

資料編1

F/S対象水揚げ地におけるベースラインデータの推計

資料編1 F/S 対象水揚げ地におけるベースライン・データの推計

1-1 ベースラインデータの必要性

F/S 対象地区における水産統計は、郡(Kecamatan)単位となっており、計画対象のモデルサイト別の漁船数、水揚げ量等の資料はない。また、個々の統計資料は、プロジェクトの F/S を行う上で充分ではない。

- 1) 漁船数は、船内機船(規模別)、船外機船、無動力船(規模別)であり、漁法別隻数は集計されていない(漁具ユニット数で集計されており、漁船数と合致しない)。県によっては、5年に一回の頻度で漁船調査が行われており、個々の漁船リストが作成されているが、その記載内容は統一されていない。
- 2) 水揚げ量は、県によっては月(または季節)別に集計されていないところがある。また、その集計方法は、基本的に漁船数に単位漁獲量と操業効率を掛けて算出したものであり、漁船の季節的移動等を含む操業パターンを考慮したものではない。
- 3) 水産物流通・加工に関する統計データは極めて限られている。

以上のような状況より、優先地区における F/S 調査にあたっては、モデルサイト別の関連ベースラインデータを収集・推計するため、優先地区内の主要水揚げ地 12 ヶ所における1ヶ月間の実測調査ならびに漁民記帳調査を実施した。この調査により得られたデータを整理・解析し、調査団独自による現地聴取結果を踏まえて、各モデルサイトにおける計画対象漁船数、水揚げ量を推計した。

1-2 計画水揚げ地で実施したベースライン調査の結果

2002年2-3月に間の約1ヶ月間、F/S 対象の4ゾーンに含まれる主要水揚げ地 12 ヶ所において実施したベースライン調査の結果は、それぞれ以下の各表に示した。

- (1) 漁船種別入港隻数 (Table 1-1)
- (2) 主要漁船(サンプル)の魚種別水揚げ量 (Table 1-2)
- (3) 主要魚種の魚体サイズ (Table 1-3)
- (4) 漁民記帳による操業記録 (Table 1-4)
- (5) 水揚げ地および主要市場における規模別仲買・小売人数 (Table 1-5)
- (6) 漁船および仲買・小売人リスト (Table 1-6)
- (7) 関連漁村別漁家数、漁民・婦人グループ数等 (Table 1-7)
- (8) 主要魚種の季節別浜値(漁民からの聴取結果) (Table 1-8)
- (9) 魚種別水揚げ量および比率 (Table 1-9)
- (10) 優先サイト別の計画漁船隻数及び水揚げ量 (Table 1-10)
- (11) 優先サイト別の月別計画水揚げ量及び利用量 (Table 1-11)

(12) 漁船操業パターン(調査団による現地聴取調査結果)(Figure 1-1)

(13) 月別水揚げパターン(Figure 1-2)

1-3 推計手順

1-3-1 漁船操業・水揚げ関連データの推計

(1) 漁船数

漁法別の漁船数は、現在、優先地区内の各モデルサイトを拠点として操業している動力漁船を対象とした現地聴取調査、1ヶ月間の調査で作成した漁船リスト(Table 1-6)、県水産局の既存漁船リスト(2000年調査、データが存在する県のみ)を総合的に検討して算出した。なお、無動力漁船については、1) 小運搬用の手漕ぎカヌーも含まれているため隻数を確定することが出来ないこと、2) 単位漁獲量が少なく水揚げ可能であること、等の事情から、水揚げ量算定の対象外とした(但し、無動力漁船が主体である Lamalera は除く)。サイト別に設定した対象動力漁船数は下表の通りである。

	発電機式 バガン	灯油ランプ 式バガン	巻網	刺網	釣り・ 曳縄	集荷船	その他
Waworada	22	18	44		14	25	
Kempo	33	-	10		14	80	
Hu'u	-	-	14	3	6	-	
Larantuka	-	26	10		30	-	
Lamahala Jaya	-	2	82		10	-	
Sagu	-	2	6	10	11	-	-
Lewoleba	-	47	3	10	2	-	-
Balauring	-	-	2	7	14	-	-
Lamalera	-	-	-	動力付 11, 無動力 40		-	捕鯨船 20(無動力)
Maumere	-	-	54	24	47	19	-
Paga	-	-	21	9	2	-	-
Ende	-	-	33		9	-	ランバラ 12

(2) 漁村・漁家数

漁家数は、関連する村(Desa)または字(Desun)ごとの集計数を各郡(村)で聴取したデータを用いた(Table 1-7)。

(3) 操業効率および1日当たり平均入港隻数

漁船種別の入港隻数実測データ(Table 1-1)と操業可能漁船数より2-3月における漁船操業効率を算出した。次いで、季節別漁船操業パターン(Fig. 1-1)に基づいて、季節別の操業効率と1日当たり平均入港隻数を算出した(Table 1-10)。

(4) 単位水揚げ量

1ヶ月間の水揚げ地調査による主要漁船の魚種別水揚げ量(Table 1-2)ならびに漁民記帳による操業記録(Table 1-4)より、2～3月における漁船種別1航海当たり単位漁獲量を推定した。なお、推定にあたっては、漁船規模、周辺域での水揚げ量等を勘案して、適正と考えられる数値に調整した。次いで、季節別漁船操業パターン(Fig. 1-1)より季節別の単位水揚げ量を推定した(Table 1-10)。

(5) 季節別操業可能日数

現地聴取および1ヶ月間の漁民記帳調査結果(Table 1-4)より、季節別、漁船種別の操業可能日数を算出した(Table 1-10)。

(6) 季節別水揚げ量

上記 3)、4)、5)から得られた結果より、各水揚げ地における漁船種別の月別水揚げ量を推計した(Table 1-11 参照)。また、水揚げ量の変遷傾向をみるため、多項式近似曲線によるグラフ化を行い、各地における盛漁期を設定した(Fig. 1-2 参照)。

(7) 水揚げ統計データとの比較・妥当性検証

上記の手順で積算されたモデルサイト別の年間水揚げ量を検証するため、モデルサイトに位置する郡別統計データと比較・検証した。その結果、各サイトとも推定水揚げ量は妥当な範囲と判断される(下表参照)。

モデルサイト	推定水揚げ量	統計値	検証・考察
Waworada	4,846	7,244 (2001年)	毎年1～3月の間、巻網漁船の約半数(22隻)は Sape、Sumbawa へ移動して操業していること、他村へ直接水揚げもあること等から適正な推定値と判断される。
Kempo	3,483	3,018 (2001年)	統計値より大きい、単位漁獲量、操業効率ともに過剰な設定とはなっておらず、妥当な範囲の誤差と考えられる。
Hu'u	1,310	2,123 (2001年)	毎年12～2月の間、同地水揚げの95%以上を占める巻網漁船の大半が Sape、Sumbawa へ移動して操業していることから妥当な推定値と判断される。
Larantuka	2,593	2,886 (1999年)	毎年3～10月の間、Lamahala Jaya の巻網漁船約25隻が Larantuka を拠点として操業していること、統計値のうち1,500・2,000トンはカツオー本釣り漁船の水揚げであること(推定値では含めていない)から、妥当なものとして判断される。
Lamahala Jaya	2,164	2,331 (1999年)	両サイトは同じ郡に位置し、その合計は統計値を超えている。推定値の試算にあたっては、毎年3～10月の Lamahala Jaya 巻網漁船が移動すること、洋上での漁獲物の直接販売することを考慮している他、単位漁獲量、操業効率ともに過剰な設定ではないことから、統計値が過小推計されていると考えられる。
Sagu	551		
Lewoleba	1,767	243 (1999年)	Lembata 県の水産統計は年2回の調査から類推したものであり、現実と合致したものではない。現に、同県が東フローレス県から独立する前の Lewoleba 地区の水揚げ量(東フローレス県統計)は約3,000トンである。
Balauring	361	171 (1999年)	
Lamalera	498 (内、鯨300)	76 (1999年)	

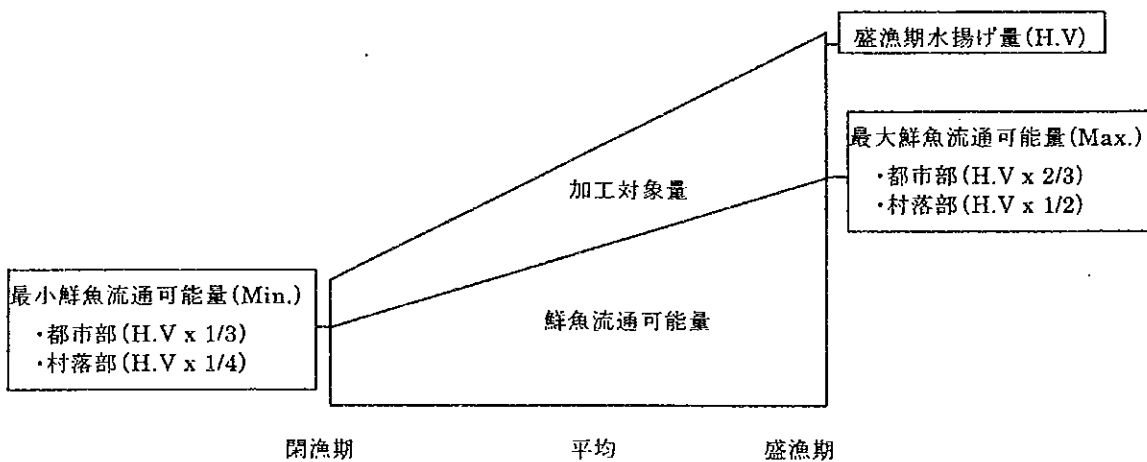
Maumere	3,251	4,542 (2001年)	統計値(Alok郡)より少ないが、推計値は計画サイト(Kalimati)に限定したものであり、同郡の漁村(Wuring, Nangafure等)に直接水揚げする漁船も多数あることから妥当な数値と判断される。
Paga	1,164	581 (2001年)	推計値は統計値よりも大きいですが、同地区の主力漁船である巻網の単位漁獲量、操業効率ともに過剰な設定ではないことから、統計値が過小推計されていると考えられる。
Ende	3,144	2,358 (2000年)	統計値、推計値ともに既存水揚げ浜(Mbongawani)におけるものであり、統計値は毎日の水揚げ調査に基づくもので信頼度は高い。しかしながら、推計値には、Lamahala Jayaからの洋上買付による移送推定量(720トン)が含まれていることから、妥当な数値といえる。

1-3-2 漁獲物処理・流通関連データの推計

(1) 処理方法別取扱量

現状分析

- 1) 現地踏査における聴取より、盛漁期には、村落部では概ね漁獲物の約 1/2 が、都市部では約 2/3 が鮮魚流通されていると推察される。このことから、上記1-3-1(6)で推計された月別水揚げ量のうち、最盛期には、村落部では水揚げ量の 1/2、都市部では 2/3 が鮮魚流通可能(1ヶ月当たりの最大鮮魚流通可能量)と仮定した。一方、盛漁期と閑漁期の魚価には概ね約2倍の格差がある。魚価は水揚げ量に概ね反比例して変動することから、水揚げの少ない時期には、最大鮮魚流通可能量の 1/2 が少なくとも鮮魚流通可能(1ヶ月当たりの最小鮮魚流通可能量)と仮定した。
- 2) 各月の水揚げ量と鮮魚流通可能量は、下図のモデルに示す関係にあると考えることができる。



上記モデルより、各月の鮮魚流通量(X)は、理論的に、各月の水揚げ量(A)、最大(Max.)および最小鮮魚流通可能量(Min.)、最盛月における水揚げ量(H.V.)より、以下の公式を用いて算出できる。

$$X = \text{Min.} + \{(A - \text{Min.}) \times (\text{Max.} - \text{Min.}) \div (\text{H.V.} - \text{Min.})\}$$

なお、閑漁期の水揚げ量が最小鮮魚流通可能量より低くなるサイトの場合は、全量鮮魚流通に供されると判断した。

- 3) 一方、水揚げ量の日変動に大きく影響する漁法はバガン、巻網である。各モデルサイトでの1ヶ月間の漁民記帳結果によると、バガン、巻網の漁獲量の日変動は、個々の漁船、サイトによって異なるものの、毎日の水揚げ量のうち平均水揚げ量を超える分の累計は総水揚げ量の約 20%であった。このことから、毎月の鮮魚流通量の 20%は鮮魚で販売できずに、値引き、放棄、加工処理などをせざるを得なく、流通上の経済的ロスを生じていると考えた。

改善計画

- 1) 改善計画における最大鮮魚流通可能量(Max.)は、現状と同じレベルに設定した。一方、計画実施により地域住民への鮮魚の安定的供給(魚価の安定化)を図られることから、最小鮮魚流通可能量(Min.)は、最大鮮魚流通可能量の2/3(最大と最小鮮魚流通可能量の格差:1.5倍)に設定した。
- 2) 上記の現状分析と同じ公式を用いて、各月の鮮魚流通量を算出した。但し、最盛月には、現状での売れ残り率 20%相当は、地元市場の消費能力を超える分と考えられる。従って、公式から算定される最盛月の鮮魚流通量の 80%に相当する量を上限として、毎月の地場市場向け鮮魚流通量を調整した。
- 3) 公式から算定される各月の鮮魚流通可能量から地元市場向け鮮魚流通量を差し引いた残りについては、地域別に次のように考えた。
 - A) ビマ及びドンブ地区
両地区内の各水揚げ地の盛漁期はほぼ同じであり、それ以西の消費都市(スンバワブサール、マタラム、デンパサール)もこの時期は市場は鮮魚で溢れていることから、余剰鮮魚は、域外市場向けの加工品の生産にあてる。
 - B) 東部および中部フローレス地区
盛漁期はサイトによって異なり、西部フローレス地区で魚が不足していることから、余剰鮮魚は鮮魚のまま域外市場に流通させる。
- 4) 各月の水揚げ量から上記で算出された鮮魚流通量(域内・域外)、域外市場向け加工量を差し引いた残りを域内市場向け加工量として設定した。

以上の手法によって解析した結果、各サイトでの月別の現況での鮮魚販売量、売れ残り量、加工量、ならびに計画実施後の鮮魚流通量(域内・域外)、加工量(域内・域外)は、Table 1-11にそれぞれ示す通りである。

(2) 仲買・小売人数・取扱規模

優先地区に含まれる各モデルサイトならびに主要小売市場における仲買・小売人数は、1ヶ月間の実測調査から得られた取扱規模別人数割合に基づいて、盛漁期における1日あたり平均鮮魚量(上記(1)参照)を取り扱うのに必要となる人数を推計した(Table 1-5)。その結果、今回の1ヶ月間に収

集された仲買・小売人リストにある人数より多くなっているサイトもみられたが、その理由は主に次の通りと考えられる。

- 1) 今回の実測調査期間は盛漁期にあたらなかったため、実際に活動している仲買・小売人が少なかった。
- 2) リスト作成に与えられた期間(1ヶ月間)が短すぎ、全数調査出来なかった。
- 3) 仲買・小売人がリスト作成に協力的でなかったところもある(以前に同様の調査を政府で行っておりその後何らの政府支援がなかったことに対する不満があったと推察される)。

Table 1-1. Numbers of Fishing Boats Entry at Each Model Site (Data from actual fish landing site survey in Feb.-Mar. 2002)

1. BIMA & DOMPU																
Location	WAWORADA (01/02/2002 - 25/02/2002, 25 days)					KEMPO (01/02/2002 - 28/02/2002, 28 days)					HUPU (02/02/2002 - 29/02/2002, 27 days)					
Type of Boats	Survey time	Bagan	Purse-Seine	Gill Net	Hand-line	Survey time	Bagan	Purse-Seine	Gill Net	Hand-line	Collect boat	Survey time	Purse-Seine	Gill Net	Hand-line	
No. of days of boats entry	05:00-08:00	21	-	17	-	04:00-07:00	15	16	25	26	19	Pagi/Siang	19	9	28	
	17:00-19:00	-	16	9	-	-	-	-	-	-	-	-	-	-	-	
Total No. of boats entry	06:00-09:00	38	-	185	-	04:00-07:00	302	113	288	517	657	Pagi/Siang	65	20	207	
	17:00-19:00	-	119	35	-	-	-	-	-	-	-	-	-	-	-	
No. of boats entry per day (average)	06:00-08:00	1.8	-	6.2	-	04:00-07:00	20.1	7.1	10.7	19.9	34.6	Pagi/Siang	3.4	2.2	8.0	
	17:00-19:00	-	7.4	3.9	-	-	-	-	-	-	-	-	-	-	-	
(max.)	06:00-08:00	3.0	-	9.0	-	04:00-07:00	29.0	9.0	20.0	46.0	72.0	Pagi/Siang	6.0	5.0	16.0	
	17:00-19:00	-	10.0	6.0	-	-	-	-	-	-	-	-	-	-	-	
No. of operatable days per month		25		19		25		17		27		28		21		29
Remarks: Gill net fishing boats include hand-line.																
2. FLORES TIMUR																
Location	LARANTUKA (Pelabuhan Unum, 11/02/2002 - 12/03/2002, 30 days)					SAGU (10/02/2002 - 07/03/2002, 26 days)					LAMAHAJA JAYA (11/02/2002 - 14/03/2002, 32 days)					
Type of Boats	Survey time	Purse-Seine	Gill Net	Hand-line	Others	Survey time	Bagan	Purse-Seine	Gill Net	Hand-line	Survey time	Bagan	Purse-Seine	Gill Net	Hand-line	
No. of days of boats entry	06:00-09:00	26	4	4	3	08:00-11:00	22	-	25	25	05:00-09:00	26	29	20	30	
Total No. of boats entry	06:00-09:00	105	4	7	3	08:00-11:00	97	-	252	948	05:00-09:00	27	915	70	105	
No. of boats entry per day (average)	06:00-09:00	4.0	1.0	1.8	1.0	08:00-11:00	4.4	-	10.1	37.9	06:00-09:00	1.0	31.6	3.5	3.5	
	(max.)	06:00-09:00	11.0	2.0	2.0	1.0	08:00-11:00	9.0	-	15.0	50.0	06:00-09:00	2.0	50.0	6.0	6.0
No. of operatable days per month		26		4		3		25		29		24		27		28
3. LEMBATA																
Location	LEWOLERA (12/02/2002 - 15/03/2002, 32 days)					BALAJURING (10/02/2002 - 07/03/2002, 26 days)										
Type of Boats	Survey time	Bagan	Purse-Seine	Gill Net	B. Long-line	Survey time	Purse-Seine	Gill Net	Hand-line	Collect boat						
No. of days of boats entry	06:00-07:00	26	32	31	5	06:00-16:00	26	26	26	26						
Total No. of boats entry	06:00-07:00	1,204	104	338	13	06:00-16:00	61	624	212	27						
No. of boats entry per day (average)	06:00-07:00	46.3	3.3	10.9	2.6	06:00-16:00	2.3	24.0	8.2	1.0						
	(max.)	06:00-07:00	47.0	4.0	12.0	4.0	06:00-16:00	3.0	28.0	19.0	1.0					
No. of operatable days per month		24		30		5		30		30						
4. SIKKA & ENDE																
Location	MAUMPRE (Kalimati, 16/02/2002 - 17/03/2002, 30 days)					PAGA & MAULOO (18/02/2002 - 18/03/2002, 29 days)					ENDE (Mbonsawari, 19/02/2002 - 18/03/2002, 28 days)					
Type of Boats	Survey time	Purse-Seine	Gill Net	Hand-line	Collect boat	Survey time	Purse-Seine	Gill Net	Hand-line	Survey time	Purse-Seine	Lampala	Gill Net	Hand-line	Pevang	
No. of days of boats entry	05:00-09:00	29	19	23	29	06:00-09:00	-	29	-	06:00-09:00	16	17	21	26	27	
		-	-	-	-	15:00-18:00	20	-	-	-	-	-	-	-	-	
Total No. of boats entry	05:00-09:00	838	58	63	242	06:00-09:00	-	406	-	08:00-09:00	37	33	113	345	272	
		-	-	-	-	15:00-18:00	144	-	-	-	-	-	-	-	-	
No. of boats entry per day (average)	05:00-09:00	28.9	3.1	2.7	8.3	06:00-09:00	-	14.0	-	06:00-09:00	2.3	1.9	5.4	13.3	10.1	
		-	-	-	-	15:00-18:00	7.2	-	-	-	-	-	-	-	-	
(max.)	05:00-09:00	48.0	6.0	6.0	19.0	06:00-09:00	-	16.0	-	06:00-09:00	4.0	4.0	10.0	19.0	20.0	
		-	-	-	-	15:00-18:00	14.0	-	-	-	-	-	-	-	-	
No. of operatable days per month		29		19		23		29		28		17		18		28
Remarks: Gill net fishing boats include hand-line.																

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Table 1-2. Fish Landing Volume by Major Types of Sample Boats
(Data from actual fish landing site survey in Feb.-Mar. 2002)

A. BAGAN												
Location	WAWORADA			REMPO			LAMAHALA		SAGU			LEWOLERA
Sample No.	No.1	No.2	Average	No.1	No.2	Average	Average	No.1	No.2	Average	Average	
No. of days surveyed (days)	25	25	25	28	28	28	28	29	29	29	28	
No. of days with fish landing (days)	20	22	21	17	20	11	20	20	20	20	26	
Total landing volume per boat (kg)	6,800	9,290	8,020	2,175	1,838	1,838	3,304	5,100	4,430	4,765	26,737	
(By Species) Lavang	6,700	8,830	6,765	315	175	175	1,988	0	0	0	13,925	
Tuna	0	2,550	1,300	0	0	0	0	0	0	0	0	
Tembung	0	0	0	325	0	183	0	200	595	413	11,188	
Lembung	0	0	0	625	625	625	0	0	0	0	0	
Serlin	0	0	0	0	0	0	1,180	1,750	600	1,175	0	
Kembung	0	0	0	250	0	125	0	0	0	0	0	
Paperek	0	0	0	450	135	288	0	0	0	0	0	
Juluna2	0	0	0	0	0	0	0	3,050	2,525	2,788	0	
Melus	0	0	0	0	0	0	0	0	780	390	1,923	
Tonkol	0	0	0	25	200	113	0	0	0	0	0	
Cumi2	0	0	0	0	0	0	135	0	0	0	0	
Others	0	0	0	25	113	69	0	0	0	0	0	
Landing volume per day (kg/day)	340	426	383	181	154	168	114	255	222	238	1,028	

B. PURSE SEINE									
Location	WAWORADA			REMPO			HU'U		
Sample No.	No.1	No.2	Average	No.1	No.2	Average	No.1	No.2	Average
No. of days surveyed (days)	25	25	25	28	28	28	27	27	27
No. of days with fish landing (days)	11	11	11	3	9	6	19	19	19
Total landing volume per boat (kg)	2,328	4,689	3,509	720	2,660	1,689	4,825	5,175	5,000
(By Species) Tonkol	2,325	120	1,223	0	90	45	0	0	0
Tuna	0	4,560	2,280	0	0	0	0	0	0
Cakarang	0	0	0	0	0	0	625	490	513
Lavang	0	0	0	180	765	473	725	875	792
Kembung	0	0	0	425	165	340	0	0	0
Paperek	0	0	0	0	315	158	0	0	0
Tembung	0	0	0	0	1,035	518	0	0	0
Juluna2	0	0	0	0	180	90	0	0	0
Others	3	9	6	45	90	68	3,175	3,325	3,250
Landing volume per day (kg/day)	212	426	319	240	339	285	254	272	263

C. GILL NET								
Location	LABANTUKA		LAMAHALA		SAGU		LEWOLERA	
Sample No.	Average	Average	No.1	No.2	Average	Average	Average	
No. of days surveyed (days)	26	32	22	22	22	26	26	
No. of days with fish landing (days)	26	30	22	22	22	26	26	
Total landing volume per boat (kg)	72,327	8,321	6,325	6,915	6,570	19,075	6,308	
(By Species) Tonkol	873	955	0	0	0	0	0	
Lavang	9,262	6,451	0	0	0	0	0	
Kembung	59	0	1,630	5,660	3,655	6,523	0	
Tembung	1,842	0	80	0	33	0	0	
Juluna2	0	0	4,485	1,255	2,870	0	0	
Selar	639	0	0	0	0	0	0	
Batu	0	845	40	0	20	0	0	
Cumi2	0	60	0	0	0	0	0	
Ekor kerling	0	0	0	0	0	6,185	0	
Others	52	0	0	0	0	0	0	
Landing volume per day (kg/day)	470	277	283	314	399	731	0	

D. HAND-LINE									
Location	MAUMERE		PAGA			ENDE			
Sample No.	No.1	No.2	Average	No.1	No.2	Average	Purse Seine	Lampala	
No. of days surveyed (days)	30	30	30	10	10	10	28	28	
No. of days with fish landing (days)	29	29	29	10	10	10	16	17	
Total landing volume per boat (kg)	20,243	19,326	19,785	6,547	4,163	5,356	4,125	7,925	
(By Species) Tonkol	7,027	6,007	6,517	0	0	0	1,439	0	
Cakarang	0	0	0	0	0	0	1,525	0	
Lavang	4,084	6,180	5,122	3,413	1,835	2,624	0	7,053	
Kembung	2,484	221	1,338	160	0	80	0	380	
Tembung	0	0	0	1,427	1,197	1,312	0	85	
Juluna2	0	0	0	0	0	0	1,170	0	
Selar	5,214	4,359	5,087	1,547	1,133	1,340	0	405	
Garai	1,236	1,611	1,423	0	0	0	0	0	
Others	748	318	283	0	0	0	0	0	
Landing volume per day (kg/day)	678	666	682	655	417	536	258	466	

E. GILL NET										
Location	HU'U		BALAURING		LAMALERA		PAGA		ENDE	
Sample No.	No.1	No.2	Average	No.1	No.2	Average	No.1	No.2	Average	Average
No. of days surveyed (days)	27	27	27	29	25	29	29	29	29	28
No. of days with fish landing (days)	10	8	9	29	22	29	29	29	29	21
Total landing volume per boat (kg)	570	460	515	795	1,015	2,052	1,634	1,843	1,843	751
(By Species) Cakarang	225	180	203	0	0	0	0	0	0	240
Tuna	0	0	0	0	0	0	0	0	0	156
Tonkol	0	0	0	134	0	0	0	0	0	0
Bambangan	0	0	0	29	0	0	0	0	0	0
Batonang	0	0	0	19	0	0	0	0	0	0
Selar	0	0	0	347	0	948	743	846	846	0
Lavang	0	0	0	257	0	1,104	591	996	996	0
Kembung	0	0	0	8	0	0	0	0	0	0
Tembung	0	0	0	0	1,015	0	0	0	0	116
Hu	165	115	140	0	0	0	0	0	0	0
Pati	0	0	0	0	0	0	0	0	0	232
Others	180	165	173	0	0	0	0	0	0	0
Landing volume per day (kg/day)	57	58	57	27	45	71	56	64	64	36

F. HAND-LINE								
Location	LABANTUKA		BALAURING		PAGA		ENDE	
Sample No.	Average	Average	No.1	No.2	Average	Average	Average	
No. of days surveyed (days)	26	29	29	29	29	29	28	
No. of days with fish landing (days)	3	29	29	29	29	27	27	
Total landing volume per boat (kg)	360	1,177	435	360	398	348	348	
(By Species) Tuna	0	477	435	360	398	0	0	
Cakarang	0	139	0	0	0	0	0	
Tonkol	0	495	0	0	0	0	0	
Abu	0	0	0	0	0	35	0	
Lava	0	0	0	0	0	19	0	
Kayu	0	0	0	0	0	76	0	
Kembung	0	0	0	0	0	41	0	
Lavang	0	0	0	0	0	5	0	
Selar	0	0	0	0	0	7	0	
Semir	0	0	0	0	0	3	0	
Kakap/Bambangan	350	66	0	0	0	102	0	
Landing volume per day (kg/day)	120	41	15	12	14	13	13	

Table 1-3. Average Size of Major Fish Species at Each Model Site (Data from actual fish landing site survey in Feb.-Mar. 2002)

1. BAGAN																
Location	WAWORADA		KEMPO		LAMAHALA JAYA		SAGU		LEWOLBBA							
	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)						
Layang	200	15.8	120	13.5	30	18.6	91	12.6		14.0						
Teri	50	4.5														
Cumi2	20	2.5			24	5.7										
Lemuru			120	13.5												
Tembong			110	14.1						16.0						
Sardine			10	13.5	28	14.0										
Julung2			20	14.5			100	11.5								
Peperok			70	4.2												
Tongkol			30	22.7												
Kombung			50	24.8			37	14.1								
Melus										15.0						
2. PURSE SEINE																
Location	KEMPO		HU'U		LARANTUKA		LAMAHALA JAYA		SAGU		LEWOLBBA		MAUMERE		ENDE	
	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)
Lemuru	80	13.3	270	13.4												
Layang	70	13.5			125	20.8	27	22.2	67	15.6			153	8.4		
Tembong	30	13.0			50	14.6										
Sardine							15	15.2	66	11.4						
Kombung	80	22.7									18.0					
Peperok	80	4.5														
Julung2	10	16.0	370	19.7					63	17.7					80	19.5
Tongkol	10	25.0			20	20.2	12	29.0			21.0	159	11.5	70	27.8	
Cakarang														40	50.6	
Cumi2							24	6.0								
Solar					75	13.8							155	7.6		
Bkor kening											19.0					
3. GILL NET																
Location	HU'U		LAMALERA		PAGA		Remarks (Observation by the Team in Mar. 2002)									
	No. samples	B.L. (cm)	No. samples	B.L. (cm)	No. samples	B.L. (cm)	Species	Size	Larantuka							
Cakarang	75	22.2					Tongkol	500g/pc	100g/pc							
Hlu	50	59.0					Tuna	3 kg/pc	-							
Terbang			237	18.7			Layang	30g/pc	150g/pc							
Layang					212	10.7										
Solar					205	8.8										
4. HAND-LINE																
Location	PAGA															
	No. samples	B.L. (cm)														
Tuna	149	30.0														
Cakarang																
Reference: Relationship between Body Length and Weight																
Tongkol		Solar		Layang		Sardin/Lemuru/Tembang		Kombung		Julung2						
B.L.(cm)	B.W.(g)	B.L.(cm)	B.W.(g)	B.L.(cm)	B.W.(g)	B.L.(cm)	B.W.(g)	B.L.(cm)	B.W.(g)	B.L.(cm)	B.W.(g)					
14	50	11	40	16	60	13	30	17	100	18	60					
15	60	12	50	17	100					19	80					
16	80	13	60	18	120					20	100					
17	90	14	70	19	140											
18	100			20	150											
19	110			21	160											
20	150															
21	200															
22	250															
23	300															
24	330															
25	350															
26	380															
27	400															

Table 1-4. Fishermen's Log-Book Data (1)

WAWORADA (01/02 - 28/02/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Sarjan	43	Gill Net		05-19	No	9	20	2	12	117	10	Tongkol, Tuna, Tenggiri, Maloja, Bangkolo
2	Umar Ismail	50	Gill Net		05-19	No	9	20	3	25	258	10	Tongkol, Tuna, Tenggiri, Merlin, Bangkolo
3	Jakarya Aina Moba	55	Gill Net	1"	05-19	No	9	20	2	23	450	20	Tongkol, Tuna, Kembung, Layang, Bangkond
4	H. M. Nor	45	Gill Net		04-19	No	9	20	2	19	375	20	Tongkol, Tuna, Tenggiri, Layang, Bawal Hitam
5	Berhina	28	B. Trolling #6		06-17	No	4.5	5.5	1	13	27	2	Seni, Kerapu
6	M. Nor	36	B. Trolling #6/7		05-17	No	4.5	5.5	1	20	44	2	Seni, Kerapu, Tenggiri, Bangkolo
7	Sulaiman	28	B. Trolling		06-17	No	4.5		1	16	37	2	Seni, Bangkolo
8	Amirudin	23	B. Trolling		06-17	No	4.5	5.5	1	18	40	2	Seni, Kerapu, Kakap, Tenggiri, Ekor Bulef
9	Ibrahim Maja	50	Bagan Lis.		19-07	Lamp	31	23	17	26	7,290	280	Teri
10	H. Yusup	50	Bagan Lis.	32x23m	16-06	Lamp	33	23	9	20	1,590	80	Teri, Layang, Mixed
11	H. Ridwan	45	Bagan Lis.	32x20m	18-06	Lamp	33	20	15	26	4,830	186	Teri
12	H. Baharudin H.	43	Bagan Lis.		06-16	Lamp	21	20	10	21	10,200	485	Teri, Mixed
13	H. M. Said H. Sanlanan	50	Purse Seine		08-20	No	10	23	8	15	1,355	90	Tongkol, Julung?
14	H. M. Said	48	Purse Seine		06-18	No	10	23	7	17	4,818	287	Tongkol, Sardin
15	H. Setu	40	Purse Seine		08-20	No	10	23	8	26	4,860	187	Tongkol, Tuna, Sawbala, Julung?, Kompad
16	H. Mansyur	42	Purse Seine	1"	06-19	No	9.5	23	8	17	2,300	135	Tongkol
KEMPO (01/02 - 28/02/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Basri H. M. Saleh	45	Purse Seine	250x50mx1/2"	16-06	Lamp	15	23	15	16	2,798	175	Layang, Lemuru, Tembang, Ori?
2	Abdullahman M. Hasan	35	Purse Seine	330x50mx1/2"	15-07	Lamp	17	23	15	9	2,620	291	Sardin, Layang, Peperek, Tembang
3	Maman	46	Bagan Lis.	17x10m	16-05	Lamp	17	23	6	15	1,255	88	Sardin, Layang, Tembang, Peperek, Kembung
4	Aksh H. Santul	50	Bagan Lis.	01x13m	16-07	Lamp	21	16/20	11	15	1,400	93	Lemuru, Layang, Tembang, Peperek, Ori?
5	Sulaiman	37	B. Handline	#6/7/8/9	04-11	No	6		1	22	334	14	Mixed
6	Bakar Dure	31	B. Handline	#6/7/8/9	04-11	No	6		1	23	81	4	Mixed
7	Ibrahim Ahmad	30	B. Handline	#6/7/8/9	04-11	No	6	5.5	1	23	331	14	Mixed
8	Suzaidin Akhbar	37	B. Handline	#6/7/8/9	04-11	No	6	5.5	1	25	600	24	Mixed
9	Ike Sulaiman	45	Gill Net	500x50mx1"	16-07	No	12	16	2	15	1,362	91	Kembung, Tongkol, Bota?, Remo?, etc.
10	Ibrahim H. Wada	25	Gill Net	500x50mx2"	16-07	No	12	16	2	14	1,437	103	Kembung, Tongkol, Bota?, Remo?, etc.
HU'U (02/02 - 28/02/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	H. Hasan	60	Purse Seine	400x15mx1"	07-15	No	12	23	10	16	8,750	547	Julung?, Cakarng, Lemuru, Kembung, etc.
2	H. Abubakar	58	Purse Seine	400x15mx1"	07-15	No	12	24	10	16	6,042	378	Julung?, Cakarng, Lemuru, Kembung, etc.
3	Sulaiman	47	Gill Net		15-20	No	10	23	3	7	340	49	Hiu, Cakarng, etc.
4	H. Maja	49	Gill Net	1.5"	16-20	No	12	23	3	6	415	69	Hiu, Cakarng, etc.
5	Syamsudin	24	Pancing D.		05-10	No	5	7	2	16	301	13	Kerapu, Kakap, Tenggiri, etc.
6	Adi Muledi	42	Pancing D.		05-11	No	5	7.5	2	17	297	17	Kerapu, Kakap, Tenggiri, etc.
7	Irwani	24	Rawal		16-07	No	4		2	25	111	4	Kerapu, Kakap, Tenggiri, etc.
8	Salah	25	Pancing D.		16-07	No	4		2	25	111	4	Kerapu, Kakap, Tenggiri, etc.
9	Solo	32	Rawal		16-07	No	5	7.5	2	16	376	24	Kerapu, Kakap, Tenggiri, etc.
10	Safudin	37	Rawal		16-09	No	6	7.5	2	16	359	22	Kerapu, Kakap, Tenggiri, etc.
LARANTUJA (03/02 - 10/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Alihasu	37	Bagan	12x11m	18-06	Lamp	12	16	3	11	450	41	Layang, Tembang
2	Salah Umar	31	Purse Seine	400x30mx2.5"	05-17	No	10	22	8	16	970	61	Julung?, Cendro
3	Ibrahim Narek	23	Purse Seine	250x50mx2.5/1.5"	17-06	Lamp	12	30	8	14	5,835	417	Melus, Badur, Mata kenak
4	Musah Busis	35	Purse Seine	150x17mx2.5"	04-12	No	13	20	9	25	2,575	103	Julung?, Tembang
5	Mustapa Lambulawa	33	Purse Seine	150x17mx2.5"	04-12	No	9	16	7	23	1,675	73	Julung?, Tembang
6	Syokur Leton	43	B. Gill Net	400x1.5mx2.5"	00-08	No	8		2	19	321	12	Mixed
7	Deseng Busis	26	B. Gill Net	400x1.5mx2.5"	02-09	No	5.5		2	12	40	3	Boronang, Kakap, Lencam, Bijnang
8	Serfus D.Y.G.	43	M. Gill Net	20x10mx1.5"	18-22/00-04	Pumpen	4	7	1	27	389	14	Melus, Layang, Tonkol, Kuwe, Sensus, etc.
9	Hans Labuan	35	M. Gill Net	20x10mx1.5"	04-08/16-24	Pumpen	4	7	2	26	177	7	Melu, Tongkol, Layang
SAGU (10/02 - 11/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Syamsul	57	Purse Seine	240x27mx1"	05-11	No	12	16	9	26	9,560	368	Julung?
2	Jalani	21	F. Gill Net	450x1.5mx1.5"	05-12	No	8	3.5	1	28	1,054	37	Terbang, Julung?, Melus
3	Jalini	29	FB Gill Net	450x1.5mx1.5-2.5"	04-10/16-0	No	8	7	1	27	992	37	Terbang, Batu
4	Asrin	34	B. Gill Net	350x7.5mx2.5"	06-12	No	12	16	3	28	29,613	1,058	Cendro, Kembung
5	Ibrahim Nur	31	B. Gill Net	160x10mx1.5"	17-05	No	5.5		1	28	585	21	Melus, Julung?, Tembang
6	Lx acu	84	B. Gill Net	120x1mx2"	02-07	No	5		1	10	271	27	
LAMAHALA JAWA (11/02 - 12/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Taibin Urung	36	Bagan	13x12m	18-06	Lamp	13	26	3	22	4,295	195	Layang, Tembang, Cumi?
2	Luhnan Jamil		Bagan			Lamp	(Unable to collect catch data sheet due to operation in TI Kongz)						
3	Bakrim H. Taber	40	Purse Seine	300x60mx1"	17-06	Pumpen	15	24	12	21	17,072	813	Layang, Tembang, Tongkol, Cumi?
4	Mansya Uren		Purse Seine			Pumpen	(Unable to collect catch data sheet due to operation in Lewoleba)						
5	Abdan Waker	31	Purse Seine	240x60mx1.5"	17-06	Lamp	12	24	9	21	11,716	558	Layang, Tembang, Tongkol, Kembung, Cumi?
6	Telip Saleh		Purse Seine			Lamp	(Unable to collect catch data sheet due to operation in Lewoleba)						
7	Baharudin	45	F. Gill Net	240x10mx3"	17-06	No	8	12	2	20	278	14	Tongkol, Kembung
8	Belamang Ali	30	F. Gill Net	300x10mx3"	17-06	No	7	5.5	2	20	278	14	Tongkol, Kembung
9	Sena Kuning	50	F. Gill Net	300x10mx3"	17-06	No	5		2	20	272	14	Tongkol, Kembung
10	Safudin Bima	40	Pancing		17-06	No	6	6	2	23	314	14	Kerapu, Batu, Hiu, Ekor kening

LEWOLERA (12/02 - 13/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Hasan Fanni	32	Baran	15x16m	18-06	Lamp	16	20	4	21	6,200	324	LAVANA, LUKE, REMBANG, TEMBANG
2	Hasanudin	34	Baran	15x16m	18-06	Lamp	16	20	4	25	8,750	350	LAVANA, EKOR KENING, MELUS, TEMBANG
3	Ahmad Kasim	39	Purse Seine	490x24mx1.5"	17-06	Lamp	10.5	16	8	30	4,920	164	TONGKOL, LAVANG, MELUS
4	Umar H. Taber	38	Purse Seine	500x35mx1"	17-06	Lamp	15	20	12	29	16,250	560	LAVANA, TEMBANG, TONGKOL
5	Rudi Narek	36	F. Gill Net	600x7mx 3'	17-08	No	6	5.5	1	30	383	13	KEMBUNG, TONGKOL
6	Ridwan Beta	39	F. Gill Net	600x7mx 3'	17-06	No	6	5.5	2	25	230	9	KEMBUNG, TONGKOL
7	Mohamad Nur	43	Hand-line		07-13	No	4	5.5	1	30	114	4	PERAS, TONGKOL
8	Diafer	28	Hand-line		06-15	No	4.5	3.5	1	28	171	6	PERAS, TONGKOL, BATU
9	Syahudin	31	B. Handline		05-15	No	6			23	111	5	TONGKOL, PERAS, KERAPU, EKOR KENING
10	Ode Umar	40	B. Handline		08-13	No	6		1	30	250	8	TONGKOL, BATU, PERAS
BALAURING (14/02 - 15/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Rusman Haji Lada's	25	F. Gill Net	18x12mx1.5/1.75/2"	17-06	Rumpon	6	7	1	29	6,416	221	LAVANG
2	Ahmad Haji	36	F. Gill Net	18x9mx1.25/1.5/2"	17-08	Rumpon	5	7	1	7	140	20	LAVANG, SELAR
3	Baharudin Mohamad	31	F. Gill Net	12x9mx1.5/1.75/2"	15-06	Rumpon	7	7	1	19	1,880	104	LAVANG, MELUS, TUNA, CAKELANG
4	Haji Marutu	53	Purse Seine	350x28mx1"	07-14	No	13	23	10	27	2,150	80	JULUNG?
5	Sale Boli	37	Hand-line	#12-16	anytime	Rumpon	6		1	28	284	10	BATU, TONGKOL, CUMPE
6	Laila Usman	55	Hand-line		17-06	Rumpon	5		1	30	400	13	LAVANG, SELAR, TONGKOL
7	Mislar	32	Hand-line	#6-8, #9-12	17-07	Rumpon	5			29	858	30	LAVANG
LAMALERA (13/02 - 14/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Gabriel Galubata	45	F. Gill Net	500x2mx1.5"	05-13	No	3		2	24	590	25	TERBANG
2	Fransiskus Boli	43	F. Gill Net	400x2mx1.5"	06-12	No	3		1	23	662	29	TERBANG
3	Yohanes Gela	32	F. Gill Net	300x2mx1.5"	05-13	No	3		1	24	610	25	TERBANG
4	Karlus Swo Keraf	32	F. Gill Net	400x2mx1.5"	06-12	No	3		1	24	645	27	TERBANG
5	Yohanes Narek	24	Hand-line		06-14	No	3		1	25	700	28	TERBANG
6	Vinsen Laha	32	Hand-line		06-14	No	3		1	24	700	29	TERBANG
MALMEPE/WURING (16/02 - 17/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Baharudin	27	Purse Seine	240x18mx1"	01-09	Rumpon	11	23	12	23	12,576	590	LAVANG, SELAR, KEMBUNG, TERI
2	H. Muhayene	50	Purse Seine	250x50mx1.5"	03-09	Rumpon	14	33	12	30	8,224	274	LAVANG, SELAR, TONGKOL, KEMBUNG
3	Hedidino	51	Purse Seine	300x30mx1"	17-05	Rumpon	12	27	9	24	7,464	311	LUKE
4	H. Abdulah Sahalm	46	Purse Seine	240x10mx1"	16-05	No	10	20	7	16	1,742	109	JULUNG?, CENDRO, TONGKOL, TERBANG
5	H. Abong	45	B. Gill Net	150x8mx2.5"		No	5	8	3	20	1,008	50	SELAR KENING, KEMBUNG, BATU, etc.
6	Nurroddin	30	F. Gill Net	50x1.5mx1.25/1.5"	05-12	No	5	5		12	160	13	TERBANG
7	Nurdin	23	Troll/Gillnet	320x2m, #8	06-13/18-04	No	7	5	2	4	10	3	TONGKOL
8	Rafal Mahli	67	Hand-line	#7	05-09/15-18	No	5			30	150	5	SENU, TONGKOL
9	Tahar Hastein	30	Hand-line		05-11	No	5		1	15	64	4	KERAPU, KALAP, SENU, etc.
10	Gasono	30	Hand-line	Gill-net			5		2	0	0	0	(No operation due to out of fishing season. Working as one of crew for purse)
PAGA (18/02 - 19/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Heirin	29	Purse Seine	135x30mx1"	06-18	No	10	23	9	23	14,170	616	TEMBANG, LAVANG, SELAR, JULUNG?
2	Paulus Wasbo	55	Purse Seine	135x30mx1"	06-19	Rumpon	10	23	9	27	6,692	248	TEMBANG, JULUNG
3	Wilhelmus Woi	30	B. Gill-net	150x3mx2/2.5"	17-07	No	3	5.5	2	30	1,759	59	LAVANG, SELAR, KEMBUNG, BATU
4	Yusuf Yoka		F. Gill-net	(Data sheet was lost)									
5	Paulus Dope	40	BF Gill-net	45x30mx1.75"	17-06	Rumpon	11	35	3	30	1,600	60	LAVANG, SELAR
6	Barunasi	30	Trolling	#4/5, #8/9	15-09	Rumpon	6	8	3	24	1,358	57	TUNA
7	Jevadin Oms	43	Trolling	20x5mx1.5"	16-06	No	4	5.5	2	30	1,025	34	TUNA
8	Goris Dongo	53	Fix Gill-net	35x30mx1.5"	16-07	Rumpon	3.5	5	2	20	347	17	LAVANG, SELAR
9	Karlusus Rowa	35	Fix Gill-net	30x35mx0.75/1"	16-09	Rumpon	3	3.5	3	30	3,476	116	LAVANG, SELAR, TUNA, TONGKOL
10	Yakobus Ebon	35	Fix Gill-net	20x5mx1.5"	16-08	Rumpon	3.5	5.5	2	20	946	47	LAVANG, SELAR, TUNA
11	Hendrikus Nandes	39	Fix Gill-net	50x40mx1.75"	17-06	Rumpon	6	3.5	4	29	1,044	36	LAVANG, SELAR
12	Yusef Mbena	53	B. Gill-net	120x2mx2"	16-06	No	2.5		2	22	150	7	SELAR, KEMBUNG
13	Hamba Roka	32	Hand-line	#6/8/9	16-06	Rumpon	3		2	28	1,875	67	TUNA
ENDE (19/02 - 20/03/2002)													
No.	Name of Boat Owner	Age	Type of fishing gear	Size of gear	Fishing time	FAD	Length of boat (m)	Engine of boat (hp)	No. of crew	No. of trips per month	Production per month (kg)	Production per trip (kg)	Fish Species
1	Pua Haji Abdurrahman	54	Purse Seine	315x16mx1"	06-17	No	17	24	7	17	149	9	JULUNG?, KEMBUNG
2	Guntol M. Babeh	32	Purse Seine	315x16mx1"	05-15	No	12	16	7	21	2,343	112	JULUNG?, TERBANG, TONGKOL, CAKELANG, SELAR
3	Haji A. Pua Submanan	35	Lampala	230x34mx1"	17-06	No	16	23	10	9	861	86	LAVANG, SELAR, KEMBUNG
4	Wobahu Lau	40	B. Gill-net	50x5x5mx2"	17-06	No	4	8	1	15	66	4	KERAPU, KURE, KEMBUNG, BATU, BANDANG
5	Mohamad Wahab	30	F. Gill-net	450x16mx1"	17-05	No	7.5	16	2	14	148	11	TONGKOL
6	Pua Abdul Rahman	50	B. Hand-line	#5/6/7/8/10/18	16-08	No	4	3.5		8	162	20	KEMBUNG, KURE, LAYAR
7	Amir Abdulah	48	B. Hand-line	#5/6/7/8/10/18	15-08	No	5	3.5		22	40	2	LAYAR, TUNA, TONGKOL
8	Pua Abdul Raib	38	B. Hand-line	#4-18	16-22	No	2			25	75	3	MERAH, KEMBUNG, etc.
9	Daro Mohamad	50	B. Hand-line	#4-18	04-10	No	2.5			29	85	3	MERAH, LAYAR MERAH, BATU
10	Bo Tun Numbis	35	B. Hand-line	#4-18	15-07	No	3			23	88	4	LAYAR, PARI, TONGKOL, KEMBUNG
11	Abdullah Heaid	40	B. Hand-line	#4-18	16-05	No	3			30	418	14	LAVANG, KEMBUNG, KAKAN, KERAPU, TUNA
12	Hasanudin	58	Trolling	#2/4/17	12-05	No	3			30		0	BABI
13	Basir		Dynamite	(No operation due to rough sea)									

Table 1-4. Fishermen's Log-Book Data (2)

WAIWORADA (01/02 - 28/02/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Fuel for lamp (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	1,018,000	360,000	0	0	0	2,000	60,000	0	0	0	422,000	698,000	49,667	238,000	149,000
2	1,246,000	350,000	0	0	0	2,000	125,000	0	0	0	877,000	368,000	14,760	184,500	82,250
3	1,816,000	690,000	0	0	0	80,500	120,000	0	23,000	0	913,500	902,500	39,239	451,250	225,625
4	874,800	670,000	0	0	0	4,000	95,000	0	19,000	0	688,000	186,800	9,532	93,400	46,700
5	660,000	150,000	0	0	0	2,000	32,500	0	0	0	164,500	495,500	38,115	247,750	0
6	605,000	200,000	0	0	0	2,000	50,000	0	0	0	252,000	263,000	12,650	125,500	0
7	621,000	0	0	5,000	0	55,500	80,000	0	0	0	140,500	480,500	30,031	240,250	0
8	1,080,000	180,000	0	0	0	3,000	30,000	0	0	0	273,000	807,000	44,833	403,500	0
9	12,773,500	1,365,000	0	0	0	450,000	1,040,000	0	0	0	2,855,000	9,918,500	381,481	4,959,250	291,721
10	2,620,000	1,200,000	0	0	0	300,000	450,000	0	80,000	0	2,030,000	590,000	29,500	295,000	32,778
11	10,715,000	1,560,000	0	0	0	600,000	975,000	0	780,000	0	3,915,000	6,800,000	261,538	3,400,000	226,667
12	16,635,000	1,440,000	0	0	0	459,000	650,000	0	215,000	220,000	2,884,000	13,651,000	650,048	6,825,500	682,530
13	4,850,000	1,125,000	0	0	0	2,000	337,500	0	75,000	0	1,539,500	3,310,500	220,700	1,655,250	206,906
14	7,660,000	892,500	0	0	0	8,000	340,000	0	85,000	0	1,325,500	6,334,500	372,618	3,167,250	452,464
15	6,733,000	1,560,000	0	0	0	22,000	520,000	0	130,000	0	2,232,000	4,501,000	173,116	2,250,500	281,313
16	5,250,000	765,000	0	0	0	9,000	212,500	0	0	0	986,500	4,263,500	250,794	2,131,750	266,469

KEMPO (01/02 - 28/02/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Fuel for lamp (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	5,476,000	285,000	195,000	0	0	0	2,035,000	0	0	0	2,516,000	2,959,000	184,938	2,959,000	135,667
2															
3	1,420,000	704,000	0	0	0	0	450,000	0	0	0	1,154,000	266,000	17,733	256,000	75,000
4	2,210,000	1,007,000	0	0	0	0	250,000	495,000	167,000	0	1,919,000	291,000	18,400	291,000	45,000
5	1,384,000	0	0	0	0	110,000	60,000	0	0	60,000	230,000	1,154,000	52,455	1,154,000	0
6	639,500	0	0	0	0	33,000	50,500	0	5,000	2,500	91,000	548,500	23,848	548,500	0
7	1,442,000	118,000	0	0	0	115,000	0	0	0	59,000	292,000	1,150,000	50,000	1,150,000	0
8	1,787,000	250,000	0	0	0	125,000	125,000	0	0	20,000	520,000	1,267,000	50,680	1,267,000	0
9	1,124,000	162,000	0	0	0	180,000	99,000	0	0	60,000	901,000	623,000	41,833	311,500	165,750
10	1,120,000	135,000	0	0	0	197,000	65,000	0	0	82,000	480,000	640,000	45,714	320,000	160,000

HU'U (02/02 - 28/02/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Fuel for lamp (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	4,105,000	350,000	0	0	0	325,000	320,000	1,750,000	0	0	2,745,000	1,360,000	85,000	1,360,000	175,000
2	5,195,000	405,000	0	0	0	262,000	315,000	1,400,000	0	0	2,382,000	2,813,000	175,813	2,813,000	140,000
3	480,000	120,000	11,000	0	0	70,000	70,000	100,000	0	0	371,000	109,000	15,571	109,000	33,333
4	680,000	120,000	15,000	0	0	30,000	30,000	105,000	0	0	300,000	380,000	63,333	380,000	35,000
5	1,770,000	90,000	45,000	0	0	35,500	43,000	80,000	0	0	293,500	1,476,500	92,281	1,476,500	40,000
6	3,325,000	170,000	59,500	85,000	0	42,500	170,000	0	0	0	3,270,000	2,799,000	164,647	2,799,000	0
7	1,387,500	0	66,000	46,000	0	85,500	198,000	250,000	561,500	0	1,207,000	180,500	7,220	180,500	0
8	200,000	0	4,000	0	0	20,000	10,000	0	0	0	34,000	166,000	83,000	166,000	0
9	2,285,000	180,000	32,000	80,000	0	320,000	160,000	0	0	0	752,000	1,513,000	94,563	1,513,000	0
10	2,635,000	131,000	32,000	32,000	0	48,000	80,000	0	0	0	323,000	2,312,000	144,500	2,312,000	0

LARANTUKA (09/02 - 10/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Fuel for lamp (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	901,000	15,000	60,000	0	0	60,000	90,000	0	0	15,500	240,500	660,500	60,045	330,250	110,883
2	2,410,000	510,000	0	0	0	171,000	354,000	0	1,010,000	70,000	2,115,000	295,000	18,438	147,500	18,438
3	3,325,000	849,000	70,000	0	0	129,000	350,000	0	28,000	0	4,117,000	8,348,000	596,286	4,174,000	521,750
4	6,485,000	363,000	0	40,500	0	125,000	0	150,000	0	0	678,500	5,806,500	232,269	2,903,250	322,583
5	3,325,000	390,000	0	27,500	0	115,000	0	137,000	0	0	669,500	2,655,500	115,467	1,327,750	189,679
6	953,000	0	0	32,000	0	87,500	0	0	0	0	119,500	843,500	44,395	843,500	0
7	440,000	0	0	3,500	0	41,000	0	0	0	0	44,500	396,100	33,008	396,100	0
8	1,173,750	71,300	7,700	4,000	0	110,000	138,500	42,000	10,000	0	383,500	790,250	29,269	790,250	138,500
9	295,500	60,950	14,400	0	0	24,000	85,000	50,000	20,000	0	254,350	42,160	1,621	42,160	25,000

SAGU (10/02 - 11/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Fuel for lamp (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	12,767,500	322,500	0	0	0	0	147,000	5,830,250	0	0	6,299,750	6,467,750	248,760	6,467,750	647,506
2	1,629,500	267,500	0	0	0	23,000	105,000	0	23,000	42,500	521,000	1,108,500	39,589	1,108,500	0
3	2,515,000	191,000	0	0	0	140,000	87,500	0	2,000	0	400,500	2,114,500	78,315	2,114,500	0
4	21,225,000	2,209,000	0	570,000	0	980,000	790,000	775,000	0	0	5,324,000	15,901,000	567,893	15,901,000	258,333
5	501,500	0	60,000	0	0	81,000	0	0	0	8,500	149,500	352,000	12,571	352,000	0
6	974,000	0													

LANAHALA JAYA (11/02 - 12/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Fuel for lamp (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	10,685,000	900,000	220,000	0	0	220,000	220,000	0	32,000	67,000	1,659,000	9,026,000	410,273	4,513,000	1,504,333
2															
3	51,270,000	1,605,000	500,000	0	0	210,000	1,050,000	0	58,000	101,500	3,524,500	47,745,500	2,273,595	23,872,750	1,989,396
4															
5	36,352,500	840,000	210,000	0	0	420,000	840,000	0	26,500	69,500	2,406,000	33,946,500	1,616,500	16,973,250	1,885,917
6															
7	1,654,500	150,000	0	0	0	100,000	200,000	0	0	0	450,000	1,204,500	60,225	602,250	301,125
8	1,373,000	0	0	0	0	200,000	160,000	0	6,000	16,000	322,000	1,251,000	62,350	625,500	312,750
9	1,556,500	0	0	0	0	200,000	160,000	0	6,000	20,500	326,500	1,270,000	63,500	635,000	317,500
10	1,882,500	132,000	0	0	0	115,000	230,000	0	4,000	19,500	506,500	1,376,000	59,826	688,000	344,000

LEWOLERA (12/02 - 13/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Income (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	4,975,000	392,000	295,200	0	490,000	105,000	0	99,000	10,500	1,391,700	3,683,300	170,633	1,791,650	447,913	
2	6,120,000	114,000	237,505	0	380,000	175,000	0	14,000	106,000	826,505	5,293,495	211,740	2,646,748	661,687	
3	7,850,000	965,000	750,000	0	430,000	1,080,000	0	0	0	3,245,000	4,305,000	143,500	2,162,500	269,063	
4	20,690,000	450,000	225,000	0	1,265,000	1,810,000	0	87,000	0	3,837,000	16,853,000	581,138	8,426,500	702,208	
5	1,719,300	917,440	0	52,250	52,500	105,000	0	120,000	30,000	1,277,190	442,110	14,737	442,110	0	
6	948,750	179,000	0	51,000	65,000	104,000	0	39,000	0	438,000	510,750	20,430	255,375	127,688	
7	516,000	282,000	0	0	0	105,000	0	45,000	1,500	433,500	82,500	2,750	82,500	0	
8	795,000	263,200	0	5,000	0	125,000	0	38,000	72,000	504,200	290,800	10,386	290,800	0	
9	450,000	0	0	0	0	103,500	0	0	0	103,500	346,500	15,065	346,500	0	
10	2,205,000	0	0	88,000	150,000	150,000	0	0	450,000	838,000	1,367,000	45,567	1,367,000	0	
BALAURING (14/02 - 15/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Income (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	17,744,000	290,000	87,000	102,700	102,700	22,500	174,000	490,000	130,500	270,000	1,626,700	16,217,300	559,217	16,217,300	460,000
2	330,000	32,000	40,600	0	25,500	24,000	24,000	0	0	145,500	184,500	26,357	184,500	24,000	
3	3,160,000	76,000	153,400	0	0	0	228,000	45,000	0	502,400	2,597,600	136,716	2,597,600	45,000	
4	720,000	332,500	0	0	275,000	300,000	0	0	0	707,500	12,500	463	6,230	625	
5	518,000	0	0	0	10,000	43,500	0	0	16,000	69,500	448,500	17,250	448,500	0	
6	800,000	0	90,000	0	30,000	180,000	0	0	0	360,000	440,000	14,667	440,000	0	
7	1,187,000	0	72,500	128,000	87,000	87,000	101,500	0	0	389,000	798,000	27,517	798,000	0	
LAMALERA (13/02 - 14/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Income (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	491,000	0	0	0	120,000	169,000	120,000	0	0	409,000	82,000	3,417	82,000	60,000	
2	587,000	0	0	0	92,000	115,000	0	0	0	207,000	380,000	16,522	380,000	0	
3	675,000	0	0	0	96,000	120,000	0	0	0	216,000	459,000	19,125	459,000	0	
4	583,000	0	0	0	108,000	120,000	0	0	0	228,000	355,000	14,792	355,000	0	
5	661,000	0	0	0	139,000	89,000	0	0	0	228,000	433,000	17,320	216,500	216,500	
6	607,000	0	0	0	103,500	34,000	0	0	0	137,500	469,500	19,563	234,750	234,750	
MAUMERE/WURING (16/02 - 17/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Income (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	9,840,000	460,000	587,500	0	240,000	182,000	3,190,000	0	0	4,659,500	4,880,500	212,156	4,880,500	265,833	
2	7,714,000	675,000	210,000	0	450,000	810,000	804,000	0	0	2,949,000	4,765,000	158,833	4,765,000	67,000	
3	8,340,000	543,000	418,500	0	240,000	350,000	775,000	0	2,273,000	4,609,500	3,730,500	155,438	3,730,500	86,111	
4	4,142,500	1,200,000	0	0	103,500	92,500	1,030,000	0	0	2,426,000	1,716,500	107,281	1,716,500	147,143	
5	3,345,000	312,000	0	170,000	125,000	137,500	451,000	0	0	1,155,500	2,149,500	107,475	2,149,500	150,333	
6	479,000	54,250	0	3,500	13,500	30,000	0	0	0	101,250	377,750	31,479	377,750	0	
7	90,000	33,750	0	0	28,000	24,000	0	3,000	0	88,750	-58,750	-14,688	-58,750	0	
8	1,860,000	0	0	0	0	22,500	0	0	0	22,500	1,777,500	59,250	1,777,500	0	
9	297,000	0	0	0	7,500	30,000	0	0	0	37,500	259,500	17,300	259,500	0	
10															
PAGA (18/02 - 19/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Income (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	32,925,000	690,000	0	0	621,000	345,000	16,462,500	0	0	18,118,500	14,806,500	643,761	14,806,500	1,829,167	
2	10,023,000	810,000	0	0	405,000	405,000	4,519,000	0	0	6,139,000	3,884,000	143,852	3,884,000	502,111	
3	5,855,000	120,000	0	0	0	105,000	2,634,450	0	0	2,859,450	2,995,550	99,852	2,995,550	1,317,223	
4															
5	6,831,000	225,000	90,000	0	210,000	300,000	0	0	0	825,000	6,006,000	200,200	3,003,000	1,001,000	
6	5,430,000	180,000	108,000	0	180,000	480,000	65,000	0	0	1,013,000	4,417,000	184,042	2,208,500	757,833	
7	2,230,000	300,000	60,000	0	210,000	225,000	0	0	0	795,000	1,435,000	47,833	717,500	358,750	
8	1,315,000	200,000	60,000	0	140,000	100,000	0	0	0	500,000	815,000	40,750	407,500	203,750	
9	21,820,000	240,000	240,000	0	450,000	600,000	9,447,000	0	2,560,000	13,537,000	8,283,000	276,100	8,283,000	3,149,000	
10	3,816,000	130,000	96,000	0	101,000	138,250	1,302,900	0	600	1,768,750	2,041,250	102,063	2,041,250	651,450	
11	4,680,000	120,000	62,000	0	182,500	370,000	0	0	385,000	1,129,500	3,550,500	122,431	1,775,250	443,813	
12	782,000	0	0	0	131,500	219,500	299,000	0	0	650,000	132,600	6,000	132,600	149,500	
13	5,087,000	184,000	56,000	0	91,000	195,000	0	0	0	526,000	4,561,000	162,893	2,280,500	1,140,250	
ENDE (19/02 - 20/03/2002)															
No.	Sales		Expenses		Ice (Rp)	Food/water (Rp)	Cigaretts (Rp)	Wage to crew (Rp)	Transport cost (Rp)	Others (Rp)	Total (Rp)	Profit			
	Income (Rp)	Fuel for engine (Rp)	Fuel for lamp (Rp)	Income (Rp)								per month (Rp)	per trip (Rp)	per boat owner (Rp)	per crew (Rp)
1	493,500	265,000	0	0	51,500	44,500	0	0	3,900	364,000	39,500	2,324	19,750	2,821	
2	8,990,000	687,000	0	0	460,000	845,000	0	115,000	0	1,587,000	6,503,000	309,667	3,251,500	464,500	
3	4,528,000	212,500	42,000	0	157,000	52,000	0	8,000	29,000	600,500	4,027,500	447,500	2,013,750	201,375	
4	440,000	0	23,800	0	42,500	105,000	0	55,000	0	227,300	212,700	11,817	212,700	0	
5	340,000	195,000	45,500	0	80,000	50,000	62,500	0	0	413,000	-73,000	-5,214	-73,000	31,250	
6	675,000	31,000	16,800	0	30,000	21,000	0	5,000	17,500	121,300	553,700	69,213	553,700	0	
7	325,000	161,000	69,000	0	80,500	86,500	0	0	0	397,000	-72,000	-3,273	-72,000	0	
8	278,500	0	50,000	31,500	132,500	81,500	83,500	0	0	379,000	-100,500	-4,020	-100,500	0	
9	1,007,000	0	0	0	29,000	58,000	0	0	183,000	270,000	737,000	25,414	737,000	0	
10	391,500	0	60,000	4,000	80,000	91,000	0	15,750	0	250,750	50,750	2,207	50,750	0	
11	2,218,500	0	117,000	0	114,000	225,000	0	65,000	0	521,000	1,697,500	56,583	1,697,500	0	
12	85,000	0	0	0	0	120,000	0	5,000	0	125,000	-40,000	-1,333	-40,000	0	
13															

Table 1-5. No. of Fish Buyers / Retailers at Each Model Site

(1)-1 WAWORADA													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	72	3.3	2	0	123	76	0	12%	10	382	4%	13%
	F	146	6.6	9	4	247	338	150	25%	21	769	8%	
50-100kg	M	54	2.5	3	1	184	225	75	9%	8	573	6%	19%
	F	113	5.1	8	0	385	600	0	20%	16	1,199	13%	
100-200kg	M	32	1.5	4	0	218	600	0	5%	5	679	7%	22%
	F	63	2.9	0	1	430	0	150	11%	9	1,337	16%	
Over 200kg	M	33	1.5	6	0	450	1,800	0	6%	5	1,401	15%	46%
	F	67	3.0	10	0	914	3,000	0	12%	9	2,844	31%	
Total	M	191	8.7	15	1	975	2,700	75	33%	27	3,035	35%	100%
	F	388	17.6	27	5	1,916	3,938	300	67%	65	6,150	67%	
M+F		579	26.3	42	6	2,951	6,638	375	100%	82	9,186	100%	
No. of days surveyed		22 days											
Numbers on the List		47 persons											
Observation in July 2001													
50 persons													
(2)-1 KEMPO													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	71	2.5	5	0	95	188	0	16%	23	860	10%	40%
	F	223	8.0	18	4	299	675	150	50%	72	2,701	30%	
50-100kg	M	36	1.3	2	0	94	150	0	8%	11	848	10%	29%
	F	70	2.6	4	0	188	300	0	16%	23	1,696	19%	
100-200kg	M	5	0.2	0	0	27	0	0	1%	2	242	3%	19%
	F	30	1.1	2	0	161	300	0	7%	10	1,454	16%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	12%
	F	11	0.4	4	0	118	1,200	0	2%	4	1,066	12%	
Total	M	111	4.0	7	0	216	338	0	25%	38	1,950	22%	100%
	F	334	11.9	28	4	765	2,475	150	75%	108	6,917	78%	
M+F		445	15.9	35	4	980	2,813	150	100%	144	8,868	100%	
No. of days surveyed		28 days											
Numbers on the List		42 persons											
Observation in July 2001													
90 persons													
(2)-2 HU'D													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	93	3.4	5	0	129	188	0	44%	12	456	36%	63%
	F	69	2.6	6	1	96	225	38	33%	9	338	27%	
50-100kg	M	29	1.1	2	0	81	150	0	14%	4	284	23%	37%
	F	18	0.7	2	0	50	150	0	9%	2	176	14%	
100-200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	122	4.5	7	0	210	338	0	68%	16	740	59%	100%
	F	87	3.2	8	1	146	375	38	42%	11	614	41%	
M+F		209	7.7	15	1	356	713	38	100%	27	1,354	100%	
No. of days surveyed		27 days											
Numbers on the List		61 persons											
Observation in July 2001													
25 persons													
(3)-1-1 LARANTUKA (Pasar Umum)													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	6	0.2	0	0	9	0	0	2%	1	53	1%	41%
	F	284	10.9	13	5	410	488	188	76%	67	2,517	40%	
50-100kg	M	2	0.1	0	0	6	0	0	1%	0	35	1%	10%
	F	32	1.2	8	0	92	600	0	9%	8	567	9%	
100-200kg	M	1	0.0	0	0	6	0	0	0%	0	35	1%	8%
	F	14	0.5	4	0	81	600	0	4%	3	496	8%	
Over 200kg	M	14	0.5	1	0	162	300	0	4%	3	993	16%	41%
	F	23	0.9	0	1	265	0	300	6%	5	1,631	26%	
Total	M	23	0.9	1	0	182	300	0	6%	5	1,117	16%	100%
	F	353	13.6	25	6	848	1,688	488	94%	83	5,211	82%	
M+F		376	14.5	26	6	1,030	1,988	488	100%	89	6,327	100%	
No. of days surveyed		26 days											
Numbers on the List		30 persons											
Observation in June 2001													
50 persons													
(3)-1-2 LAMAHALA JAYA													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	35%
	F	1,500	51.7	59	32	1,940	2,213	1,200	52%	38	1,434	35%	
50-100kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	65%
	F	1,378	47.5	63	25	3,564	4,725	1,875	48%	35	2,634	65%	
100-200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	0	0.0	0	0	0	0	0	0%	0	0	0%	100%
	F	2,878	99.2	122	57	5,503	6,938	3,075	100%	73	4,068	100%	
M-F		2,878	99.2	122	57	5,503	6,938	3,075	100%	73	4,068	100%	
No. of days surveyed		29 days											
Numbers on the List		255 persons											
Observation in June 2001													
100 persons													

(3)-1-3 SAGU													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	118	4.5	12	5	167	460	188	32%	13	475	32%	100%
	F	245	9.4	15	2	353	563	76	68%	27	1,003	68%	
50-100kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
100-200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	116	4.5	12	5	167	460	188	32%	13	475	32%	100%
	F	245	9.4	15	2	353	563	76	68%	27	1,003	68%	
	M+F	361	13.9	27	7	521	1,013	263	100%	39	1,478	100%	
No. of days surveyed	28 days												
Numbers on the List	17 persons												
(3)-2-1 LEWOLEBA													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	20%
	F	472	16.3	19	17	510	713	638	39%	57	2,156	20%	
50-100kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	45%
	F	530	18.3	19	14	1,371	1,425	1,050	44%	65	4,842	45%	
100-200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	35%
	F	202	7.0	21	0	1,045	3,150	0	17%	25	3,691	35%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	0	0.0	0	0	0	0	0	0%	0	0	0%	100%
	F	1,204	41.5	59	31	3,026	5,288	1,688	100%	147	10,689	100%	
	M+F	1,204	41.5	59	31	3,026	5,288	1,688	100%	147	10,689	100%	
No. of days surveyed	29 days												
Numbers on the List	34 persons												
(3)-2-2 BALAUING													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	65%
	F	560	20.0	25	8	750	938	300	79%	12	449	65%	
50-100kg	M	51	1.8	2	2	137	150	150	7%	1	82	12%	35%
	F	98	3.5	4	2	263	300	150	14%	2	157	23%	
100-200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	51	1.8	2	2	137	150	150	2%	1	82	12%	100%
	F	658	23.5	29	10	1,013	1,238	450	93%	14	606	88%	
	M+F	709	23.3	31	12	1,149	1,388	600	100%	15	688	100%	
No. of days surveyed	29 days												
Numbers on the List	27 persons												
(4)-1 MAUMERE (Kajimat)													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	719	24.0	32	16	899	1,200	600	31%	24	911	12%	16%
	F	210	7.0	8	8	263	300	300	9%	7	266	4%	
50-100kg	M	622	23.1	31	22	1,730	2,325	1,650	30%	23	1,753	23%	23%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
100-200kg	M	509	17.0	22	12	2,545	3,300	1,800	22%	17	2,579	34%	34%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Over 200kg	M	199	6.6	12	2	1,990	3,600	600	9%	7	2,016	27%	27%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	2,119	70.6	37	52	7,164	10,425	4,650	91%	72	7,259	96%	100%
	F	210	7.0	8	8	263	300	300	9%	7	266	4%	
	M+F	2,329	77.6	45	60	7,427	10,725	4,950	100%	79	7,525	100%	
No. of days surveyed	30 days												
Numbers on the List	118 persons												
(4)-2 PAGA/MAULO													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (psn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	602	20.8	29	13	778	1,058	488	25%	9	348	15%	20%
	F	204	7.0	21	4	264	788	150	8%	3	118	5%	
50-100kg	M	1,200	41.4	61	17	3,103	4,800	1,275	49%	19	1,389	59%	78%
	F	399	13.8	12	7	1,032	900	525	16%	6	462	19%	
100-200kg	M	24	0.8	2	0	124	300	0	1%	0	56	2%	2%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	1,826	63.0	95	30	4,006	6,188	1,763	75%	28	1,793	76%	100%
	F	603	20.8	33	11	1,296	1,688	675	25%	9	580	24%	
	M+F	2,429	83.8	128	41	5,302	7,875	2,438	100%	37	2,373	100%	
No. of days surveyed	29 days												
Numbers on the List	128 persons												

(4)-3 ENDE (Mbonsawan)													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish buyers (persons)				Dealing volume (kg/day)			No. of fresh fish buyers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (asn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	454	15.1	25	9	568	938	338	52%	56	2,083	28%	26%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
50-100kg	M	314	10.5	19	6	765	1,425	450	36%	38	2,881	39%	39%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
100-200kg	M	86	2.9	6	1	430	900	150	10%	11	1,576	21%	21%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Over 200kg	M	23	0.8	4	0	230	1,200	0	3%	3	844	11%	11%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	877	29.2	54	16	2,013	4,463	938	100%	107	7,386	100%	100%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
	M+F	877	29.2	54	16	2,013	4,463	938	100%	107	7,386	100%	
No. of days surveyed	28 days												
Numbers on the List	82 persons												
(6)-1 BIMA (Passar Passi)													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish retailers (persons)				Dealing volume (kg/day)			No. of fresh fish retailers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (asn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	21%
	F	1,218	64.7	93	45	2,404	3,173	1,688	40%	79	2,969	21%	
50-100kg	M	18	0.9	1	1	71	75	75	1%	1	87	1%	51%
	F	1,436	75.6	91	42	5,668	6,825	3,150	47%	93	6,979	60%	
100-200kg	M	17	0.9	1	1	134	150	150	1%	1	165	1%	28%
	F	382	20.1	23	12	3,018	3,460	1,800	12%	25	3,713	27%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	35	1.8	2	2	205	225	225	1%	2	253	2%	100%
	F	3,036	159.8	197	99	11,088	13,368	6,638	99%	197	13,652	98%	
	M+F	3,071	161.6	199	101	11,293	13,613	6,863	100%	199	13,904	100%	
No. of days surveyed	19 days												
Numbers on the List	199 persons												
(6)-2 BIMA (Passar Sore)													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish retailers (persons)				Dealing volume (kg/day)			No. of fresh fish retailers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (asn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	22%
	F	130	5.8	7	6	257	263	225	40%	8	304	22%	
50-100kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	64%
	F	157	8.3	10	8	620	750	600	49%	10	734	54%	
100-200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	23%
	F	34	1.8	3	0	268	450	0	11%	2	318	23%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	0	0.0	0	0	0	0	0	0%	0	0	0%	100%
	F	321	16.9	20	14	1,145	1,463	825	100%	20	1,355	100%	
	M+F	321	16.9	20	14	1,145	1,463	825	100%	20	1,355	100%	
No. of days surveyed	19 days												
Numbers on the List	20 persons												
(6)-3 DOMPU (Passar Pompu)													
Dealing volume/day	Sex	Actual Survey Data (Feb. 2002)							Planned Capacity in fishing seasons (Average)				
		No. of fish retailers (persons)				Dealing volume (kg/day)			No. of fresh fish retailers		Fresh fish dealing capacity		
		Total No.	Average/day	Max./day	Min./day	Average	Max.	Min.	Proportion	No. (asn.)	Vol.(kg/day)	Proportion	
Less than 50kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	50%
	F	338	12.1	20	7	453	750	263	71%	107	4,093	50%	
50-100kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	32%
	F	107	3.8	6	2	287	450	150	23%	34	2,534	32%	
100-200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	18%
	F	30	1.1	3	0	161	450	0	6%	9	1,421	18%	
Over 200kg	M	0	0.0	0	0	0	0	0	0%	0	0	0%	0%
	F	0	0.0	0	0	0	0	0	0%	0	0	0%	
Total	M	0	0.0	0	0	0	0	0	0%	0	0	0%	100%
	F	475	17.0	29	9	900	1,650	413	100%	150	7,958	100%	
	M+F	475	17.0	29	9	900	1,650	413	100%	150	7,958	100%	
No. of days surveyed	28 days												
Numbers on the List	25 persons												

Table 1-6. No. of Fishing Boats and Fish Buyers on the Survey List
(Based on the survey in Feb. – Mar. 2002)

1. Waworada (Kab. Bima)

(1) Fishing Boats

Place of Living	Purse Seine	Bagan L.	Bagan P.	Gill Net	Handline	Compreser	Total
Rompo	44	-	2	14	25	4	89
Rimba	-	22	-	-	4	-	26
Doroo	-	-	-	-	3	-	3
Total	44	22	2	14	32	4	118

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling				Total
		Tente	Sila	Waworada	Outside	
Village women	Tente	3	-	-	-	3
	Ngali	3	-	-	-	3
	Waworada	1	-	-	-	1
	Neera	3	-	-	-	4
	Sila	-	4	-	-	5
	Pali Pena	1	-	-	-	1
Collecting boats	Lida	1	-	-	-	1
	Waworada	-	-	30	-	30
Fish collectors	Waworada	-	-	-	3	3
Total		13	4	30	3	50

2. Kempo (Kab. Dompu)

(1) Fishing Boats

Place of Living	Purse Seine	Bagan L.	Gill Net	Handline	Total
Soro Timur	-	6	1	-	7
Soro Tengah	-	4	8	8	20
Soro Barat	4	1	1	-	6
Total	4	11	10	8	33

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling			Total
		Bima	Dompu	Kempo	
Village women	Soro Timur	1	11	1	13
	Soro Tengah	2	4	-	6
	Soro Barat	8	16	-	24
Total		11	31	5	47

3. Hu'u (Kab. Dompu)

(1) Fishing Boats

Place of Living	Purse Seine	Gill Net	Handline	Total
Finis (Hu'u)	49	1	26	76

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling			Total
		Bima	Dompu	Sila	
Village women	Finis (Hu'u)	25	15	11	51

4. Larantuka (Kab. Flores Timur)

(1) Fishing Boats

Place of Living	Purse Seine	Gill Net / Handline	Total
Delang	2	11	13
Postoh	2	-	2
Lokea	2	-	2
Lamahala Jaya	3	-	3
Total	9	11	20

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling (Larantuka)
Village women	Lokea	6
	Postoh	1
	Ekasapta	1
	Others	12
Total		20

5. Lamahala Jaya (Kab. Flores Timur)

(1) Fishing Boats

Place of Living	Purse Seine	Bagan	Lampala	Gill net	Total
Lamahala Jaya	77	1	5	8	91

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling		
		Waiwerang	Pedalar	Total
Village women	Lamahala Jaya	116	139	255

6. Sagu (Kab. Flores Timur)

(1) Fishing Boats

Place of Living	Net	Handline	Total
Sagu	12	13	25

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling				Total
		Waiwerang	Koli	L. Bunga	Rebory	
Village women	Sagu	9	-	2	-	11
	K. Masang	-	3	-	-	3
	Others	-	2	-	1	3
Total		9	5	2	1	17

7. Lewoleba (Kab. Lembata)

(1) Fishing Boats

Place of Living	Bagan	Purse Seine	Gill net/handline	Total
Lewoleba	39	4	2	45

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling (Lewoleba)
Village women	Lewoleba	34

8. Balauring (Kab. Lembata)

(1) Fishing Boats

Place of Living	Jala lompo	Purse Seine	Gill net	Handline	Total
Balauring	1	2	21	10	34

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling (on the road)
Village women	Lewoleba	27

9. Lamalera (Kab. Lembata)

(1) Fishing Boats

Place of Living	Gill net
Balauring	6

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling (From house to house)
Village women	Lamalera	6

10. Maumere (Kab. Sikka)

(1) Fishing Boats

Place of Living	Purse Seine	Gillnet/Handline	B. longline	Trolling	Total
Wuring	53	38	5	28	124

(2) Fish Buyers (Total 94)

Type of buyers	Place of living	Place for fish selling	Place of living	Place for fish selling
		Kalimati		Kalimati
All kinds	W. Milok	2	Nita	1
	W. Rotang	4	I. Geang	1
	W. Oti	3	Nangafure	10
	Brai	1	Kt. Uneng	7
	Blatat	1	Kabor	43
	Nitune	1	W. Ria	3
	Kamey	1	Beru	5
	W. Pare	1	Wuring	5
	Kt. Baru	1	N. Meting	2
	H. Gete	1	Natakoli	1

11. Paga/Mauloo

(1) Fishing Boats

Place of Living	Purse Seine	Fixed Gillnet	B. Gill net	F. Gill net	Trolling	Total
Paga	2	4	4	2	7	19

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling (Pasar)
Small vendors	Paga	10
	Others	5

12. Ende/P.Ende (Kab. Ende)

(1) Fishing Boats

Place of Living	Purse Seine	Lampara	Gill net	Payang	Handline	Others	Total
Mbongawani	3	1	-	-	-	-	4
Rekun Lima	11	-	2	2	3	-	18
Paupanda	3	5	3	-	-	-	11
Tetandaru	5	-	4	-	2	-	11
Mautapaga	-	-	-	8	-	-	8
Pulau Ende	11	6	106	-	15	7	145

(2) Fish Buyers

Type of buyers	Place of living	Place for fish selling (Pasar Mbongawani)
All kinds	Paupanda	30
	Mbongawani	7
	Rekun Lima	36
	Kota Ratu	7
	Onekore	1
	Waloare	1

Table 1-7. Conditions of Fishing Villages

1. Kab. Bima

(1) Kec. Langgule

Desa	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Waworada	Rompo	5 (5)	311 (311)	1	-	1 (184)
Karunbu	Rimba / Bugis	2 (2)	114 (114)	1	-	
	Soro Afu	4 (4)	232 (232)	-	-	
Karanpi	Karampi/ Siro	3 (3)	125 (125)	-	-	

2. Kab. Dompu

(1) Kec. Kempo

Desa	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Soro	Nciu	(2)	(445)	3	2	1
	Kajenje	(2)	(233)	2	2	(440)
	Karama	(2)	(423)	3	2	

(2) Kec. Hu'u

Desa	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Hu'u	Labuhan	(3)	87 (13)	-	-	1 (219)
	Sigi	(2)	105 (12)	-	-	
	Mambon	(3)	160 (13)	-	-	
	Finis	(2)	114 (30)	-	-	
	Nanga Doro	(2)	80 (5)	-	-	

3. Kab. Flores Timur

(1) Kec. Larantuka

Desa / Kel.	Desun	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Blepanama	Bama	9 ()	145 (89)	-	-	1 (163)
Mokantarak	Mokantarak	12 ()	229 (46)	2	-	
Lewoloba	Oka	7 ()	165 (29)	2	-	
Lamawalang	Lamawalang	9 ()	148 (39)	-	-	
Waibalun	Waibalun	16 ()	536 (289)	5	16	
Lewolere	Lewolere	22 ()	466 (128)	2	-	
Pantaibesar	Pantaibesar	11 ()	237 (15)	1	-	
Larantuka	Larantuka	8 ()	205 (19)	-	-	
Pohonsirih	Pohonsirih	6 ()	120 (9)	-	-	
Lohayong	Lohayong	6 ()	108 (11)	-	-	

Lokea	Lokea	8 ()	280 (30)	1	-	
Postoh	Postoh	19 ()	368 (58)	4	-	
Amagarapati	Amagarapati	16 ()	375 (38)	3	-	
Ekasapta	Ekasapta	20 ()	439 (75)	2	-	
Sarotari	Weri	14 ()	351 (74)	-	-	
Tiwatobi	Delang	6 (6)	70 (70)	15	-	

(2) Kec. Adonara Timur

Desa / Kel.	Desun	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Lamahala Jaya	Lama	7 (7)	500 (365)	3	-	3 (220)
Sagu	Binongo	4 (1)	165 (64)	-	-	-
	Bajo	4 (4)	275 (275)	-	-	1 (48)

4. Kab. Lembata

(1) Kec. Nubatukan

Desa / Kel.	Desun	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
L. Utara	4	16 (9)	507 (87)	4	7	-
L. Tengah	4	4 (2)	285 (72)	49	5	1 (126)
L. Timur	4	3 (2)	507 (87)	1	5	-

(2) Kec. Omesuri

Desa / Kel.	Desun	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Balauring	3	9	107	3	4	-

(3) Kec. Wulandoni

Desa / Kel.	Desun	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Lamalera A	3	6	126	3	2	-
Lamalera B	4	11	158	4	2	-

5. Kab. Sikka

(1) Kec. Maumere

Desa / Kel.	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Kotadoi	Kotadoi 1 & 2	()	273 (190)	2	1	-
Parumaan	Barat / Timur	()	(274)	2	1	-
Kotagete	Nele/Loane/ Nebura	()	(111)	3	1	-

(2) Kec. Alok

Desa / Kel.	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Wolomarang	Wuring	26 (8)	876 (151)	4	2	-
Wuring	Nangafure	28 (10)	893 (200<)	3	1	-

(3) Kec. Nita

Desa / Kel.	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Kolisla Magepanda	Waturia	27 (3)	532 (120)	2	1	-

(4) Kec. Paga

Desa / Kel.	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Paga	Paga	30 (15)	928 (150)	23	-	1 (80)
Mbengu	Mauloo	13 (10)	537 (247)	25	1	

6. Kab. Ende

(1) Kec. Ende Selatan

Desa / Kel.	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Paupanda	Paupanda	8 (4)	1,094 (750)	31	-	1 (150)
	Rate	4 (4)	75 (75)	-	-	
	Kp. Baru	4 (2)	165 (110)	-	-	
Ruknlima	7	18 (7)	1,075 (128)	3	-	
Mbongawani	2	12 (3)	929 (56)	-	1	
Tetandala	Arubara	4 (4)	183 (128)	-	-	
Mautapaga	Bitta Beach	34 (28)	1,342 (28)	30	1	
Ipi		8 (8)	336 (115)	2	-	

(2) Kec. Pulau Ende

Desa / Kel.	Desun Nelayan	No. of RT (No. of fishing RT)	Total No. of households (No. of fishing households)	No. of fisher's groups	No. of women's groups	Coops. (No. of members)
Pu'u Utara	3	12 (4)	360 ()	-	-	-
Aejeti	4	16 (16)	364 (340)	-	-	
Ndoriwoy	4	16 (16)	307 (457)	-	-	
Baderape	2	8 (2)	360 (139)	-	-	
Renderatuma	2	8 (4)	230 (157)	-	-	
Rorurangu	3	12 (3)	250 (120)	1	-	

Table 1-8. Fish Price (Beach Price) at Each Model Site
(Based on the Hearing from Fishermen)

(1) WAWORADA								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Sardin/Lemtu	Ciro	35	15,000	40,000	429	1,143	July-Aug.	Nov.-Mar.
Kembung	Dodo/Ronde	pc. (3pcs./k)	-	-	4,500	7,500	July-Aug.	Nov.-Mar.
Layang	Laja	35	35,000	60,000	1,000	1,714	July-Aug.	Nov.-Mar.
Julung2	Oras	pc.(15pcs./k)	100	200	1,500	3,000	July-Aug.	Nov.-Mar.
Teri putih		35	80,000	110,000	2,286	3,143	July-Aug.	Nov.-Mar.
Tongkol	Tankara	pc. (3pcs./k)	-	-	2,100	4,500	July-Aug.	Nov.-Mar.
(2)-1 KEMPO								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Sardin/Lemtu	Ciro	40	25,000	100,000	625	2,500	Nov.-Apr.	May-Oct.
Kembung	Dodo/Ronde	40	100,000	200,000	2,500	5,000	Nov.-Apr.	May-Oct.
Layang	Laja	40	40,000	100,000	1,000	2,500	Nov.-Apr.	May-Oct.
Peperek	Kapela	40	50,000	80,000	1,250	2,000	Nov.-Apr.	May-Oct.
Selar	Boto2	40	70,000	120,000	1,750	3,000	Nov.-Apr.	May-Oct.
Tembang	Temba	40	15,000	50,000	375	1,250	Nov.-Apr.	May-Oct.
(2)-2 HU'U								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Sardin/Lemtu	Ciro	6	5,000	20,000	833	3,333	May-July	Dec.-Feb.
Julung2	Oras	pc.(15pcs./k)	100	250	1,500	3,750	May-July	Dec.-Feb.
Tongkol	Tankara	pc.(2pcs./kg)	1,000	2,000	2,000	4,000	May-July	Dec.-Feb.
Tongkol	Tankara	pc.(4pcs./kg)	500	1,000	2,000	4,000	May-July	Dec.-Feb.
Cakarang		pc.(4kg/pc.)	12,000	20,000	3,000	5,000	May-July	Dec.-Feb.
Dorphanfish	Bengkolo	1	-	-	3,500	-	-	-
Kerapu (local)		1	-	-	5,000	-	Stable price	-
Kerapu (for export)		1	-	-	25,000	-	Stable price	-
Kakap		1	-	-	6,000	-	Stable price	-
Sirup		1	-	-	300,000	600,000	By Quality	-
(3)-1-1 LARANTUKA								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Julung2	Sembe	pc.(10pcs/k)	2,500	4,000	2,500	4,000	3-5/10-12	1-2/6-8
(3)-1-2 LAMAHALA JAYA								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Kembung		pc.(3pcs./kg)	1,500	2,500	4,500	7,500	Apr.-Nov.	Dec.-Mar.
Layang	Bedu	30	50,000	100,000	1,667	3,333	Apr.-Nov.	Dec.-Mar.
Tembang		30	50,000	100,000	1,667	3,333	Apr.-Nov.	Dec.-Mar.
Tongkol		pc.(1pc./kg)	1,000	2,000	1,000	2,000	Jul.-Nov.	Dec.-Mar.
(3)-1-3 SAGU								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Julung2	Sembe	10 pcs.(kg)	1,000	7,500	1,000	7,500	Mar-Apr	May-Feb
Terbang		10 pcs.(1.5k)	3,500	7,500	2,333	5,000	Mar-Apr	May-Feb

(3)-2-1 LEWOLEBA								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Sardin								
Kembung		pc.(3pcs/kg)	1,500	3,000	4,500	9,000	Nov-Apr	May-Oct
Layang k.		50	35,000	100,000	700	2,000	Nov-Apr	May-Oct
Layang b.		50	60,000	150,000	1,200	3,000	Nov-Apr	May-Oct
Tembang		50	10,000	50,000	200	1,000	Nov-Apr	May-Oct
Teri putih		50	50,000	120,000	1,000	2,400	Nov-Apr	May-Oct
(3)-2-2 BALAURING								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Layang k.		pc.(30g/pc.)	50	-	1,650	-	Jan.-Mar.	-
Layang b.		pc.(7pcs/kg)	143	667	1,000	4,667	Oct.-Apr.	May-Sep.
Selar		10pcs(30g/p)	500	1,000	1,650	3,300		
Terbang		pc.(5pcs/kg)	250	400	1,250	2,000	Nov.-Mar.	Apr.-Oct.
Tongkol k.		10pcs.(kg)	1,000	-	1,000	-	Feb.-Mar.	-
Tongkol b.		pc.(2pcs/kg)	625	1,667	1,250	3,333	Sep.-Mar.	Mar.-Aug.
Cakarang		pc.(5kg)	10,000		2,000			
Tuna		pc.(5kg)	12,500	15,000	2,500	3,000		
Cendro	Tuda	pc.(500g)	1,000	2,000	2,000	4,000	Nov.-Mar.	Apr.-Oct.
(3)-2-3 LAMALERA								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Terbang		5pcs. (kg)	1,000	1,000	1,000	1,000		
(4)-1-1 MAUMERE/WURING								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Kembung		12	25,000	150,000	2,083	12,500	Dec-Apr	May-Nov
Layang k.		12	25,000	175,000	2,083	14,583	Dec-Apr	May-Nov
Selar k.		12	25,000	150,000	2,083	12,500	Dec-Apr	May-Nov
Julung2	Nibe	pc.(10pcs./k)	50	150	500	1,500	Feb-July	
Lure		12	3,000	25,000	250	2,083	Feb-Apr	
Terbang		pc.(7pcs/kg)	50	250	350	1,750	Dec-Apr	May-Nov
Tongkol k.		12	1,000	30,000	83	2,500	Mar-May	
Cakarang		pc.(3kg)	3,000	15,000	1,000	5,000	Dec-Apr	May-Nov
Kerapu (alive)		1	60,000		60,000			
Kerapu (fresh)		1	25,000		25,000			
(4)-1-2 PAGA								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Kembung		3pcs.(kg)	5,000	5,000			Mar-Apr	
Layang k.		40pcs.(15/k)	7,500	15,000	2,813	5,625	Apr.	Nov.-Dec.
Layang b.		40pcs.(7/kg)	20,000	30,000	3,500	5,250	Apr.	Nov.-Dec.
Selar k.		40pcs.(10/k)	5,000	15,000	1,250	3,750	Apr.	Nov.-Dec.
Selar b.		40pcs.(7/kg)	15,000	17,500	2,625	3,063	Apr.	Nov.-Dec.
Tongkol k.		4pcs.(kg)	2,000	2,500	2,000	2,500	July-Aug	
Tongkol b.		pc.(kg)	2,500	5,000	1,667	3,333	July-Aug	
(4)-2 ENDE								
Indonesian Name	Local Name	Weight per unit (kg)	Beach Price per Unit		Beach Price per kg		Price by Seasons	
			Low	High	Low	High	Low	High
Kembung		kg			3,500	4,000		
Layang k.		kg			3,000	5,000	Jun.-Aug.	Dec.-Mar.
Layang b.		kg			3,000	5,000	Jun.-Aug.	Dec.-Mar.
Tembang		kg			1,000	2,500	Jun.-Aug.	Dec.-Mar.
Julung2	Nibe	kg			1,000	2,500	Jun.-Aug.	Dec.-Mar.
Terbang		kg			1,000	2,500	Jun.-Aug.	Dec.-Mar.
Tongkol k.		kg			1,500	2,500	Jun.-Aug.	Dec.-Mar.
Tongkol b.		kg			2,500	3,000	Jun.-Aug.	Dec.-Mar.
Cakarang		kg			2,000	8,000	Jun.-Aug.	Dec.-Mar.
Tuna		kg			2,000	8,000	Jun.-Aug.	Dec.-Mar.
Kakap		kg			6,000	12,000	Jun.-Aug.	Dec.-Mar.

Table 1-9. Composition of Fish Species at Priority Areas
(Statistic Data on Sub-District Base)

(1) By volume (ton)										
Fish Species	Waworada (Langgulu)	Kempo (Kempo)	Hu'u (Hu'u)	Maumere (Alok)	Paga (Paga)	Paupanda (Ende Selatan)	Oka (Larantuka)	Lamahala (Adonara T.)	Lewoleba (Nubatukan)	Balauring (Omesuri)
Layang	1,156	103	168	221	52	619	0	0	0	0
Teri	1,631	0	0	197	8	0	224	3	7	11
Tembang/Lemuru/Sardine	1,238	680	5	62	11	114	14	81	0	0
Kembung	844	457	4	72	36	244	106	159	8	7
Peperok	81	416	143	4	2	58	281	51	6	5
Selar	161	25	13	349	73	106	153	253	7	3
Julang2	163	28	14	36	8	170	38	101	5	4
Terbang	0	0	0	96	8	54	18	18	2	5
Tongkol	386	151	285	104	18	716	559	595	9	8
Cakarang	260	24	234	2,363	38	411	537	189		
Tuna	144	13	236	540	17	273				
Tenggiri	126	27	13	8	3	40	20	25	6	4
Layur/Layaran	450	6	258	4	2	284				
Alu2	0	0	0	3	1	0	4	2	8	5
Other Pelagics	123		59	20	8	486	457	830	37	14
Kakap/Merah/Kerapu				118	25	176	48	52	28	15
Ekor kening				21	2	83	68	40	10	8
Kuwe	38	66	16	3	2					
Pari/Hiu/Cucut		19	55	9	6	324	10	21	7	7
Other demersals		396	101	19	7					
Udang			373	5	1					
Cumi2/Gurita	413		0	18	3		0	18		
Rumput Laut	0		114							
Penyu				2	1					
Total	6,779	2,411	1,603	4,247	327	4,160	2,537	2,420	141	96
(2) By Percentage (%)										
Fish Species	Waworada (Langgulu)	Kempo (Kempo)	Hu'u (Hu'u)	Maumere (Alok)	Paga (Paga)	Paupanda (Ende Selatan)	Oka (Larantuka)	Lamahala (Adonara T.)	Lewoleba (Nubatukan)	Balauring (Omesuri)
Layang	17%	4%	10%	5%	1%	15%	0%	0%	0%	0%
Teri	24%	0%	0%	5%	2%	0%	3%	1%	5%	12%
Tembang/Lemuru/Sardine	18%	28%	0%	1%	3%	3%	1%	3%	0%	0%
Kembung	12%	19%	0%	2%	1%	11%	4%	7%	1%	7%
Peperok	1%	17%	9%	0%	1%	1%	1%	2%	1%	5%
Selar	2%	1%	1%	5%	2%	2%	3%	4%	5%	3%
Julang2	2%	1%	1%	1%	3%	4%	1%	4%	4%	4%
Terbang	0%	0%	0%	2%	3%	1%	1%	1%	2%	5%
Tongkol	6%	6%	18%	2%	6%	17%	22%	25%	7%	8%
Cakarang	4%	1%	15%	66%	2%	10%	21%	8%	0%	0%
Tuna	2%	1%	15%	13%	5%	7%	0%	0%	0%	0%
Tenggiri	2%	1%	1%	0%	1%	1%	1%	1%	4%	4%
Layur/Layaran	7%	0%	16%	0%	1%	7%	0%	0%	0%	0%
Alu2	0%	0%	0%	0%	0%	0%	0%	0%	6%	5%
Other Pelagics	2%	0%	4%	0%	3%	12%	18%	34%	2%	1%
Kakap/Merah/Kerapu	0%	0%	0%	3%	8%	4%	2%	2%	20%	16%
Ekor kening	0%	0%	0%	0%	1%	2%	3%	2%	7%	8%
Kuwe	1%	3%	1%	0%	1%	0%	0%	0%	0%	0%
Pari/Hiu/Cucut	0%	1%	3%	0%	2%	8%	0%	1%	5%	7%
Other demersals	0%	16%	6%	0%	2%	0%	0%	0%	0%	0%
Udang	0%	0%	23%	0%	0%	0%	0%	0%	0%	0%
Cumi2/Gurita	6%	0%	0%	0%	1%	0%	0%	1%	0%	0%
Rumput Laut	0%	0%	7%	0%	0%	0%	0%	0%	0%	0%
Penyu	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Total (Fin fish only)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 1-10. Estimated Number of Fishing Boats and Fish Landing Volume at Each Model Site

WAWORADA													
Major fishing boats	Bagon (w/generator)		Bagon (w/Petromax)		Purse Seine				Gill Net/Hand-line		Collecting Boats		
Seasons	July-Feb.	Mar.-June	July-Feb.	Mar.-June	Jan.-Apr.	May-June	July-Aug.	Sep.-Dec.	Nov.-Apr.	May-Oct.	July-Feb.	Mar.-June	
Daily catch (kg/day/boat)	300	600	150	300	200	300	400	300	15	30	220	440	
No. of boat (units)	22		18		22		44		14		25		
Operating efficiency	0.60		0.60		0.34		0.88		0.72		0.85		
No. of boats entry per day	13		1		7		39		10		21		
Total daily catch (kg/day)	3,975	7,962	1,629	3,257	1,488	11,621	15,495	11,621	149	302	0	0	
Daily landing volume (kg/day)	663	1,327	271	543	1,488	11,621	15,495	11,621	149	302	4,670	9,349	
No. of operable days/month	25	25	25	25	19	25	25	25	25	25	25	25	
Landing volume per month (ton)	17	33	7	14	29	291	387	291	4	8	118	236	
Operating months	8	4	8	4	4	2	2	4	6	6	8	4	
Annual landing volume (ton/year)	267		109			2,632			68		1,884		
Total No. of boats entry (units/year)	4,013		3,283			8,319			3,014		6,426		

KEMPO														
Major fishing boats	Bagon (w/generator)				Purse Seine				Gill Net		Collecting Boats			
Seasons	Jan.-Mar.	Apr.-May	June-Sep.	Oct.-Dec.	Jan.-Mar.	Apr.-May	June-Sep.	Oct.-Dec.	Oct.-May	June-Sep.	Jan.-Mar.	Apr.-May	June-Sep.	Oct.-Dec.
Daily catch (kg/day/boat)	125	250	500	250	250	375	500	375	100	150	89	241	430	241
No. of boat (units)		33				10			14			80		
Operating efficiency	0.61		0.95		0.71		1.00		0.72			0.50		
No. of boats entry per day	20		31		7		10		10			40		
Total daily catch (kg/day)	2,517	7,830	15,659	7,830	1,765	3,750	5,000	3,750	1,007	1,510	0	0	0	0
Daily landing volume (kg/day)	419	1,305	2,610	1,305	294	625	833	625	1,007	1,510	3,569	9,650	17,216	9,650
No. of operable days/month	16	25	25	25	17	25	25	25	27	27	17	25	25	25
Landing volume per month (ton)	7	33	65	33	5	16	21	16	27	40	59	241	430	241
No. of months	3	2	4	3	3	2	4	3	8	4	3	2	4	3
Annual landing volume (ton/year)		414				177			377			3,106		
Total No. of boats entry (units/year)		8,017				2,613			3,235			10,993		

HU'DU										
Major fishing boats	Purse Seine				Gill Net			Hand-line		
Seasons	Dec.-Feb.	Mar.-Apr.	May-Jul.	Aug.-Nov.	Dec.-Feb.	Mar.-Apr.	May-Jul.	Aug.-Nov.	Feb.-Aug.	Sep.-Jan.
Daily catch (kg/day/boat)	250	375	500	375	50	75	100	75	35	35
No. of boat (units)	4		14			3			6	
Operating efficiency	0.86		0.86			1.00			1.00	
No. of boats entry per day	3		12			3			6	
Total daily catch (kg/day)	855	4,490	5,987	4,490	150	225	300	225	210	210
No. of operable days/month	21	25	25	25	10	25	25	25	29	29
Landing volume per month (ton)	18	112	150	112	2	6	8	6	6	6
No. of months	3	2	3	4	3	2	3	4	7	5
Annual landing volume (ton/year)		1,177				61			73	
Total No. of boats entry (units/year)		2,911				765			2,080	

LARANTUKA											
Major fishing boats	Bagon (w/Petromax)				Purse Seine				Hand-line/Gill Net		
Seasons	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.	Dec.-Mar.	Apr.-May	June-Nov.
Daily catch (kg/day/boat)	50	150	100	150	150	300	250	300	30	60	30
No. of boat (units)		26			10		35			30	
Operating efficiency	0.32		0.81		0.40		0.81			0.09	
No. of boats entry per day	8		21		4		28			3	
Total daily catch (kg/day)	420	3,150	2,100	3,150	606	8,481	7,067	8,481	83	165	83
No. of operable days/month	10	25	25	25	26	26	26	26	25	25	25
Landing volume per month (ton)	4	79	53	79	16	221	184	221	2	4	2
No. of months	3	3	3	3	3	3	3	3	4	2	6
Annual landing volume (ton/year)		643				1,922			29		
Total No. of boats entry (units/year)		4,977				6,930			825		

LAMAHALA JAYA

Major fishing boats	Bagan (w/Petromax)		Purse Seine				F. Gill Net	
	Nov.-Jan.	Jul.-Oct.	Nov.-Feb.	Mar.-May	June-Aug.	Sep.-Oct.	Nov.-Mar.	Apr.-Oct.
Seasons								
Daily catch (kg/day/boat)	100	200	200	400	300	400	15	30
No. of boat (units)	2		82		52		10	
Operating efficiency	0.52		0.38		0.77		0.70	
No. of boats entry per day	1		32		40		7	
Total daily catch (kg/day)	104	208	6,310	12,621	9,465	12,621	105	210
No. of operatable days/month	24	24	27	27	27	27	23	23
Landing volume per month (ton)	3	5	172	343	257	343	2	5
No. of months	7	5	4	3	3	2	5	7
Annual landing volume (ton/year)	43			3,174			47	
Total No. of boats entry (units/year)	304			12,135			1,969	

SAGU

Major fishing boats	Bagan (w/Petromax)		Purse Seine		B. Gill Net		Hand-line/Trolling				
	Sep.-Mar.	Apr.-Aug.	Sep.-Mar.	Apr.-Aug.	Sep.-Mar.	Apr.-Aug.	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.	
Seasons											
Daily catch (kg/day/boat)	200	100	300	150	30	15	5	10	5	10	
No. of boat (units)	5	2	6		10					11	
Operating efficiency	0.88		0.63		0.63					0.62	
No. of boats entry per day	4	2	4		6					7	
Total daily catch (kg/day)	882	441	1,134	567	189	95	34	68	34	68	
No. of operatable days/month	25	25	25	25	29	29	29	29	29	29	
Landing volume per month (ton)	22	11	28	14	5	3	1	2	1	2	
No. of months	7	5	7	5	7	5	3	3	3	3	
Annual landing volume (ton/year)	212		269		52					18	
Total No. of boats entry (units/year)	1,004		1,134		2,181					2,367	

LEWOLEBA

Major fishing boats	Bagan (w/Petromax)		Purse Seine			Gill Net		Hand-line/Trolling			
	Dec.-Mar.	Apr.-Nov.	Jan.-Apr.	May-Jul	Aug.-Dec.	Nov.-Mar.	Apr.-Oct.	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.
Seasons											
Daily catch (kg/day/boat)	150	100	200	300	200	10	5	5	10	5	10
No. of boat (units)	47		3	7		10					2
Operating efficiency	0.99			0.65		1.00					1.00
No. of boats entry per day	46		2	5		10					2
Total daily catch (kg/day)	6,945	4,631	390	585	390	100	50	10	20	10	20
No. of operatable days/month	24	24	30	30	30	29	29	5	29	29	29
Landing volume per month (ton)	169	113	12	18	12	3	1	0	1	0	1
No. of months	4	8	4	2	6	5	7	3	3	3	3
Annual landing volume (ton/year)	1,580			152		25					5
Total No. of boats entry (units/year)	13,545			1,326		3,488					551

BALAUING

Major fishing boats	Purse Seine		Gill Net		Hand-line/Trolling			
	Sep.-Feb.	Mar.-Aug.	Sep.-Apr.	May-Aug.	Dec.-Feb.	Mar.-May	June-Aug.	Sep.-Nov.
Seasons								
Daily catch (kg/day/boat)	200	100	100	50	20	40	20	80
No. of boat (units)	2	3		7				14
Operating efficiency	0.94			0.63				0.63
No. of boats entry per day	2	3		4				9
Total daily catch (kg/day)	375	188	441	221	177	353	177	708
No. of operatable days/month	30	30	30	30	30	30	30	30
Landing volume per month (ton)	11	6	13	7	5	11	5	21
No. of months	6	6	8	4	3	3	3	3
Annual landing volume (ton/year)	101		132			127		
Total No. of boats entry (units/year)	845		1,589			3,178		

LAMALERA

Major fishing boats	Whaler (Harpon)		Gill Net			Gill Net/Hand-line (no motor)		
	May-Oct.	Nov.-Apr.	Nov.-Apr.	May-Jul.	Aug.-Oct.	Nov.-Apr.	May-Jul.	Aug.-Oct.
Seasons								
Daily catch (kg/day/boat)	125	0	50	75	100	25	38	50
No. of boat (units)	20			11			40	
Operating efficiency	1.00	0.00		0.50			0.50	
No. of boats entry per day	1	0		6			20	
Total daily catch (kg/day)	2,500	0	275	413	550	500	750	1,000
No. of operable days/month	20	0	25	10	10	25	10	10
Landing volume per month (ton)	50	0	7	4	6	13	8	10
No. of months	6	0	6	3	3	6	3	3
Annual landing volume (ton/year)	300			70			128	
Total No. of boats entry (units/year)	80			1,155			4,200	

MAUMERE/WURING

Major fishing boats	Purse Seine				Gill Net		Hand-line	Collecting boats			
	Mar.-May	June-July	Aug.-Nov.	Dec.-Feb.	Mar.-July	Aug.-Feb.	All season	Mar.-May	June-July	Aug.-Nov.	Dec.-Feb.
Seasons											
Daily catch (kg/day/boat)	300	200	300	150	50	25	5	300	200	300	200
No. of boat (units)		54			24		47		19		
Operating efficiency		0.54			0.13		0.06		0.44		
No. of boats entry per day		29			3		3		8		
Total daily catch (kg/day)	8,669	5,779	8,669	4,334	153	76	14	2,503	1,669	2,503	1,669
No. of operable days/month	29	29	29	29	19	19	23	29	29	29	29
Landing volume per month (ton)	251	168	251	126	3	1	0	73	48	73	48
No. of months	3	2	4	3	5	7	12	3	2	4	3
Annual landing volume (ton/year)		2,472			15		4		750		
Total No. of boats entry (units/year)		10,056			290		756		2,904		

PAGA/MAULOD

Major fishing boats	Purse Seine				Gill Net		Gill Net (w/FAD)		Trotling		
	Dec.-Feb.	Mar.-Apr.	May-Aug.	Sep.-Nov.	Sep.-Apr.	May-Aug.	Dec.-May	June-Nov.	Jan.-Apr.	May-Aug.	Sep.-Dec.
Seasons											
Daily catch (kg/day/boat)	150	300	200	300	50	75	50	25	40	20	10
No. of boat (units)		21			3		6		2		
Operating efficiency	0.34		0.69		1.00		1.00		1.00		
No. of boats entry per day	7		14		3		6		2		
Total daily catch (kg/day)	1,080	4,320	2,880	4,320	150	225	300	150	80	40	20
No. of operable days/month	21	30	25	30	30	30	30	30	30	30	30
Landing volume per month (ton)	22	130	72	130	5	7	9	5	2	1	1
No. of months	3	2	4	3	8	4	6	6	6	6	6
Annual landing volume (ton)		1,003			36		54		25		
Total No. of boats entry (units/year)		4,047			720		1,080		1,080		

ENDE

Major fishing boats	Purse Seine				Lampala				Gill Net/Hand-line			
	Dec.-Feb.	Mar.-Apr.	May-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-Apr.	May-Aug.	Sep.-Nov.	Dec.-Feb.	Mar.-Apr.	May-Aug.	Sep.-Nov.
Seasons												
Daily catch (kg/day/boat)	100	200	300	200	100	200	300	200	25	38	50	38
No. of boat (units) Ende Selatan		22								9		
Pulau Ende		11							0		45	
Operating efficiency	0.11		0.69		0.32		0.69			0.60		
No. of boats entry per day	3		23		37		9		5		32	
Total daily catch (kg/day)	347	4,526	6,789	4,526	3,709	1,646	2,469	1,646	135	1,211	1,614	1,211
No. of operable days/month	17	30	25	30	18	30	25	30	25	25	25	25
Landing volume per month (ton)	6	136	170	136	68	49	62	49	3	30	41	30
No. of months	3	2	4	3	3	2	4	3	3	2	4	3
Annual landing volume (ton/year)		1,376			696		696		325		325	
Total No. of boats entry (units/year)		5,836			4,084		4,084		7,723		7,723	

Table 1-11. Estimated Monthly Fish Landing Volume at Each Model Site

(1) WAWORADA																	
Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Bagan L.	17	17	25	33	33	33	25	17	17	17	17	17	267	22		
	Bagan P.	7	7	10	14	14	14	10	7	7	7	7	7	109	9		
	Purse Seine	29	29	160	291	291	291	387	387	291	291	291	160	2,894	241		
	Gill Net	4	4	4	4	4	4	4	4	4	4	4	4	68	6		
	Collect boat	118	118	177	236	236	236	177	118	118	118	118	118	1,884	157	H.V.	572
	Total	174	174	375	677	681	681	607	536	439	439	439	305	5,223	435	L.V.	150
(exp. BG)	150	150	340	530	534	534	572	513	416	416	416	281	4,846	404	H.V./L.V.	3.8	
Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)	
Present Condition (without Project)	Fresh	145	145	167	218	219	219	229	213	187	187	186	151	2,265	47%	Max.	286
	Processed	5	5	131	258	261	261	286	247	182	182	179	92	2,088	43%	Min.	143
	Unsold	0	0	42	54	55	55	57	53	47	47	47	38	494	10%		
Improved plan (with Project)	Fresh	150	150	228	229	229	229	229	229	229	229	213	213	2,573	53%	Max.	286
	Process (local)	0	0	112	255	257	257	286	242	169	169	166	68	1,981	41%	Min.	191
	Process (outside)	0	0	0	47	47	47	57	42	18	18	17	0	293	6%		
(2)-1 KEMPO																	
Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Bagan L.	7	7	20	33	33	65	65	65	65	33	33	20	444	37		
	Purse Seine	5	5	10	16	16	21	21	21	21	16	16	10	177	15		
	Gill Net	27	27	27	27	27	40	40	40	40	27	27	27	377	31		
	Collect boat	59	59	150	241	241	430	430	430	430	241	241	150	3,106	259	H.V.	471
	Total	98	98	207	316	316	557	557	557	557	316	316	207	4,104	342	L.V.	86
	(exp. BG/PS)	86	86	177	268	268	471	471	471	471	268	268	177	3,483	290	H.V./L.V.	5.5
Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)	
Present Condition (without Project)	Fresh	86	86	110	134	134	188	188	188	188	134	134	110	1,683	48%	Max.	235
	Processed	0	0	40	100	100	235	235	235	235	100	100	40	1,423	41%	Min.	118
	Unsold	0	0	28	34	34	47	47	47	47	34	34	28	378	11%		
Improved plan (with Project)	Fresh	86	86	162	185	185	188	188	188	188	185	185	162	1,989	57%	Max.	235
	Process (local)	0	0	15	33	33	230	230	230	230	83	83	15	1,286	37%	Min.	157
	Process (outside)	0	0	0	0	0	52	52	52	52	0	0	0	208	6%		
(2)-2 HU'U																	
Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Purse Seine	18	18	65	112	150	150	150	112	112	112	112	65	1,177	98		
	Gill Net	2	2	6	6	8	8	8	6	6	6	6	2	61	5	H.V.	163
	B. longline	6	6	6	6	6	6	6	6	6	6	6	6	73	6	L.V.	26
	Total	26	26	77	124	163	163	163	124	124	124	124	73	1,310	109	H.V./L.V.	6.4
Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)	
Present Condition (without Project)	Fresh	26	26	42	55	65	65	65	55	55	55	55	41	605	46%	Max.	82
	Processed	0	0	24	55	82	82	82	55	55	55	55	21	567	43%	Min.	41
	Unsold	0	0	11	14	16	16	16	14	14	14	14	10	138	11%		
Improved plan (with Project)	Fresh	26	26	60	65	65	65	65	65	65	65	65	59	689	53%	Max.	82
	Processed	0	0	17	42	61	61	61	42	42	42	42	14	424	32%	Min.	54
	Process (outside)	0	0	0	17	37	37	37	17	17	17	17	0	197	15%		

(3)-1 LARANTUKA

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Bagan P.	4	4	41	79	79	53	53	53	79	79	79	41	643	54		
	Purse Seine	16	16	118	221	221	184	184	184	221	221	221	118	1,922	160	H.V.	303
	Gill Net	2	2	2	4	4	2	2	2	2	2	2	2	29	2	L.V.	22
	Total	22	22	162	303	303	238	238	238	301	301	301	162	2,593	216	H.V./L.V.	13.8

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	22	22	105	162	162	136	136	136	161	161	161	105	1,468	57%	Max. 202
	Processed	0	0	30	101	101	69	69	69	100	100	100	30	769	30%	Min. 101
	Unsold	0	0	26	40	40	34	34	34	40	40	40	26	356	14%	
Improved plan (with Project)	Fresh (Local)	22	22	155	162	162	162	162	162	162	162	162	155	1,649	64%	Max. 202
	Fresh (Outside)	0	0	0	40	40	17	17	17	39	39	39	0	250	10%	Min. 152
	Processed	0	0	7	101	101	60	60	60	100	100	100	7	693	27%	

(3)-1-1 LAMAHALA JAYA

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average				
Present Condition (No change with Project)	Bagan P.	3	3	3	3	3	3	5	5	5	5	3	3	41	3				
	Purse Seine	172	172	343	343	343	257	257	257	343	343	343	343	3,517	293				
	Gill Net	2	2	2	5	5	5	5	5	5	5	2	2	47	4				
	Sub-Total	177	177	348	351	351	265	267	267	353	353	348	348	3,604	300				
	Direct selling to Sijai boats on sea																	H.V.	212
	Volumetron	71	71	139	140	140	106	107	107	141	141	139	139	1,440	120	L.V.	106		
Balance	106	106	209	211	211	159	161	161	212	212	209	209	2,164	180	H.V./L.V.	2.0			

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	71	71	84	84	84	85	85	85	85	85	84	84	987	46%	Max. 106
	Processed	35	35	104	105	105	71	72	72	105	105	104	104	1,019	47%	Min. 53
	Unsold	0	0	21	21	21	4	4	4	21	21	21	21	158	7%	
Improved plan (with Project)	Fresh (Local)	80	80	85	85	85	85	85	85	85	85	85	85	1,008	47%	Max. 106
	Fresh (Outside)	27	27	20	21	21	19	18	18	21	21	20	20	252	12%	Min. 71
	Processed	0	0	104	105	105	55	58	58	105	105	104	104	904	42%	

(3)-1-2 SAGU

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Bagan P.	22	22	22	11	11	11	11	11	22	22	22	22	212	18		
	Purse Seine	29	28	28	14	14	14	14	14	28	28	28	28	269	22		
	Gill Net	5	5	5	3	3	3	3	3	5	5	5	5	52	4	H.V.	58
	Handline	1	1	2	2	2	1	1	1	2	2	2	1	18	1	L.V.	29
	Total	57	57	58	30	30	29	29	29	58	58	58	57	551	46	H.V./L.V.	2.0

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	23	23	23	16	16	15	15	15	23	23	23	23	240	44%	Max. 29
	Processed	28	28	29	10	10	10	10	10	29	29	29	17	239	43%	Min. 15
	Unsold	6	6	6	4	4	4	4	4	6	6	6	6	71	13%	
Improved plan (with Project)	Fresh (Local)	23	23	23	22	22	22	22	22	23	23	23	23	272	49%	Max. 29
	Fresh (Outside)	34	34	3	0	0	0	0	0	3	3	3	3	83	15%	Min. 19
	Processed	0	0	32	8	8	7	7	7	32	32	32	31	196	36%	

(3)-2 LEWOLEBA

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Bogen P.	169	169	169	141	113	113	113	113	113	113	113	141	1,580	132		
	Purse Seine	12	12	12	12	18	18	18	12	12	12	12	12	158	13		
	Gill Net	3	3	3	1	1	1	1	1	1	1	3	3	25	2	H.V.	185
	Handline	0	0	1	1	1	0	0	0	0	1	1	0	5	0	L.V.	126
	Total	184	184	185	155	132	132	132	132	126	127	127	128	1,767	147	H.V./L.V.	1.5

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	74	74	74	66	60	60	60	58	58	58	59	66	767	43%	Max. 92
	Processed	92	92	92	72	58	57	57	53	54	54	55	73	809	46%	Min. 46
	Unsold	18	18	18	16	15	15	15	15	15	15	15	17	192	11%	
Improved plan (with Project)	Fresh (Local)	74	74	74	74	74	74	74	74	74	74	74	74	886	50%	Max. 92
	Fresh (Outside)	110	110	9	6	3	3	3	2	2	2	2	6	261	15%	Min. 62
	Processed	0	0	101	75	56	55	55	50	50	50	52	76	621	35%	

(3)-2-1BALAURING

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Purse Seine	11	11	6	6	6	6	6	6	11	11	11	11	101	8		
	Gill Net	13	13	13	13	7	7	7	7	13	13	13	13	132	11	H.V.	46
	Handline	5	5	11	11	11	5	5	5	21	21	21	5	127	11	L.V.	18
	Total	30	30	29	29	23	18	18	18	46	46	46	30	361	30	H.V./L.V.	2.6

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	14	14	14	14	12	11	11	11	18	18	18	14	169	47%	Max. 23
	Processed	12	12	12	12	8	4	4	4	23	23	23	12	149	41%	Min. 11
	Unsold	4	4	3	3	3	3	3	3	5	5	5	4	42	12%	
Improved plan (with Project)	Fresh (Local)	18	18	18	18	17	16	16	16	18	18	18	18	208	58%	Max. 23
	Fresh (Outside)	12	12	1	1	0	0	0	0	5	5	5	1	41	11%	Min. 15
	Processed	0	0	11	11	6	2	2	2	23	23	23	11	112	31%	

(3)-2-2 LAMALERA

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Whaler	0	0	0	0	50	50	50	50	50	50	0	0	300	25		
	Gill Net	7	7	7	7	4	4	4	6	6	6	7	7	70	6	H.V.	19
	No-motor	13	13	13	13	8	8	8	10	10	10	13	13	128	11	L.V.	12
	Total	19	19	19	19	62	62	62	66	66	66	19	19	498	41	H.V./L.V.	1.7
	(exp. whale)	19	19	19	19	12	12	12	16	16	16	19	19	198	16		

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	8	8	8	8	6	6	6	7	7	7	8	8	84	17%	Max. 10
	Processed	10	10	10	10	55	55	55	57	57	57	10	10	393	79%	Min. 5
	Unsold	2	2	2	2	1	1	1	2	2	2	2	2	21	4%	
Improved plan (with Project)	Fresh (Local)	8	8	8	8	8	8	8	8	8	8	8	8	93	19%	Max. 10
	Fresh (Outside)	12	12	2	2	0	0	0	2	2	2	2	2	36	7%	Min. 6
	Processed	0	0	10	10	54	54	54	56	56	56	10	10	369	74%	

Note: 100% of whale meat would be processed (no fresh meat marketing).

(4)-1 MAUMERE/WURING

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Purse Seine	126	126	189	251	251	168	168	251	251	251	251	189	2,472	206		
	Gill Net	1	1	3	3	3	3	3	1	1	1	1	1	25	2		
	Handline	0	0	0	0	0	0	0	0	0	0	0	0	4	0	H.V.	327
	Collect boat	48	48	73	73	73	48	48	73	73	73	73	48	750	63	L.V.	176
	Total	176	176	264	327	327	219	219	326	326	326	326	239	3,251	271	H.V./L.V.	1.9

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	114	114	149	175	175	131	131	174	174	174	174	139	1,824	56%	Max. 218
	Processed	33	33	78	109	109	55	55	108	108	108	108	65	971	30%	Min. 109
	Unsold	28	28	37	44	44	33	33	43	43	43	43	35	456	14%	
Improved plan (with Project)	Fresh (Local)	168	168	175	175	175	175	175	175	175	175	175	175	2,085	64%	Max. 218
	Fresh (Outside)	8	8	23	44	44	7	7	42	42	42	42	13	324	10%	Min. 164
	Processed	0	0	67	109	109	37	37	108	108	108	108	50	842	26%	

(4)-2 PAGA/MAULO

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Purse Seine	22	22	76	130	101	72	72	72	101	130	130	76	1,003	84		
	Gill Net	5	5	5	5	7	7	7	7	5	5	5	5	63	5		
	Fixed C/N	9	9	9	9	9	5	5	5	5	5	5	9	81	7	H.V.	146
	Trolling	2	2	2	2	1	1	1	1	1	1	1	1	17	1	L.V.	38
	Total	38	38	92	146	118	84	84	84	110	139	139	90	1,164	97	H.V./L.V.	3.8

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	37	37	44	58	51	42	42	42	49	57	57	43	558	48%	Max. 73
	Processed	1	1	37	73	54	32	32	32	49	69	69	36	485	42%	Min. 36
	Unsold	0	0	11	15	13	10	10	10	12	14	14	11	121	10%	
Improved plan (with Project)	Fresh (Local)	38	38	58	58	58	57	57	57	58	58	58	58	654	56%	Max. 73
	Fresh (Outside)	0	0	1	15	8	0	0	0	6	14	14	1	58	5%	Min. 49
	Processed	0	0	33	73	52	27	27	27	46	68	68	31	452	39%	

(4)-3 ENDE (PAUPANDA)

Fish Landing	Boat Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average		
Present Condition (No change with Project)	Purse Seine	6	6	71	136	170	170	170	170	136	136	136	71	1,376	115		
	Lampala	68	68	49	49	62	62	62	62	49	49	49	68	696	58		
	Gill Net	3	3	30	30	41	41	41	41	30	30	30	30	352	29		
	Total	77	77	151	216	272	272	272	272	216	216	216	169	2,424	202		
		Fish transported from Flores Timur directly by Sinjal boats															H.V.
	Volumet(ton)	35	35	70	70	70	53	53	53	71	71	70	70	720	60	L.V.	112
	Total	112	112	220	286	342	325	325	325	286	286	285	238	3,144	262	H.V./L.V.	3.1

Fish Treatment	Type	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Ratio (%)	Fresh fish (ton/month)
Present Condition (without Project)	Fresh	77	77	134	160	182	176	176	176	160	160	160	141	1,778	57%	Max. 228
	Processed	35	35	70	86	114	105	106	106	86	86	86	62	977	31%	Min. 114
	Unsold	0	0	17	40	46	44	44	44	40	40	40	35	390	12%	
Improved plan (with Project)	Fresh (Local)	77	77	151	182	182	182	182	182	182	182	182	169	1,932	61%	Max. 228
	Fresh (Outside)	0	0	0	27	46	40	40	40	27	27	27	0	274	9%	Min. 171
	Processed	35	35	70	76	114	103	103	103	77	77	76	70	938	30%	

Formula to calculate the monthly volume of fresh fish at each site:

$$X = \text{Min.} + [(A - \text{Min.}) \times (\text{Max.} - \text{Min.}) / (\text{H.V.} - \text{Min.})]$$

X: Volume that can be marketed as fresh fish at each month

Min.: Minimum volume that can be marketed as fresh fish per month (Present Condition: Urban Area = H.V. x 1/3; Rural Area = H.V. x 1/4. Improved Plan: Urban Area = H.V. x 1/2; Rural Area = H.V. x 1/3)

Max.: Maximum volume that can be marketed as fresh fish per month (Urban Area: H.V. x 1/1.5; Rural Area: H.V. x 1/2)

H.V.: Maximum total volume of fish per month

A: Total volume of fish landed at each month

Unsold fish volume is calculated based on the following conditions:

(1) About 20% of fresh fish in peak month would not be able to sold in condition resulting in the economic loss in price (about 20%).

The remaining 80% of fresh fish after deducting the above 20% in the peak month is assumed as maximum volume to be marketed as fresh fish throughout year.

(2) Processed fish during rainy season (Jan.-Feb.) shows salted fish. All processed fish accounted as causing economic loss of 50% during dry season and 75% during rainy season.

Volume of fresh fish (outside region) is calculated based on the following conditions:

(1) About 20% of fresh fish in peak month would be able to sold to outside the region.

The remaining 80% of fresh fish after deducting the above 20% in the peak month is assumed to be maximum volume to be sold locally as fresh fish throughout year.

Summary (Improvement of Fish Treatment)

		Average in 12 Project Sites		Sumabawa (3 sites)		Flores (9 sites)		Bima (1 site)		Dompu (2 sites)		East Flores (6 site)		Central Flores (3 si	
Without Project	Fresh	49%	Fresh	47%	Fresh	51%	Fresh	47%	Fresh	48%	Fresh	47%	Fresh	55%	
	Processed	39%	Processed	42%	Processed	38%	Processed	43%	Processed	42%	Processed	43%	Processed	32%	
	Unsold	11%	Unsold	10%	Unsold	12%	Unsold	10%	Unsold	11%	Unsold	11%	Unsold	13%	
With Project	Fresh (L)	56%	Fresh (L)	54%	Fresh (L)	57%	Fresh (L)	53%	Fresh (L)	56%	Fresh (L)	52%	Fresh (L)	62%	
	Fresh (O)	6%	Fresh (O) No change		Fresh (O)	10%	Fresh (O) No change		Fresh (O) No change		Fresh (O) No change		Fresh (O) No change	9%	
	Process (L)	35%	Process (L)	38%	Process (L)	33%	Process (L)	41%	Process (L)	36%	Process (L)	36%	Process (L)	30%	
	Process (O)	3%	Process (O)	7%	Process (O) No change		Process (O)	6%	Process (O)	8%	Process (O) No change		Process (O) No change		

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Balance of Fresh Fish (ton)

Project Site	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total	Average	
Lack of fresh	Larantuka	140	140	7	0	0	0	0	0	0	0	7	292	24	
	Mamere	8	8	1	1	0	0	0	0	0	0	0	18	1	
	Ende	106	106	32	0	0	0	0	0	0	1	13	258	21	
	Total	253	253	39	1	1	1	1	0	0	0	20	568	47	
Surplus fresh	Lewoleba	110	110	9	6	3	3	2	2	2	2	6	261	22	
	Balauring	12	12	1	1	0	0	0	5	5	5	1	41	3	
	Lamalera	12	12	2	2	0	0	2	2	2	2	2	36	3	
	Lamahaia Jaya	27	27	20	21	21	19	18	18	21	21	20	252	21	
	Sagu	34	34	3	0	0	0	0	3	3	3	3	83	7	
	Larantuka	0	0	0	40	40	17	17	39	39	39	39	0	250	21
	Mamere	8	8	23	44	44	7	7	42	42	42	42	13	324	27
	Paga	0	0	1	15	8	0	0	6	14	14	14	1	58	5
	Ende	0	0	0	27	46	40	40	40	27	27	27	0	274	23
	Total	203	203	69	155	162	86	85	122	148	155	154	46	1,578	131
Balance (Fresh fish to Bajawa)	-50	-50	19	154	161	86	85	121	149	156	154	28	1,010	84	

Figure 1-1. Fishing Pattern at Each Model Site
(Based on the Hearing from Fishermen)

1. Waworada - Kec. Langgulu, Kab. Bima, NTB

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON					
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others			
																Start at PPI	Back to PPI				
Purse Seine	12 days/month (22 boats)												25 days/month (14 boats)	11-12m (L)	Fishermen/Vessel	(Jan-Apr: 22)	Start at PPI	Back to PPI	7:00	19:00-20:00	Day/Fishing
Bagan Listrik			Tarih Bagan Qumil, Tembany Lanyar										20-25 days/month	20-40m(L)	Fishermen/Vessel	(Roroco 1)	Start at PPI	Back to PPI	17:00	07:00-08:00	Day/Fishing
Bagan Patromas			Tarih Bagan Qumil, Tembany Lanyar										10-25 days/month	15-20m (L)	Fishermen/Vessel	(Roroco 2)	Start at PPI	Back to PPI	17:00	07:00-08:00	Day/Fishing
Bottom long-line					20 days/month								15 days/month	7-12m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	17:00	07:00-08:00	2-3 days/trip (Sep.-Mar.)
Gill Net						Tanghal, Bagan Ma, Turu, Tanghal							20 days/month	7-12m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	17:00	07:00-08:00	Day/Fishing
Hand-line/Bottom troll					15-20 days/month								15-20 days/month	4-5m (L)	Fishermen/Vessel	(Rimba)	Start at PPI	Back to PPI	6:00	17:00	Day/Fishing
Collecting Boat														8-9m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	17:00-18:00	03:00-04:00	Day/Fishing

2-1. Kempo - Kec. Kempo, Kab. Dompu, NTB

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON					
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others			
																Start at PPI	Back to PPI				
Bagan Listrik	8-10 days/month												10-25 days/month	17-23m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	15:00	7:00	Day/Fishing
Purse Seine	7-8 days/month												10-25 days/month	12-15m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	15:00	7:00	Day/Fishing
Gill Net													20-25 days/month	11-12m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	15:00	7:00	Day/Fishing
Hand-line													20-25 days/month	5-6m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	Anytime		Day/Fishing
Collecting Boat	8-10 days/month												10-25 days/month	8-9m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	17:00-18:00	02:00-07:00	Day/Fishing
														Non-motor	Fishermen/Vessel		Start at PPI	Back to PPI			Day/Fishing
														3-6m (L)	Fishermen/Vessel		Start at PPI	Back to PPI			Day/Fishing

2-2. Hu'u - Kec. Hu'u, Kab. Dompu, NTB

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON					
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others			
																Start at PPI	Back to PPI				
Purse Seine	7-8 days/month (4 boats)												15 days/month (14 boats)	4-5 t	Fishermen/Vessel		Start at PPI	Back to PPI	6:00	12:00	Day/Fishing
Gill Net	6-7 days/month												15 days/month	3-4 t	Fishermen/Vessel		Start at PPI	Back to PPI	16:00	6:00	Day/Fishing
Hand-line / B. longlins													15 days/month	4-6m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	18:00	8:00	2-3 days/trip (Sep.-Jan.)
														(Non-motor)	Fishermen/Vessel		Start at PPI	Back to PPI			Day/Fishing
														4-6m (L)	Fishermen/Vessel		Start at PPI	Back to PPI			Day/Fishing

Note: About 50 purse seiners coming from Waworada, Sape, and Sumbawa operate for a week during May - July if it is said that there are abundant fishes in Tl. Campi.

3-1-1. Larantuka, Kab. Flores Timur, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON					
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others			
																Start at PPI	Back to PPI				
Pole-and-line													20 days/month	15-50 t	Fishermen/Vessel	15 : 33	Start at PPI	Back to PPI	16:00 - 17:00		Day/Fishing
Bagan													20 days/month	10-12m (L)	Fishermen/Vessel	(with motor: 17)	Start at PPI	Back to PPI	18:00	6:00	Day/Fishing
Purse Seine													20 days/month	8-13m (L)	Fishermen/Vessel	(Mar-Oct: 35)	Start at PPI	Back to PPI	18:00	6:00	Day/Fishing
Hand-line													20-25 days/month	3.5-9m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	06:00 / 14:00	16:00 / 18:00	2 times/day
Gill-net													20-25 days/month	3.5-9m (L)	Fishermen/Vessel		Start at PPI	Back to PPI	06:00 / 14:00	12:00 / 18:00	2 times / day

About 25 purse seiners of Lamahala Jaya (Adonara Timur) operate in Tl. Konga and Tg. Bunga (Flores mainland, 20 units) and Adonara Barat (5 units) with a landing base in Larantuka during May to October.

3-1-2. Lamahala Jaya - Kec. Adonara Timur, Kab. Flores Timur, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others
																Start at PPI	Back to PPI	
Purse Seine		Jan-Feb			Tomolok, Cakrasa, Layang	10 days/month							5-8 t 11-13m (L)	8-10 Fishermen/Vessel	12 (Mar-Oct: 52)	Start at PPI Back to PPI	17:00 / 04:00 08:00 / 18:00	Day/Fishing
Bagan						10-25 days/month	Teri						5-8 t 12m (L)	5-8 Fishermen/Vessel	2	Start at PPI Back to PPI	17:00 6:00	Day/Fishing
Gill Net					Tomolok, Cakrasa, Layang	10 days/month							0.5-1 t 6-8m (L)	2-3 Fishermen/Vessel	10	Start at PPI Back to PPI	16:00-17:00 5:00	Day/Fishing
Hand-line		Keras, Kaba					Tana, Tongkol						0.5-1 t 6-8m (L)	1-2 Fishermen/Vessel		Start at PPI Back to PPI	05:00 / 18:00 10:00 / 23:00	Day/Fishing

About 30 purse seiners of Lamahala Jaya (Adonara Timur) change their operating area to Tl. Konga and Tg. Bunga (Flores mainland, 20 units), Adonara Barat (5 units) and Lewoleba (5 units) during May to October.

3-1-3. Sagu - Kec. Adonara Timur, Kab. Flores Timur, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others
																Start at PPI	Back to PPI	
Bagan					15 days/month				15 days/month				5 t	1-3 Fishermen/Vessel	2 (Sep-Mar: 5)	Start at PPI Back to PPI	17:00 6:00	Day/Fishing
Purse Seine		Jan-Feb			Combu	15 days/month			Jan-Feb				3-4 t 10-12m (L)	7-8 Fishermen/Vessel	8	Start at PPI Back to PPI	5:00 / 12:00 10:00 / 17:00	Day/Fishing
Gill Net		15 days/month		Jan-Feb					Jan-Feb				5-12m (L)	1-4 Fishermen/Vessel	10	Start at PPI Back to PPI	17:00 6:00	Day/Fishing
Hand-line					Keras, Kaba	15 days/month							4-5m (L)	1-2 Fishermen/Vessel	11	Start at PPI Back to PPI	18:00 6:00	Day/Fishing
Trotting (w/FAD)					Tana, Cakrasa, Tongkol	15 days/month			Tana, Cakrasa, Tongkol				4-5m (L)	1-2 Fishermen/Vessel		Start at PPI Back to PPI	5:00 13:00	Day/Fishing

3 units of Bagan of Larantuka are supposed to operate based on Sagu during September to March.

3-2-1. Lewoleba - Kec. Nubatukan, Kab. Lembata, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others
																Start at PPI	Back to PPI	
Bagan		Combu, Serah			10-25 days/month								3-5 t 12-15m (L)	4-5 Fishermen/Vessel	47	Start at PPI Back to PPI	17:00 - 18:00 05:00 - 06:00	Day/Fishing
Purse Seine					Layang, Tongkol, Saba	15 days/month							2-3 t 9-12m (L)	3-3 Fishermen/Vessel	3 (Mar-Oct: 7)	Start at PPI Back to PPI	anytime (Tongkol) Night (Layang)	Day/Fishing
Gill Net					Tongkol, Kambur	15 days/month							0.5-1 t 4-6m (L)	1-2 Fishermen/Vessel	10	Start at PPI Back to PPI	17:00 - 18:00 05:00 - 06:00	Day/Fishing
Hand-line					15 days/month								0.5-1 t 4-6m (L)	1-2 Fishermen/Vessel	2	Start at PPI Back to PPI	05:00 - 06:00 13:00 - 14:00	Day/Fishing

3-4 units of purse seiners of Lamahala Jaya (Adonara Timur) are supposed to operate in Tl. Lewoleba during March - October.

3-2-2. Balauring - Kec. Omesuri, Kab. Lembata, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others
																Start at PPI	Back to PPI	
Purse Seine		Jan-Feb			Combu, Jan-Feb	15 days/month			Jan-Feb				12-13m (L)	10-11 Fishermen/Vessel	2 (Mar-Oct: 3)	Start at PPI Back to PPI	8:00 17:00	Day/Fishing
Gill Net (w/FAD)		Serah, Layang, Kambur			10-25 days/month				Serah, Layang, Kambur				0.5-1 t 5-7m (L)	1-2 Fishermen/Vessel	7	Start at PPI Back to PPI	12:00 6:00	Day/Fishing
Hand-line (w/FAD)					Tana, Layang, Cakrasa	10-25 days/month			Tana				0.5-1 t 5-7m (L)	1-2 Fishermen/Vessel	14	Start at PPI Back to PPI	17:00 6:00	Day/Fishing
													Non-motor 5-7m (L)	1-2 Fishermen/Vessel	About 80	Start at PPI Back to PPI		Day/Fishing

1-2 units of purse seiners of Lamahala Jaya (Adonara Timur) are supposed to operate in Tl. Lewoleba during March - October.

3-2-3. Lamalera - Kec. Wulandoni, Kab. Lembata, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others
																Start at PPI	Back to PPI	
Whaler (Harpon)						20-25 days/month							3-4 t Non-motor	12-15 Fishermen/Vessel	20 (A2, B:12)	Start at PPI Back to PPI	6:30 13:00-14:00	Day/Fishing
Gill Net		15 days/month				10 days/month							8-11m (L) w/15-25 hp	2-7 Fishermen/Vessel	11 (A:5, B:5)	Start at PPI Back to PPI	17:30 10:00-11:00	Day/Fishing
Hand-line		15 days/month			Layang, Kaba, Saba, etc.	10 days/month							Non-motor 3-4m (L)	1-2 Fishermen/Vessel	About 40 (A:20, B:20)	Start at PPI Back to PPI	7:00 / 14:00 13:00 / 16:00	Day/Fishing

4-1-1. Wuring - Kec. Alok, Kab. Sikka, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others
																Start at PPI	Back to PPI	Day/Fishing
Purse Seine													10-14m (L)	8-10 Fishermen/Vessel	34 (Wuring)	Start at PPI Back to PPI	20:00 04:00-08:00	Day/Fishing
Gill Net / Hand-line													5-7m (L)	1-3 Fishermen/Vessel	24 (Wuring)	Start at PPI Back to PPI	17:00-21:00 04:00-08:00	Day/Fishing
B. longline/Trolling/Hand-line													6-7m (L)	1-3 Fishermen/Vessel	47 (Wuring)	Start at PPI Back to PPI	05:00 / 15:00 11:00 / 19:00	Day/Fishing
																Start at PPI Back to PPI		Day/Fishing
																Start at PPI Back to PPI		Day/Fishing

4-1-2. Paga & Mauloo - Kec. Paga, Kab. Sikka, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others
																Start at PPI	Back to PPI	Day/Fishing
Purse Seine													3 t	8-10 Fishermen/Vessel	21	Start at PPI Back to PPI	6:00 17:00	Day/Fishing
Gill Net													2.5-3m (L)	1-2 Fishermen/Vessel	3	Start at PPI Back to PPI	17:00 6:00	Day/Fishing
Gill Net (Fixed w/FAD)													0.5 t	1-2 Fishermen/Vessel	8	Start at PPI Back to PPI	15:00 6:00	Day/Fishing
Trolling													4-6m (L)	1-3 Fishermen/Vessel	7	Start at PPI Back to PPI	15:00 08:00-09:00	Day/Fishing
Hand-line													Non-motor 2.5-3m (L)	1-2 Fishermen/Vessel	1-2	Start at PPI Back to PPI	05:00 / 17:00 11:00 / 06:00	Day/Fishing

4-2. Paupanda - Kec. Ende Selatan/P. Ende, Kab. Ende, NTT

FISHERY METHODS	FISHING SEASON												Tonnage of Fishing Vessels	Number of Fishermen	Number of Fishing Vessels	FISHING HOURS IN MAJOR SEASON		
	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.				A Day's Fishery		Others
																Start at PPI	Back to PPI	Day/Fishing
Purse Seine													12-17m (L)	7-9 Fishermen/Vessel	E. Selatan: 22 P. Ende: 13	Start at PPI Back to PPI	6:30 19:30	Day/Fishing
Lampara													8 t 16m (L)	10 Fishermen/Vessel	E. Selatan: 8 P. Ende: 6	Start at PPI Back to PPI	15:00-17:00 6:00	Day/Fishing
Gill Net													4-7m (L)	2-3 Fishermen/Vessel	E. Selatan: 9 P. Ende: 8	Start at PPI Back to PPI	17:00 6:00	Day/Fishing
Hand-line/B. longline													2.5-3m (L)	1-2 Fishermen/Vessel	E. Selatan: 5 P. Ende: 15	Start at PPI Back to PPI	15:00 10:00	Day/Fishing
Payang														Fishermen/Vessel	E. Selatan: 8	Start at PPI Back to PPI		Day/Fishing
Trawl														Fishermen/Vessel	E. Selatan: 2	Start at PPI Back to PPI		Day/Fishing

Figure 1-2. Fish Landing Pattern

