0.09
		7,383.00	0.13	31,000.00	0.41	1,629.00	0.03	50.00	0.00	0.00	0.00	2,988.00	0.03
		28,493.00	0.26	44,044.33	0.62	2,754.67	0.03	286.67	0.01	2,033.33	0.02	4,058.00	0.06
		36,379.29	0.19	14,717.57	0.18	1,944.52	0.00	359.21	0.01	2,936.55	0.02	1,074.02	0.03
		4,395.00	0.65	2,925.00	0.43	352.00	0.36	0.00	0.00	0.00	0.00	2,588.76	0.76
		66.24	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	163.20	0.07
		2,302.51	0.40	1,287.50	0.22	92.00	0.06	0.00	0.00	0.00	0.00	1,411.91	0.32
		2,187.90	0.27	1,232.92	0.19	150.41	0.14	0.00	0.00	0.00	0.00	1,091.7	0.27

가 5,344.45 , 가
 (7,912.25) .
 2,302.51 1,287.50 ,
 가 1,411.91 . 2,187.90
 1,232.92 , 가 1,091.77 . 가
 가 4,395.00 ,가 66,24 .

4-13 , .
 , ,
 . 23%
 , (51%)
 (45%) .
 180% ,
 (237%) .
 52% ,
 (68%) (55%) .
 가 가 (258%) ,가
 (2%) .
 1.07 ,
 (1.71) (1.21) .
 가 가 (9.29) ,가
 (0.26) .
 21% 2.30 ,
 79% 4.37 .
 가 99% ,가 -127% .
 91% 72% , 51% 36% .

4-13.

				()	
		0.87	6.00	9.48	2.66
		(2.19)	0.00	0.20	0.03
		0.23	1.80	1.07	0.52
		0.71	1.76	1.92	0.61
		0.60	0.00	0.60	0.09
		0.44	0.00	0.33	0.07
		0.51	0.00	0.44	0.08
		0.08	0.00	0.14	0.01
		0.7	6.00	1.41	1.46
		(0.72)	0.00	0.25	0.03
		0.45	2.37	0.60	0.55
		0.49	2.01	0.38	0.51
		0.87	0.25	9.48	2.66
		(2.19)	0.17	0.20	0.08
		0.01	0.21	1.71	0.68
		1.03	0.06	3.15	0.81
		0.29	2.22	1.73	1.09
		(0.32)	1.11	0.53	0.10
		(0.05)	1.67	1.21	0.45
		0.31	0.79	0.61	0.56
		0.99	1.60	11.19	1.11
		(1.27)	0.50	0.08	0.26
		0.21	0.91	2.30	0.72
		0.79	0.51	4.37	0.36

) 가 가

4-14 가 ,
 , 가
 69,384.43 , 가
 (78,893.51) (78,182.56)
 . 가 12,000.00 ,
 가 가
 (30,125.00) .

4-14.

가

(:)

		404,220.00	102,000.00
		5,680.00	0.00
		69,384.43	12,000.00
		94,874.10	23,393.18
		33,300.40	8,000.00
		14,467.00	0.00
		25,490.10	2,666.67
		9,819.15	4,618.80
		404,220.00	102,000.00
		5,680.00	0.00
		78,182.56	30,125.00
		137,065.28	31,872.37
		245,844.80	15,000.00
		23,450.00	0.00
		78,893.51	1,875.00
		81,931.78	5,303.30
		110,000.00	0.00
		38,099.55	0.00
		64,459.55	0.00
		39,602.22	0.00
		35,161.56	14,994.00
		3,251.20	600.00
		16,158.98	5,121.50
		11,441.49	5,431.67

4 - 15

가

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가

54,060.57

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가

가

(137,811.67)

가

227.27

,

가

가

(625.00)

가

1,7171.43

,

가

가

가

(2,3700.00)

(18,700.00)

7211.10 0 ,

2,907.32 0 .

가 9,621.00 .

4-15. 가 (:)

		197,000.00	5,000.00	38,300.00
		3,760.00	0.00	0.00
		54,060.57	227.27	17,171.43
		66,377.45	1,066.00	11,298.77
		15,404.00	0.00	4,000.00
		8,398.30	0.00	2,400.00
		12,294.17	0.00	3,200.00
		3,568.38	0.00	1,131.37
		197,000.00	0.00	38,300.00
		3,760.00	0.00	15,300.00
		43,981.88	0.00	23,700.00
		72,268.60	0.00	8,978.70
		184,473.00	5,000.00	33,500.00
		6,350.00	0.00	10,000.00
		48,395.00	625.00	18,700.00
		58,267.90	1,767.77	9,585.26
		187,154.00	0.00	15,000.00
		88,881.00	0.00	0.00
		137,811.67	0.00	5,000.00
		49,137.79	0.00	8,660.25
		9,621.00	0.00	18,193.00
		1,607.20	0.00	750.00
		7,211.10	0.00	9,920.50
		2,907.32	0.00	7,550.25

3)

가)

4-16

가

가

4-16.

(: ,)

		0.00	0.00
		0.00	0.00
		-	-
		-	-
		0.00	0.00
		0.00	0.00
		-	-
		-	-

)

4-17

10.00ha

5.77ha

4,896,000.00

1,943,030.62

25.00

10.10

45.25 (100.0%)

4-17.

(: ha, ,)

		15.00	6,122,000.00	33.00	55.00	55.00	100.0%	0.00	0.0%	0.00	0.0%
		5.00	2,040,000.00	12.00	42.00	42.00	100.0%	0.00	0.0%	0.00	0.0%
		10.00	4,896,000.00	25.00	45.25	45.25	100.0%	0.00	0.0%	0.00	0.0%
		5.77	1,943,030.62	10.10	6.50	6.50	100.0%	0.00	0.0%	0.00	0.0%
		15.00	6,122,000.00	33.00	55.00	55.00	100.0%	0.00	0.0%	0.00	0.0%
		5.00	2,040,000.00	12.00	42.00	42.00	100.0%	0.00	0.0%	0.00	0.0%
		10.00	4,896,000.00	25.00	45.25	45.25	100.0%	0.00	0.0%	0.00	0.0%
		5.77	1,943,030.62	10.10	6.50	6.50	100.0%	0.00	0.0%	0.00	0.0%

4 - 18

, ,

,

(4 , 100.0%) .

4-18.

(:)

		4	4	100.0%	0	0.00%	0	0.00%	0	0.00%	0	0.00%
		4	4	100.0%	0	0.00%	0	0.00%	0	0.00%	0	0.00%

)

. - -

, , 4 - 19 .

11,526,750.00

5,023,554.74 .

4-19. (:)

		15,560,000.00	1.00	0.00	0.00
		5,187,000.00	1.00	0.00	0.00
		11,526,750.00	1.00	0.00	0.00
		5,023,554.74	0.00	0.00	0.00
		15,560,000.00	1.00	0.00	0.00
		5,187,000.00	1.00	0.00	0.00
		11,526,750.00	1.00	0.00	0.00
		5,023,554.74	0.00	0.00	0.00

4 - 20

4-20. (:)

		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	-	0.00	-
		0.00	-	0.00	-
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	-	0.00	-
		0.00	-	0.00	-

4-23

5%

86%

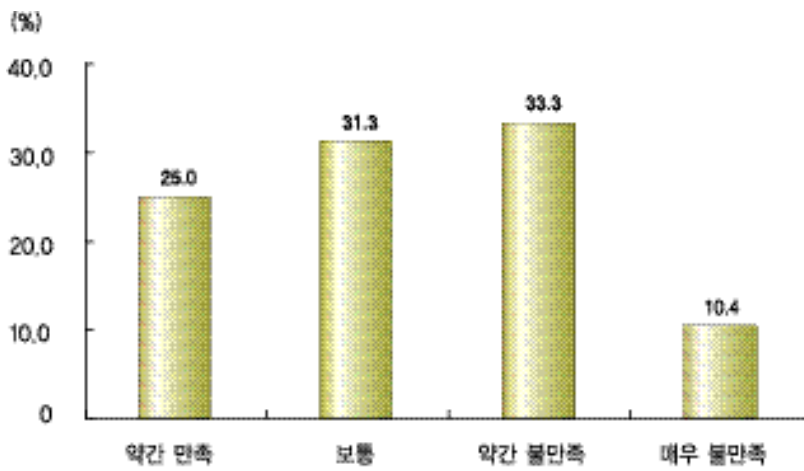
4-23.

				()	
		0.93	0.00	0.00	0.00
		0.81	0.00	0.00	0.00
		0.86	-	0.00	-
		0.05	-	0.00	-
		0.93	0.00	0.00	0.00
		0.81	0.00	0.00	0.00
		0.86	-	0.00	-
		0.05	-	0.00	-

1)

가)

“ ” 31.3% “ ” “ ”
 25.0% “ ” 33.3%, 10.4% 43.7%



4-1.

가 , 20 40 가 가

66.7%가

, 가

14.6%가

가

“

” “

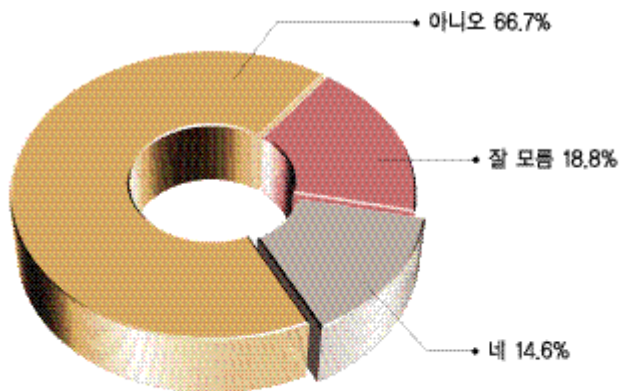
가

”

가 42.9%

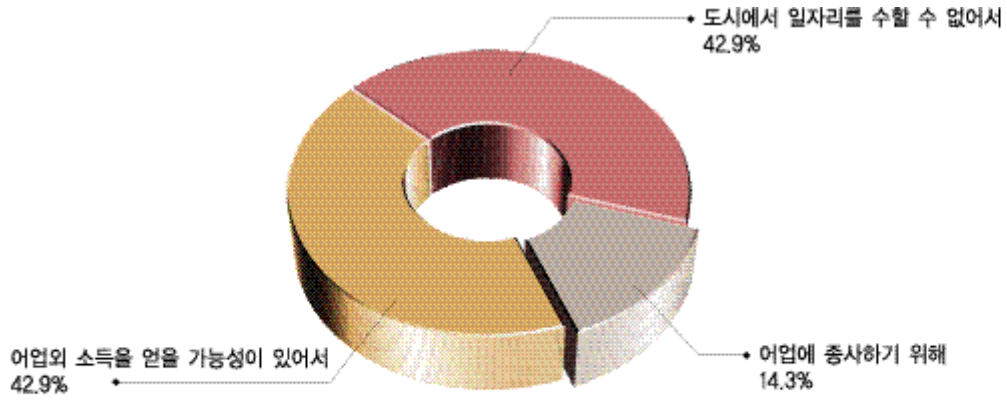
“

가 14.3%



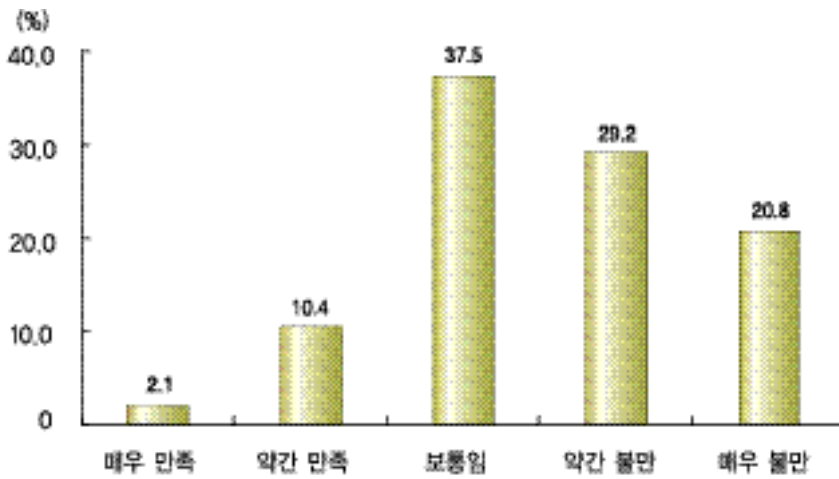
4-2.

가



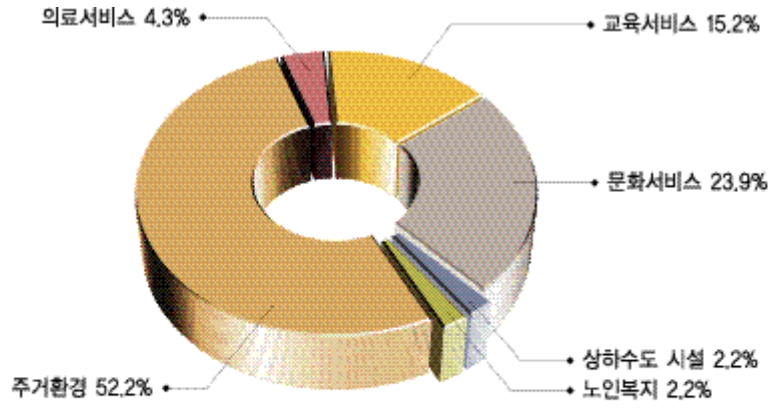
4-3. 가

가 25%
 .가
 50.0% 2
 “ 가
 12.5% .
 37.5%



4-4.

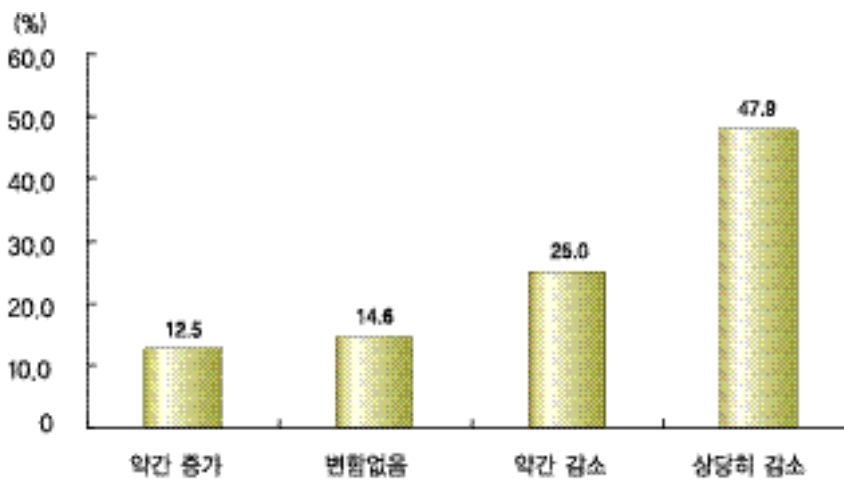
.가 “
 ” 52.2% 가
 “ ” 가 23.9%, 15.2% .



4-5.

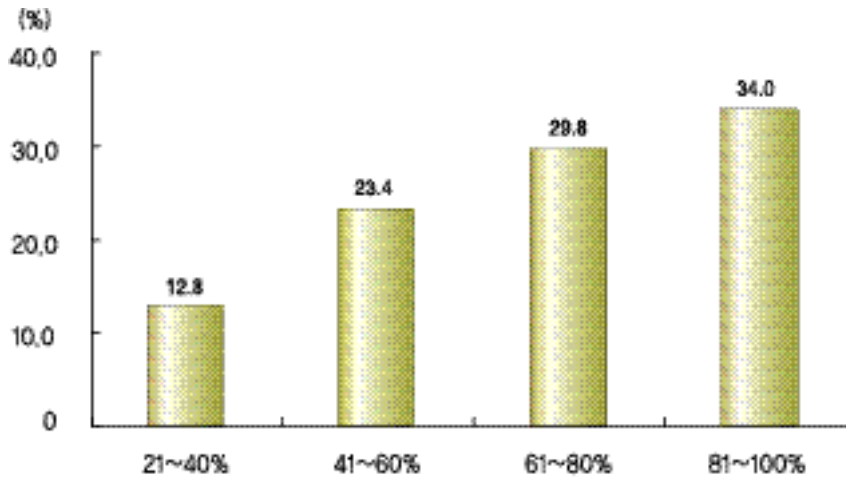
)

5 가 , “
 가 47.9% 가 “ 가 25.0% , 72.9%가
 . 가 12.5%



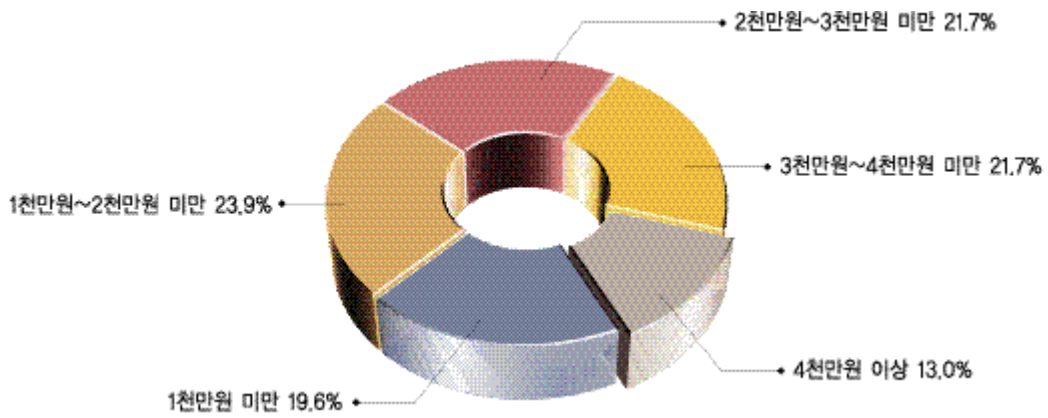
4-6. 5

34.0%가 “81 100%” “61
 80%” 29.8% , 60% .



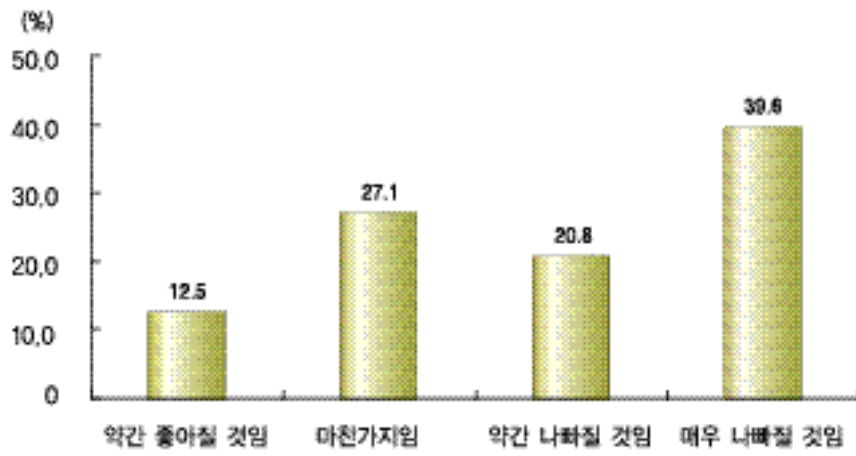
4-7.

가 “ 1 ”
 2 ” 23.9% “ 2 3 ” “ 3 4 ”
 21.7% “ 1 ” 19.6% “ 4 ”
 13.0% .



4-8.

5 가 “ 1 ”
 가 39.6% 가 “ ” 20.8% .
 12.5% .
 60% .

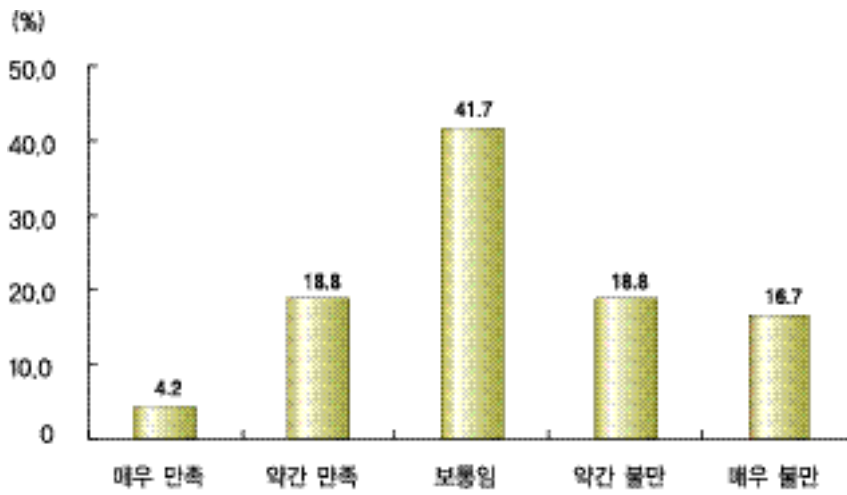


4-9. 5

41.7%

“ ”

23.0% 가 35.5% ,



4-10.

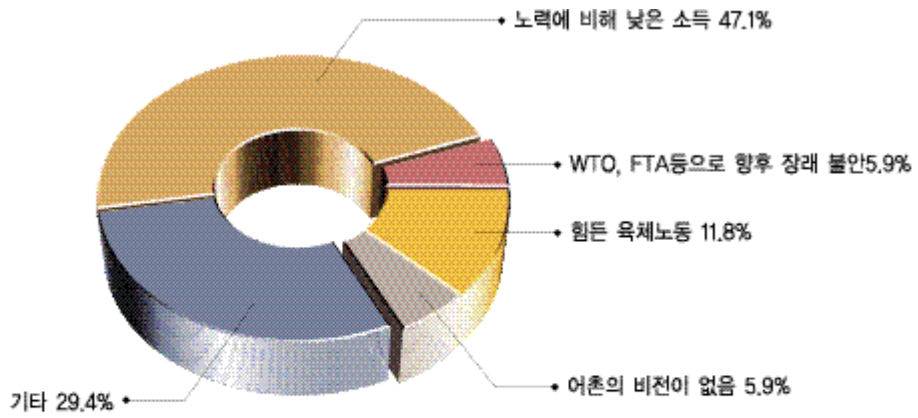
“

” 47.1% 가 “ ”

11.8% , 3D

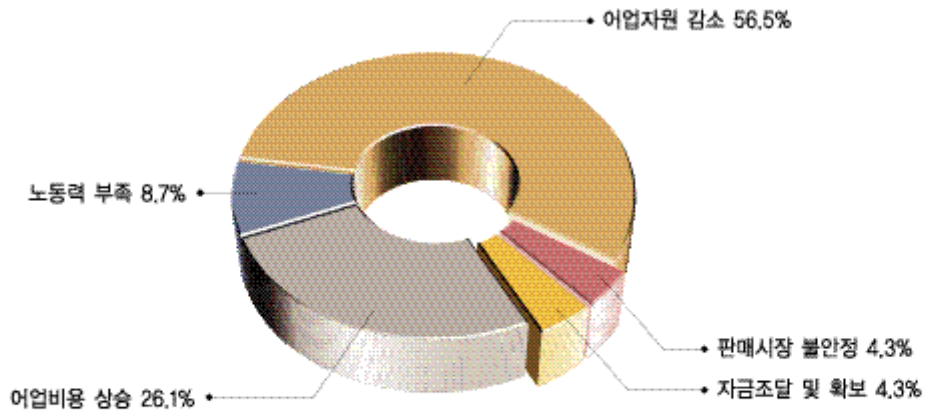
“ ” “WTO, FTA

가 ” 5.9% ,



4-11.

3 “ ” 26.1% . 56.5%가 “ ” 가 ,

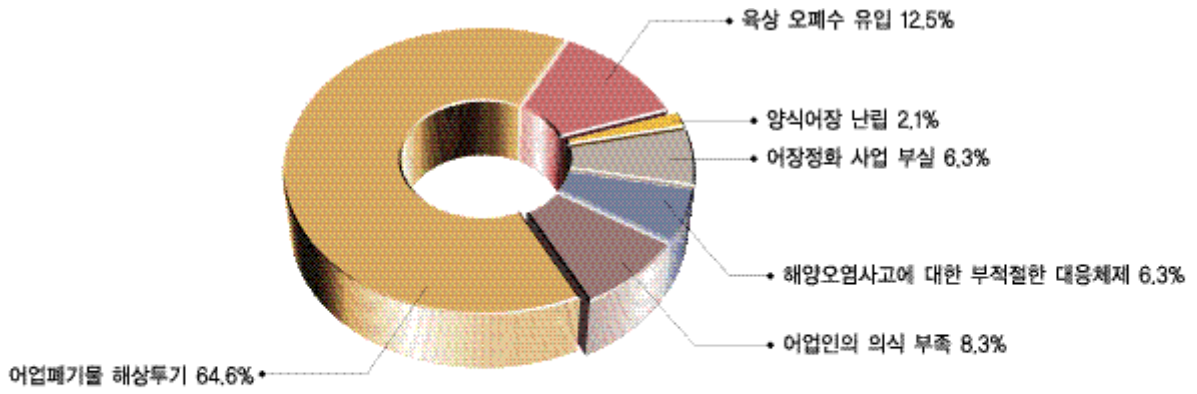


4-12.

(3)

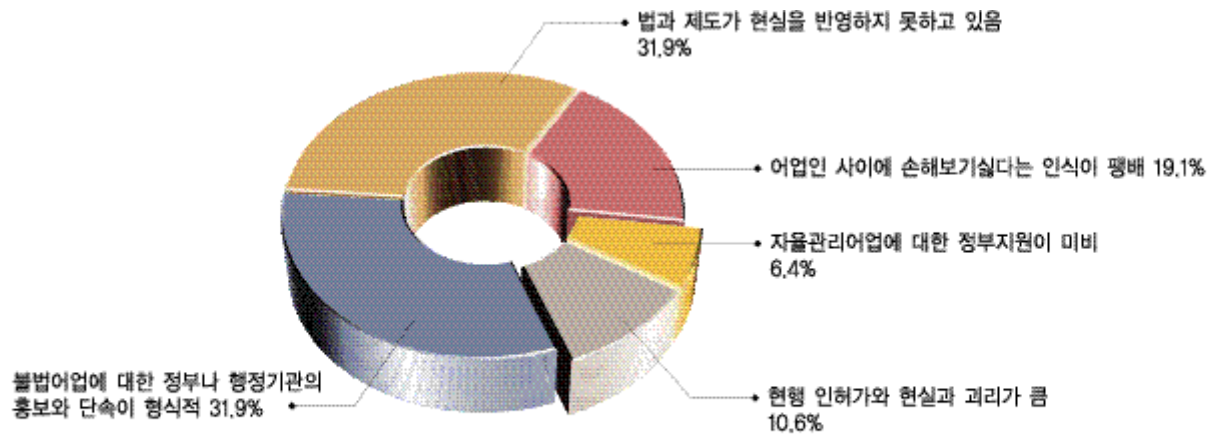
)

가 64.6%가 “ ” 12.5% . “ ” 8.3% , “ ” “ ” 6.3%



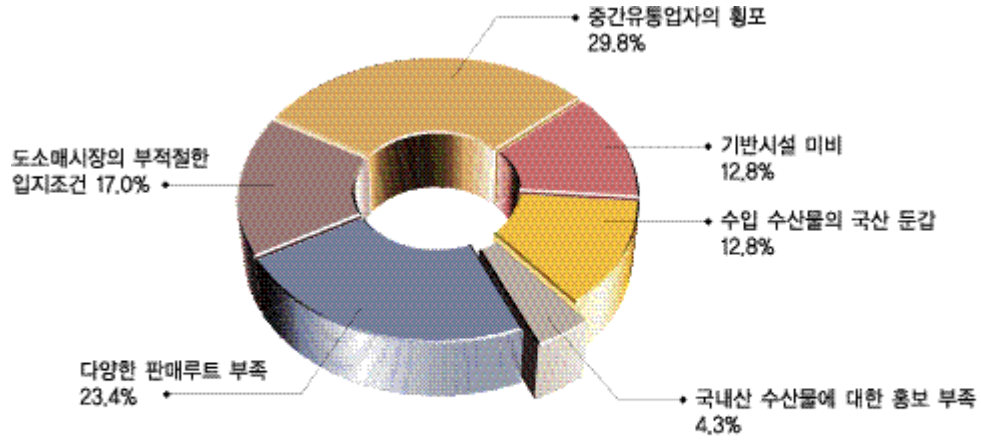
4-13.

가
 31.9%가
 가
 가
 “
 19.1% , 가



4-14.

가
 가
 가 “ ” 23.4% 가
 “ ” 17.0% 12.8% 가
 29.8% 가



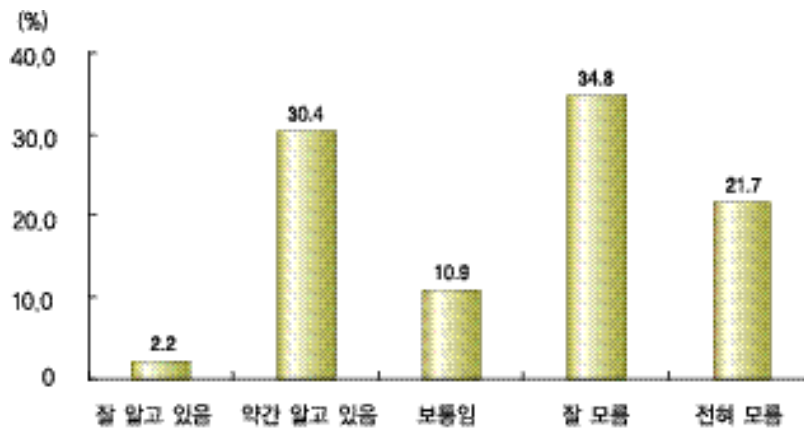
4-15.

(WTO, WTO)

WTO ()

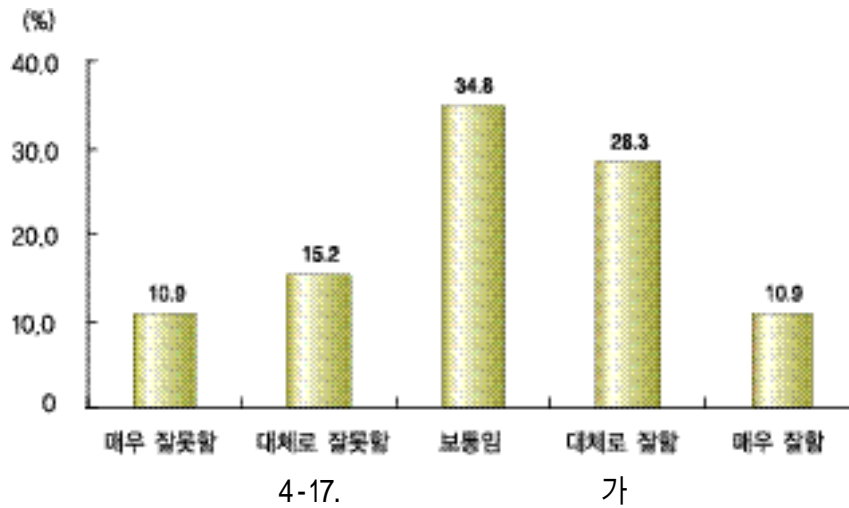
가

가 2.2%, “ ” 30.4%
 32.6% “ ” “ ” 34.8%, 21.7%,
 56.5%

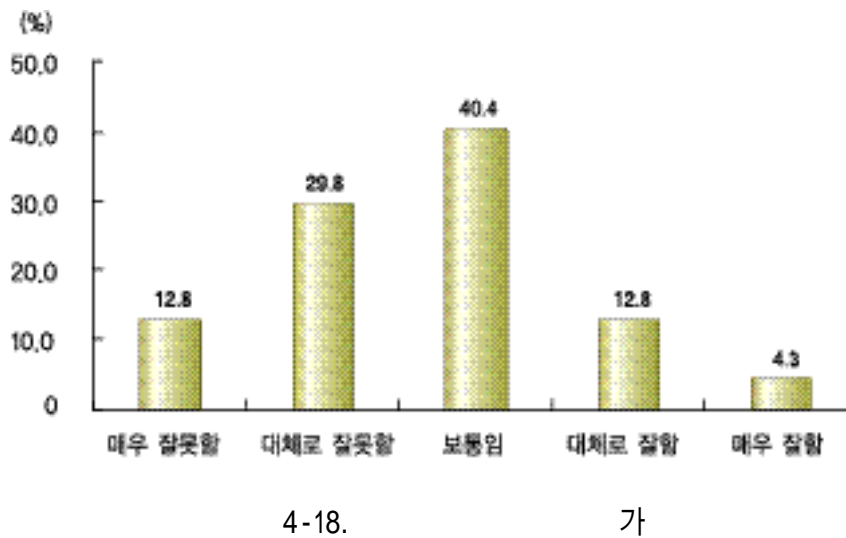


4-16. WTO ()

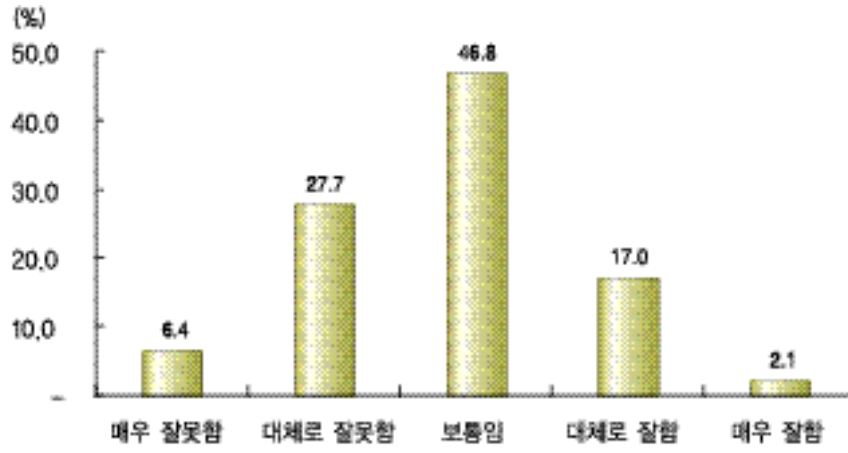
가
 가
 가 “ ” 가
 가 34.8% 가 “ ” 가
 10.9% 39.2% , “ ” “ ” 26.1%
 가 가



가
 “ ” 가가 40.4% 가
 가가 42.6% 17.1%
 가 가



“ 가 46.8% 가
 19.1%, 가 34.1% .

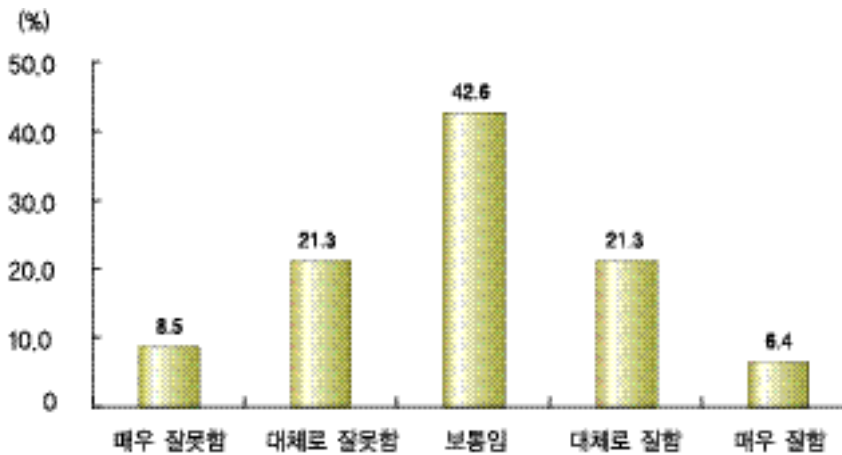


4-19.

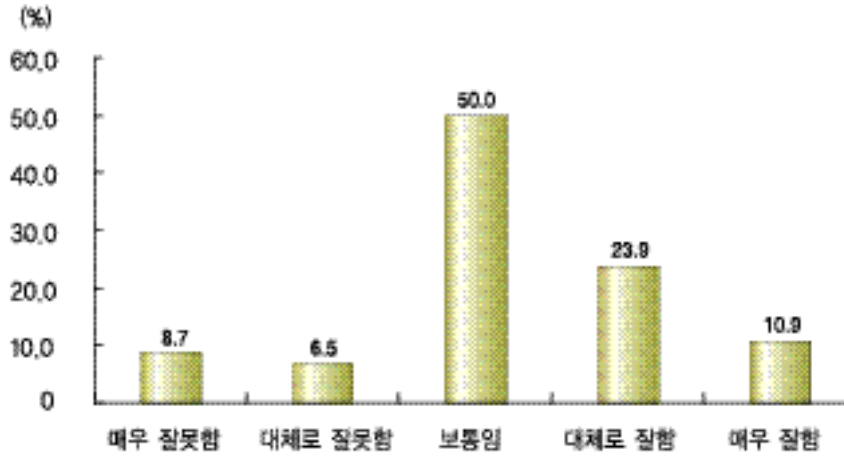
가

가

1980 “
 ” 가 42.6% 가 “
 가 21.3%, “ ” “ ”
 21.3%, 6.4% , ” “ ”
 가가 29.8% 27.7% .

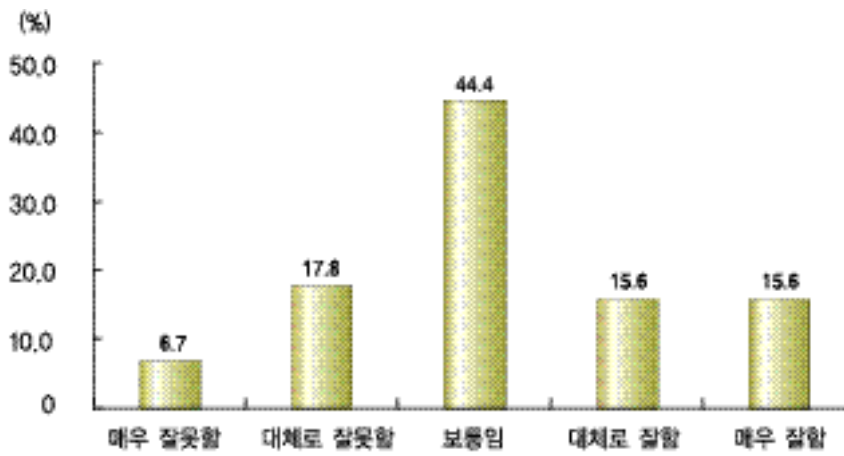


“ 가 50.0% 가
 가 15.2%, 가 34.8%

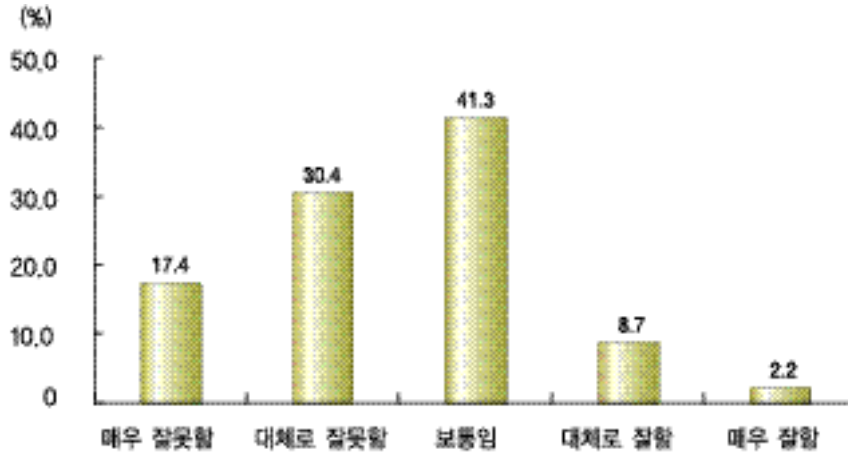


4-21. 가

가 44.4%가“ ” 가
 가가 31.2% , 24.5%

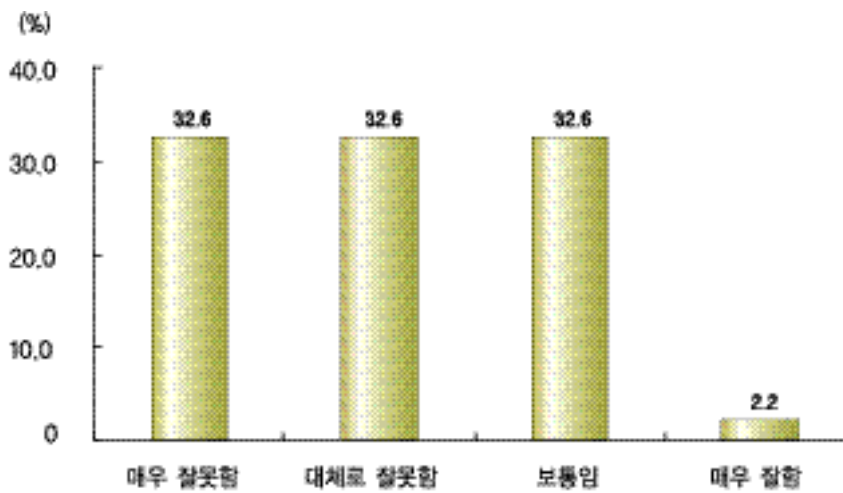


가
17.4% , “ ”
가가 37.8% , “ ”
가 41.3% , “ ”
가 30.4% , “ ”



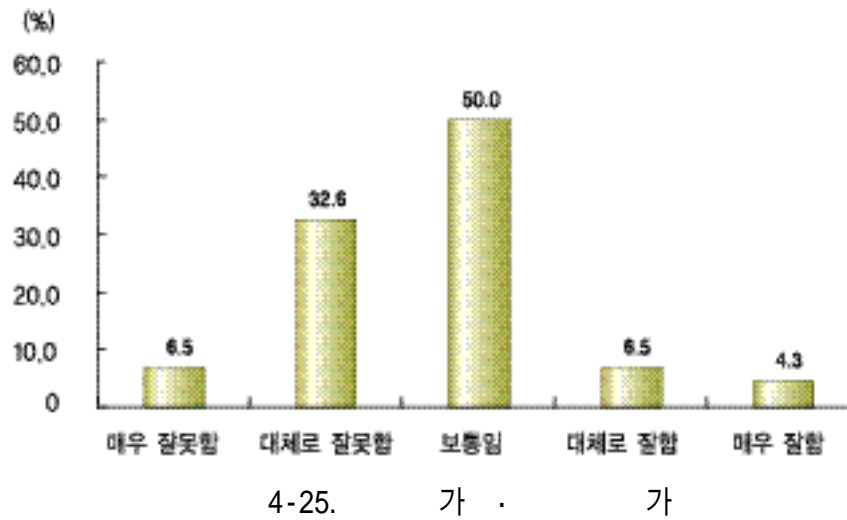
4-23. 가

WTO , FTA
가
가 “ ” “ ”
33.4% “ ” “ ” 32.6%
가

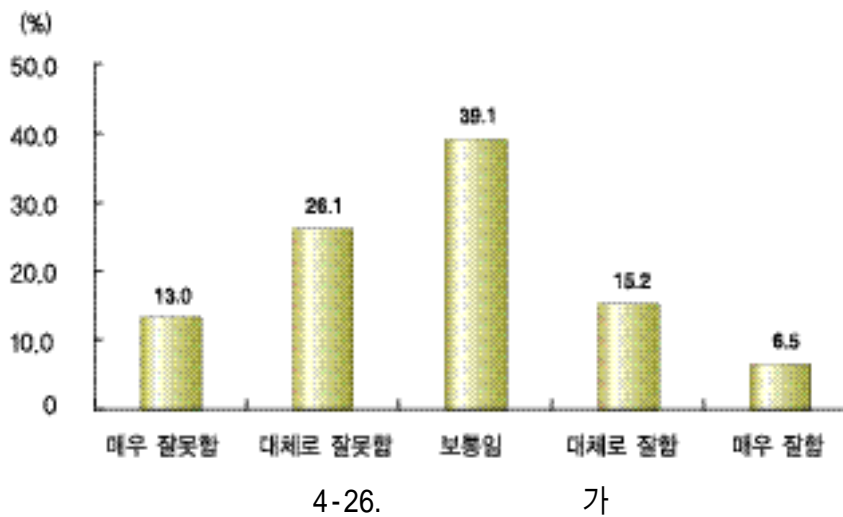


4-24. 가

가 . 가 .
 가 “ ” . “ ”32.6%,
 ”6.5% , 가 39.1%
 가 10.8%



39.1%가 “ ” 가 .
 39.1%, 21.7% , 가가



가

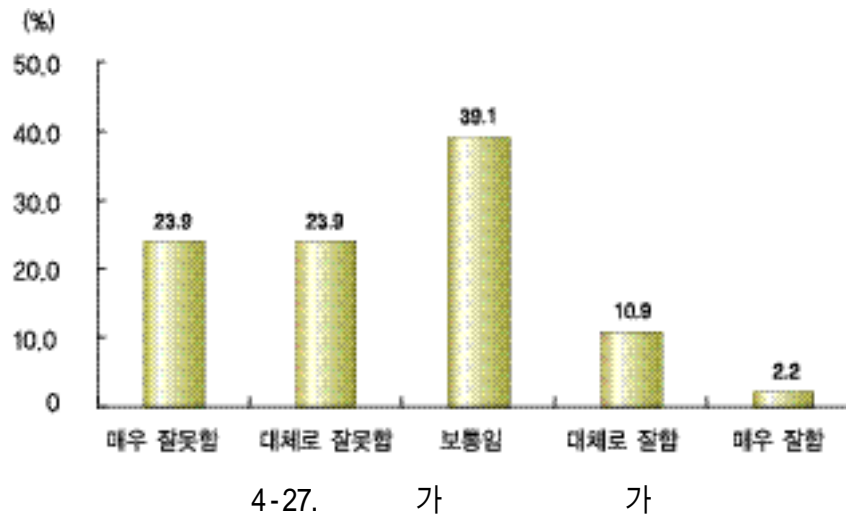
가 가 , 가 “ ”
 “ ”,
 가 39.1%가 “ ”
 ” 23.9% , “

” 10.9%,”

”2.2%

가가

가

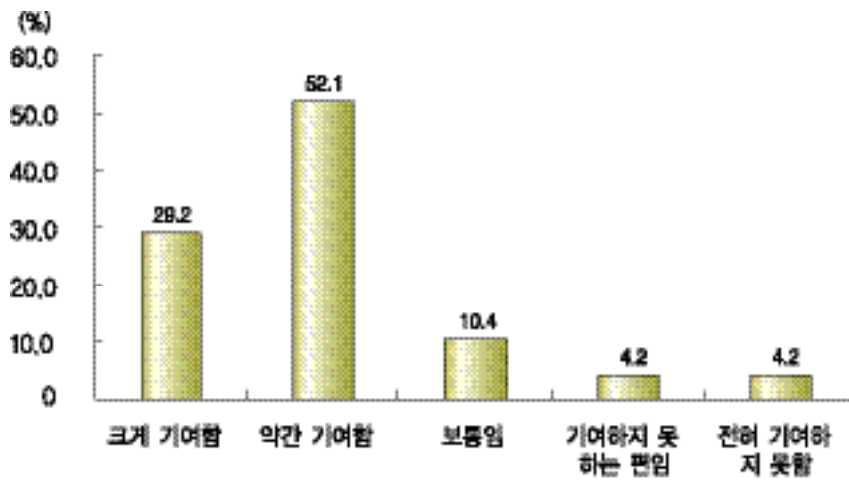


2)

가 , , 가

가)

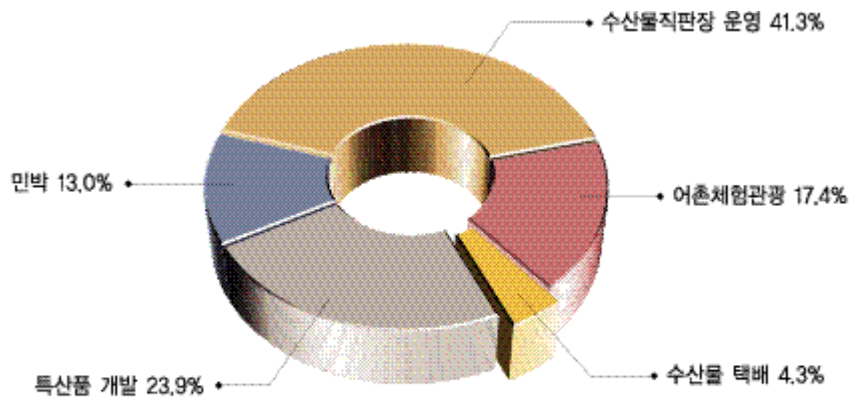
52.1% “ ” ; 29.2% “ ” , 81.3%



4-28.

가

, 가 41.3% “ ” , 23.9% “ ” “ ”

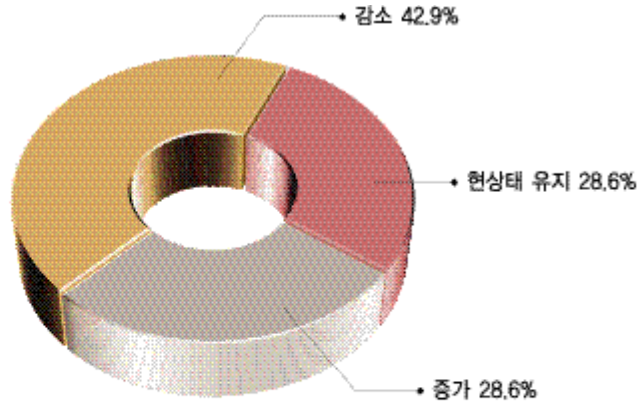


4-29. 가

) 가

가

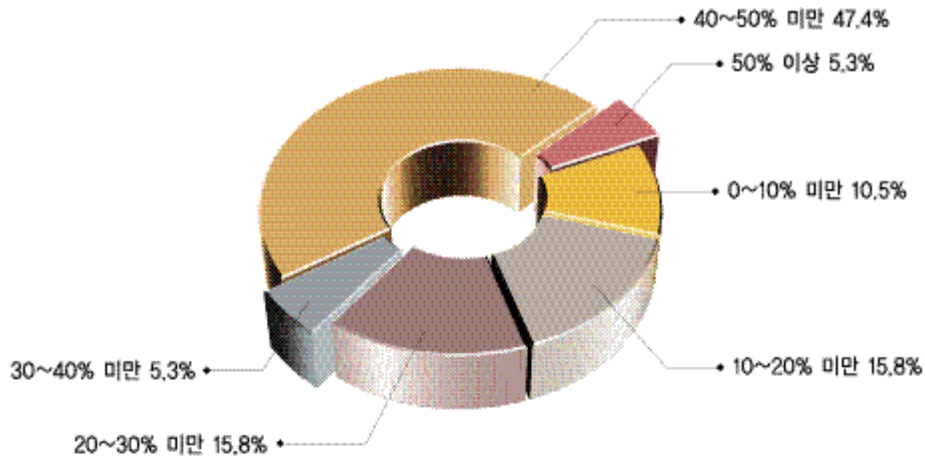
, 42.9% “ ”, 28.6% “ ”
 “ 가 ” 28.6%



4-30.

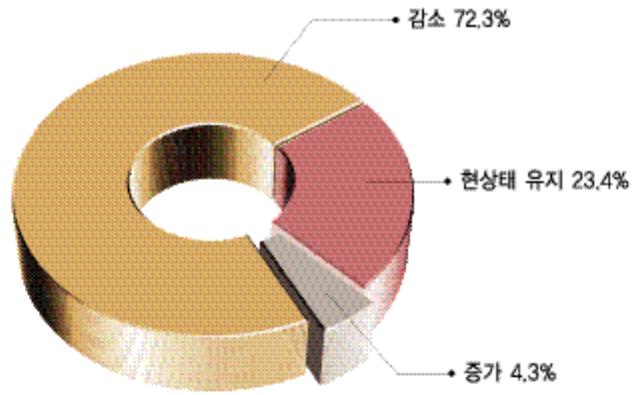
가

47.4% “ 40 50% ”, “ 20 30% ”
 ; “ 10 20% ” 15.8%, “ 10% ” 10.5%



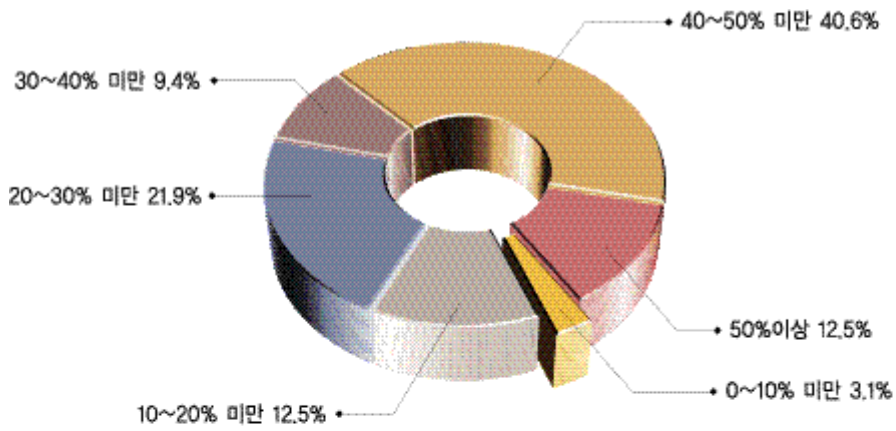
4-31.

가
 가가 가 ,
 가 72.3% “ ” ,
 “ ” “ 가 ”
 23.4%, 4.3%



4-32. 가

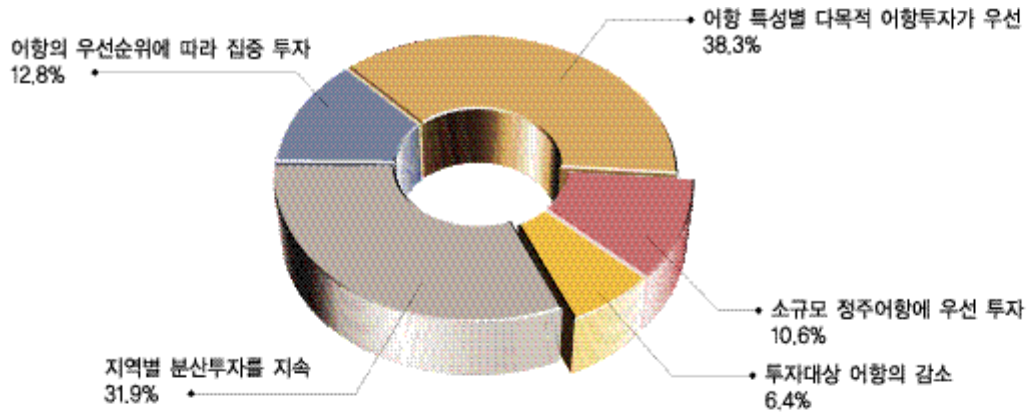
가
 , 가 40.6% “ 40 50% ”
 “ 20 30% ” 21.9%



4-33. 가

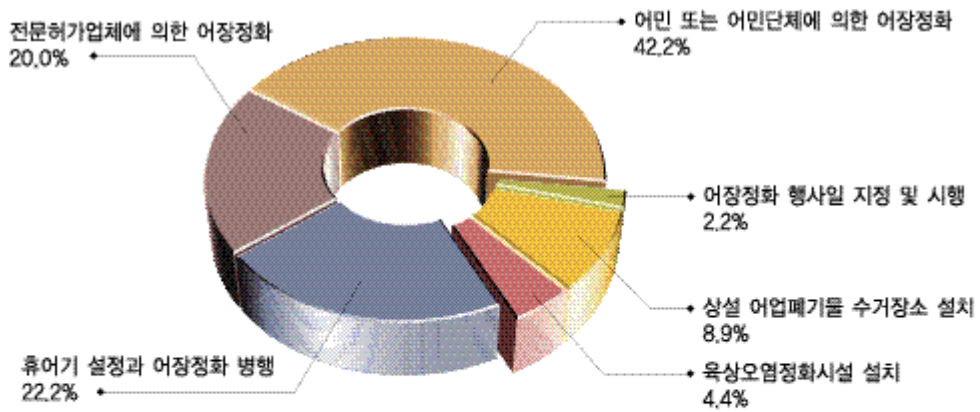
)

가 38.3%
 가 31.9% , “ ” 10.6%
 12.8%, “ ”



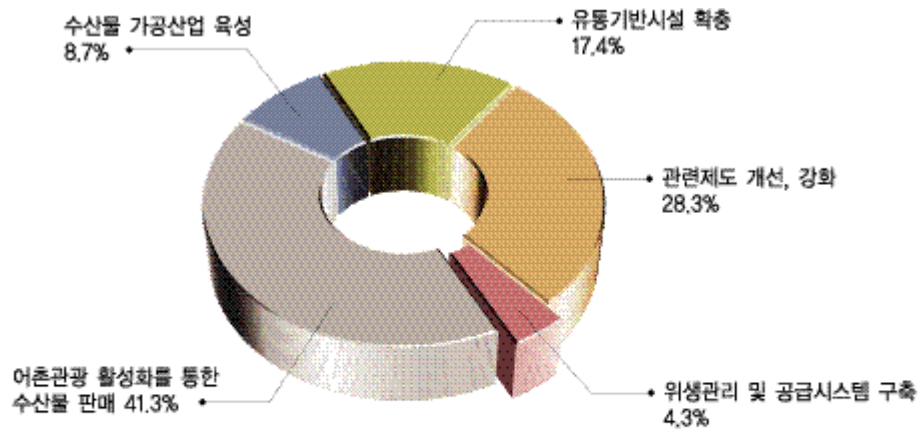
4-34.

가 42.2%가 “ ” 20.0%
 가 22.2% , “ ” 8.9%



4-35.

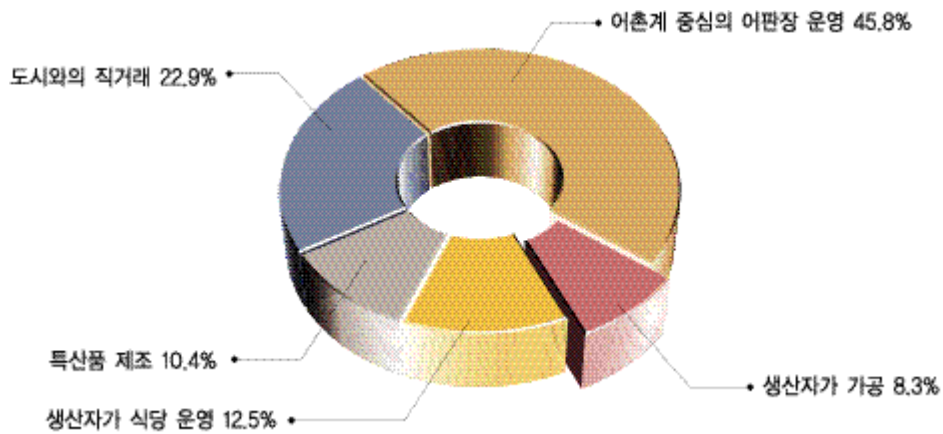
가 41.3% “ ” 28.3%
 가 17.4%, 8.7%



4-36. 가가 ()

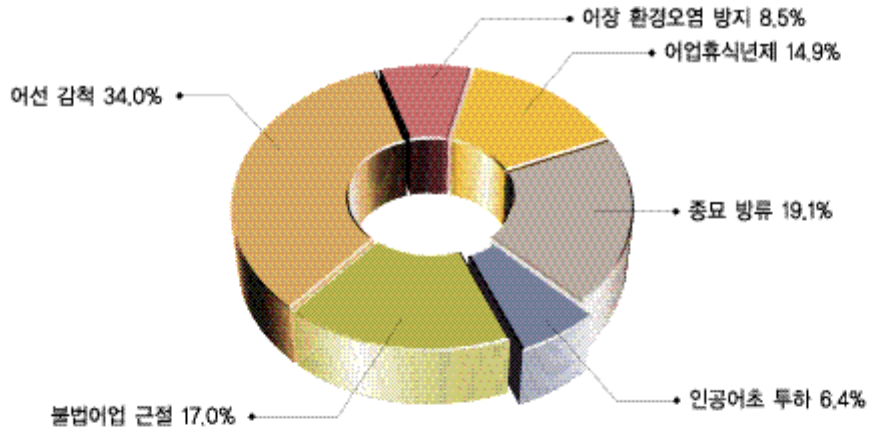
가가

가 45.8% “ ” “ 가
 ” 22.9% , “ 가 ; ” “ 가가
 ” 10% .



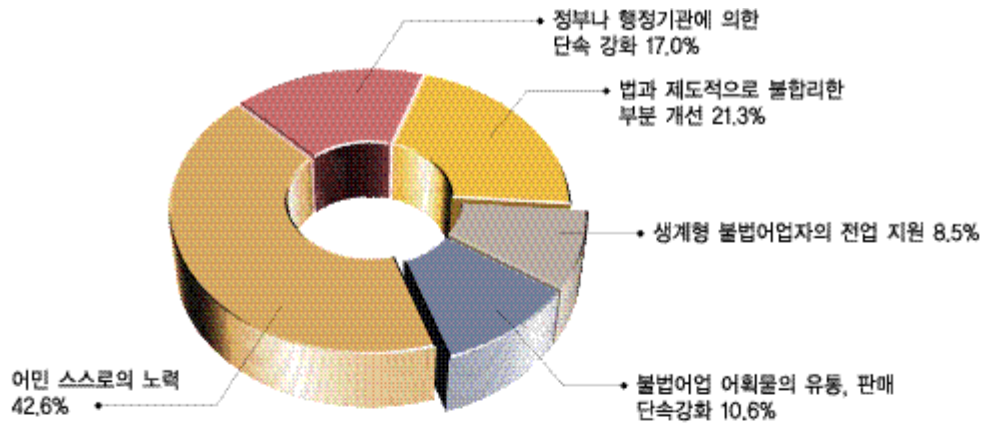
4-37. 가가 ()

가 34.0% “ ” 가
 “ ” 19.1%, “
 ” 17.0%, “ 가 14.9% “ ” , “
 ” 10%



4-38.

가“ ” . 가 42.6%
 “ ” 21.3%,
 “ ”가 17.0%, “ ”
 “ ” 10.6%, 8.5% .



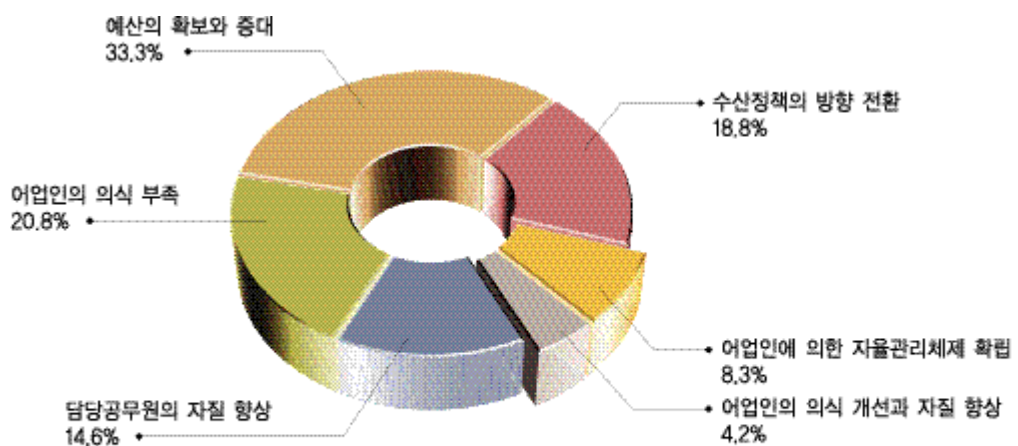
4-39.

가 가 가
 가 ,
 가 2 , “ ”
 “ ” 26.4%, 22.0%
 11 “ ” “ ”
 ; “ 가 ” 5.0%
 가

4-24.

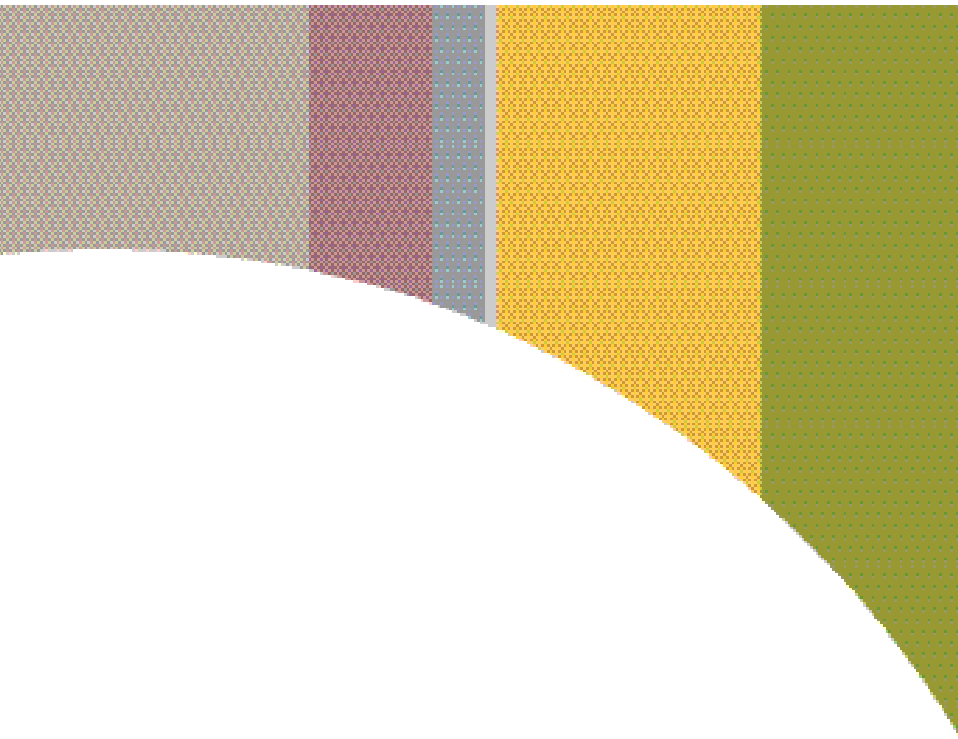
	24	26.4
	8	8.8
	12	13.2
	7	7.7
	20	22.0
	2	2.2
	4	4.4
가	3	3.3
	5	5.5
	3	3.3
가	3	3.3
	91	100.0

33.3% “
 ” , 20.8% “ ” “ ” 18.8%
 “ ” 14.6%



4-42.

Korean Coastal and Offshore Fishery Census



[]



해양수산부
국립수산과학원
National Fisheries Research &
Development Institute

1.	가 .	181
2.		181
3.		182
4.		183

1.	가 .	
	가.	187
	.	188
	.	189
	.	190
	.	190
2.		
	가.	
	1)	
	가)	191
	2)	
	가)	194
	)	197
	)	200
	)	204
	3)	
	가)	206

4)		
가)	.....	207
)	.....	207
.		
1)	.....	208
2)	.....	210

3.

가.		
1)	.....	217
2)	.....	218
.		
1)	.....	219
2)	.....	219
3)	.....	220

4.

가.		
1)		
가)	.....	243
)	.....	244
)	.....	247
)	가 가 	250
2)		
가)	.....	252
)	.....	252
)	.....	253

3)		
가)	.....	255
)	.....	255
)	.....	257
)	.....	258
.		
1)		
가)	.....	260
)	.....	262
)	.....	265
)	가	267
2)		
가)	.....	272
)	가	273
)	.....	275
)	가	278

CHAPTER 1

1. 가 .
- 2.
- 3.
- 4.

(Mitutoyo, CD-15)

0.1cm

(Sartorius, M-5500S) 0.01g

(immature), (maturing), (mature), (spent) 4
(gonadosomatic index : GSI) / x100

(w)/ (W)x (w)】

Gilson (Love and Westphal, 1981)

가 1cm

, 50% logistic

3.

가.

mm

3 , 3~5 , 5~8 3

mm

m

4.

가.

가

가

가

CHAPTER 2

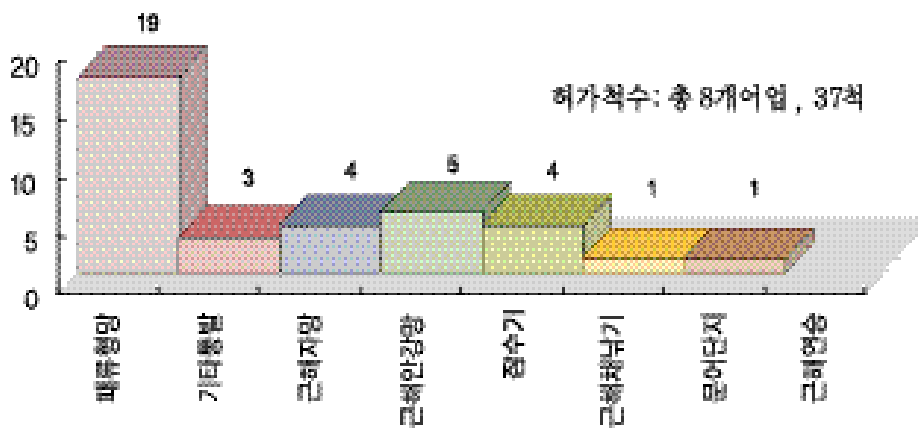
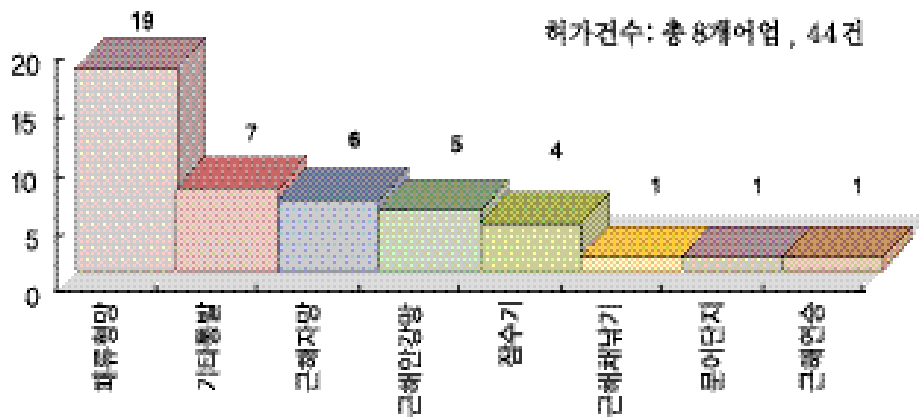
1. 가 .
- 2.
- 3.
- 4.

[1.

가 .

]

가.



1-1. 가

가 8 가 44 , 가 37 . 가
 19 가 , 7 , 6 ,
 5 , 4 , , 1
 . 가 19 가 , 5 ,
 4 , 3 , 1
 , 가 1 가 .

1-1.

(:)

	1998	1999	2000	2001	2002	2003	
	1	-	-	2	30	-	6
	1	-	-	2	25	-	5
	-	-	-	-	4	-	1
	-	-	-	-	1	-	0

(1998~2003)

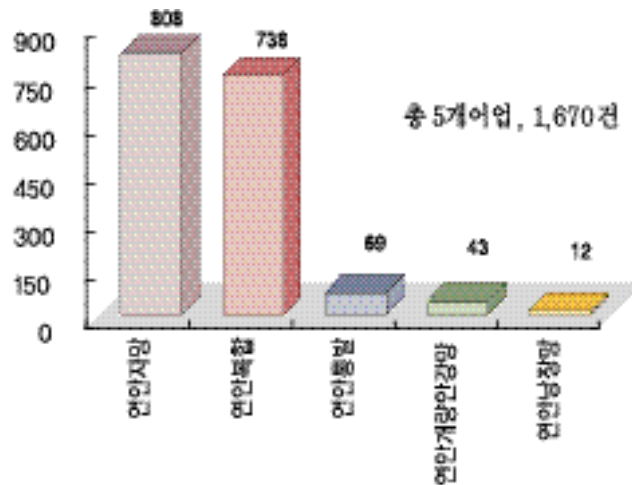
6

, 2003

, 2000 30

가

가



1-2. 가

5 가 1,670 가

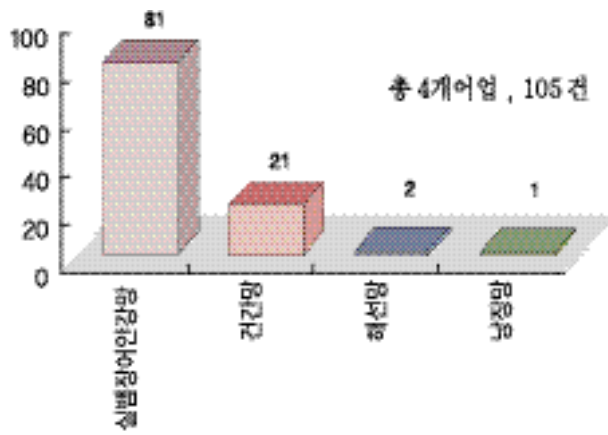
, 808 가 , 738 , 69
43 , 12 .

1-2.

(:)

	1998	1999	2000	2001	2002	2003	
	1,867	3,185	1,961	2,777	2,880	3,496	2,694
	637	1,200	559	1,068	1,392	746	934
	-	-	-	-	-	655	109
	1,041	1,868	1,265	1,413	1,463	1,927	1,496
	143	117	137	296	25	168	147
	46	-	-	-	-	-	8

(1998~2003) 2,694
 , 2003 3,496 가 , 1998 1,876 가
 55.5% 가
 . 2003 1,927 가
 , 1998 1,041 가
 , 934 34.7% ,
 147 (5.5%), 109 (4.1%), () 8
 (0.3%)



1-3. 가

4 가 105 가
 , 81 가 , 21 , 2
 1 .

1-3. (:)

	1998	1999	2000	2001	2002	2003	
	13	-	-	-	-	227	40
	6	-	-	-	-	0	1
	7	-	-	-	-	227	39

(1998~2003) 40
 , 2003 227 가 , 1998 13 ,
 1999~2002 .

1-4. (:)

	1998	1999	2000	2001	2002	2003	
	2	144	539	365	282	-	222

(1998~2003) 222
 , , 2000 539 가 , 1998 2 가 ,
 2003 .

2003 , 가 56 , 가
 2,788ha .

1-5. (:)

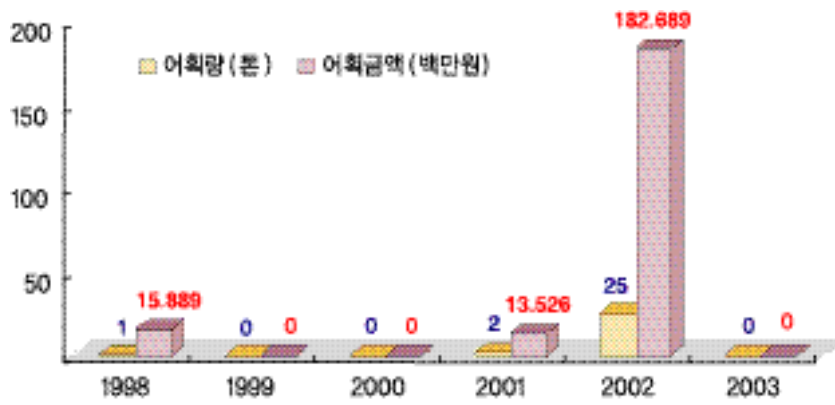
	1998	1999	2000	2001	2002	2003	
	9,451	13,350	15,223	12,347	10,220	1,598	10,365

(1998~2003) 10,365
 , , 1999 13,350 가 , 1998 9,451 가 .

[2.]

- 가.
- 1)
- 가)

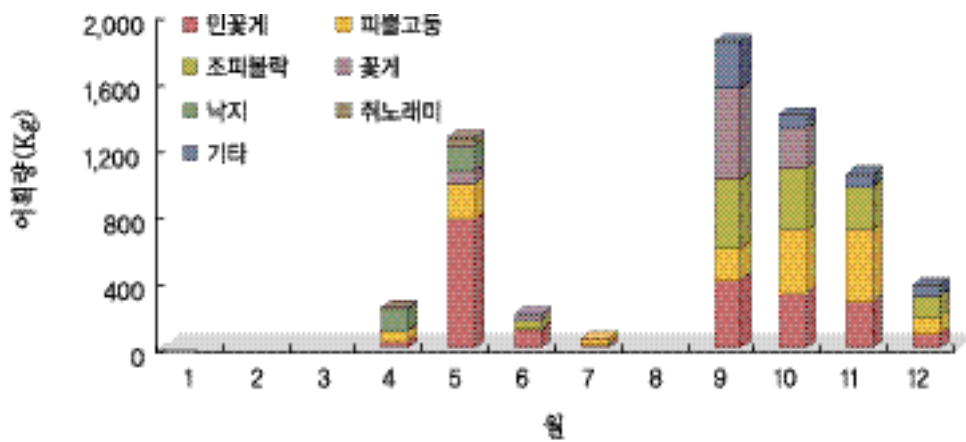
(CPUE)



2-1.

()

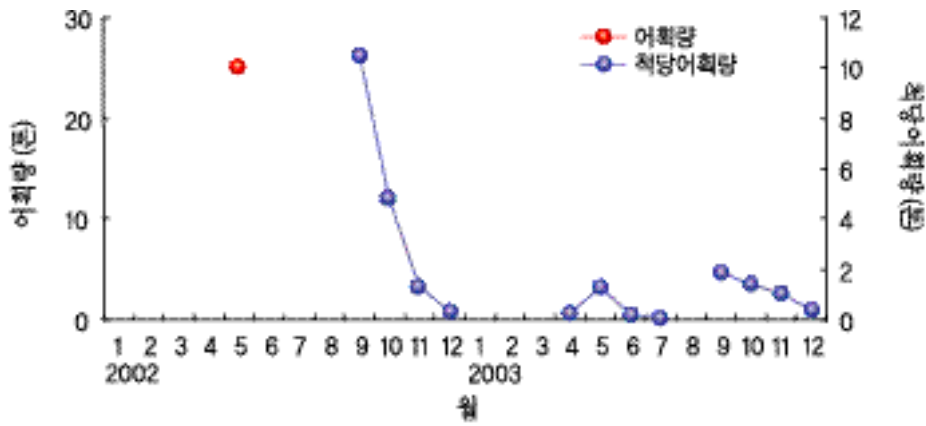
1998 1
 1999~2000 , 2001 2 , 2002 25
 가 . 2003
 1998 159 2002 1,827 가



2-2.

()

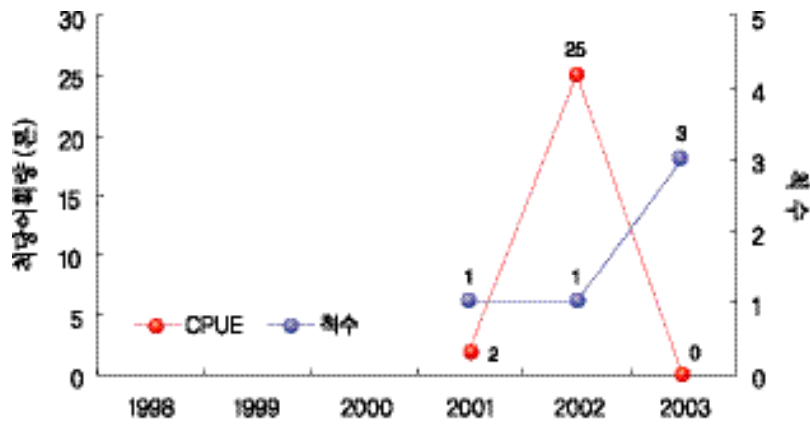
9 1,834g 가 , 7 52kg 가 . 9~11
 5 1,000g . 4 6~7
 , 8 1~3
 가 13~62% , 8~58%
 . 9~12 22~38% 6
 23%, 9 10 30%, 17%



2-3.

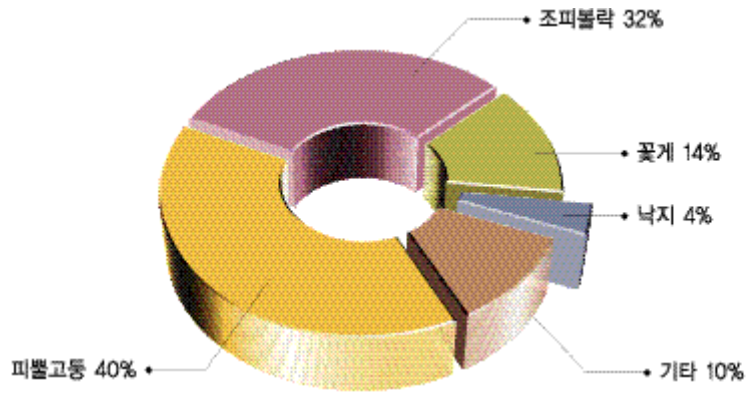
2002 5 25

(CPUE) 2003 0.80 9 1.83
 가 , 2002 9 10.48 .



2-4.

CPUE()
 2001 2002 1 , 2003 3
 . CPUE 2001 20 2002 25 .



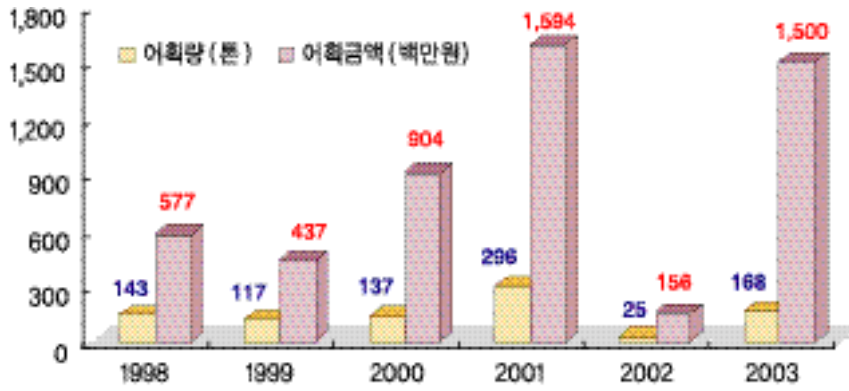
2-5.

가 40% ,
 32%, 14%, 4% .
 154 .

, 2002 25
 , 1998~2001 0~2 .

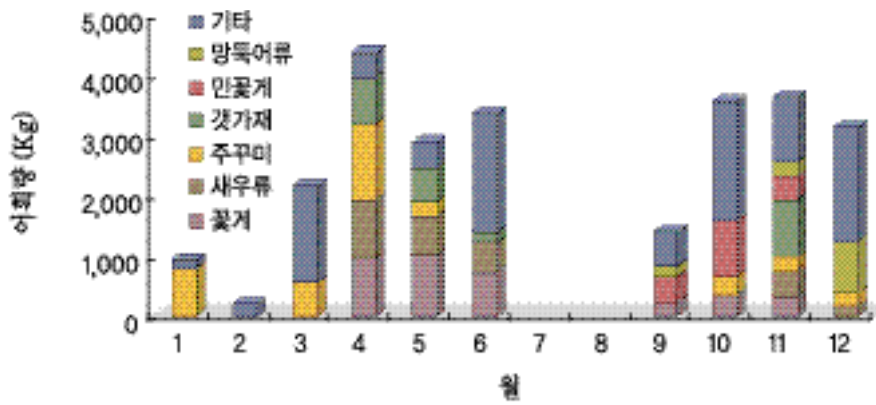
2)
가)

(CPUE)



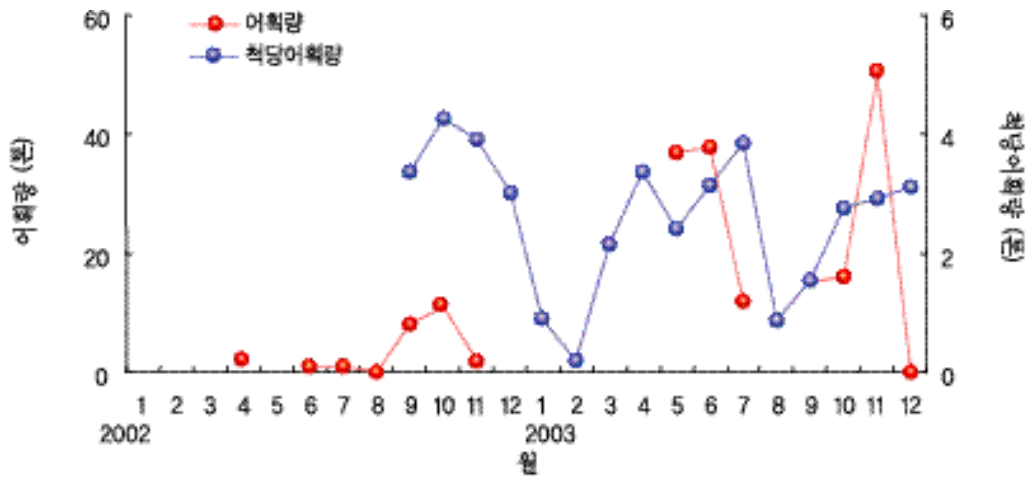
2-6.

1998 143 1999 117 2001 296 가
 , 2002 25 가 , 2003 168 가



2-7.

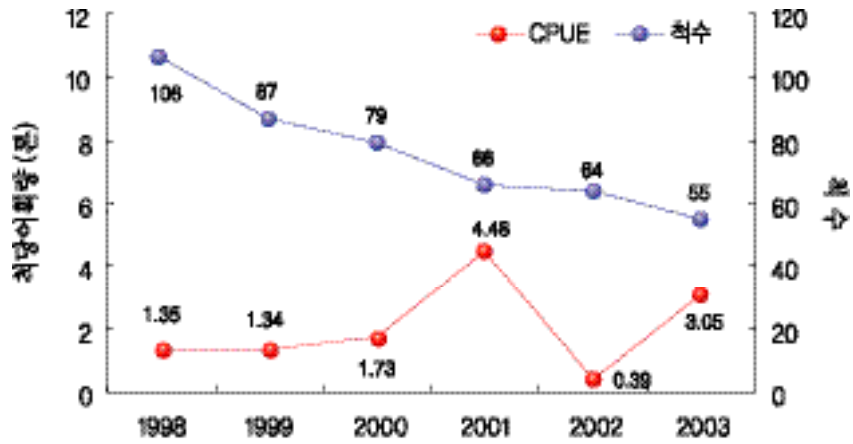
4 4,365kg 가 , 10 11 3,500kg
 . 2 180kg 가 4~6
 10~11 , 1~2 1,000kg
 , 7~8 4~6
 9~11 21~36%, 9~17% , 4~6 15~23%



2-8.

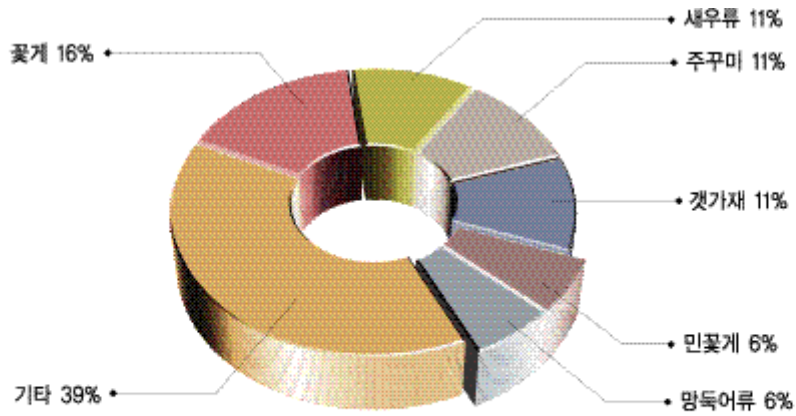
2002 25 , 2003 168 572% 가
(CPUE) 2003 2.65

6~7 10~12 5~6 10~11



2-9.

		CPUE ()			
		1998	106		2003
55	CPUE	1998	1.35	2001	4.48
2002	0.39	2003	3.05		



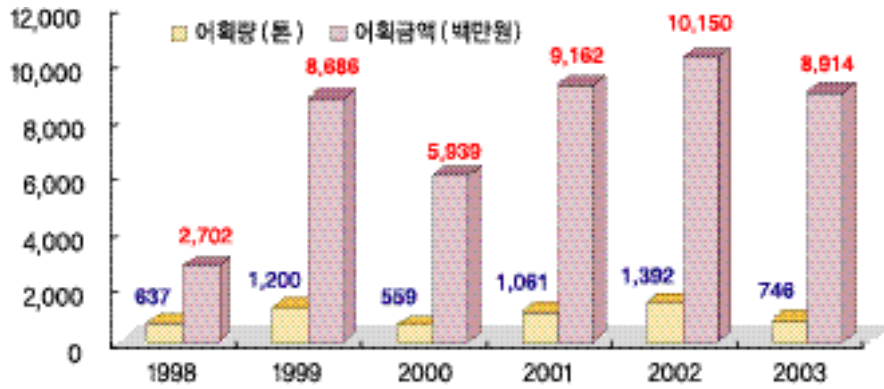
2-10.

가 가 16% , ,
 , 가 가 11% . 가 6% .

, 1994 7,176
 2001~2003 25~296

)

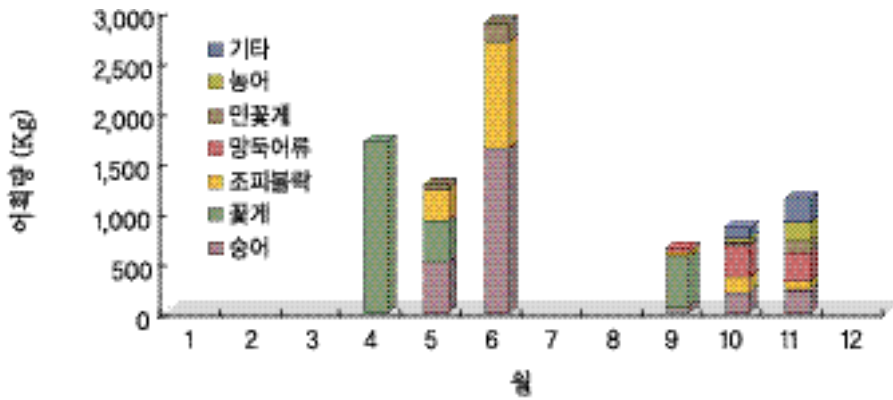
(CPUE)



2-12.

()

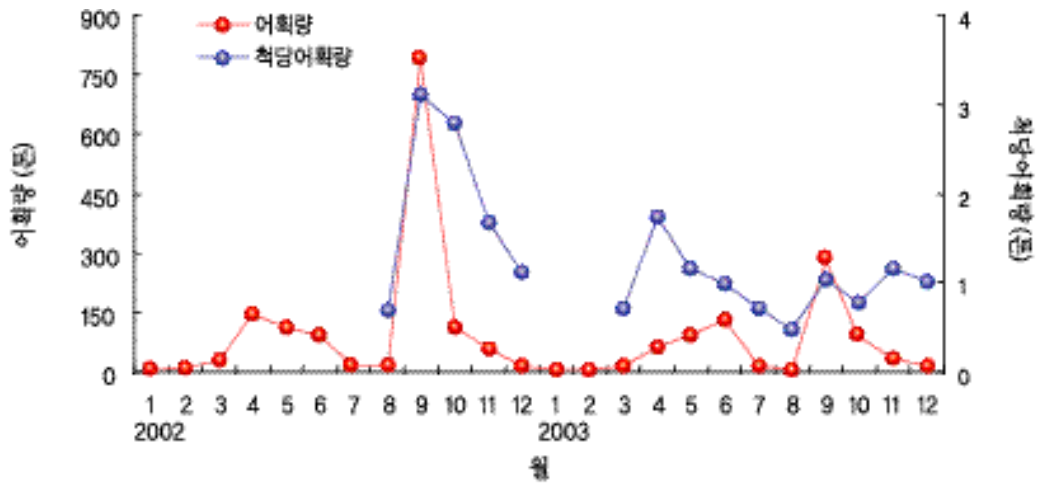
1998
 637 1999 1,200 가 2000 559 가
 2002 1,392 가 2003 746



2-13.

()

6 2,878kg 가 , 4 5 1,200kg
 . 9 624kg 가 . 4~6
 , 9~11 . 1~3 7~8
 가 4
 10~57% , 4, 5, 10 100%, 32%, 79%
 . 10, 11 가 35%, 25%
 12 9%, 17%

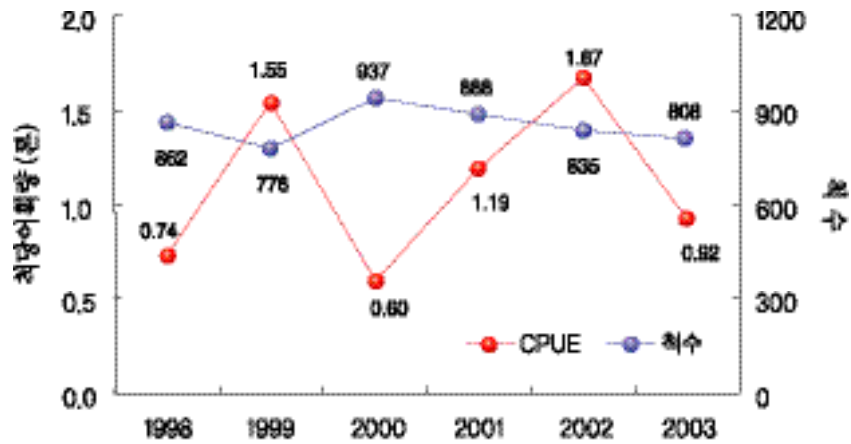


2-14. ()

2002 1,392 , 2003 746 56%
(CPUE) 2003 1.04

, 9 가

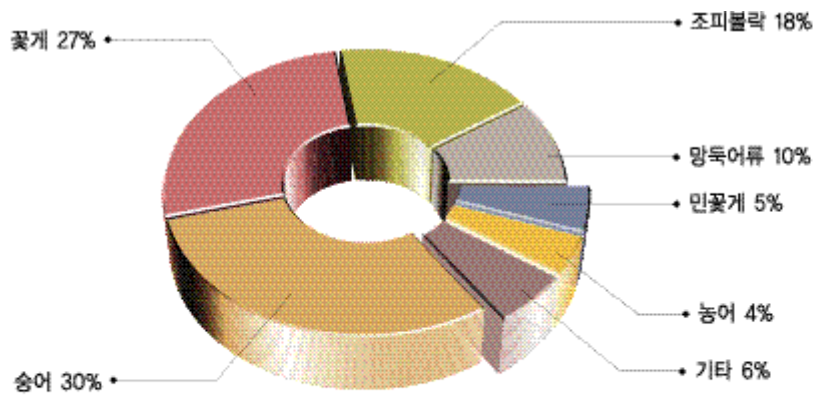
4~5 9~10 , 2002 9



2-15. ()

CPUE()

1998 862 1999 776 2000
937 가 , 2003 808 . CPUE
1998 0.74 2000 1.55 가 2000 0.60
가 2002 1.67 . 2003 0.92



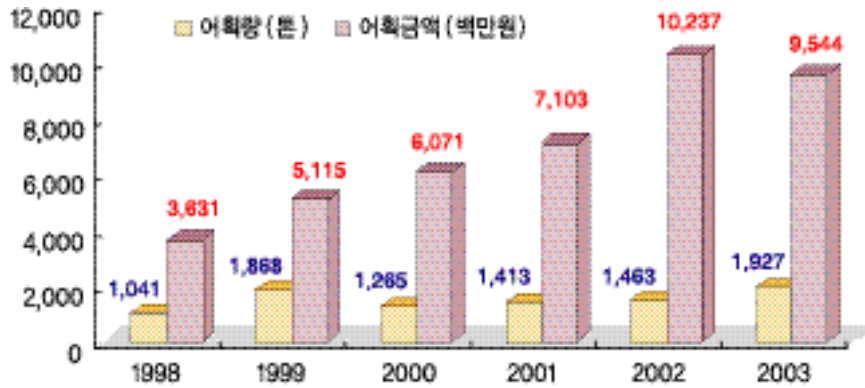
2-16.

27%, 18%, 10%, 5%, 가가 30%, 가 4% , 가

1994~1998 340~989 , 2001~2003 746~1,392

)

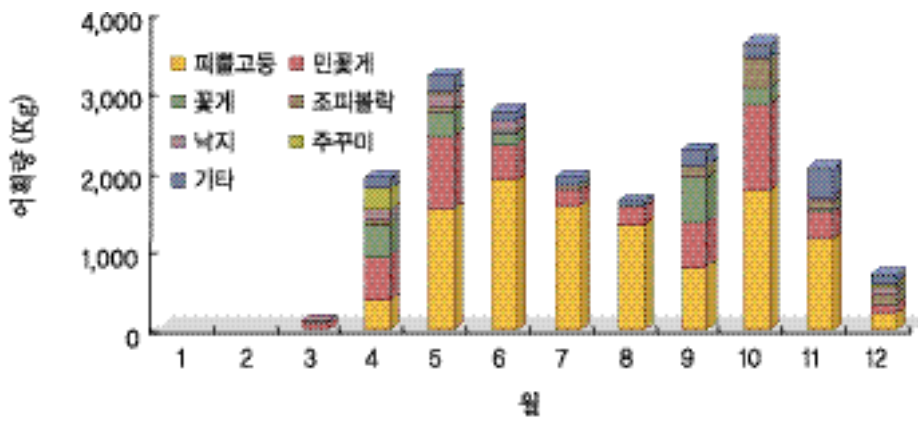
(CPUE)



2-17.

()

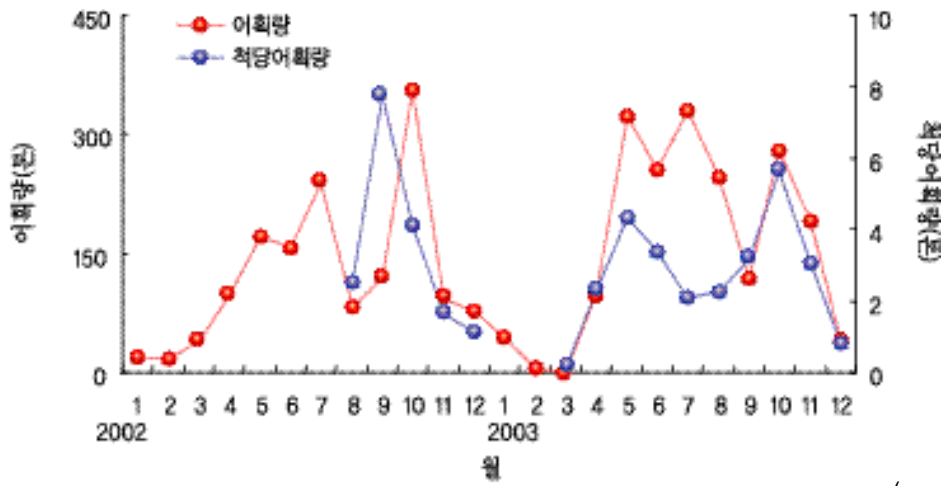
1,041 1999 1,868 가 , 2000 1,265 . 2000
 가 2003 1,927 가 .



2-18.

()

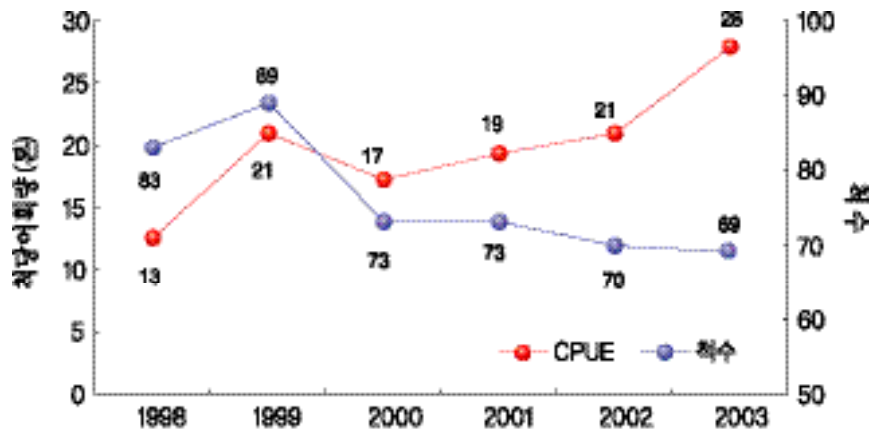
10 3,590kg 가 , 5 6 2,500kg
 . 3 92kg 가 . 가
 5~6 9~11 , 2,000kg
 . 1~2 .
 3 19~82% ,
 10~65% . 4~6 9~11
 5~21%, 1~25% . 1 12 35%, 11%



2-19. ()

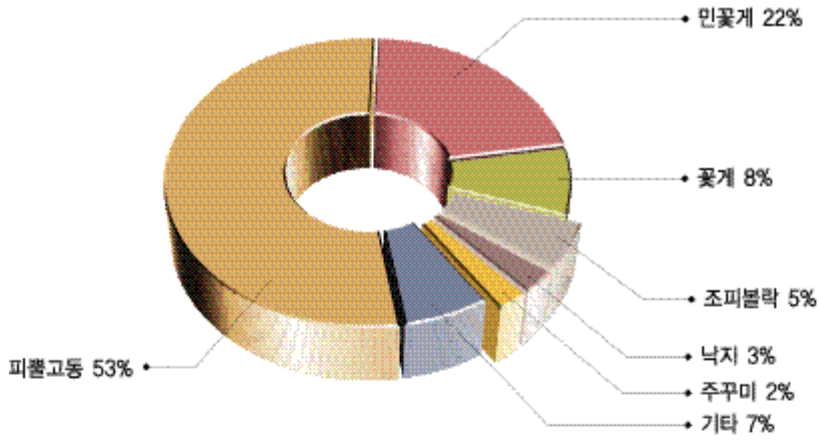
2002 1,463 , 2003 1,927 32% 가
(CPUE) 2003 2.88

, 2002 10 가
4~5 9~10 , 2002 9



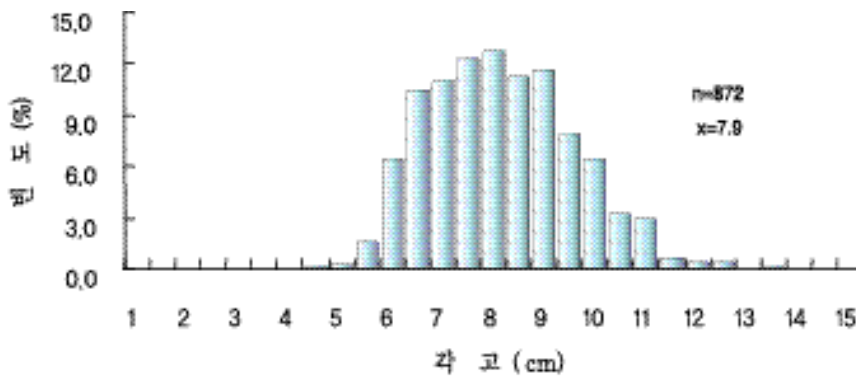
2-20. ()

CPUE ()
 1998 83 가 1999 89
 2000~2003 69~73 CPUE 1998 13 1999 21
 가 2000 17 2001 2003 19 28
 가



2-21.

가 53% ,
 가 22%, 8%, 5%, 3%, 가 2%



2-22.

4~10

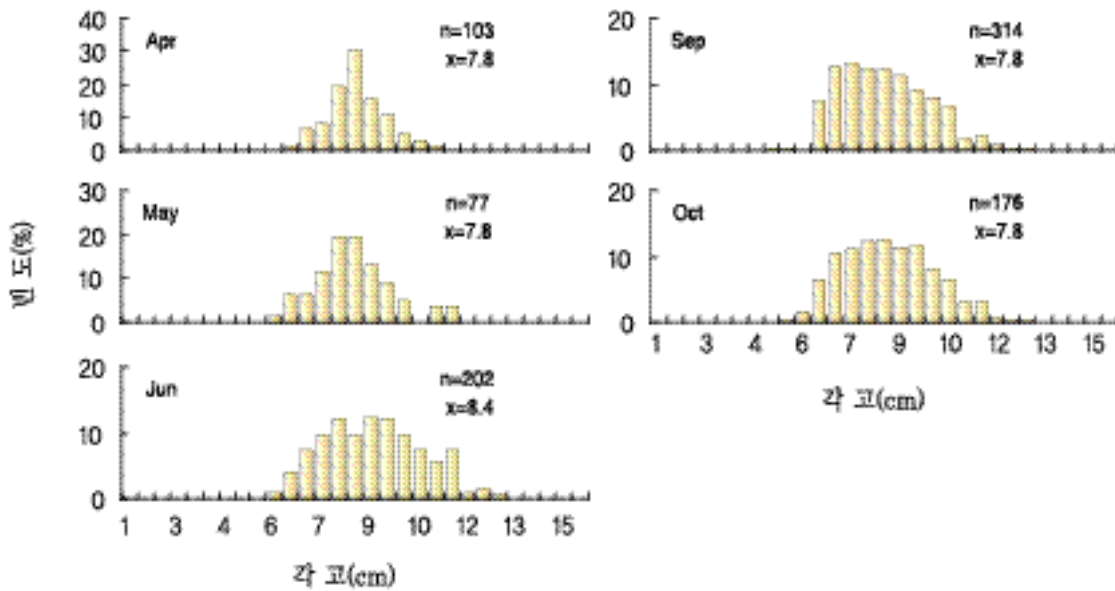
872

7.9cm(4.5~13.0cm)

, 7.5~8.0cm

가 111

12.7%



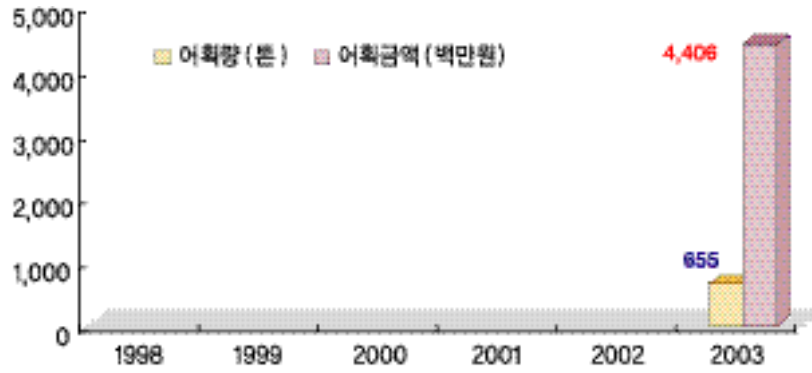
2-23.

, 4 가 7.8cm(6.0~10.0cm) , 7.5~8.0cm
 가 30.1% 가 .5 7.8cm(5.5~10.0cm) , mode
 7.1~7.5m 7.6~8.0m 가 19.5% .6 가
 8.4cm(5.1~12.0m) , 8.1~8.5cm 가 가
 12.4% .9 7.8cm(4.5~12.0m) , mode
 6.1~6.5m 12.7% .10 7.8cm(4.5~13.0m) ,
 7.6~8.0m 가 12.7% 가 .

2001~2003
 1,413~1,927 1994~1998 272~1,041 가
 () 가

)

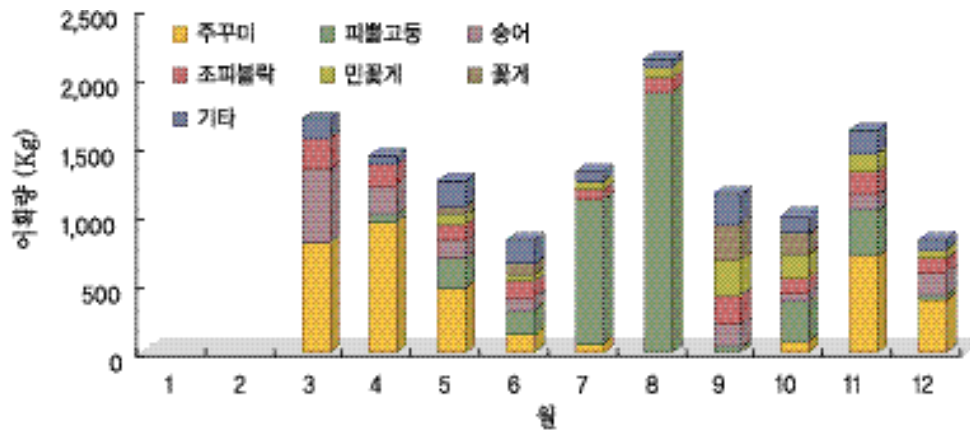
(CPUE)



2-24.

()

2003 가
655 , 44



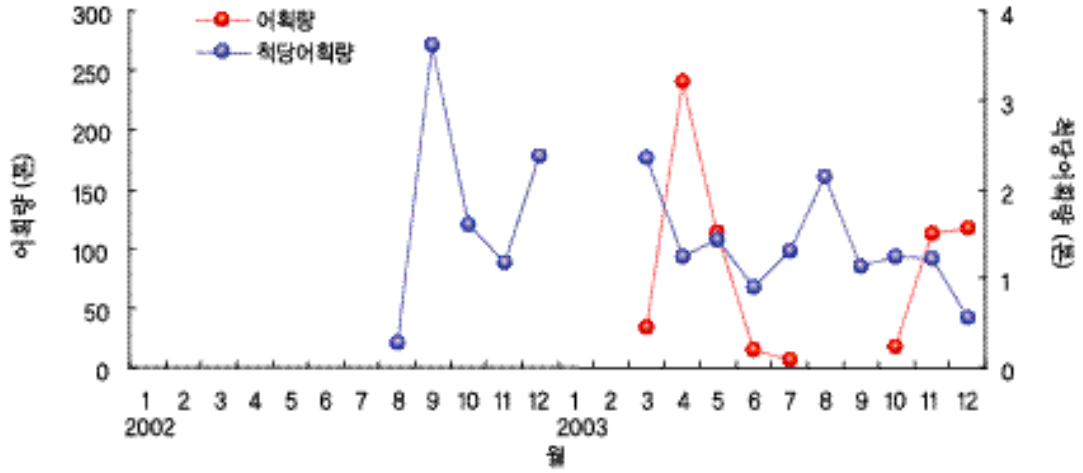
2-25.

()

8 2,130kg 가 , 3 11 1,500kg
.6 81kg 가 10 12 1,000kg

.1~2 . 8~9
가 4~67% , 3

3~89% , 3 12 31%, 20%
 4~18%
 9~10 13~18%, 16~23%



2-26. ()

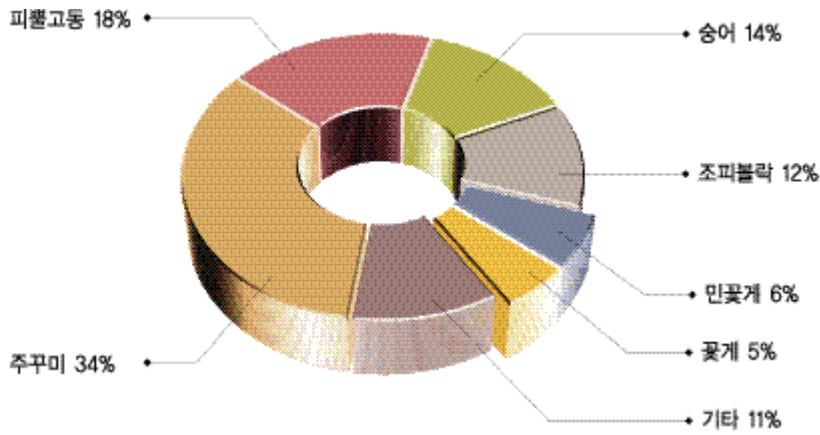
2003

655 , (CPUE)

1.26

, 4 가

8~9

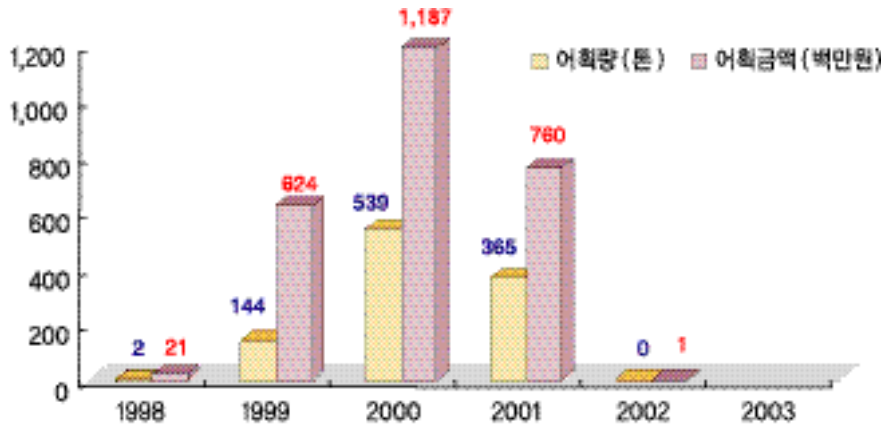


2-27.

34% , 18%, 14%, () , 12%, 6%, 가가
가5%

, 2003 655 , 654

3)
가)

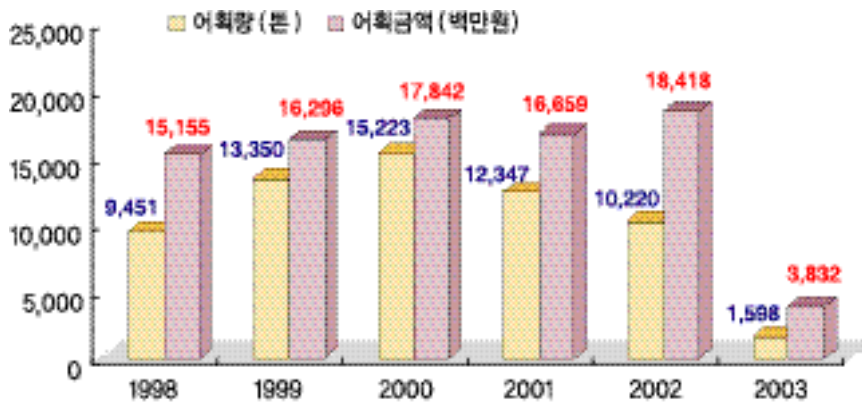


2-28. ()

1998 2
가 2000 539 가 , 2001 365 ,
2002 0 , 2003
1998 21 가 2000 12 . 2001 7.6
, 2002 1 .

4)

가)

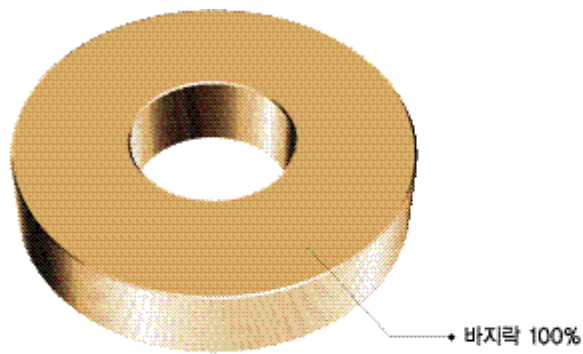


2-29.

()

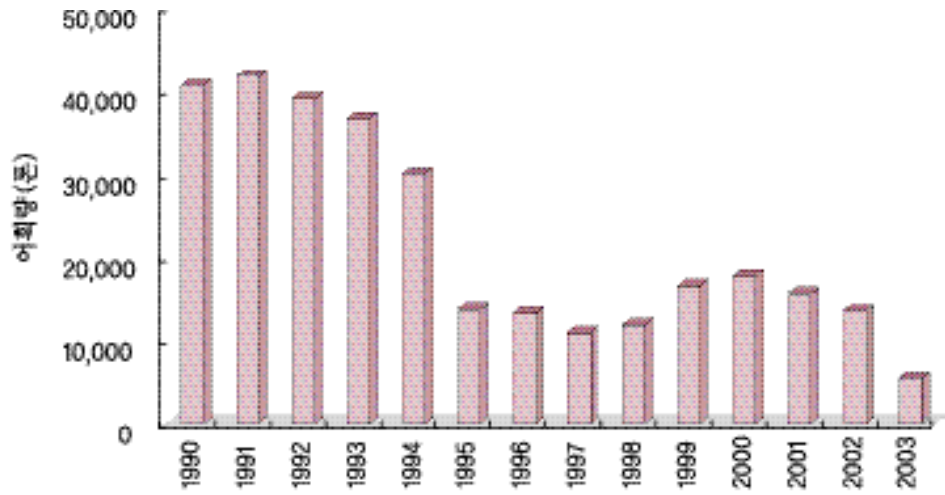
1998
 9,451 가 2000 15,223 가 , 2001
 12,347 , 2002 10,220 2003 1,598 가
 . 1998 152 가 2000 178
 . 2001 167 2002 184 가
 . 2003 38 가

)



2-30.

2002

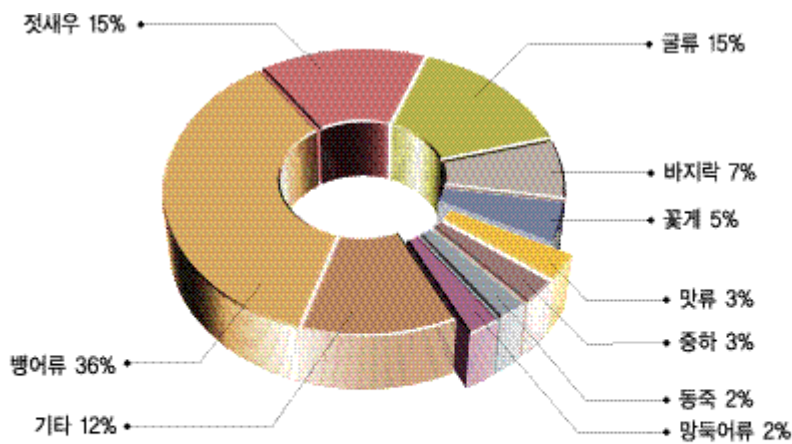


2-31. ()

가 1990 2003 가 1991 41,845
 , 2003 5,367 가 . 1990~1994 3
 , 가
 1995 13,802 . 2000 17,744 가
 . 3
 1995~2003 (13,199) 87.2% . 2002 2003
 13,532 5,367 .

1)

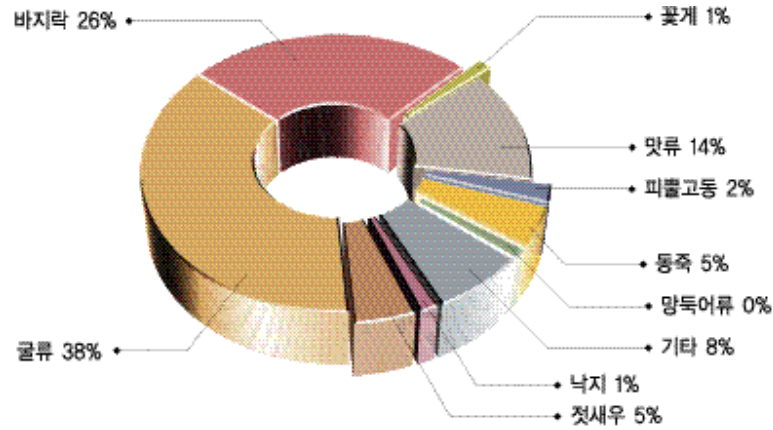
1990 2003 , 1990 ()
)가 13,0633 가 , (5,624) , (5,453) , (2,559) ,
 (1,936) , (1,132) , (1,054) , (680) , (618) .



2-32. (1990)

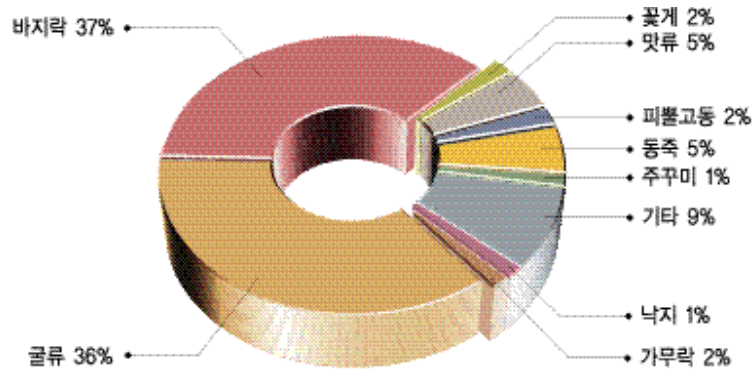
1995

가 , 가 5,177 가 , (3,604),
 (1,909), (692), (673), (273), (172), (108),
 (67)



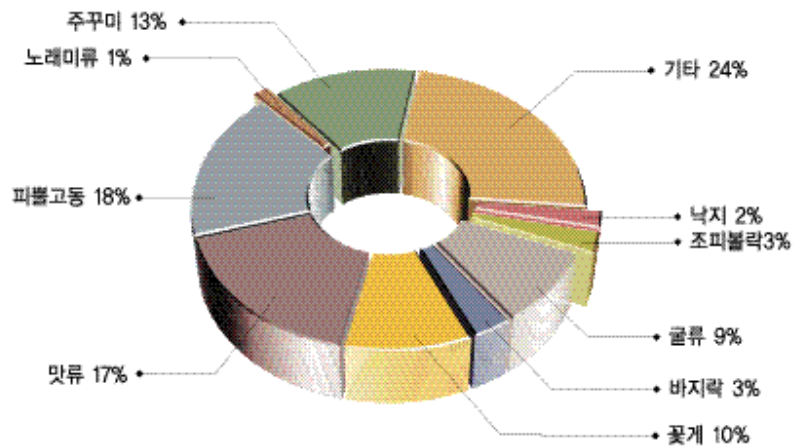
2-33. (1995)

2000 6,556 가 , (6,337), (896), (832)
), 가 (437), (434), (347), (132), (129)



2-34. (2000)

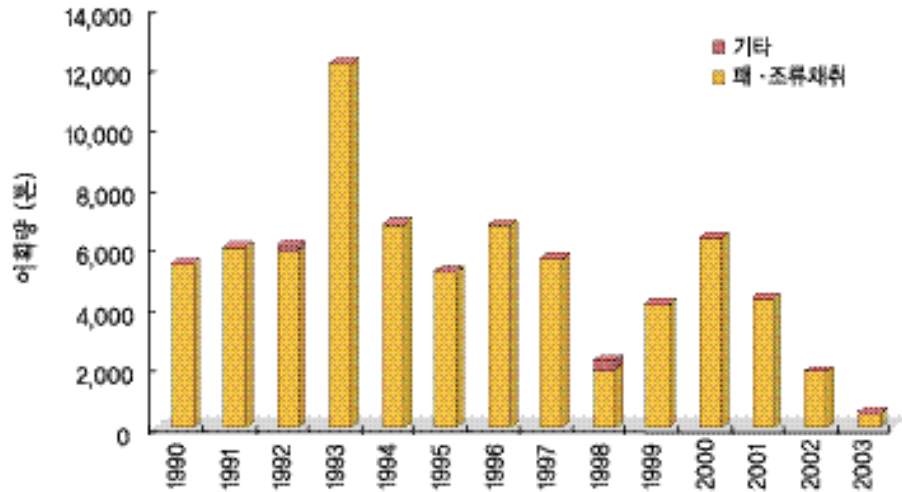
2003 989 가 , (903), (702), (541)
), (460), (185), (152), (110), (64)



2-35. (2003)

2)

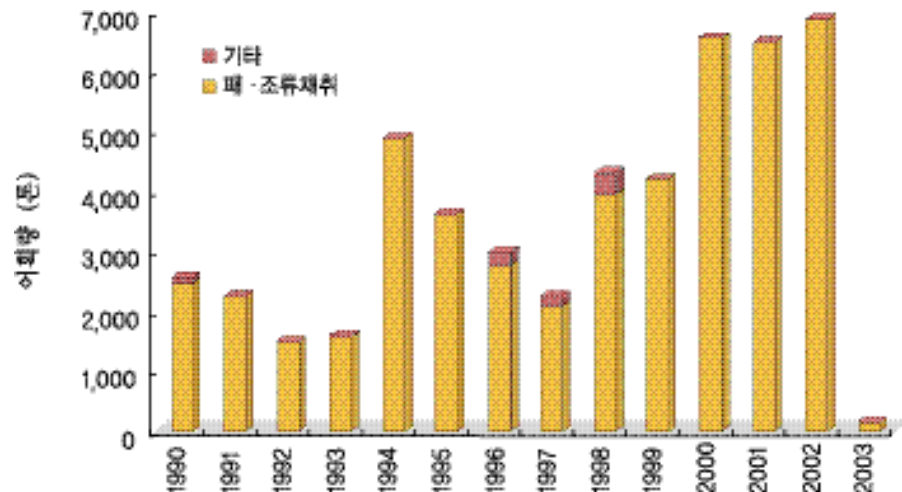
가)



2-36.

1993 12,106 가 , 2003 460
 1990
 88~100% 가

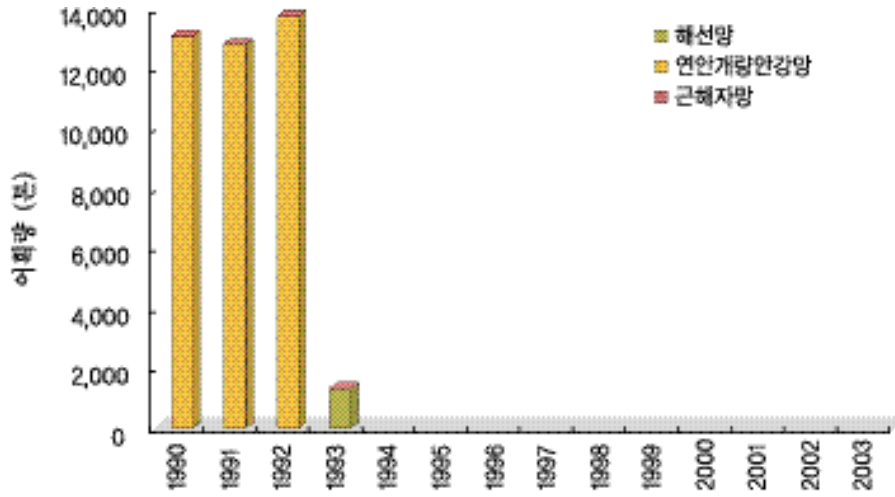
)



2-37.

2002 6,857 가 , 2003 1,512
 가 2003 2000 가
 92~100% 가

)

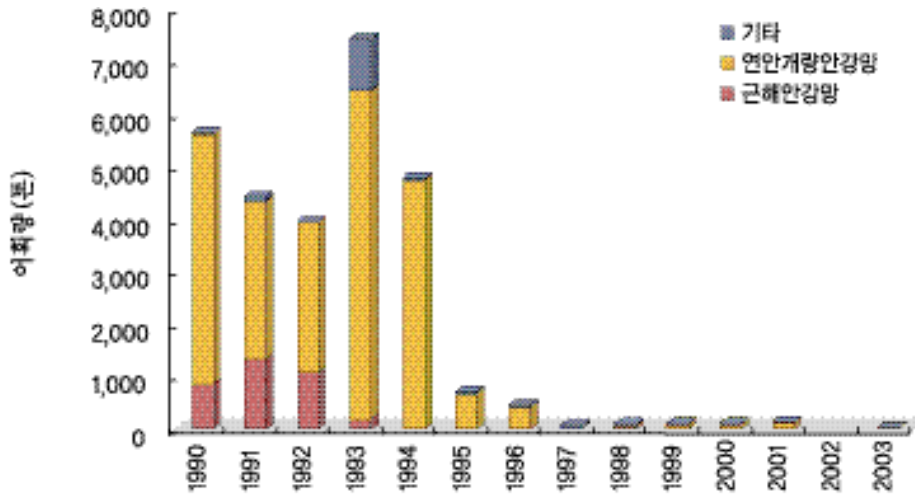


2-38.

1993

, 1993 1,287 가 . 1990~1992 13,724 가
 100% , 1993 100%

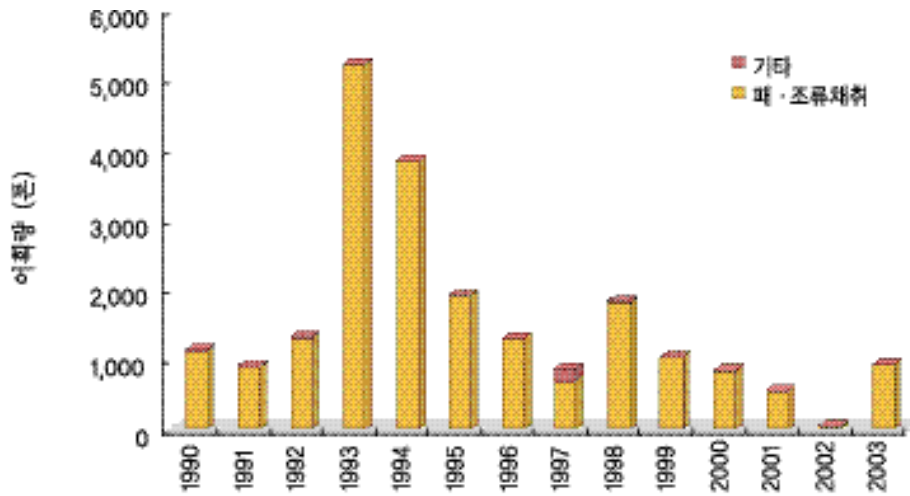
)



2-39.

1993 7,436 가 , 2002 24 가
 2003 24 . 64~100% 가
 , 1990~1992
 15~30% . 1993 1994

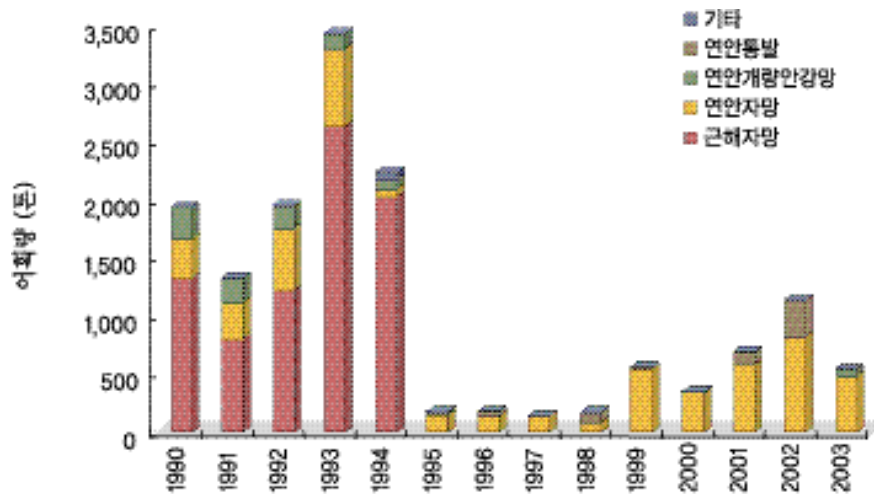
)



2-40.

1993 5,213 가 , 2003 40
 가 1993~1995 , 200~2003
 . 80~100% .

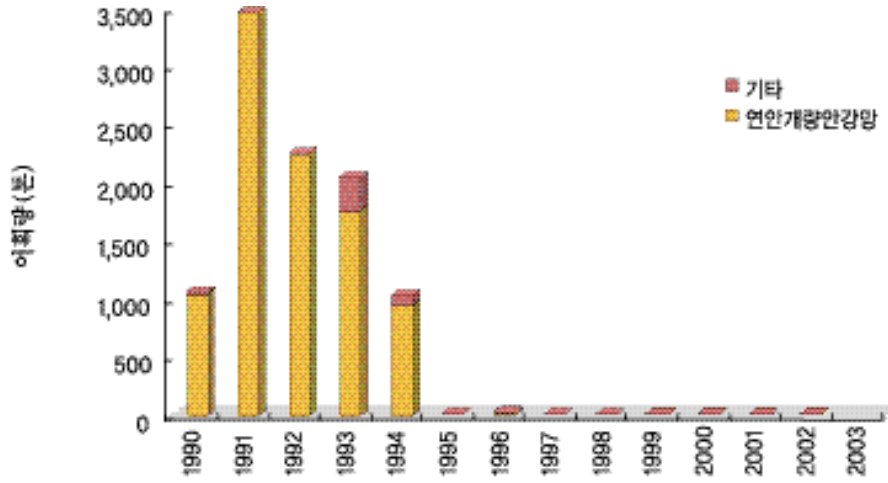
)



2-41.

1993 3,426 가 ,
 1995 172 1997 136 가 , 2002
 1,141 가 2003 541 . 1990~1994
 62~91% 가 , 1996 2003
 47~100% . 1998 51%
 가 .

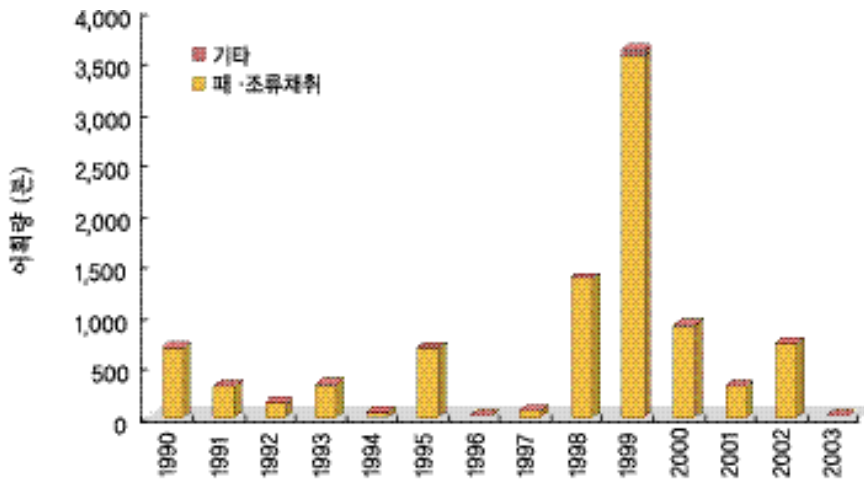
)



2-42.

1991 3,468 가 , 1995
 2002 2 . 2003
 1990~1994 86~100%자

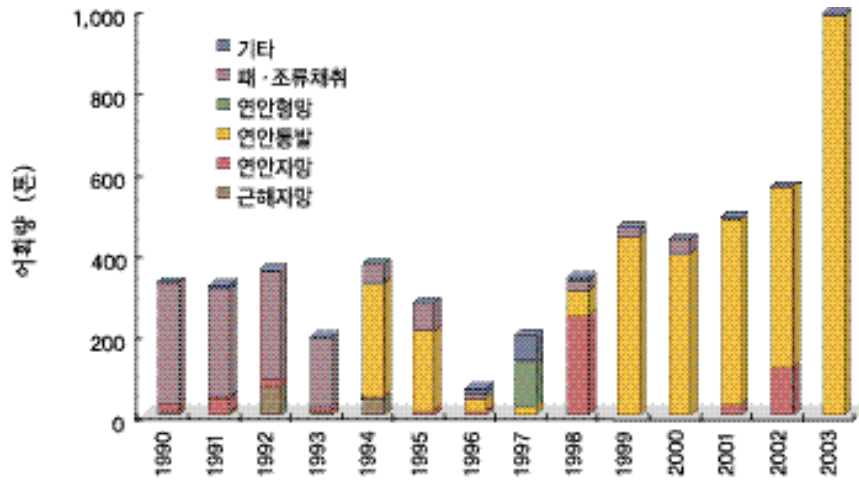
)



2-43.

1999 3,609 가 , 2003 7 가
 1990~1997 , 1998~2002
 97~100%자

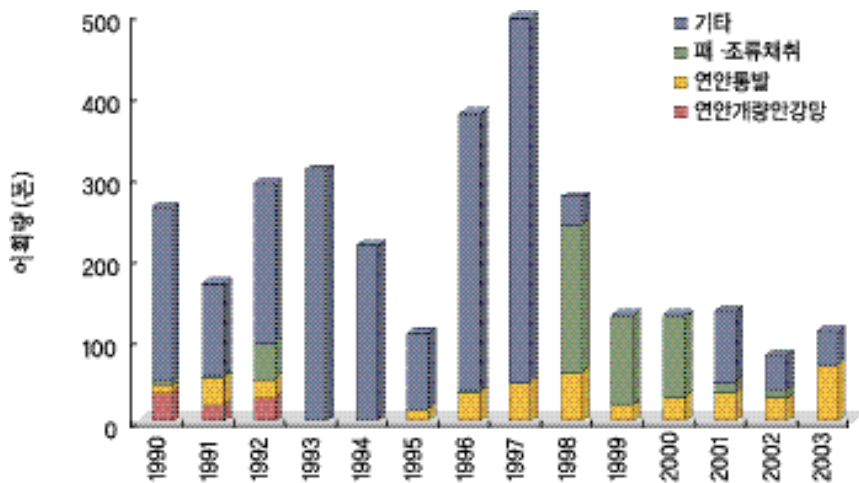
)



2-44.

() 2003 989 가 , 1996
 65 가 1997 가
 . 1990~1993 . 76~90%가
 , 1994~2003 13~99%가
 1997 52%

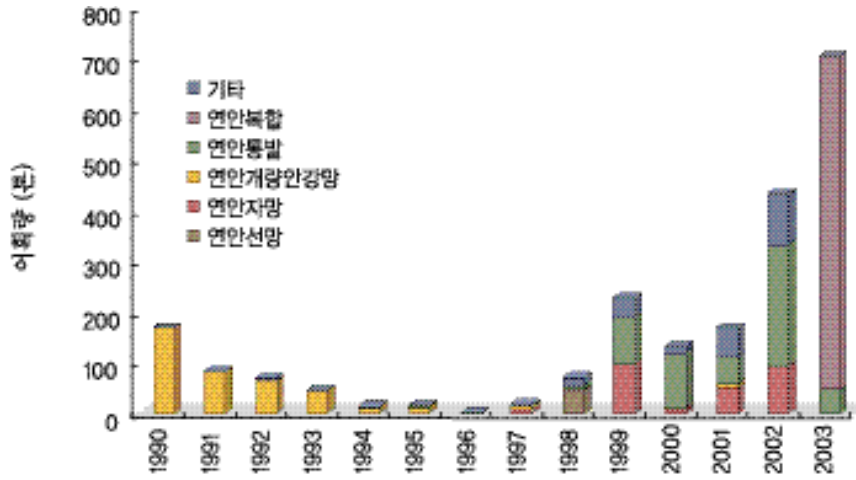
)



2-45.

1997 496 가 , 2002 81 가
 . 1998~2000 . 66~85%가 , 200~2003
 24~62%가 ,

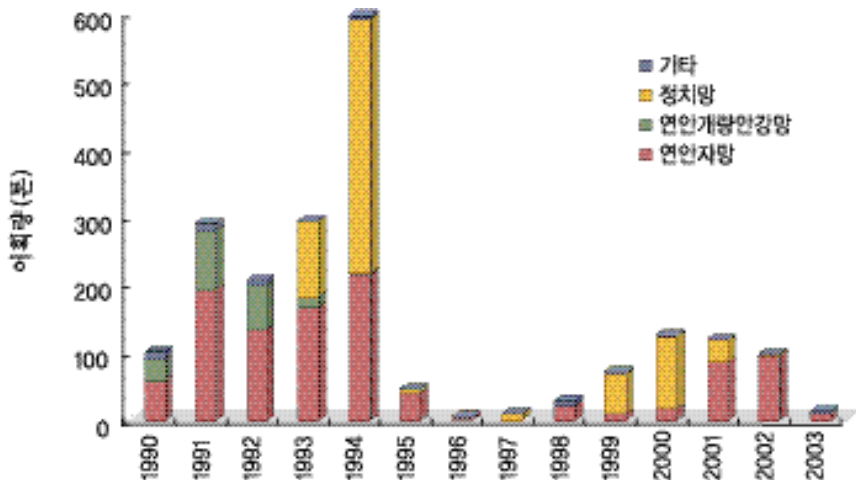
)



2-46.

2003 702 가 , 1996 2 가
 1990 1996
 , 1997 가
 50~100% 1990~1996
 31~56%, 2003 1999~2002
 93% 가

)



2-47.

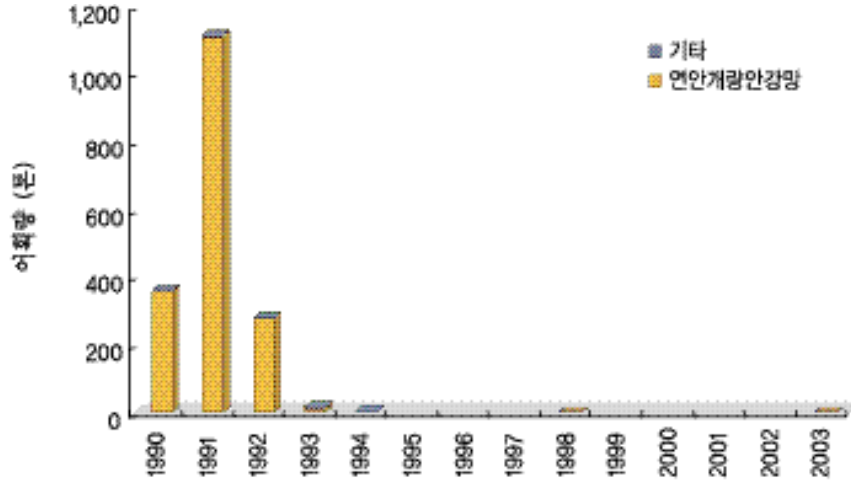
1994 596 가 , 1996 5 가
 1990~1994 1995
 가

12~99%

1994, 1997, 1999, 2000

63%, 89%, 88%, 87%

) ()



2-48.

1991 1,112

가

2003 1

1995

1990~1993

100%

[3.]

가.

1)

’ ’ ’ ’ ’ ’ ’ ’ ’ ’ ’ ’

3-1.

	吳 吳 吳 吳	吳	吳
			吳

(吳 : , :)

1)

3-3.

		()	()	()		
					,	
	,	4~6 8~11	60~130	6~7	34~40mm	15~20
	, , , 가	4~6 9~11	10~80	5~6	180mm (660mm)	6~12 (400~800m/)
	, ,	8~5	10~20	3~4	50.5mm	2~4

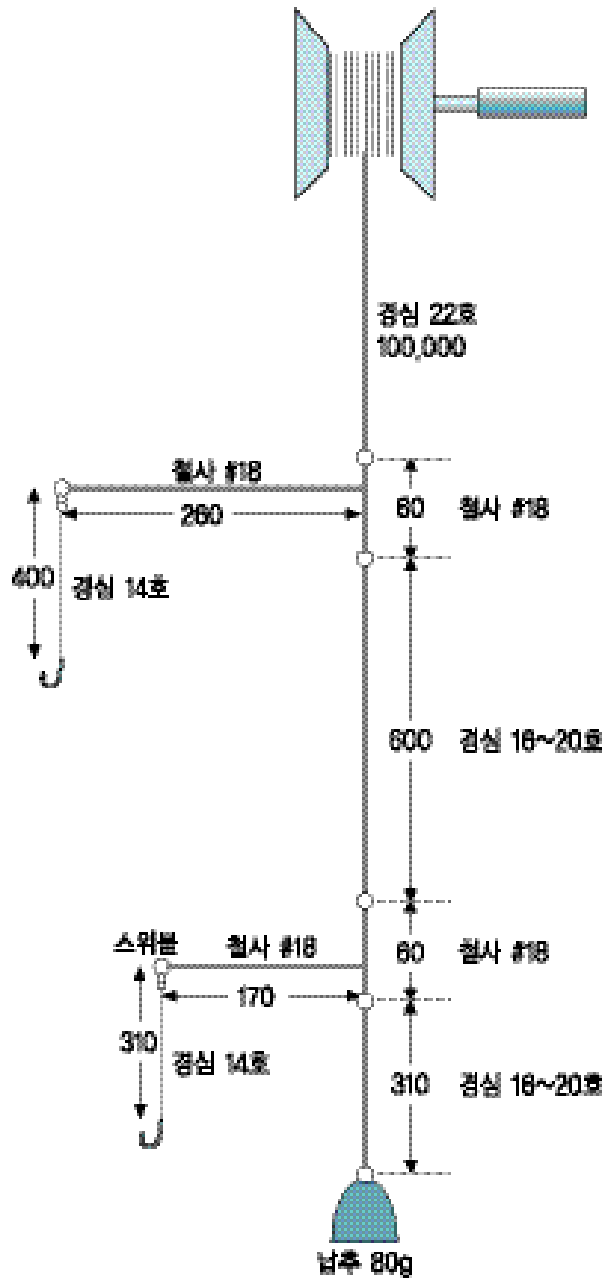
2)

3-4.

		()	()	()		
					,	
	,	3~12	3	1~2	2 /	1 /
		3~5	3	2~3		2,000~20,000
	,	3~12	3~8	3~4	35mm	1,500
	, ,	4~6 8~11	5~8	4~5	10.4~303mm	15~20
	, ,	4~6 8~11	5~8	4~5	2.5~606mm	15~20
()	, ,	4~6 9~11	2~3	2~3	151.5mm	20~30
()	, ,	4~6 9~11	5~8	3~4	151.5mm (515.2mm)	20~40
()	, ,	5~10	2~3	2~3	90~96mm	6~12
	, , , ,		-	1~2	23.3~43.3mm	1~2

3)

가)



: 3~12

: 20~30m, ,

: , ,

: -

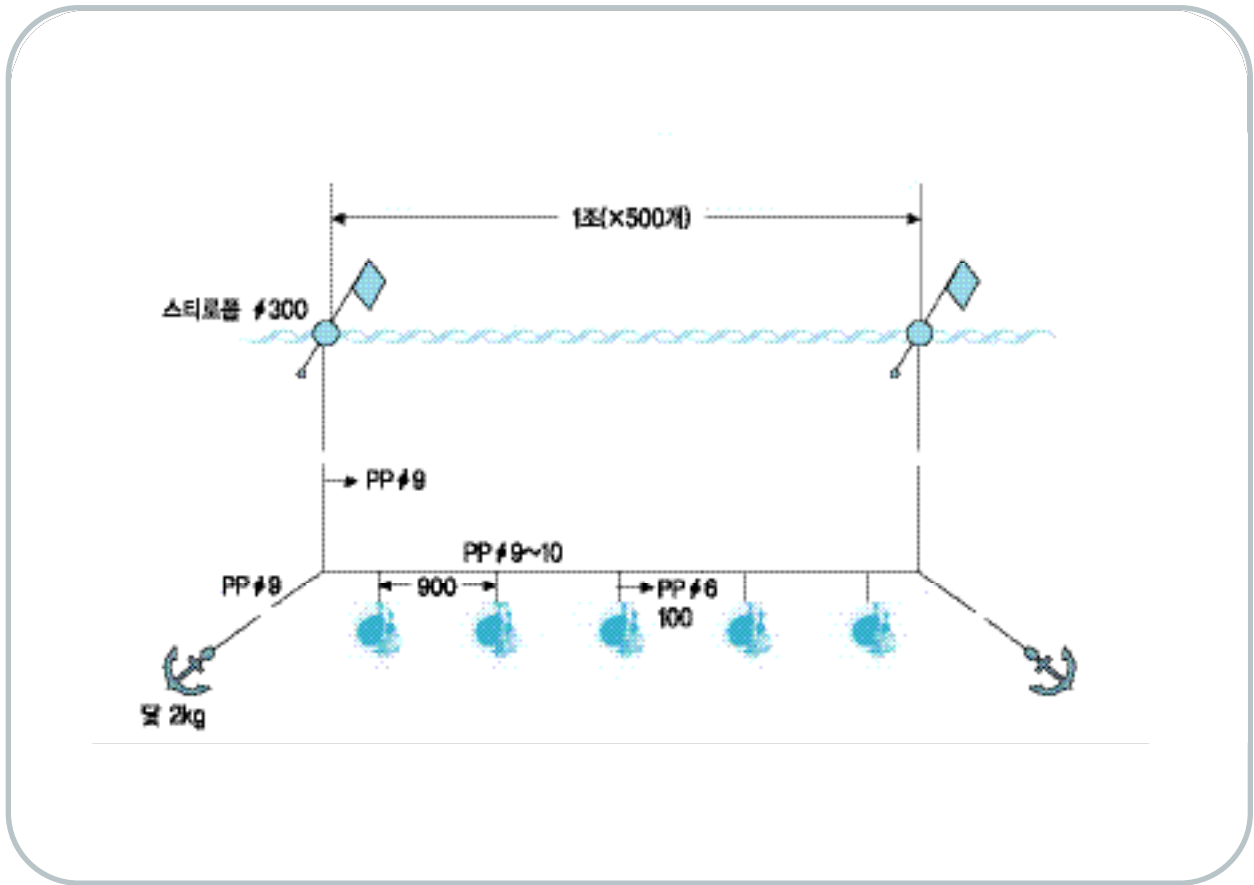
- , ,

-

:

22 100m , 18 T
 16~20 60cm 2 , 31cm
 16~20 . T 6cm
 가 26cm, 가 17cm 14
 40cm, 31cm 가 1 .
 1 1
 가
 . ,
 ,
 .

)



: 3~5

: 5~20m,

:

:

:

PP 6mm

PP 9~10mm

90cm

10cm

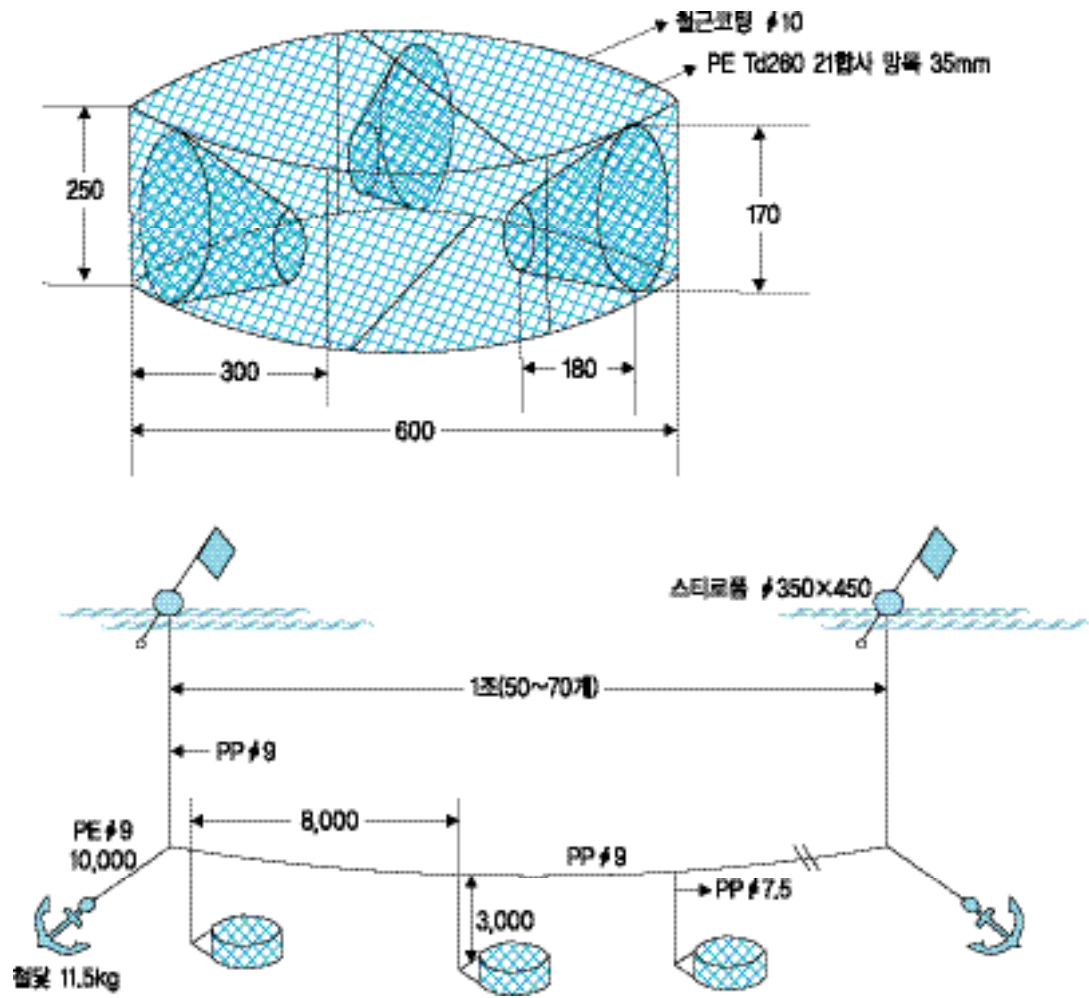
2,000~30,000 , 3

10,000~20,000 400~1,000 1

2

2~3

)



: 3~8 (,), 9~12 ()

: (40~70m, ,), 가 (25~60m,)

: - , ,

가 -

-

: ,

:

PP 9~12mm 8~9m PP 7.5mm

3m

10mm 55cm, 21cm, 가

60cm, 25cm ,

, 3

1,500~2,000 , 가

2,000~2,500

PE Td260 21 35mm

50~70 1

05~06

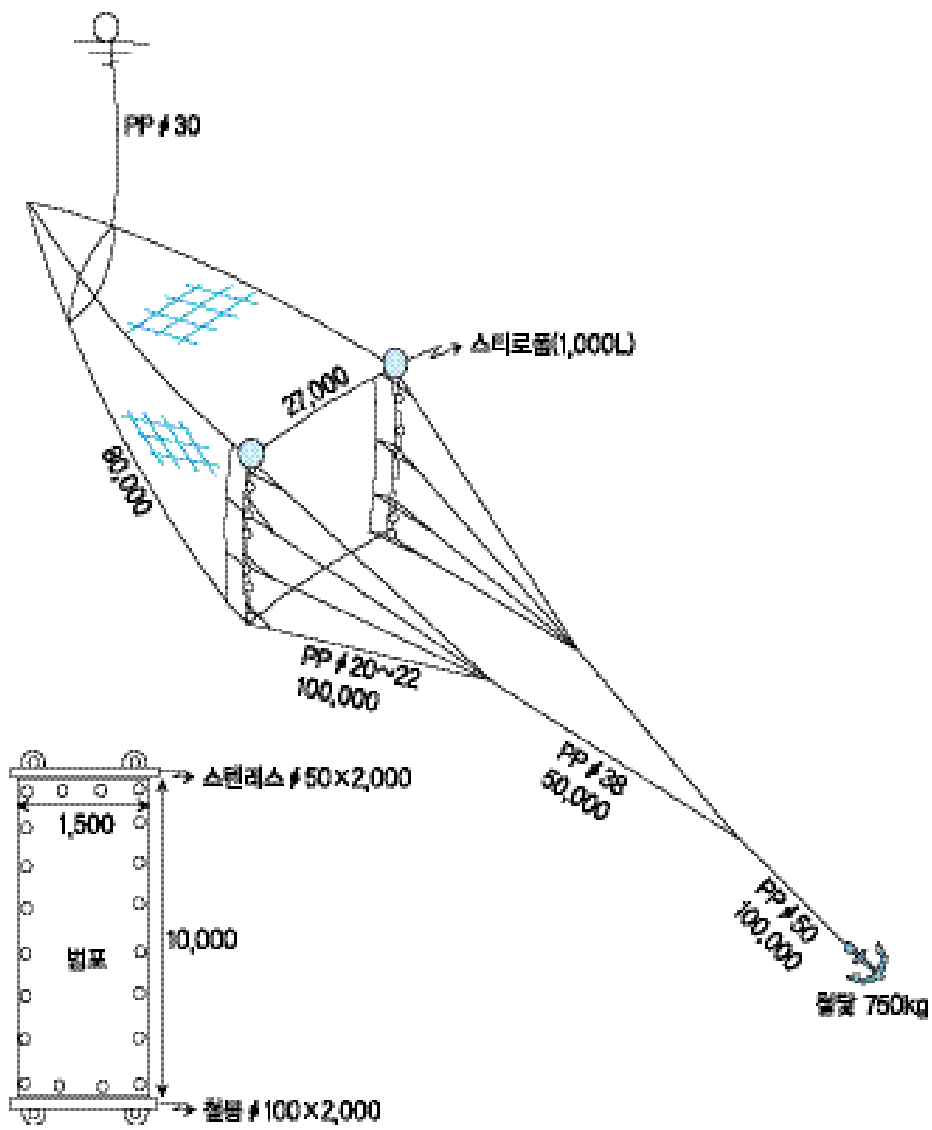
5~6

,

,

.

)



: 4~6 , 8~11

: 15~50m, ,

: - , , ,

가 - ,

- ,

:

10m

3

가 27m, 30m

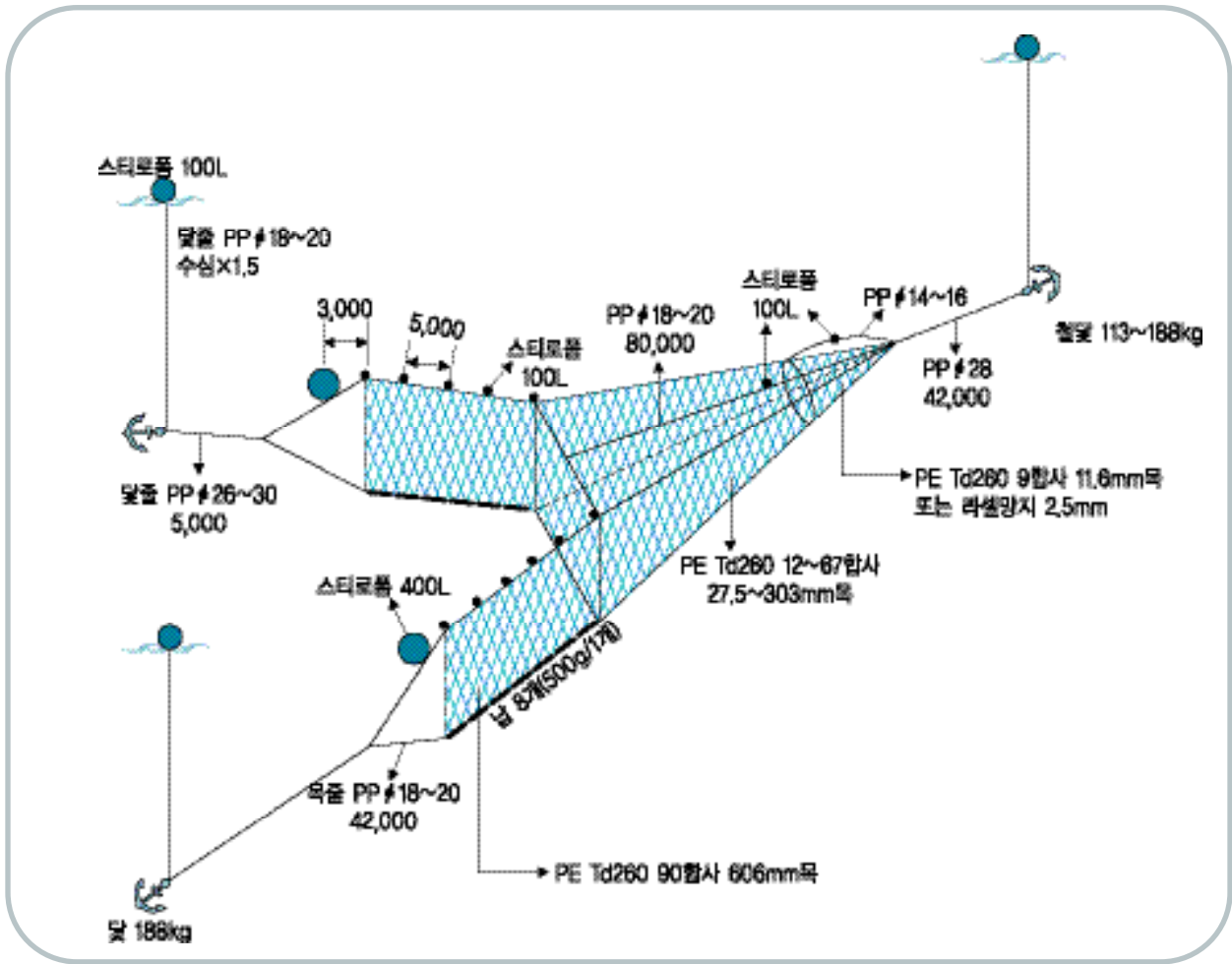
, 가 1.5m,
80m .

1

1

. 1
,가

)



: 4~6 , 8~11

: 15~50m, ,

: - , , , 가 - , , ,

- ,

:

PE 9 11.6mm PE 90 606mm 2.5mm

2

1 1~2

) ()

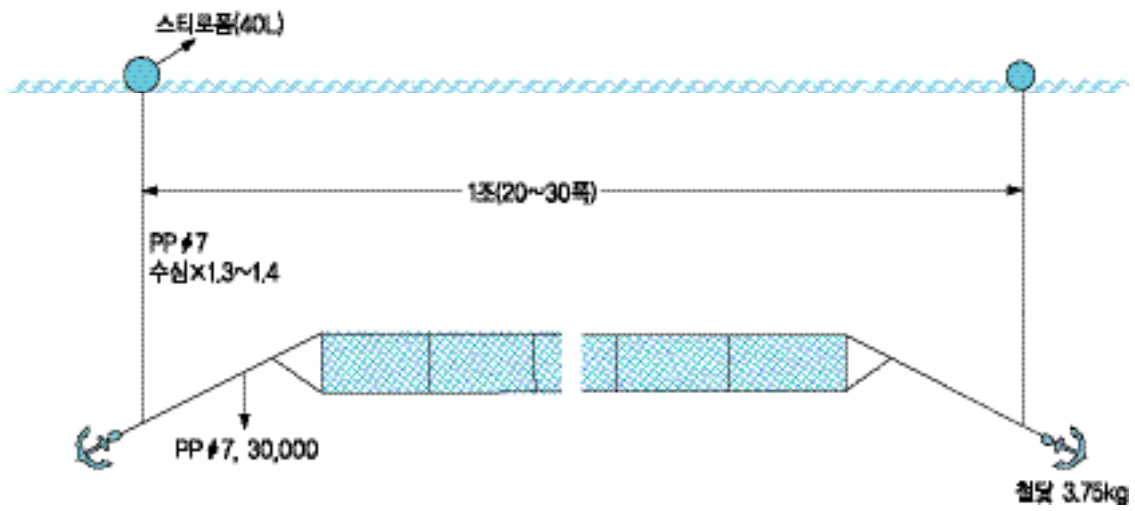
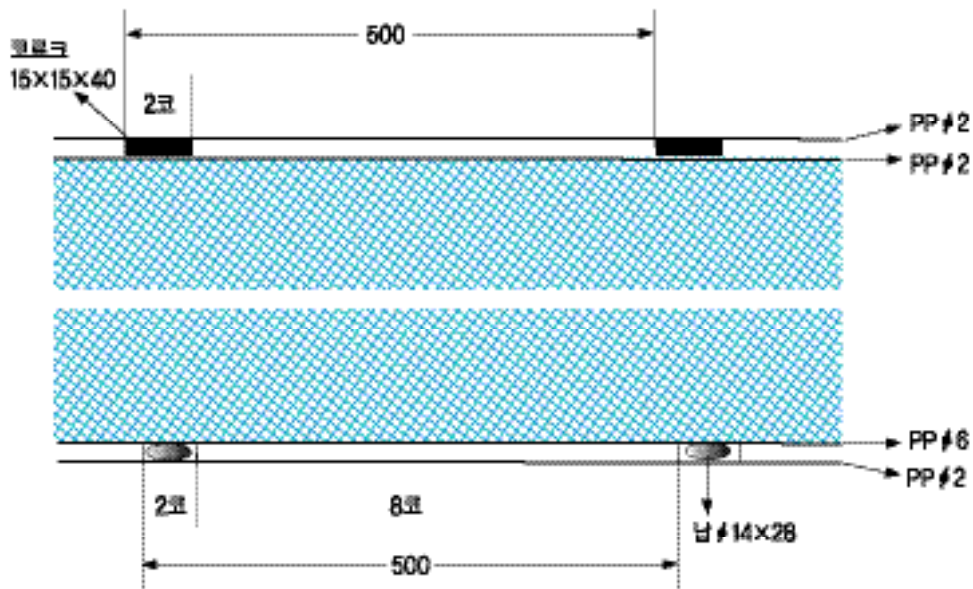
PP#2, 80,000

12.5코

Nylon 경심 $\neq 0.3$ 명목 151.5mm

150,000

PP#6, 85,000



: 4~6 , 9~11

: 15~50m, ,

: , , , 가

:

0.3mm, 151.5mm ,

56%,

53%

가

3%

1 50~100

1 20~30

. , 20~30

10 1 2~3

가

20~30

가

가

1 40~50 ,

2~3

) ()

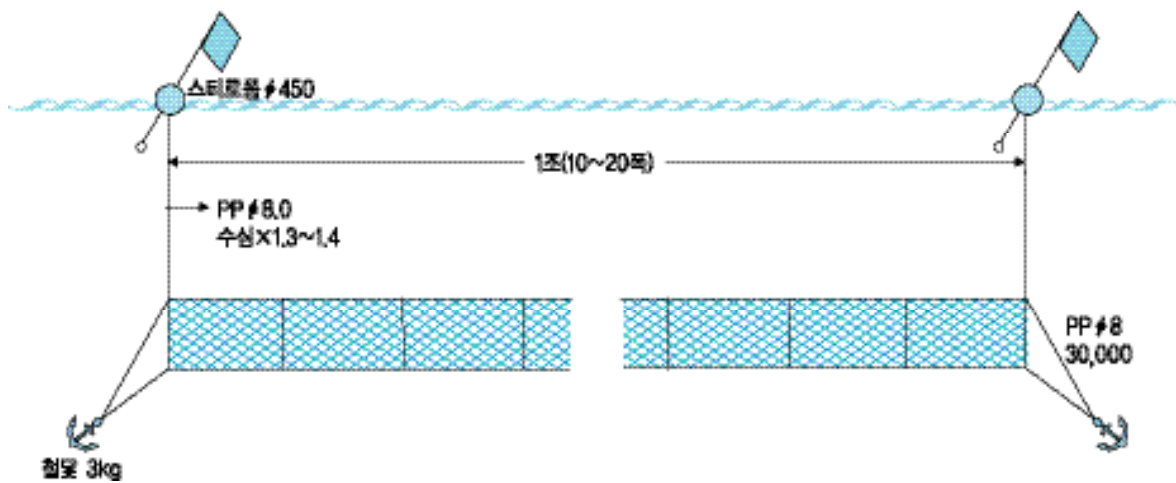
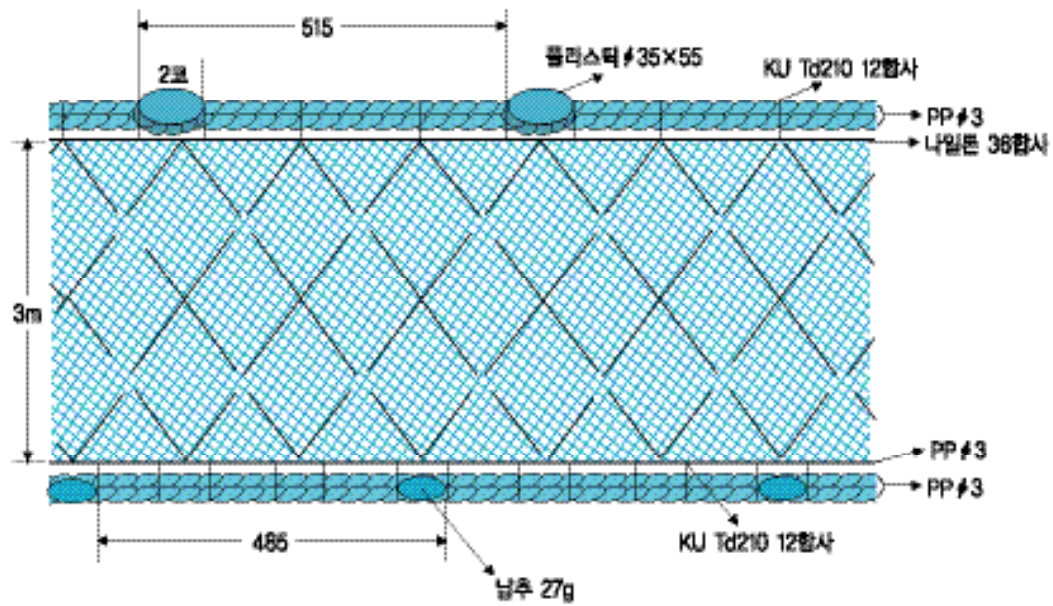
PP#8.0, 25,000

7코	Knot NY Td210 15합사 망목 515.2mm	69,000
----	-------------------------------	--------

35코	Knot NY Td210 4합사 망목 151.5mm	75,000
-----	------------------------------	--------

7코	Knot NY Td210 15합사 망목 515.2mm	69,000
----	-------------------------------	--------

PP#3.0, 23,100



: 4~6 , 9~11

: 15~40m, ,

: , , , 가

:

3 . 가

Td210 4 , 151.5mm , Td210 15 515.2mm

, 1 25~30m .

33%, 36% ,

3% .

1 100~200 10~20 1 2~3

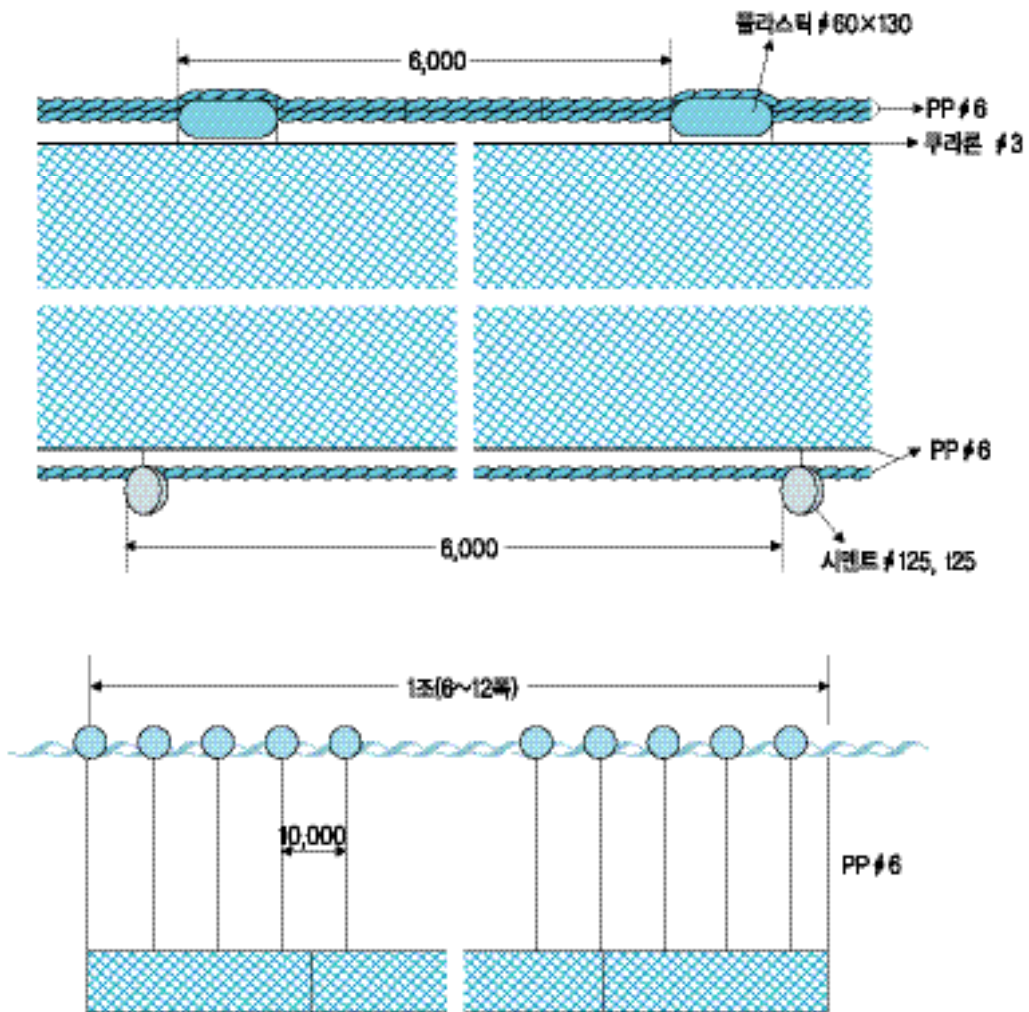
6~7 가 7~8 .

)

PP#6, 70,000

13코	Nylon 경심5호 망목 90~96mm	151,500
-----	-----------------------	---------

PP#6, 80,000



: 5~7 , 8~10

: 10~30m, ,

: , , , ,

:

NY 5 , 90 96mm ,

46% 52% .

1 70m, 13 1 ,

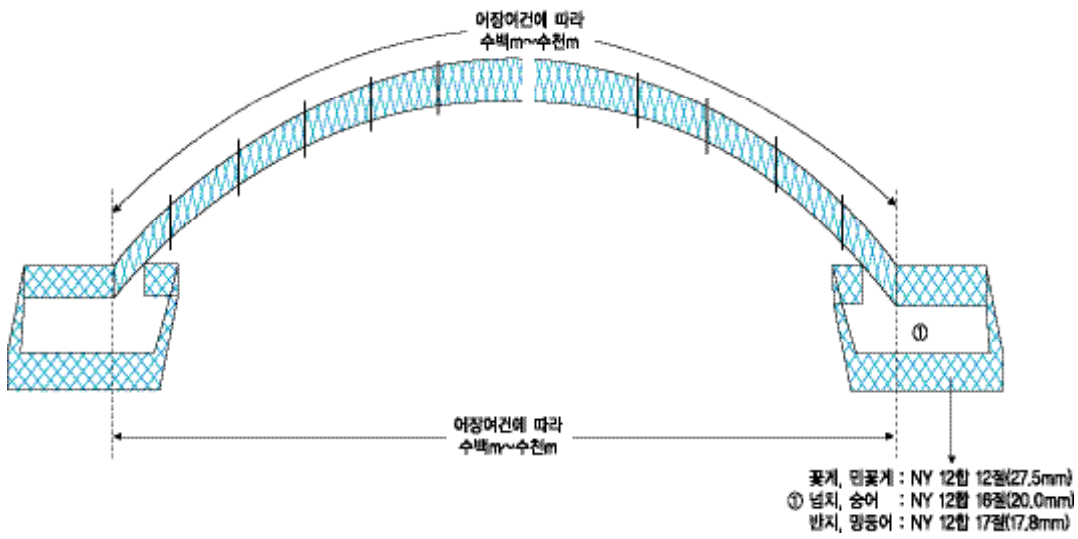
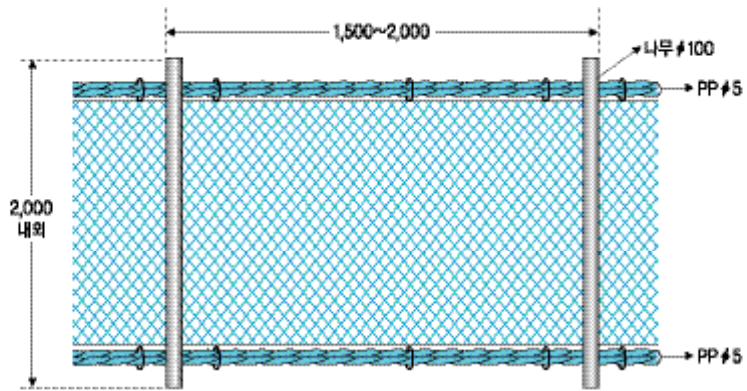
, 6m . 1 10

가

6 7 . 가

6~12 .

)



:

: 0~10m, ,

: , , , , ,

:

가

가

.

가 ,

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가

V 가

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가

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가

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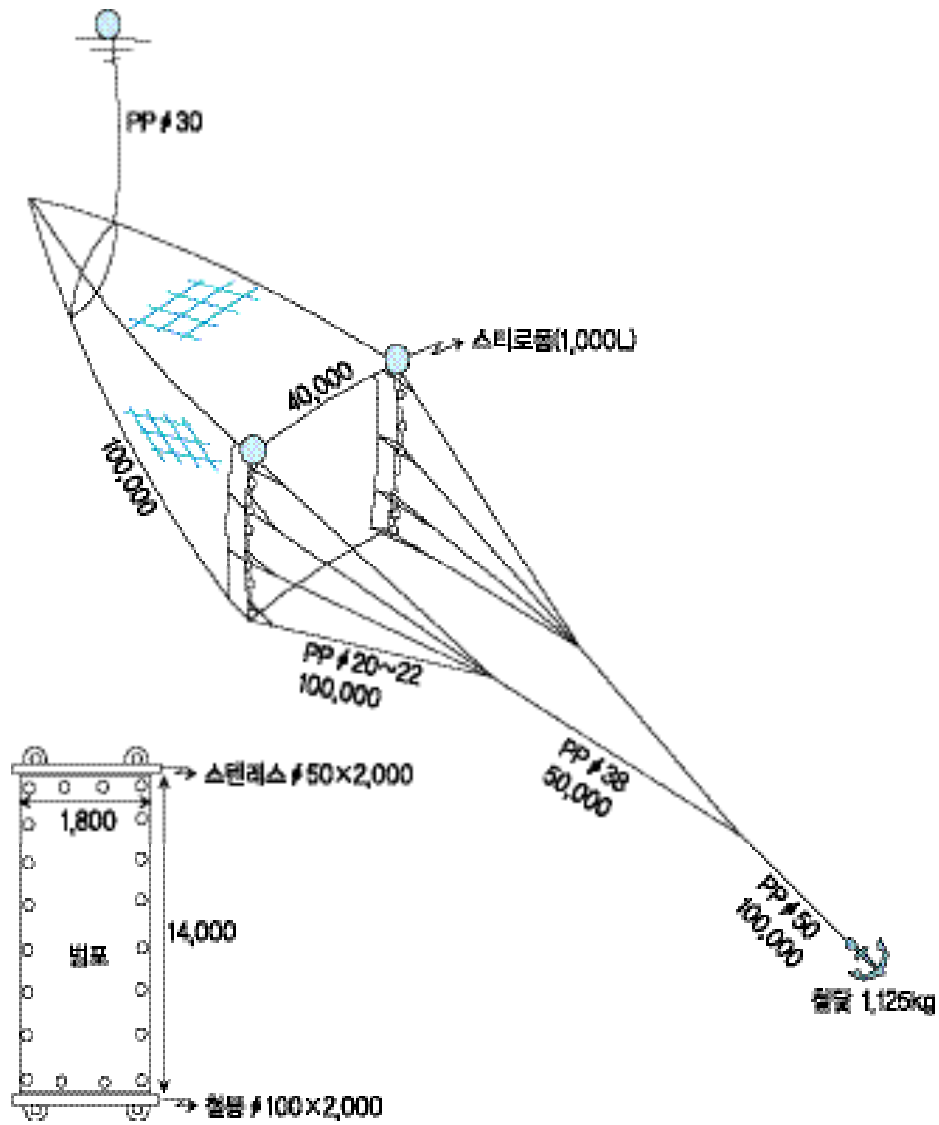
.

1 2

가

.

)



: 4~6 , 8~11

: 15~50m, ,

: - , , , ,

가 - ,

- ,

:

14~15m

3

가 40m, 45m

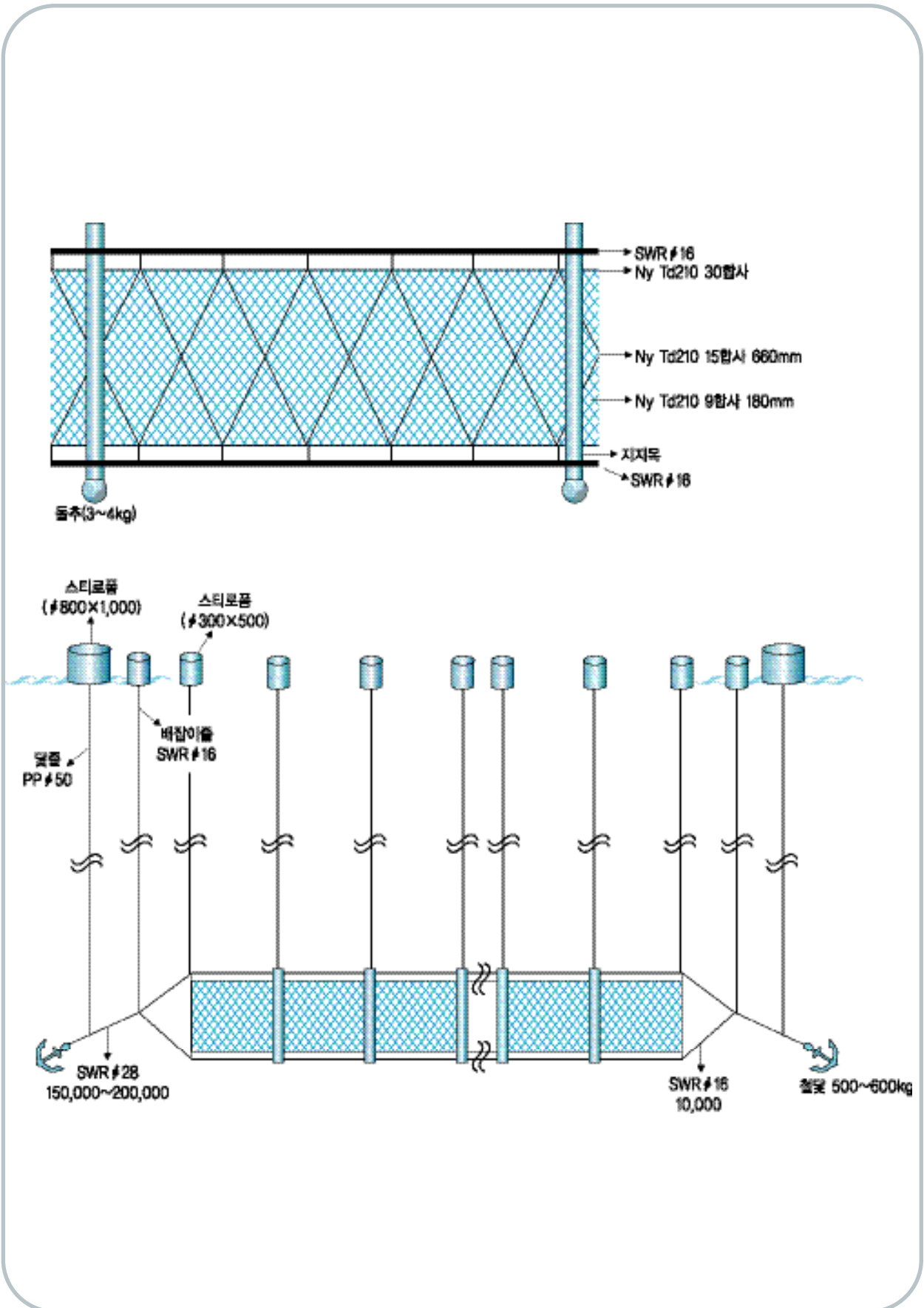
가 1.8~2m,
100m

1

1
,가

1

) ()



: 4~6 , 9~11

: 20~500m, ,

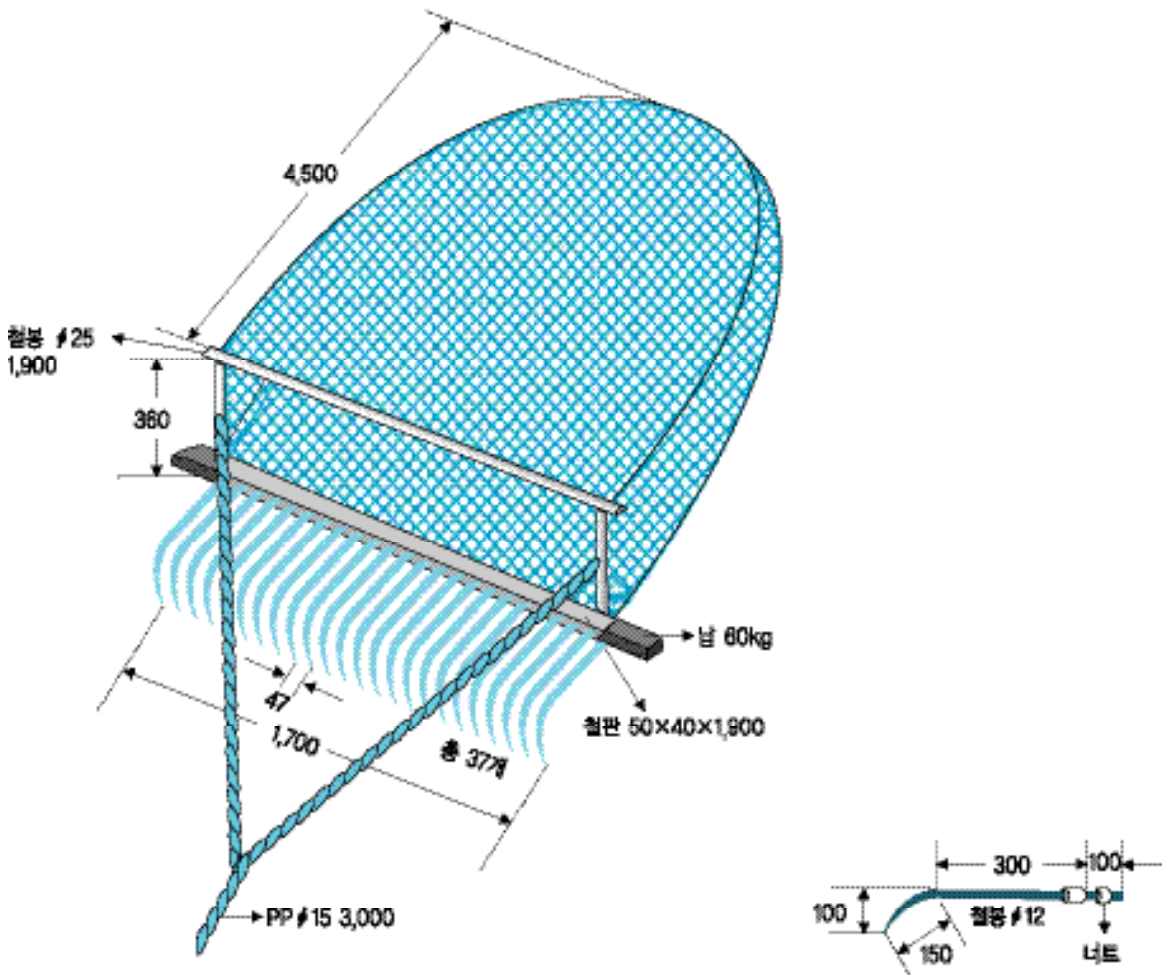
: , , , 가 ,

:

()

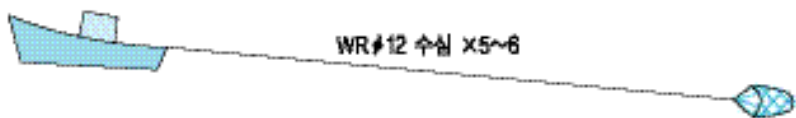
Td210 9 , 180mm ,
.
, 1

Td210 15 660mm
400~800m , 1 6~12
5km .



PP #12

	360(우)	1,900(상)	360(좌)	1,900(하)
	8코	42코	8코	42코
200코	Knot NY Td210 72합사 망목 50.5mm			



: 8~ 5

: 7 40m,

: , , ,

:

PE

,

.

가

가

, ,

40 42 ,

60kg , 120kg

1

,

1

,

1 2

3 4

2

가 .

1 , 1

1

,

가

, 1 8 10

10~20

,

3 4 .

[4.]

가.

1)

가)

4-1

. , ,
 . , ,
 4.59 . 가
 (6.72), (4.87) , 가가
 (3.90) . 가 ,
 9.77 , 가 0.86 .
 가가 (3.41) , 가 (1.26) .
 5.58 ,
 (8.00), (5.91) , 가 (4.1)
 . 가 21 , 가
 1 . 가가
 (5.82) , 가가 (2.3) .

4-1.

(: ,)

		9.77	9.77	7.93	9.77	7.93
		0.86	0.86	4.92	1.07	1.58
		4.59	4.12	6.72	3.90	4.87
		2.84	3.41	1.26	2.70	2.72
		21.00	10.00	8.00	21.00	15.00
		1.00	1.00	2.00	2.00	5.00
		5.58	4.10	4.40	5.91	8.00
		4.19	2.60	2.30	5.82	3.42

)

4-2

90,102.08

(236,555.56)

85,682.36

(115,272.22),

(108,760.00)

가

(62,035.00)

80%

(87%),

(86%)

4-2.

(:)

		1,433,000.00	0.86	366,000.00	1.00
		0.00	0.00	3,000.00	0.14
		90,102.08	0.20	85,692.36	0.80
		288,799.98	0.24	88,736.16	0.24
		15,000.00	0.39	214,000.00	1.00
		0.00	0.00	3,150.00	0.61
		3,810.00	0.14	62,035.00	0.86
		4,898.85	0.15	65,239.45	0.15
		35,000.00	0.26	366,000.00	0.91
		1,450.00	0.09	12,900.00	0.7
		14,630.00	0.15	108,760.00	0.85
		16,458.80	0.07	153,509.39	0.07
		975,000.00	0.84	230,000.00	1.00
		0.00	0.00	3,000.00	0.16
		83,618.75	0.13	73,610.42	0.87
		280,756.91	0.24	71,675.54	0.24
		1,433,000.00	0.86	232,600.00	0.90
		1,200.00	0.10	6,050.00	0.14
		236,555.56	0.38	115,272.22	0.62
		468,151.35	0.30	92,623.30	0.30

4-3

10,488.89

(33,777.78)

19,375.00

가

(27,375.00)

(22,950.00)

4-3.

(:)

		200,000.00	1.00	90,000.00	1.00
		0.00	0.00	0.00	0.00
		10,488.89	0.32	19,375.00	0.68
		34,135.42	0.38	26,228.8	0.38
		4,000.00	1.00	90,000.00	1.00
		0.00	0.00	0.00	0.00
		625.00	0.28	27,375.00	0.72
		1,276.12	0.45	32,438.24	0.45
		20,000.00	0.73	50,000.00	1.00
		0.00	0.00	3,250.00	0.27
		6,200.00	0.27	22,950.00	0.73
		8,526.43	0.28	24,765.40	0.28
		30,000.00	1.00	90,000.00	1.00
		0.00	0.00	0.00	0.00
		3,029.17	0.18	18,291.67	0.82
		8,612.16	0.32	27,119.65	0.32
		200,000.00	1.00	50,000.00	1.00
		0.00	0.00	0.00	0.00
		33,777.78	0.57	9,944.44	0.43
		64,272.42	0.39	17,840.34	0.39

4 - 4 .
 13,520.83 ,
 가
 (21,700.00), (14,791.67) .
 3,298.62 ,
 (11,000.00) .

4-4. (:)

		90,000.00	1.00	90,000.00	1.00	50,000.00	1.00
		0.00	0.00	0.00	0.00	0.00	0.00
		13,520.83	0.75	3,298.61	0.15	2,555.56	0.10
		22,068.92	0.36	15,230.70	0.25	10,513.79	0.27
		65,000.00	1.00	90,000.00	1.00	50,000.00	1.00
		0.00	0.00	0.00	0.00	0.00	0.00
		11,375.00	0.56	11,000.00	0.28	5,000.00	0.17
		21,782.14	0.50	28,460.50	0.44	15,811.39	0.41
		50,000.00	1.00	2,000.00	0.38	2,000.00	0.62
		0.00	0.00	0.00	0.00	0.00	0.00
		21,700.00	0.69	850.00	0.18	400.00	0.12
		25,922.00	0.41	858.78	0.18	894.43	0.28
		90,000.00	1.00	1,000.00	0.40	40,000.00	0.78
		0.00	0.20	0.00	0.00	0.00	0.00
		14,791.67	0.87	166.67	0.05	3,333.33	0.09
		25,180.67	0.28	389.25	0.13	11,547.01	0.26
		50,000.00	1.00	1,000.00	0.33	0.00	0.00
		0.00	0.67	0.00	0.00	0.00	0.00
		9,666.67	0.83	277.78	0.17	0.00	0.00
		17,958.28	0.17	440.96	0.17	0.00	0.00

)

4-5 , ,
 , 49,214.01
 , (66,060.78),
 (52,465.86) .
 44,094.80 ,
 (65,316.40), (44,507.83)
 .
 5,119.21 ,
 (56,874.23), (6,240.35) .

4-5. (:)

		200,000.00	147,631.00	169,605.00
		4,000.00	3,469.00	(74,526.30)
		49,214.01	44,094.80	5,119.21
		46,928.8	35,985.32	40,955.45
		65,308.4	85,941.14	48,518.20
		4,000.00	3,469.00	(20,632.70)
		34,931.36	28,691.01	6,240.35
		24,635.26	25,802.42	21,723.59
		113,094.00	72,080.00	41,014.00
		12,000.00	10,840.00	(25,812.8)
		39,650.69	35,712.19	3,938.50
		42,594.8	30,821.70	23,932.21
		200,000.00	92,750.00	169,605.00
		10,000.00	6,395.00	(52,750.00)
		52,465.86	44,507.83	7,958.03
		56,180.54	30,041.57	56,874.23
		178,198.20	147,631.00	90,672.49
		5,630.00	4,975.00	(74,526.30)
		66,060.78	65,316.40	744.37
		55,298.55	48,508.26	45,137.30

4-7

, , . , , . - 6%
 , (9%),
 (1%) .
 229% ,
 (347%) .
 36% ,
 (42%), (39%) .
 1.23 ,
 (1.91) .

4-7.

		()			
		0.85	9.64	10.81	1.62
		(1.59)	0.00	0.16	0.00
		(0.06)	2.29	1.23	0.36
		0.62	2.70	1.79	0.36
		0.76	4.90	2.00	0.91
		(0.55)	0.50	0.16	0.00
		0.09	2.25	0.91	0.39
		0.43	2.33	0.56	0.31
		0.36	4.80	1.20	0.79
		(0.63)	0.16	0.30	0.17
		0.01	2.15	0.78	0.42
		0.39	1.93	0.45	0.26
		0.85	1.45	10.81	1.62
		(1.59)	0.00	0.17	0.00
		(0.23)	0.37	1.91	0.35
		0.84	0.72	2.98	0.50
		0.53	9.64	1.89	0.91
		(1.03)	0.24	0.23	0.00
		(0.05)	3.47	0.93	0.28
		0.58	3.55	0.62	0.28

) 가 가

4-8 가 ,
 , 가
 65,126.44 , 가 가
 (94,270.97) .
 가 41,722.63 ,
 가 가
 (90,532.92) , (546,509.04) .

4-8. 가 (:)

		200,000.00	152,501.00
		0.00	0.00
		65,126.44	41,722.63
		53,004.29	49,669.42
		63,989.20	78,850.00
		0.00	0.00
		40,812.07	27,721.25
		21,719.42	35,638.05
		134,094.00	71,270.00
		0.00	2,000.00
		64,789.02	46,509.04
		67,160.97	38,627.37
		200,000.00	140,056.00
		0.00	0.00
		64,277.99	17,320.60
		59,376.23	44,357.09
		178,198.20	152,501.00
		0.00	100.00
		94,270.97	90,532.92
		59,328.53	46,114.04

4-9 가 ,
 , 가
 21,904.29 , 가
 가 (32,830.00) ,
 (23,240.00) . 가 가
 (72,000.00) , 가 (24,500.00) .

가 55.369 ,
 가 가
 (1,500.00) . 가 가가
 (1,500.00) , 가 (0) .
 가 4,362.50 , 가 가
 가 (7,604.17),
 (5,275.00) . 가 가가
 , (20,000.00) , 가가 (2,650.00
) .

4-9. 가 (:)

		72,000.00	1,500.00	20,000.00
		0.00	0.00	0.00
		21,904.29	55.36	4,362.50
		19,712.7	283.28	6,261.77
		44,670.00	0.00	20,000.00
		0.00	0.00	0.00
		23,240.00	0.00	5,275.00
		14,192.20	0.00	7,467.16
		33,400.00	1,500.00	2,700.00
		0.00	0.00	0.00
		17,800.00	500.00	1,460.00
		16,808.33	866.03	1,350.19
		72,000.00	50.00	20,000.00
		0.00	0.00	0.00
		32,830.00	5.00	7,604.17
		23,219.43	15.81	7,093.87
		24,500.00	0.00	2,650.00
		0.00	0.00	0.00
		6,528.57	0.00	638.89
		11,190.28	0.00	1,020.65

2)

가)

가 4 , 가 2 . 2.67 1.15 .

)

- -
4-10 .

4-10. (:)

		2,575.00	0.29	6,270.00	0.88
		600.00	0.12	4,510.00	0.71
		1,475.00	0.21	5,126.67	0.79
		1,006.54	0.09	991.18	0.09

1,475.00 1,006.54 ,
가 2,575.00 .
5,126.67 991.18 , 가
6,270.00 .

4-11

16.67 28.87 ,
가가 50.00 .
2,083.33 1,701.71 , 가
4,000.00 .

4-11.

(:)

		50.00	0.03	4,000.00	1.00
		0.00	0.00	750.00	0.97
		16.67	0.01	2,083.33	0.99
		28.87	0.02	1,701.71	0.02

)

4 - 12

17,400.00 9,880.79
 가 27,700.00
 8,340.17 1,249.37 가
 9,505.50

4-12.

(:)

		27,700.00	9,505.50	19,206.00	
		8,000.00	7,021.00	979.00	
		17,400.00	8,340.17	9,059.83	
		9,880.79	1,249.37	9,287.36	

4 - 13

가 3,725.67 1,382.10
 5,320.00 2,867.00
 3,455.67 586.21 4,117.00 3,000.00
 가 648.83 452.07
 1,125.00 225.50

4-13.

(:)

												가	
		5,320.00	0.56	4,117.00	0.48	770.00	0.08	40.00	0.00	90.00	0.01	1,125.00	0.13
		2,867.00	0.34	3,000.00	0.32	45.00	0.01	15.00	0.00	50.00	0.01	225.50	0.02
		3,725.67	0.44	3,455.67	0.42	348.33	0.04	25.00	0.00	70.00	0.01	648.83	0.08
		1,382.10	0.11	586.21	0.09	376.71	0.04	13.23	0.00	20.00	0.00	452.07	0.05

4 - 14

, , .
 , ,
 .
 41% 29% .
 25%, 0% , 29% 15% .
 3.65 2.37 6.02 .

4-14.

(:)

				()	
		0.69	25.00	6.02	0.45
		0.12	25.00	1.28	0.15
		0.41	25.00	3.65	0.29
		0.29	0.00	2.37	0.15

3)

가)

4-15

4-15
 . 4-15
 .
 4.93 0.00 .
 4.00 , 5.00
 가 3.50 . 1.00 .

4-15.

(: ,)

	4.93	-	4.93
	4.93	-	4.93
	4.93	-	4.93
	0.00	-	0.00
	5.00	5.00	4.00
	3.00	5.00	3.00
	4.00	5.00	3.50
	1.00	0.00	0.71

)

4-16
 , , , ,
 , , , ,
 21.87ha ,
 (22.00ha) . 가 (9.74ha) ,
 가 (11.14ha) .

4-16.

(: ha, ,)

		32.00	-	350.00	134.00	134.00	100.0%	0.00	0.0%	0.00	0.0%
		10.00	-	14.00	27.00	27.00	100.0%	0.00	0.0%	0.00	0.0%
		21.87	-	131.67	80.50	80.50	100.0%	0.00	0.0%	0.00	0.0%
		9.36	-	160.05	75.66	75.66	100.0%	0.00	0.0%	0.00	0.0%
		32.00	-	324.00	27.00	27.00	100.0%	0.00	0.0%	0.00	0.0%
		10.00	-	29.00	27.00	27.00	100.0%	0.00	0.0%	0.00	0.0%
		22.00	-	137.00	27.00	27.00	100.0%	0.00	0.0%	0.00	0.0%
		11.14	-	162.59	0.00	0.00	0.0%	0.00	0.0%	0.00	0.0%
		30.00	-	350.00	134.00	134.00	100.0%	0.00	0.0%	0.00	0.0%
		11.00	-	14.00	134.00	134.00	100.0%	0.00	0.0%	0.00	0.0%
		21.73	-	126.33	134.00	134.00	100.0%	0.00	0.0%	0.00	0.0%
		9.74	-	193.70	0.00	0.00	0.0%	0.00	0.0%	0.00	0.0%

131.67 , (137.00)
 가 (162.59) , 가
 (193.70) .

, ,
 80.50 (100.0%) , .

4-17

, ,
 1 (50.0%) 1 (50.0%)
 (100.0%) , (100.0%) .

4-17.

(:)

		2	1	50.0%	0	0.0%	1	50.0%	0	0.0%	0	0.0%
		1	1	100.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%
		1	0	0.0%	0	0.0%	1	100.0%	0	0.0%	0	0.0%

)

4 - 18

4-18.

(:)

		2,000.00	0.23	140,000.00	1.00
		0.00	0.00	0.00	0.77
		1,111.17	0.13	30,088.83	0.87
		879.86	0.09	54,152.40	0.09
		1,667.00	0.14	17,400.00	0.92
		0.00	0.08	0.00	0.86
		1,055.67	0.11	9,177.67	0.89
		918.04	0.04	8,739.25	0.04
		2,000.00	0.23	140,000.00	1.00
		0.00	0.00	5,000.00	0.77
		1,166.67	0.14	51,000.00	0.86
		1,040.83	0.13	77,090.86	0.13

4 - 19

4-19.

(:)

		2,000.00		0.00	0.00
		0.00	1.00	0.00	0.00
		666.67	1.00	0.00	0.00
		1,032.80	1.00	0.00	0.00
		2,000.00	0.00	0.00	0.00
		0.00	1.00	0.00	0.00
		1,333.33	1.00	0.00	0.00
		1,154.70	1.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00
		0.00	0.00	0.00	0.00

4-21.

(:)

												가	
		53,500.00	0.91	3,500.00	0.44	1,080.00	0.03	0.00	0.00	0.00	0.00	400.00	0.01
		1,450.00	0.53	1,000.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		12,333.40	0.66	1,713.40	0.31	196.67	0.01	0.00	0.00	0.00	0.00	66.67	0.00
		23,015.97	0.15	1,050.78	0.15	434.59	0.01	0.00	0.00	0.00	0.00	163.30	0.00
		2,500.00	0.68	1,267.00	0.37	100.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
		2,042.00	0.60	1,000.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		2,271.00	0.64	1,133.50	0.32	33.33	0.01	0.00	0.00	0.00	0.00	0.00	0.00
		323.85	0.06	188.80	0.07	57.7	0.02	0.00	0.00	0.00	0.00	0.00	0.00
		53,500.00	0.91	3,500.00	0.44	1,080.00	0.02	0.00	0.00	0.00	0.00	400.00	0.01
		1,450.00	0.53	1,000.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
		19,041.67	0.67	2,100.00	0.30	360.00	0.01	0.00	0.00	0.00	0.00	133.33	0.00
		29,843.99	0.21	1,276.71	0.21	623.54	0.01	0.00	0.00	0.00	0.00	230.94	0.00

4-22

52% , 79% ,
 6% .
 (0.92) . 0.85 , 가 (0.24) .

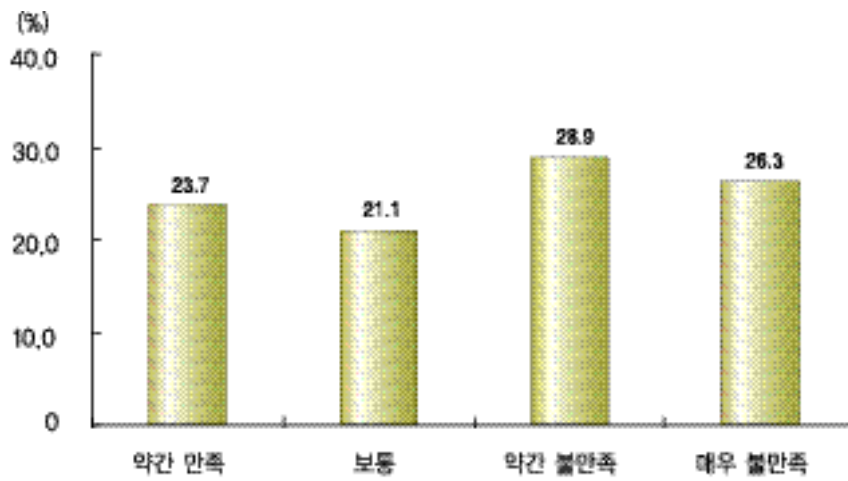
4-22.

(:)

				()	
		0.71	0.83	1.07	0.17
		0.21	0.75	0.64	0.00
		0.52	0.79	0.85	0.06
		0.19	0.06	0.20	0.08
		0.71	0.83	0.76	0.17
		0.56	0.75	0.7	0.11
		0.64	0.79	0.75	0.14
		0.11	0.06	0.02	0.05
		0.61	0.00	1.07	0.00
		0.21	0.00	0.64	0.00
		0.45	-	0.92	0.00
		0.21	-	0.24	0.00

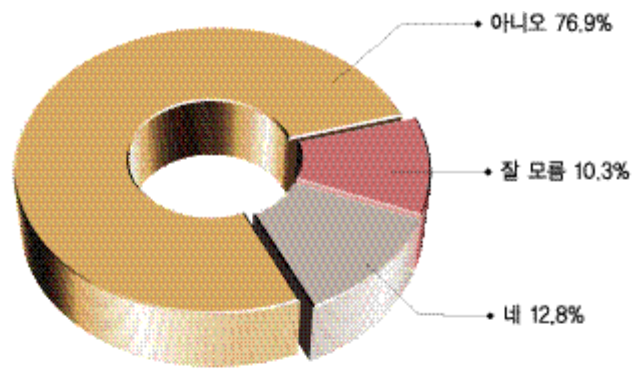
1)
가)

38 “
” 23.7% “ ” 21.1% “ ” “
” 28.9%, 26.3% 55.2%



4-1.

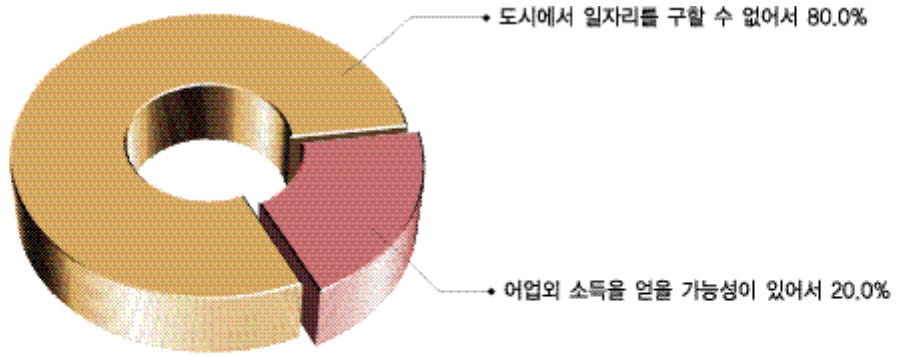
가 , 20 40 가 가
76.9% 가 , 가
12.8% 가 .



4-2.

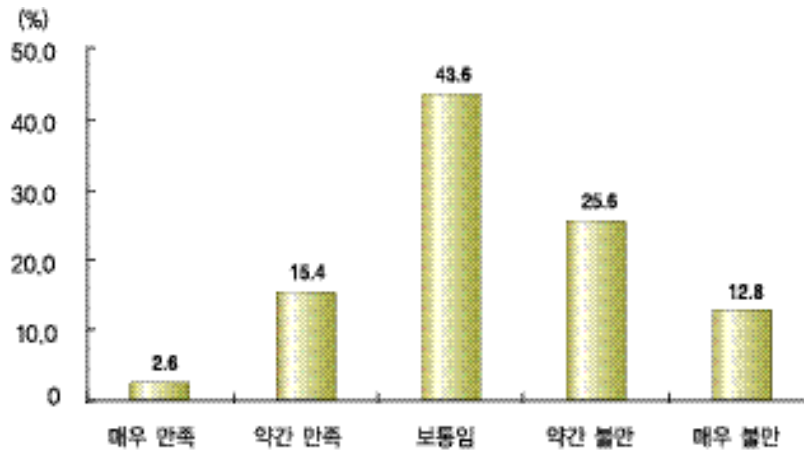
가

가
“ ”가 80.0%
“ 가 ”가 20.0%



4-3. 가

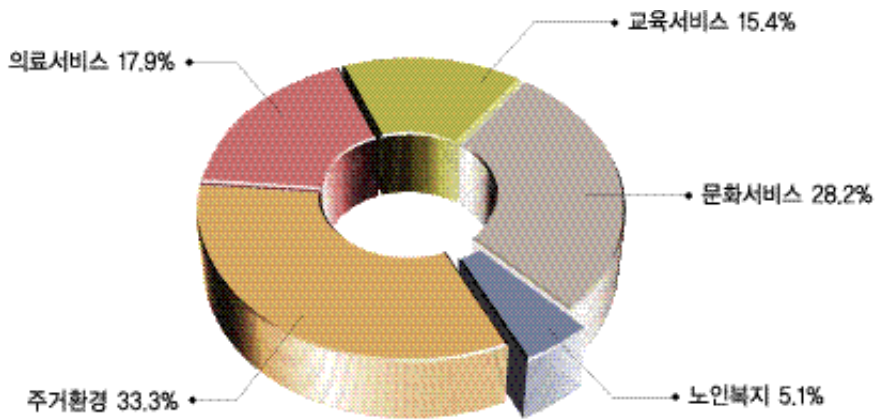
” “ 38.4%



4-4.

. 가

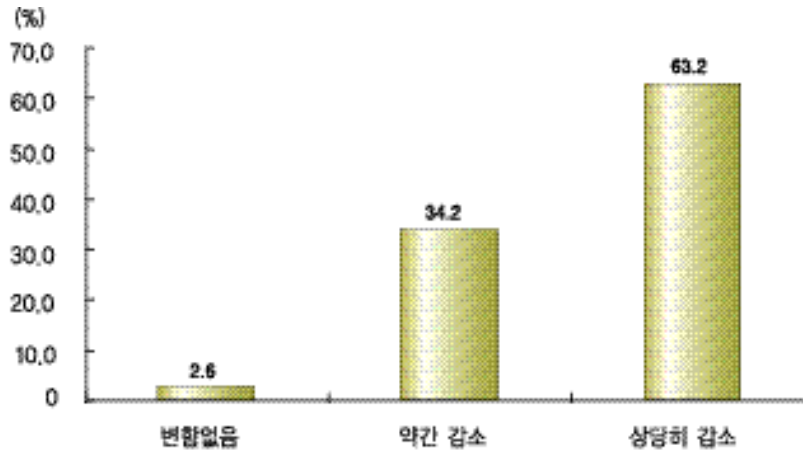
” “ 33.3% 가 , “ ” “ ; “ 가 28.2%, 17.9%, 15.4%



4-5.

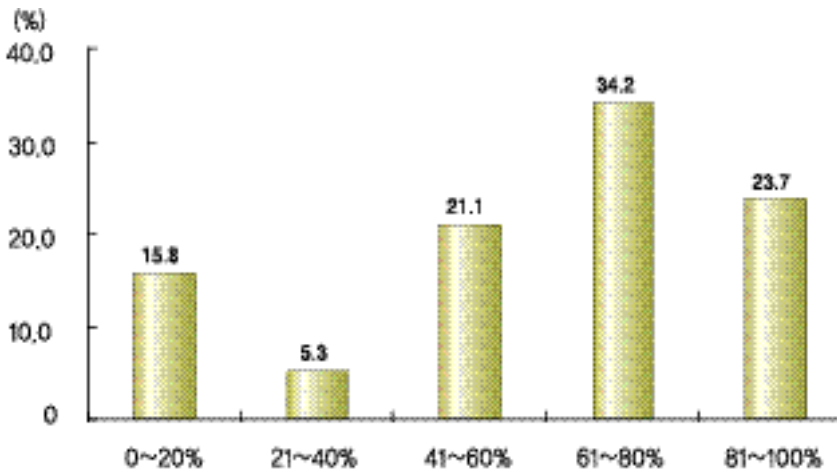
)

5 가 , “ 가 63.2% 가 “ 가 34.2% , 97.4%가 2.6%



4-5.

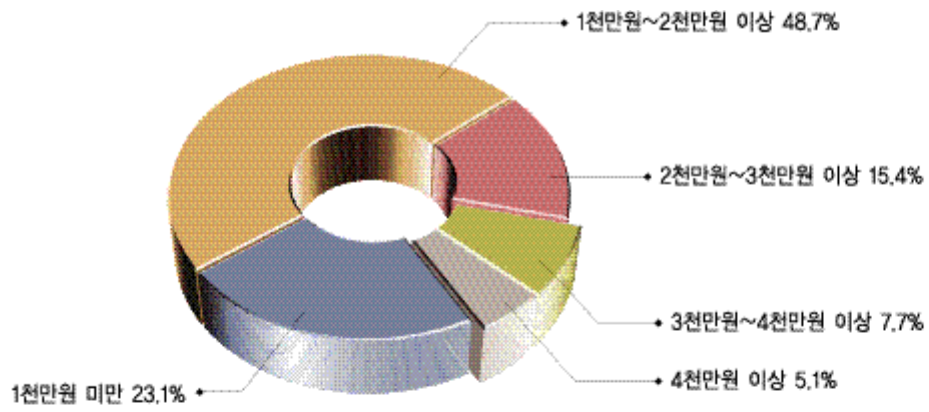
“ 81 100% ” 23.7% , 34.2%가 “ 61 80% ” 60% 57.9%



4-6. 5

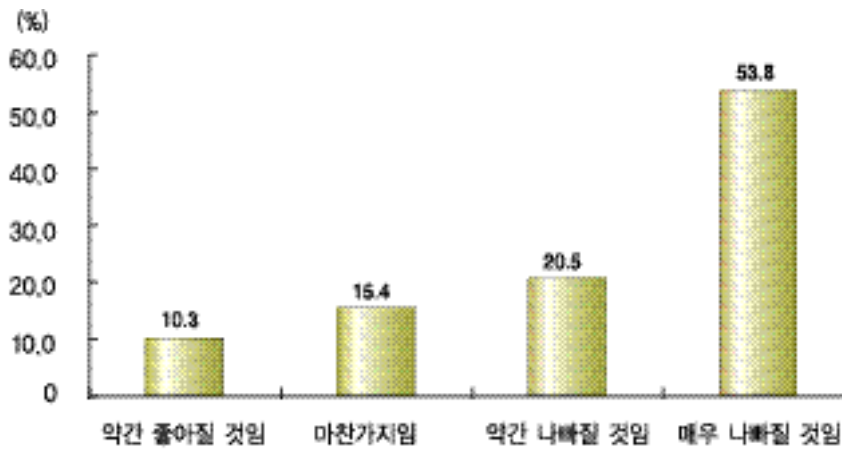
2 “ ” 48.7% “ 1 ” 23.1% , 70% “ 1 ” 가

2

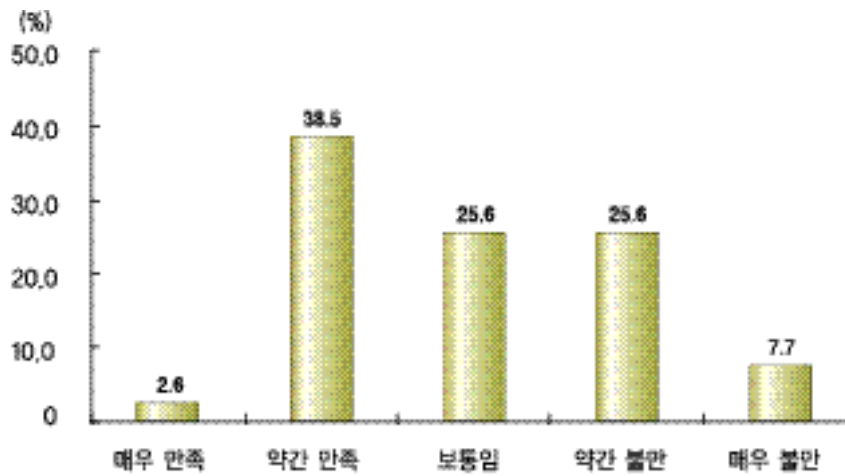


4-8.

5 가 “ 가 “ ” 20.5% .
 10.3% .
 70%

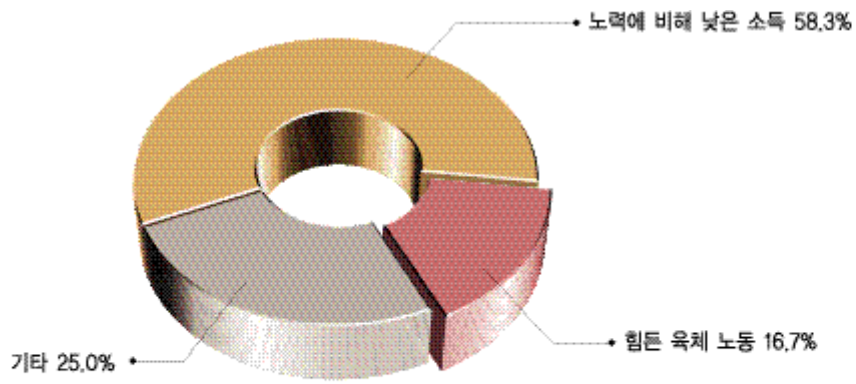


4-9. 5



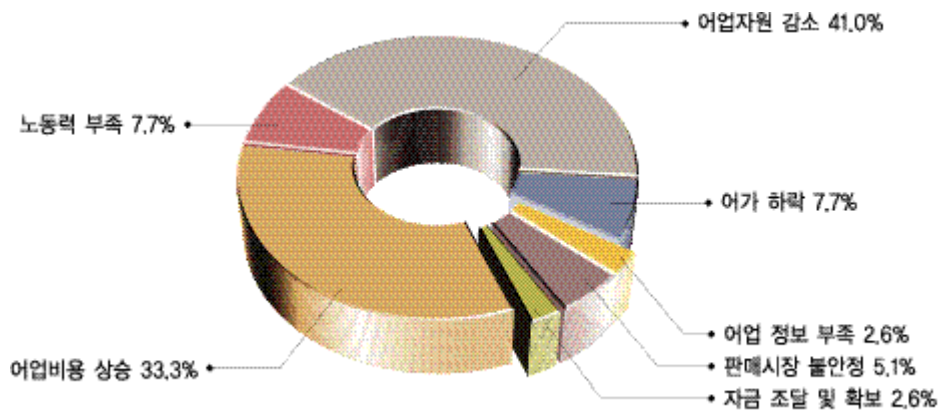
4-10.

“ ” 가 38.5%가
 , 33.3%
 , “ ”
 ” 58.3% 가 “ ”
 16.7% , 3D



4-11.

3 “ ” 41.0%가 “ ”
 , “ ” 33.3% ,
 가 ,

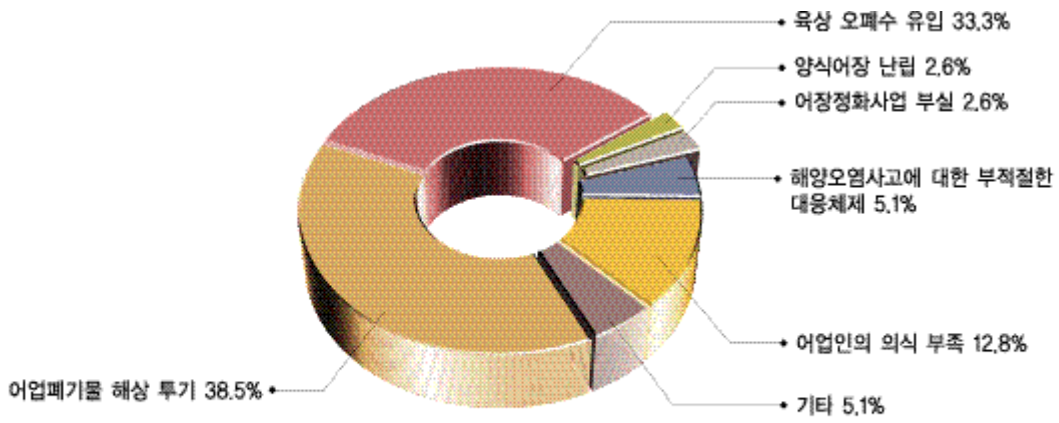


4-12.

(3)

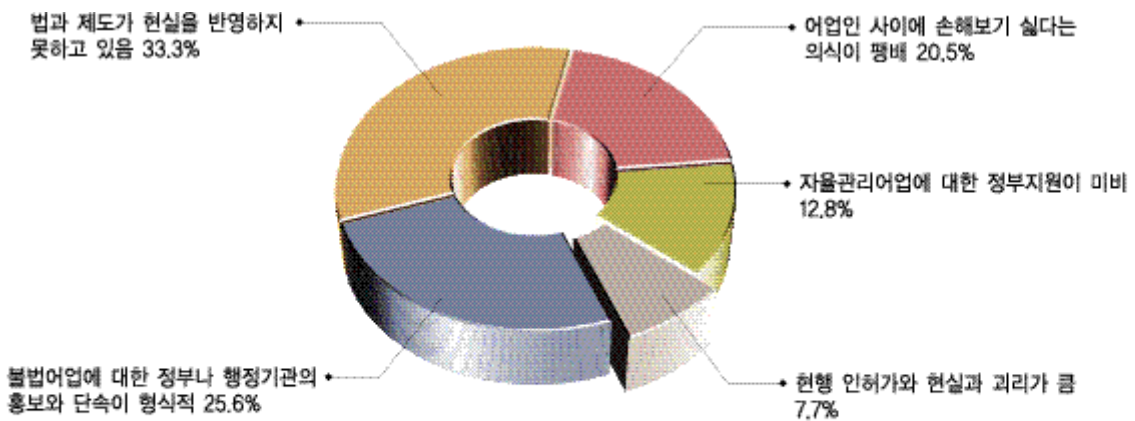
)

가 38.5%가 “ ” 33.3% ” 12.8% , “ ” “ ” 5.2% .

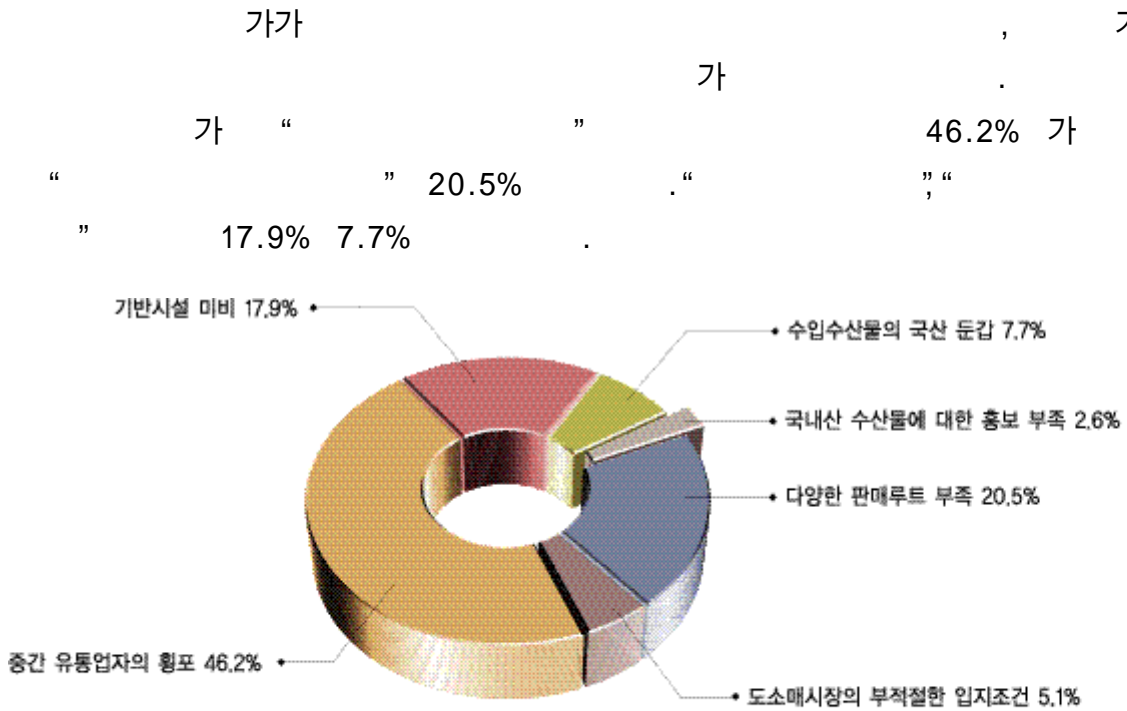


4-13.

가 가 , 가
 33.3%가 “ . 가 ” , “ 가
 ” 25.6% . 가
 “ ”
 20.5% , 가 .

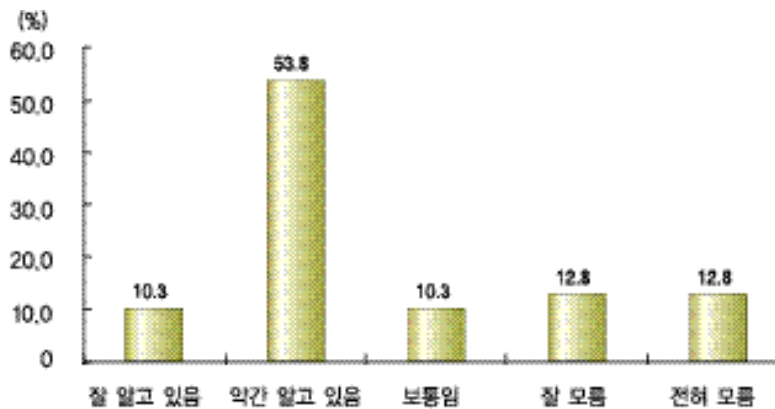


4-14.



4-15.

가 , 가 ,
(WTO, WTO)
WTO , (,)
가 , “
가 10.3%, “ ” 53.8%
64.1% “ ” “ ” 12.8%



4-16. WTO ()

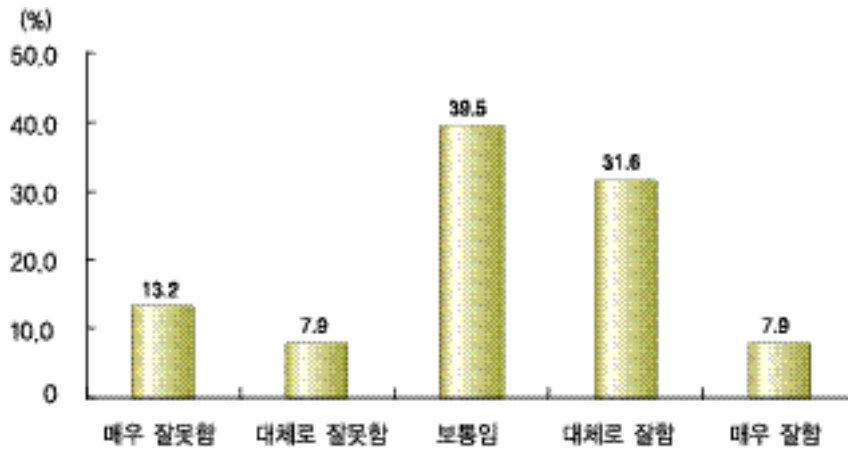
)

가

가

가

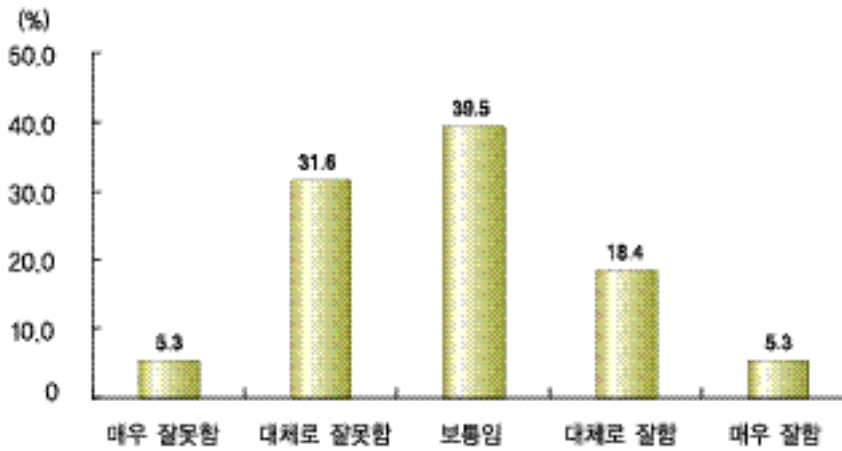
가 “ ” 가
 39.5% 가 “ ” 가
 7.9% 39.5% , “ ” “ ” 21.1%
 가 가



4-17.

가

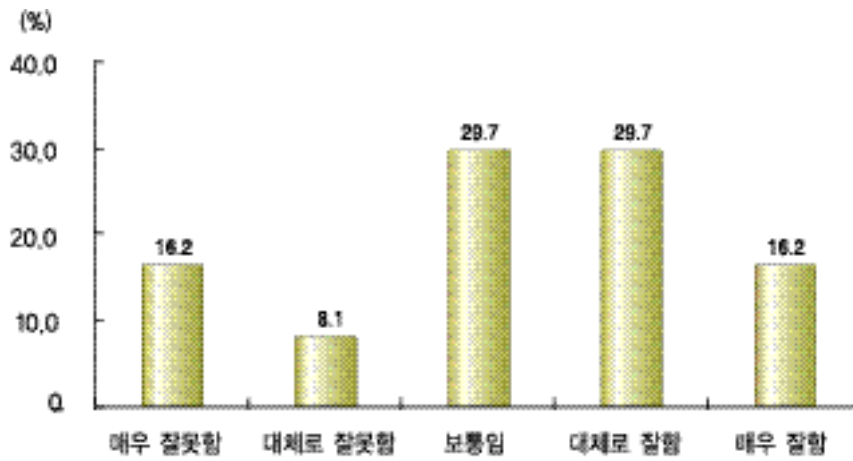
가가 39.5% 가
 가가 36.9% 23.7%
 가 가



4-18.

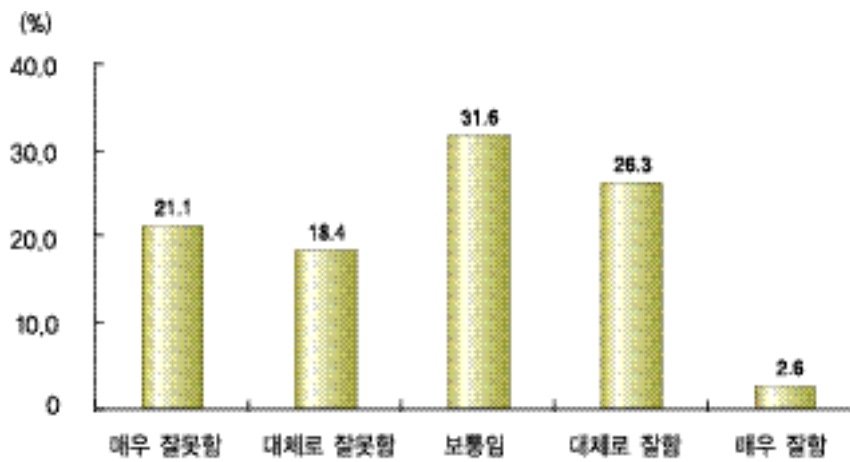
가

“ ”가 29.7% , 45.9%,
 가 24.3% .



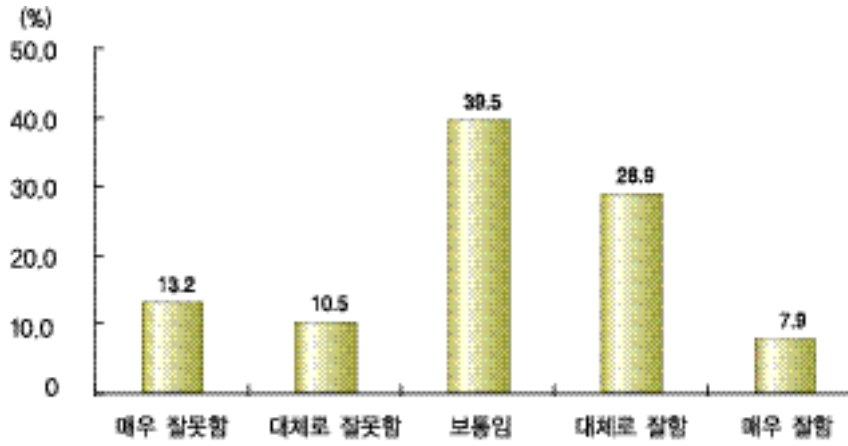
4-19. 가

, 가
 , 1980 “
 ” 가 31.6% 가 “
 가 21.1%, “ ” 18.4% , “ ” “ ”
 26.3%, 2.6% , 가가 39.5% 28.9% .



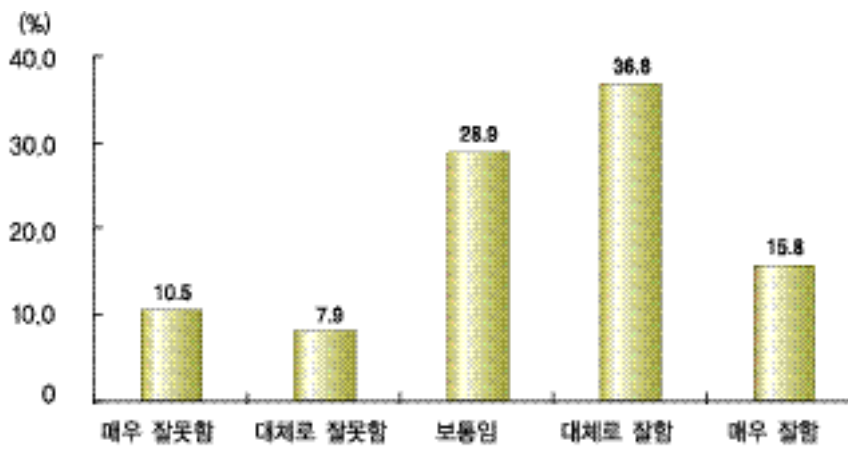
4-20. 가

“ 가 39.5% 가
 가 23.7%, 가 36.8%



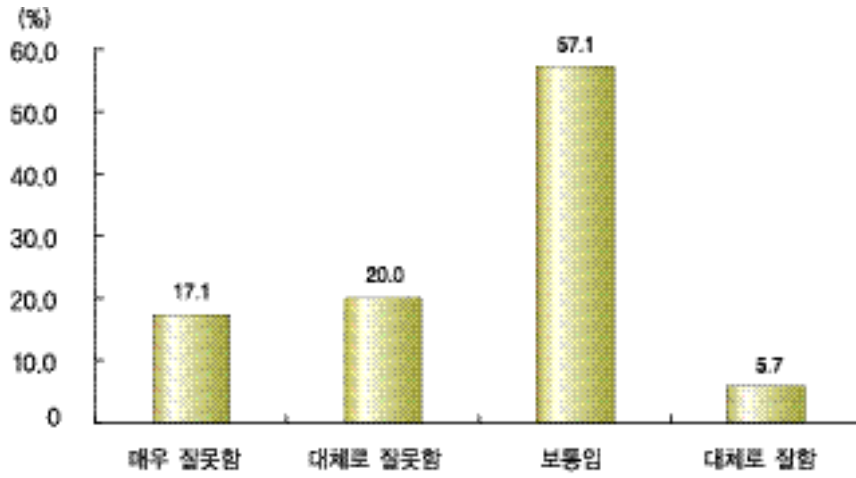
4-21. 가

가 28.9%가 “ ” 가
 가가 52.6% , 18.4%



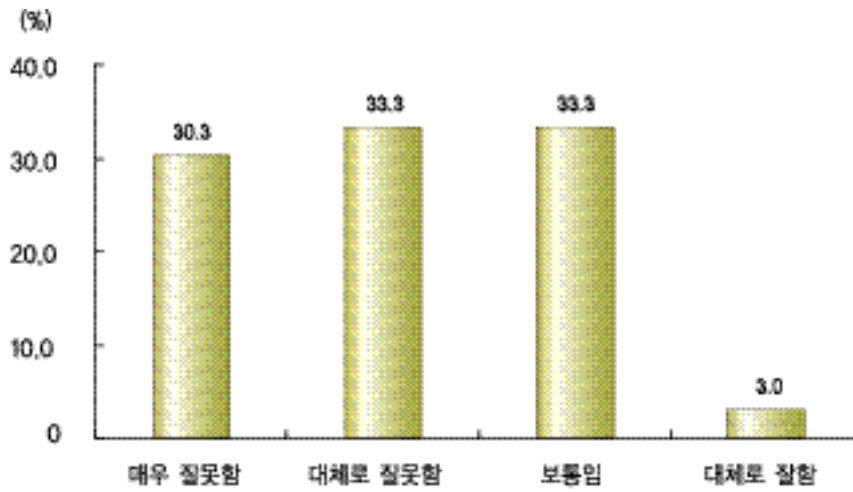
4-22. 가

가 57.1% “ ”
 가 20.0%, “ ” 17.1%
 , 가가 37.1%
 가



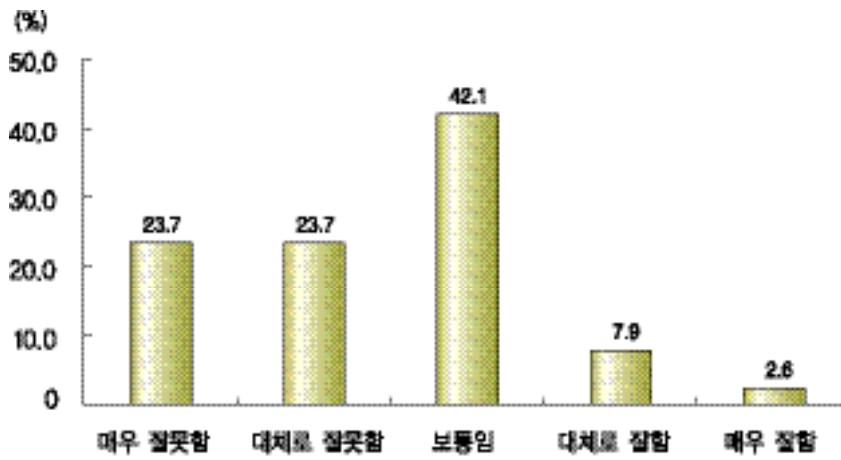
4-23. 가

WTO , FTA 가
 가 “ ”
 33.3% “ 가 33.3% , “ 가 30.3%
 63.6% 가

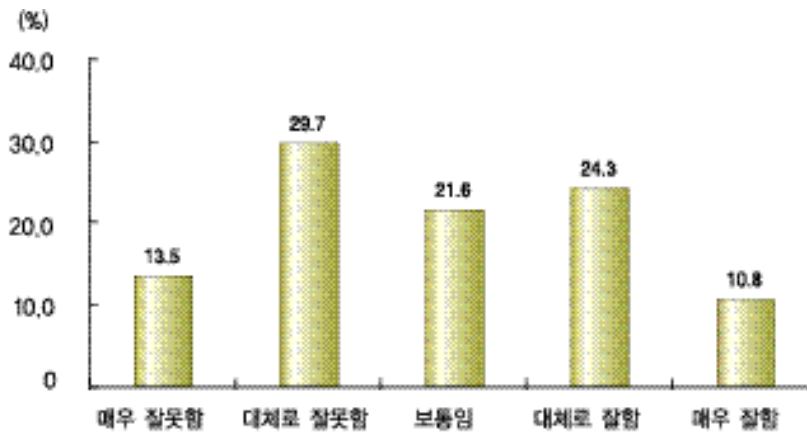


4-24. 가

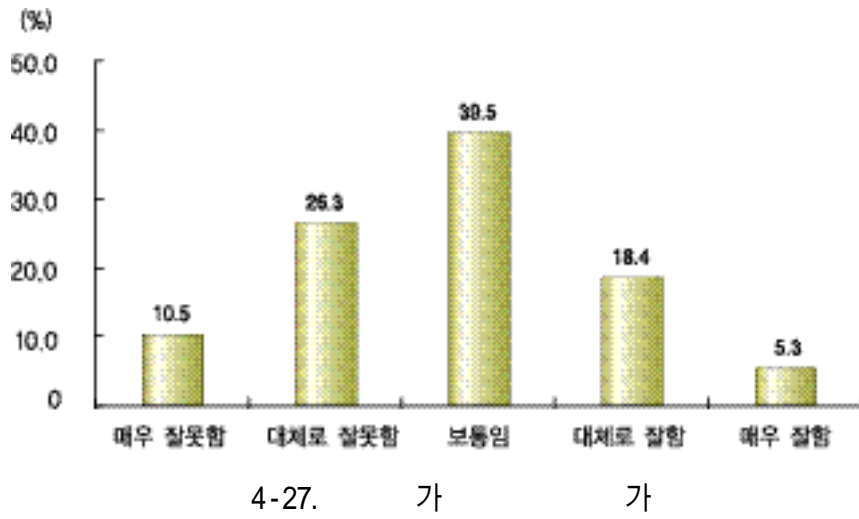
가가 . 가 .
 가 42.1%가 “ ” “
 ” 23.7%, “ ” 23.7% , 가
 47.4% . 가 10.5%



4-25. 가 . 가
 21.6%가 “ ” 가 .
 43.2%, 35.1% , 가



4-26. 가
 가
 가
 가 , 39.5%가 “ ”
 “ ” 18.4%, “ ” 26.3%, “ ” 10.5% 36.8%
 , “ ” 5.3% 23.7% . 가
 가 ,
 가 가 가



2)

가

가

가)

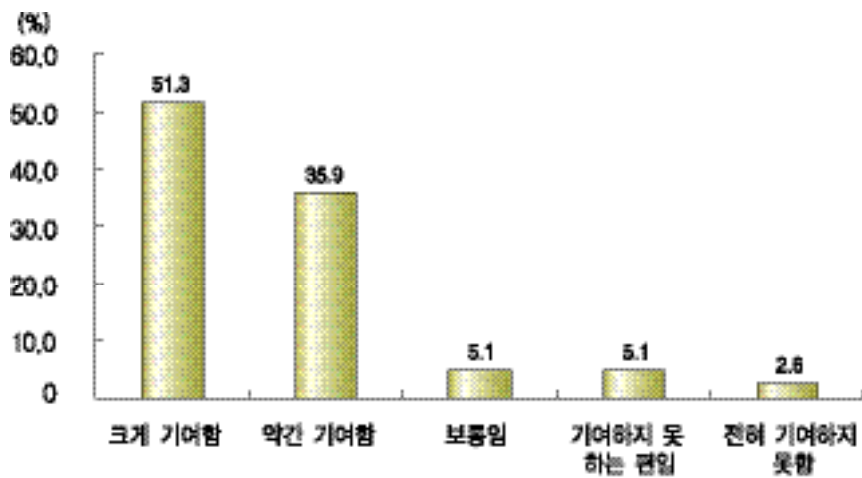
51.3% “

”

35.9% “

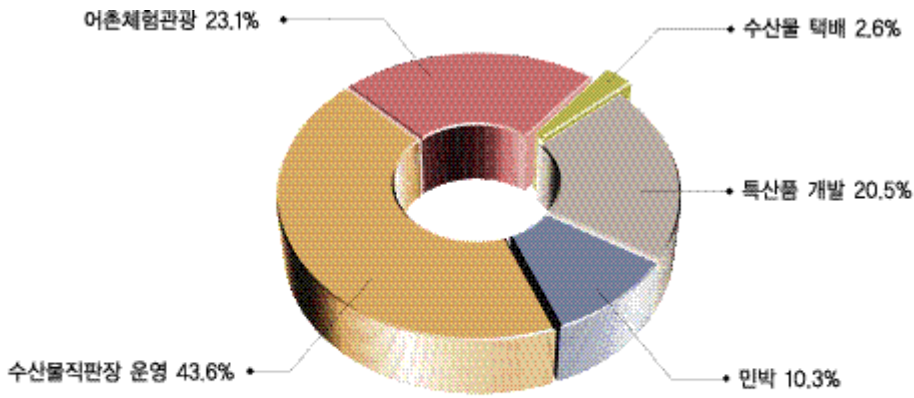
”

87.2%



가

, 가 43.6% “ ”, 23.1% “ ”

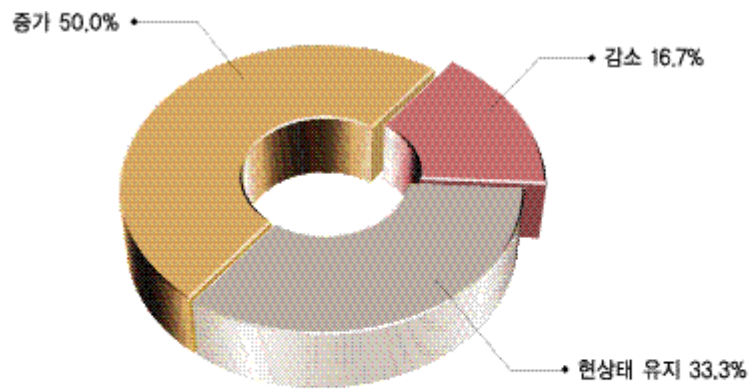


4-29. 가

) 가

가

, 50.0% “ 가 ”, 33.3% “ ”, 16.7%



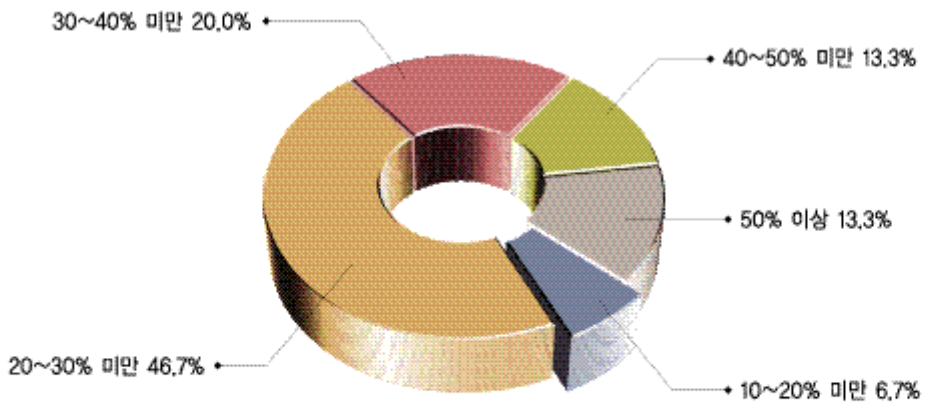
4-30.

가

46.7% “ 20 30% ”, “ 30 40% ”, “ 40 50% ”, “ 50% ”, “ 10 20% ”, 20.0%, 13.3%, 13.3%, 6.7%

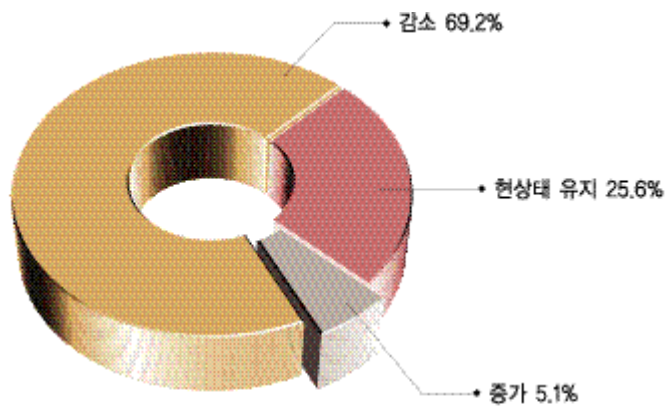
가

30% ” 가 . “ 20



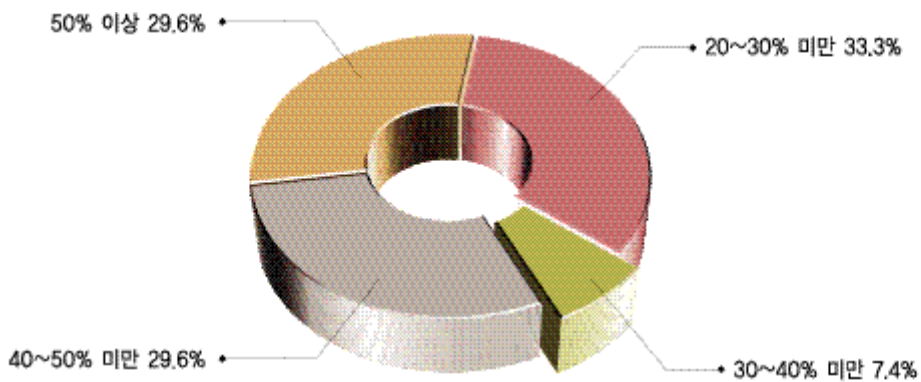
4-31.

가
 가가 가 ,
 가 69.2% “ ” ,
 “ ” “ 가 ”
 25.6%, 5.1%

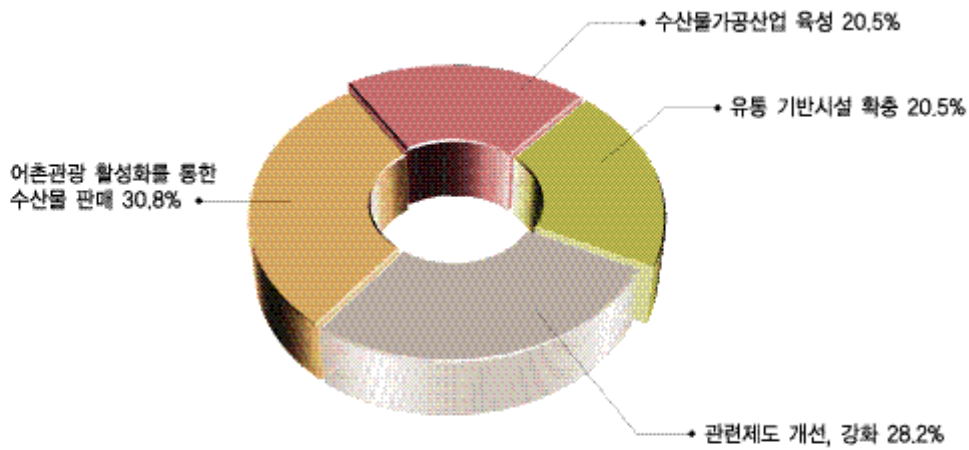


4-32. 가

가
 , 29.6% “ 40 50% ”, “ 50% ” 가 , “ 20 30% ”
 33.3%, “ 30 40% ” 7.4% 20%



4-33. 가

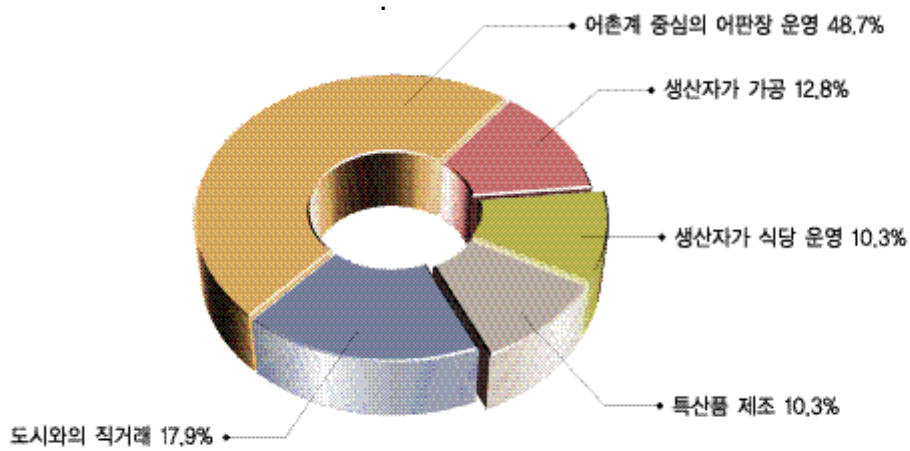


4-36. 가가 ()

가가

가 48.7%가 “ ”

“ ” 17.9% ,

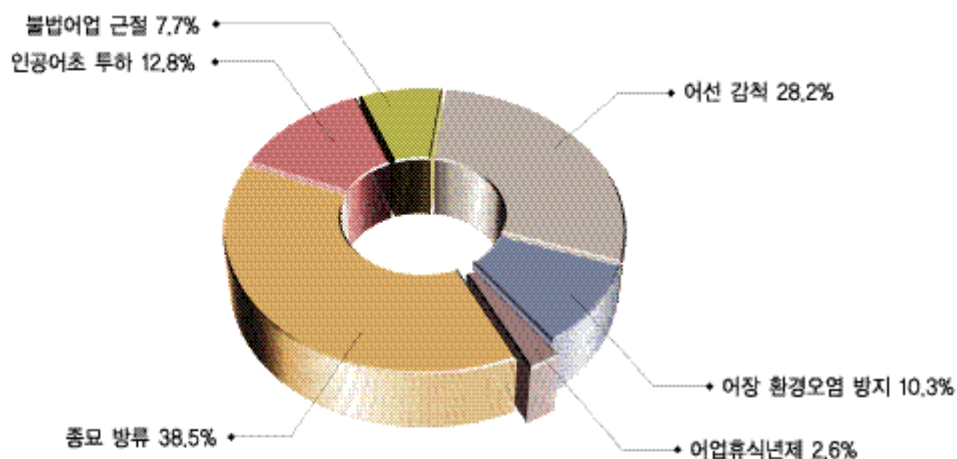


4-37. 가가 ()

가 38.5%

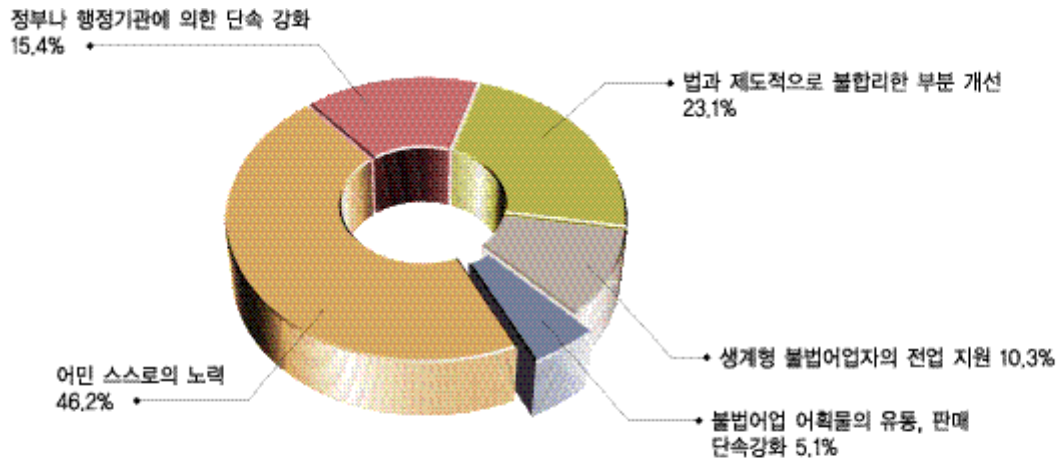
“ ”

“ ” 28.2%, “ ” 12.8%



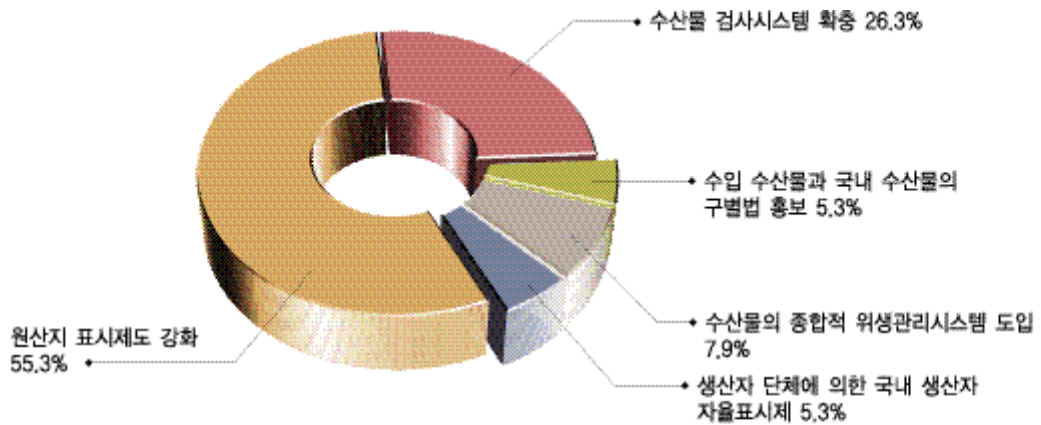
4-38.

가 46.2%가
 ” “
 ” “
 ” “
 가 23.1%, 15.4%, 10.3%, 5.1%



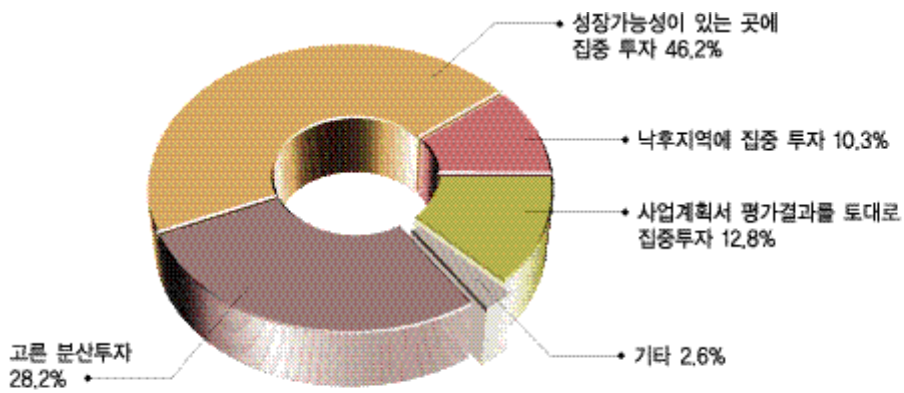
4-39.

가 , 가
 . , 55.3% “ ”
 . “ ” “ ” “ ” “
 ” 26.3%, 7.9%, 5.3%



4-40.

) 가 가 , 가 .
 가 46.2% “ 가 ” 가
 “ ” 28.2%, 가 “ 12.8%,”
 ”10.3% , ,
 가



4-41.

4-23.

	18	23.1
	9	11.5
	20	25.6
	5	6.4
	5	6.4
	8	10.3
	4	5.1
	-	-
가	6	7.7
	2	2.6
가	1	1.3
	78	100.0

Korean Coastal and Offshore Fishery Census

2004 12 5

2004 12 20

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⋮
⋮ , ,
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