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LAMPIRAN

Lampiran 1. Ukuran berat total dan panjang cagak tuna madidihang yang tertangkap selama penelitian

No.	Berat total (kg)	Panjang cagak (cm)
1.	28,6	111,3
2.	14,6	92,1
3.	31,9	110
4.	35,7	115,8
5.	26	105,3
6.	18,1	92,1
7.	44,7	120
8.	30	118,4
9.	17,8	101,7
10.	63,1	170,2
11.	41,33	98,1
12.	63,4	118,6
13.	52,4	119,4
14.	32,5	122,8
15.	18,1	92,8
16.	29,7	110,3
17.	61	152,1
18.	49,3	124,6
19.	40,3	110,7
20.	54	120,6
21.	49	125,1
22.	16,9	92,4
23.	29,1	118,6
24.	61	152
25.	67,1	156,2
26.	17,2	100
27.	60,4	150,6
28.	35	115,7
29.	37,4	117,3
30.	67,3	158,6
31.	27,1	115
32.	29,5	118,6
33.	16,8	93,7
34.	65,2	154,7
35.	27,1	116,4
36.	18,4	92,4
Rata - rata	38,25	119,01
Min.	14,6	92,1
Max.	67,3	170,2

Sumber: Data penelitian (2013)

Lampiran 2. Kuesioner *RAPFISH*

Nama Responden :
 Jenis Kelamin :
 Umur :
 Status Nelayan / Pemerintah :
 Hari / Tanggal :
 Kabupaten / Kecamatan / Desa :

Dimensi Biologi

No.	Indikator / Atribut	Penjelasan	Maks.	Min.	Kriteria	Nilai
1.	Status eksploitasi	Status pemanfaatan sumberdaya berdasarkan MSY (<i>Maximum Sustainable Yield</i>)	3	1	1 : <i>Over exploited</i> 2 : <i>Fully exploited</i> 3 : <i>Moderate / non exploited</i>	
2.	<i>CPUE</i>	Hasil tangkapan persatuan upaya (trip / kapal / perahu)	3	1	1 : Penurunan <i>CPUE</i> >1000 kg/trip 2 : Penurunan <i>CPUE</i> 250-1000 kg/trip 3 : Penurunan <i>CPUE</i> <250 kg/trip	
3.	Rata-rata ukuran panjang ikan	Perubahan ukuran panjang ikan (<i>Fork Length</i>)	3	1	1 : < 77 Cm 2 : 77 - 100 Cm 3 : > 100 Cm	
4.	Bobot ikan	Perubahan size	3	1	1 : Size < 20 kg 2 : Size 20 - 40 kg 3 : Size > 40 kg	
5.	<i>Range collapse</i>	Sumberdaya ikan semakin jauh ditemukan	3	1	1 : <i>Fishing ground</i> sangat jauh 2 : <i>Fishing ground</i> jauh 3 : <i>Fishing ground</i> dekat	
6.	Proporsi ikan yuwana (juvenile) yang ditangkap	Persentase ikan yang ditangkap sebelum mencapai umur dewasa (maturity).	3	1	1 : Banyak sekali (> 60%) 2 : Banyak (30 - 60%) 3 : Sedikit (<30%)	

Sumber: Modifikasi KKP-RI, WWF Indonesia, PKSPL-IPB (2012).

Dimensi Teknologi Penangkapan

No.	Indikator / Atribut	Penjelasan	Maks.	Min.	Kriteria	Nilai
1.	Kapasitas mesin	Kemampuan mesin untuk menggerakkan perahu	3	1	1 : >9 PK 2 : 7 - 9 PK 3 : 5 - 7 PK	
2.	Modifikasi alat penangkapan	Perubahan alat tangkap untuk peningkatan kapasitas	2	1	1 : Ada perubahan untuk meningkatkan kapasitas alat 2 : Tidak ada perubahan perkapasitas alat	
3.	Penangkapan ikan yang ramah lingkungan	Aktivitas penangkapan yang tidak merusak lingkungan	2	1	1 : Tidak ramah lingkungan 2 : Ramah lingkungan	
4.	Teknik penangkapan	Pola penangkapan ikan	2	1	1 : Rumpon 2 : Berburu (tidak menggunakan rumpon)	
5.	Tempat pendaratan	Lokasi pendaratan hasil tangkapan	2	1	1 : Kampung nelayan 2 : TPI Kecamatan	

Sumber: Modifikasi KKP-RI, WWF Indonesia, PKSPL-IPB (2012).

Dimensi Kelembagaan

No.	Indikator / Atribut	Penjelasan	Maks.	Min.	Kriteria	Nilai
1.	Keberadaan otoritas tunggal dalam pengelolaan perikanan	Single otoritas akan meningkatkan efektifitas kelembagaan pengelolaan perikanan	3	1	1 : Tidak ada 2 : Ada tapi tidak efektif 3 : Ada dan efektif	
2.	Partisipasi stakeholder dalam penyusunan RPP	Tingkat partisipasi stakeholder dalam penyusunan RPP perikanan	3	1	1 : Kebijakan yang saling bertentangan 2 : Kebijakan tidak saling mendukung 3 : Kebijakan saling mendukung	
3.	Konflik kebijakan pengelolaan perikanan	Konflik kebijakan antar lembaga	3	1	1 : 0-1 peraturan 2 : 2-3 peraturan 3 : > 3 peraturan	
4.	Jumlah peraturan pengelolaan perikanan	Sejauh mana penambahan aturan main	3	1	1 : Belum ada RPP 2 : Ada RPP tapi belum dijalankan 3 : Ada RPP dan telah dijalankan	
5.	Rencana pengelolaan perikanan	Ada atau tidak ada RPP	3	1	1 : Tidak ada sarana dan SDM 2 : Ada sarana dan SDM tapi tidak berjalan efektif 3 : Ada sarana dan SDM serta ada penindakan	
6.	Ketersediaan sarana dan SDM dalam penegakan peraturan	Apakah ada sarana dan SDM yang mendukung penegakan	3	1	1 : > 20 kali terjadi pelanggaran hukum 2 : 5-20 kali terjadi pelanggaran hukum 3 : < 5 kali terjadi pelanggaran hukum	
7.	Kepatuhan terhadap peraturan formal dalam pengelolaan perikanan	Tingkat kepatuhan pemangku kepentingan terhadap peraturan formal	3	1	1 : Tingkat Nasional 2 : Tingkat Provinsi dan kabupaten 3 : Tingkat lokal/desa	
8.	Lembaga pelaksana pengelola	Keberadaan lembaga pada tiap tingkatan pengelolaan	3	1	1 : Tidak ada 2 : Ada tapi tidak efektif 3 : Ada dan efektif	

Sumber: Modifikasi KKP-RI, WWF Indonesia, PKSPL-IPB (2012).

Lampiran 3. Proses *input* data pada teknik *RAPFISH*

	A	B	C	D	E	F	G	H	I	J
	Attributes > PEL	Abbreviation	Biologi	Status Eksploitasi	Catch Per Unit Effort (CPUE)	Rata-rata ukuran panjang ikan	Bobot ikan	Range Collapse	Proporsi ikan yuwana (juvenil) yang ditangkap	Ger
1										
2				2	2	3	2	2	3	
3										
4	Reference PEL									
5	GOOD - best attribute values			3	3	3	3	3	3	
6	BAD - worst attribute values			1	1	1	1	1	1	
7	UP - half good, half bad			3	3	3	1	1	1	
8	DOWN - opposite to UP			1	1	1	3	3	3	
9	Anchor PEL			3	3	3	3	3	1	
10				3	3	3	3	1	1	
11				3	3	3	1	1	1	
12				3	3	1	1	1	1	
13				3	1	1	1	1	1	
14				1	1	1	1	1	1	
15				1	1	1	1	1	3	
16				1	1	1	1	3	3	
17				1	1	1	3	3	3	
18				1	1	3	3	3	3	
19				1	3	3	3	3	3	
20				3	3	3	3	3	3	
21										

Gambar 17. *Worksheet* setelah nilai *median* dimasukkan ke dalam baris dimensi biologi dari sel D2 sampai dengan I2.

Microsoft Excel - ANALISIS RALED Biologi

File Edit View Insert Format Tools Data Window Help

120% Arial 10 B I

	A	B	C	D	E	F	G	H	I
1		2D MDS Results			Rotated			& Flipped & Scaled	
2	Biologi	0.28081	0.01639		0.25544	-0.11779		58.9612	-3.46913
3	GOOD	1.404937	-0.53719		1.50408	-0.01285		100	0
4	BAD	-1.427597	0.57369		-1.5385	-0.01285		0	-0.00231
5	UP	-0.555604	-1.39292		-0.00867	1.49962		50.2806	50
6	DOWN	0.54544	1.42437		-0.01227	-1.52518		50.1624	-50
7	ANCHORS:	0.930975	-1.0729		1.25843	0.65892		91.9263	22.2065
8		0.197728	-1.39828		0.69461	1.22956		73.3952	41.0718
9		-0.546434	-1.38823		-0.00185	1.4919		50.5048	49.7449
10		-1.088567	-0.94093		-0.66987	1.27342		28.5491	42.5219
11		-1.415351	-0.2216		-1.23673	0.72307		9.91825	24.3272
12		-1.415471	0.52521		-1.50951	0.02785		0.95279	1.34346
13		-0.945016	1.04806		-1.26243	-0.63067		9.07348	-20.4272
14		-0.236434	1.37712		-0.72292	-1.19573		26.8057	-39.1082
15		0.510855	1.3834		-0.02951	-1.47442		49.5958	-48.3217
16		1.035684	0.92169		0.62766	-1.2362		71.195	-40.4463
17		1.362998	0.21156		1.19166	-0.6946		89.7317	-22.5408
18		1.361048	-0.52943		1.46039	-0.00405		98.564	0.28872
19									
20									
21									
22									
23	Stress =	0.1546		Iteration	Stress	Delta			
24	Squared Correlation (RSQ) =	0.9389		1	0.23993	9E+20			
25	Number of iterations =	2		2	0.23924	0.0007			
26	Memory needed (words) =	4182							
27	Return value (error if > 0)	0							
28	Rotation angle (degrees) =	-21.41445							

Gambar 18. Hasil analisis *RAPFISH* dimensi biologi

Microsoft Excel - ANALISIS RALED Biologi

File Edit View Insert Format Tools Data Window Help

100% Arial

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	61.27637	100	0	37.48762	62.71497	86.91895	63.28491	37.63396	14.94586	0.461018	0.462694	13.45492	36.06974	61.60591	83.73286	98.34061	98.34036
2	61.8721	100	0	37.17789	63.27567	88.39162	65.45222	37.35296	11.14544	11.14388	0.598557	12.24709	34.19556	62.29386	88.07436	88.07443	98.42072
3	52.91643	100	0	36.76241	63.40831	89.9427	66.67316	37.01627	37.01535	12.52116	0.89306	10.88163	33.21068	62.58946	62.5881	87.01364	98.36879
4	62.52581	100	0	64.88976	35.842	89.47413	64.92583	65.00556	35.92767	12.36093	0.86623	11.42786	35.15416	35.15633	63.44502	87.07033	98.46445
5	61.28611	100	0	64.46062	36.04434	91.10154	91.16954	64.64021	37.51558	14.32072	1.23966	10.17808	10.17785	36.32971	62.86592	85.86674	98.84407
6	55.87132	100	0	62.01301	37.97493	99.65235	85.54124	62.23736	37.99969	14.6757	0.874919	0.917955	14.39883	37.41988	61.47028	84.71397	98.57626
7																	
8																	
9																	
10																	
11	-1.68977	0	-0.03616574	50	-50	27.50141	45.94537	49.87543	32.52008	1.379253	1.378124	-25.3259	-43.9903	-48.6192	-30.5523	0.131705	0.131915
12	-2.59775	0	-0.065087229	50	-50	26.18801	44.64975	49.90299	33.65672	33.65795	1.497891	-23.9607	-42.6222	-48.5258	-31.596	-31.596	0.253969
13	-5.62717	0	-0.309808284	50	-50	23.69222	42.98283	49.91942	49.92034	28.90534	1.397056	-21.8767	-41.1241	-48.4506	-48.4496	-27.3652	0.040374
14	-5.87033	0	-0.055153195	50	-50	27.48246	49.86229	49.92073	44.83393	26.25342	1.601997	-25.4032	-48.197	-48.1951	-42.4165	-24.2202	0.297094
15	-7.49985	0	0.01661234	50	-50	30.70935	30.7579	49.67162	46.50377	28.92642	1.894476	-29.0869	-29.087	-48.5495	-44.323	-27.0128	-0.43749
16	1.275082	0	0.027277119	50	-50	-0.03527	30.68605	49.70423	46.63674	29.08424	1.740929	1.779655	-28.7992	-48.1674	-44.3156	-27.1429	0.162363
17																	
18																	
19																	
20																	
21	2.3152	3.469126															
22	2.9109	3.469126															
23	6.0447	3.469126															
24	3.5647	3.469126															
25	2.3250	1.779353															
26	3.0898	0.871372															

Gambar 19. Hasil analisis faktor pengungkit dimensi biologi

Microsoft Excel - ANALISIS RALED Biologi

File Edit View Insert Format Tools Chart Window Help

Chart Area

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	58.1036	100	0	50.2206	50.1122	91.9039	73.3878	50.4466	28.5186	9.86426	0.95567	8.88052	26.6495	49.6116	71.1251	89.6756	98.5429
2	58.3952179	100	0	50.2921	50.1302	91.8959	73.4017	50.5166	28.6299	9.91141	0.95688	8.93268	26.7098	49.5246	71.1454	89.6755	98.5402
3	59.03796294	100	0	50.2369	50.2618	91.8776	73.3558	50.4669	28.5129	9.94311	1.02585	9.15148	26.9097	49.6722	71.2363	89.7646	98.5401
4	59.50154877	100	0	50.2713	50.2154	91.9053	73.3995	50.5035	28.4926	9.99914	0.94391	9.07305	26.8182	49.619	71.2087	89.7675	98.5614
5	58.48329544	100	0	50.2802	50.1693	91.9056	73.4054	50.5055	28.5691	10.0412	0.94961	8.98685	26.7857	49.5785	71.1776	89.7308	98.5509
6	56.26881409	100	0	50.2062	50.0792	92.0622	73.4197	50.4545	28.5333	9.85381	0.95464	8.99529	26.6726	49.524	71.162	89.7526	98.5836
7	59.45718765	100	0	50.2943	50.1816	91.9137	73.4012	50.5236	28.6026	9.86957	0.95429	9.08347	26.7643	49.652	71.1873	89.711	98.5569
8	55.84931564	100	0	50.1457	50.0798	92.0042	73.3806	50.3856	28.4793	9.76676	0.95864	8.96529	26.6514	49.5332	71.1401	89.6733	98.5458
9	55.52629089	100	0	50.2457	50.1032	92.1054	73.4898	50.4854	28.643	10.0734	0.94547	8.97765	26.7282	49.5686	71.1823	89.9073	98.5367
10	58.72309113	100	0	50.2565	50.1684	91.9234	73.3919	50.4858	28.4982	9.91751	0.95375	9.05819	26.8016	49.5924	71.1951	89.7158	98.5571
11	55.93317032	100	0	50.2081	50.1725	91.9352	73.413	50.4373	28.7546	10.0711	0.96132	8.95862	26.7879	49.5856	71.1587	89.7054	98.512
12	57.43557358	100	0	50.2178	50.1182	91.969	73.3906	50.4501	28.5119	9.87193	0.94819	9.01461	26.6955	49.5539	71.1638	89.7183	98.5532
13	59.02336884	100	0	50.3164	50.1539	91.9167	73.4144	50.5424	28.6353	9.99294	0.95433	9.04209	26.7837	49.5708	71.1842	89.717	98.5481
14	55.70937729	100	0	50.1995	50.076	91.9428	73.3922	50.4267	28.5866	10.0136	0.95235	8.856	26.6494	49.5019	71.1171	89.6979	98.5257
15	59.42985916	100	0	50.3089	50.1809	91.9254	73.4068	50.5366	28.6019	10.0069	0.9505	9.09631	26.7639	49.5956	71.1974	89.731	98.6281
16	58.63862391	100	0	50.2815	50.1276	91.9563	73.3963	50.5127	28.5796	9.88334	0.95487	9.07381	26.7239	49.5517	71.1823	89.7081	98.6443
17	58.10363388	100	0	50.2352	50.1259	91.9432	73.3794	50.4682	28.5268	9.84764	0.93944	9.04678	26.7257	49.556	71.1674	89.7037	98.5442
18	55.78291321	100	0	50.159	50.1073	91.9822	73.3903	50.3961	28.5319	9.86493	0.95887	8.95408	26.7213	49.5521	71.1474	89.8116	98.5378
19	57.35870361	100	0	50.1807	50.1822	91.931	73.3945	50.4139	28.4867	9.92938	0.95232	8.99809	26.7507	49.607	71.177	89.7361	98.5415
20	60.73674774	100	0	50.3292	50.2048	91.8927	73.4094	50.5549	28.5639	9.91681	0.94825	9.11496	26.753	49.6055	71.1996	89.7218	98.5634
21	56.90117645	100	0	50.2308	50.1439	91.9746	73.4067	50.4611	28.6134	10.0066	0.95878	9.03232	26.8035	49.5885	71.1875	89.7361	98.5437
22	56.13040543	100	0	50.194	50.1788	91.9325	73.3934	50.4138	28.6369	9.99616	0.961	8.95144	26.7446	49.5819	71.1499	89.8418	98.5155
23	57.09045792	100	0	50.2134	50.1201	91.9031	73.3923	50.4423	28.5051	9.92395	0.99863	8.88117	26.7218	49.5438	71.1485	89.7158	98.5431
24	58.51646805	100	0	50.2685	50.1824	91.9137	73.3994	50.5014	28.6291	9.90546	0.95499	9.06158	26.8324	49.5975	71.1868	89.7187	98.5454
25	58.48931122	100	0	50.2742	50.1657	91.9138	73.4017	50.4996	28.5563	9.99533	0.95222	9.00854	26.7856	49.6166	71.1821	89.7326	98.5486
26	-2.53936386	0	-0.0158	50	-50	22.1154	41.0056	49.7452	42.5077	24.3177	1.33995	-20.387	-39.307	-48.221	-40.433	-22.546	0.27008
27	-1.28019488	0	0.02514	50	-50	22.1208	41.0327	49.7486	42.4512	24.3472	1.38178	-20.349	-39.208	-48.321	-40.416	-22.532	0.27273
28	-4.75301361	0	0.019	50	-50	22.2315	41.1046	49.7531	42.5173	24.2559	1.24789	-20.534	-39.288	-48.334	-40.463	-22.544	0.29245
29	-4.56230545	0	-0.0418	50	-50	22.1766	41.0495	49.7596	42.5636	24.2571	1.31269	-20.495	-39.29	-48.35	-40.49	-22.596	0.24716
30	-2.64389467	0	-0.008	50	-50	22.1329	41.0604	49.7508	42.5008	24.2633	1.34759	-20.411	-39.241	-48.321	-40.442	-22.573	0.25652
31	-2.83413339	0	0.05672	50	-50	22.2689	41.1033	49.7529	42.5507	24.3643	1.37478	-20.33	-39.189	-48.339	-40.394	-22.522	0.28661
32	-3.31446123	0	-0.0197	50	-50	22.1801	41.0115	49.753	42.4697	24.3526	1.33755	-20.44	-39.319	-48.289	-40.482	-22.562	0.26312
33	-4.60556078	0	-0.0297	50	-50	22.2586	41.0954	49.7417	42.5401	24.3572	1.30794	-20.419	-39.248	-48.327	-40.448	-22.541	0.25125
34	-2.4818399	0	0.03671	50	-50	22.1698	41.0975	49.7547	42.4608	24.2483	1.37743	-20.339	-39.195	-48.337	-40.451	-22.616	0.23128
35	-4.37559938	0	-0.0218	50	-50	22.2026	41.08	49.7495	42.5562	24.3036	1.32205	-20.46	-39.248	-48.336	-40.461	-22.553	0.26084
36	-1.96016896	0	-0.0604	50	-50	22.0833	41.0503	49.7505	42.2613	24.2112	1.32303	-20.407	-39.215	-48.318	-40.53	-22.587	0.2157
37	-3.6562078	0	-0.0274	50	-50	22.217	41.0332	49.7477	42.5281	24.3184	1.3298	-20.417	-39.257	-48.338	-40.453	-22.561	0.25299
38	-1.81532133	0	0.02224	50	-50	22.1618	41.0699	49.7509	42.4675	24.3152	1.3765	-20.37	-39.217	-48.327	-40.423	-22.544	0.27879
39	-0.60648042	0	0.0409	50	-50	22.1309	41.0551	49.7447	42.4433	24.2622	1.38419	-20.296	-39.165	-48.315	-40.366	-22.522	0.29297
40	-2.58260345	0	-0.0021	50	-50	22.1849	41.0124	49.7546	42.4826	24.2979	1.35059	-20.414	-39.269	-48.337	-40.454	-22.572	0.20389
41	-2.43981004	0	0.02481	50	-50	22.2264	41.044	49.7484	42.4953	24.3556	1.36664	-20.371	-39.236	-48.335	-40.421	-22.528	0.21058
42	-3.40922236	0	-0.0045	50	-50	22.2326	41.0561	49.7467	42.5208	24.3472	1.359	-20.409	-39.243	-48.326	-40.435	-22.537	0.27329
43	-3.85416102	0	-0.0379	50	-50	22.1997	41.0931	49.7437	42.481	24.295	1.31187	-20.414	-39.214	-48.322	-40.454	-22.646	0.25063

Gambar 20. Hasil analisis Monte Carlo dimensi biologi

Microsoft Excel - ANALISIS RALED Teknologi Penangkapan

File Edit View Insert Format Tools Data Window Help

O38 fx

	A	B	C	D	E	F	G	H	I
	Attributes > PEL V	Abbreviation	Teknologi penangkapan	Kapasitas mesin	modifikasi alat penangkapan	penangkapan ikan yang ramah lingkungan	teknik penangkapan	Tempat pendaratan	
1									
2	TEKNOLOGI PENANGKAPAN			1	1	2	1	1	
3									
4	Reference PEL								
5	GOOD - best attribute values			3	2	2	2	2	
6	BAD - worst attribute values			1	1	1	1	1	
7	UP - half good, half bad			3	2	2	1	1	
8	DOWN - opposite to UP			1	1	1	2	2	
9	Anchor PEL			3	2	2	2	1	
10				3	2	2	2	1	
11				3	2	2	1	1	
12				3	2	1	1	1	
13				2	1	1	1	1	
14				1	1	1	1	1	
15				1	1	1	1	2	
16				1	1	1	1	2	
17				1	1	1	2	2	
18				1	1	2	2	2	
19				1	2	2	2	2	
20				3	2	2	2	2	
21									

Gambar 21. Worksheet setelah nilai median dimasukkan ke dalam baris dimensi teknologi penangkapan dari sel D2 sampai dengan I2.

Microsoft Excel - ANALISIS RALED Teknologi Penangkapan

File Edit View Insert Format Tools Data Window Help

M35

	A	B	C	D	E	F	G	H	I
1		2D MDS Results			Rotated			& Flipped & Scaled	
2	TEKNOLOGI PENANGKAPAN	0.544464	0.701543		-0.85289	0.247351393		19.1719	10.12467
3	GOOD	-1.250964	-0.96379		1.578561	-0.04408832		100	0
4	BAD	1.182327	0.804889		-1.42961	-0.0440883		0	-0.03679
5	UP	-1.150669	0.889714		0.407654	1.396226525		61.07587	50
6	DOWN	1.113215	-1.02333		-0.2988	-1.48228538		37.59146	-50
7	ANCHORS:	-1.512598	-0.00096		1.224092	0.888567507		88.2165	32.36384
8		-1.512601	-0.00096		1.224094	0.888570011		88.21655	32.36393
9		-1.149823	0.884182		0.410223	1.391253948		61.16126	49.82725
10		-0.478533	1.233128		-0.33794	1.278825164		36.29013	45.92146
11		0.4004	1.221757		-1.04222	0.752852619		12.87805	27.64908
12		1.138405	0.825481		-1.40619	-0.00160737		0.778572	1.439009
13		1.441454	-0.07159		-1.12389	-0.90542173		10.16318	-29.9597
14		1.441378	-0.0716		-1.12382	-0.90538037		10.16531	-29.9582
15		1.093734	-0.97657		-0.31053	-1.43300629		37.20132	-48.288
16		0.38201	-1.25244		0.427373	-1.2376914		61.73137	-41.5028
17		-0.462334	-1.27187		1.121784	-0.75697577		84.81548	-24.8026
18		-1.219863	-0.9276		1.532127	-0.03310291		98.4564	0.344849
19									
20									
21									
22									
23	Stress =	0.1516		Iteration	Stress	Delta			
24	Squared Correlation (RSQ) =	0.9152		1	0.240692	9E+20			
25	Number of iterations =	3		2	0.237885	0.002807215			
26	Memory needed (words) =	4182		3	0.237948	-6.2883E-05			
27	Return value (error if > 0)	0							
28	Rotation angle (degrees) =	216.0121							
29									

Gambar 22. Hasil analisis *RAPFISH* dimensi teknologi penangkapan

MICROSOFT EXCEL - ANALISIS KALEV Teknologi Penangkapan

File Edit View Insert Format Tools Data Window Help

100% Arial 10 B I U

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	24.00463	100	0	48.36492	51.35927	81.04191	81.04193	48.47596	19.35577	0.539384	0.539224	17.50774	17.50758	50.46181	77.61637	98.20679	98.20669
2	27.66695	100	0	48.63659	50.59658	83.66129	83.66132	48.79511	14.87812	14.8796	0.837176	14.6344	14.63326	49.76701	81.72569	81.72607	98.06212
3	-0.27474	100	0	46.53642	48.35652	83.29552	83.29555	46.67955	46.67946	17.20907	0.830809	13.4127	13.41256	48.08996	48.09002	79.59972	98.26874
4	26.39654	100	0	82.24094	16.03138	82.19823	82.19789	82.198	47.4923	16.91011	0.825458	15.79687	15.796	15.7963	51.42007	80.80374	98.52743
5	24.68723	100	0	77.17467	21.96193	99.71255	99.70856	77.32598	50.81816	21.85008	0.836033	0.836045	0.835942	21.91456	49.55114	77.46678	98.881
6																	
7																	
8																	
9																	
10																	
11	25.07082	0	0.143587321	50	-50	37.89277	37.8929	49.85827	33.09003	1.594106	1.594418	-35.0441	-35.044	-48.4053	-29.0819	0.29224	0.2921
12	21.59994	0	0.028944265	50	-50	35.70993	35.7101	49.82534	35.79037	35.78942	1.756208	-32.6791	-32.68	-48.0683	-31.7185	-31.7188	0.479131
13	0.040082	0	-0.355228007	50	-50	33.42126	33.42148	49.88599	49.88615	30.81279	1.070725	-31.7623	-31.7622	-48.3115	-48.3115	-29.2607	0.246312
14	5.643414	0	-0.28017658	50	-50	49.8293	49.82938	49.82956	53.28541	33.54676	1.385523	-47.8509	-47.851	-47.8508	-47.9617	-30.3028	0.330347
15	-12.2612	0	1.123526454	50	-50	0.839896	0.834693	49.32832	58.86191	42.37282	2.348272	2.348723	2.349017	-48.1262	-52.7401	-38.1398	1.01039
16																	
17																	
18																	
19																	
20																	
21	4.8327	10.12467															
22	8.4950	10.12467															
23	19.4467	10.12467															
24	7.2246	10.12467															
25	5.5153	10.12467															

Gambar 23. Hasil analisis faktor pengungkit dimensi teknologi penangkapan

Microsoft Excel - ANALISIS RALED Teknologi Penangkapan

File Edit View Insert Format Tools Chart Window Help

Chart Area

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	19.1936	100	0	61.0726	37.57402	88.21395	88.21346	61.15794	36.26498	12.88244	0.776645	10.16087	10.16005	37.18733	61.7496	84.82365	98.45976
2	23.947557	100	0	61.32402	37.50023	88.50817	88.50775	61.41161	35.88601	12.79399	0.788494	10.05804	10.05952	37.08166	62.21315	84.96477	98.4676
3	23.465345	100	0	61.37509	37.37634	88.43561	88.43551	61.46389	36.01061	12.8602	0.787686	10.06354	10.0609	36.95337	62.129	85.0089	98.46171
4	21.392378	100	0	61.21888	37.53354	88.32689	88.32787	61.30363	36.07009	12.81697	0.777117	10.12586	10.12797	37.14357	61.97144	85.0659	98.4699
5	21.726103	100	0	61.25629	37.47347	88.25671	88.25693	61.34299	36.12461	12.8462	0.785179	10.14002	10.13833	37.06399	61.95578	84.92046	98.45464
6	29.49007	100	0	61.61735	37.25519	88.50757	88.50681	61.70609	35.50596	12.67678	0.797919	10.00094	9.994211	36.80768	62.59277	85.15133	98.46993
7	24.363646	100	0	61.38953	37.35925	88.33472	88.33472	61.47664	35.87164	12.7954	0.78645	10.08097	10.08005	36.93592	62.19864	85.01191	98.46183
8	22.877964	100	0	61.30093	37.45771	88.3067	88.30666	61.38761	36.00631	12.81334	0.785817	10.11873	10.11187	37.04478	62.06281	84.94539	98.45734
9	21.501934	100	0	61.23808	37.54217	88.4687	88.46973	61.32468	36.13684	12.87466	0.785856	10.09429	10.09348	37.12278	61.9927	85.00067	98.46745
10	26.81476	100	0	61.59459	37.31781	88.94202	88.94169	61.68505	35.78624	12.86446	0.790951	9.944734	9.944505	36.88898	62.50881	85.36575	98.48877
11	23.925676	100	0	61.35119	37.43359	88.34353	88.34528	61.43805	35.91402	12.78822	0.78748	10.09637	10.09669	37.01487	62.16092	84.98253	98.45959
12	19.899973	100	0	61.1095	37.58516	88.2483	88.24812	61.19492	36.21465	12.86313	0.780357	10.1529	10.1541	37.19152	61.81307	84.83593	98.45954
13	19.268873	100	0	61.05758	37.43868	88.19331	88.19263	61.14194	36.09312	12.88381	0.766098	10.13159	10.13088	37.05985	61.84896	84.8701	98.47554
14	23.508974	100	0	61.33421	37.44087	88.32702	88.32603	61.42123	35.95565	12.8003	0.787653	10.10435	10.10668	37.02235	62.11887	84.96551	98.45843
15	21.797806	100	0	61.26552	37.45063	88.45438	88.45519	61.35405	36.11411	12.89029	0.783697	10.07365	10.07371	37.03973	62.01207	84.95094	98.4642
16	24.573399	100	0	61.32203	37.45169	88.43168	88.432	61.40592	35.6964	12.74416	0.780147	10.06645	10.06829	37.02978	62.33948	85.10058	98.48482
17	23.084831	100	0	61.34833	37.40934	88.28176	88.28199	61.43594	36.03997	12.82932	0.788421	10.11184	10.11299	36.98994	62.05081	84.97099	98.45276
18	19.745361	100	0	61.11348	37.5769	88.24635	88.24636	61.19878	36.23345	12.86454	0.778566	10.15681	10.15565	37.18919	61.80092	84.88183	98.46107
19	22.559389	100	0	61.24029	37.55056	88.36348	88.36436	61.32525	35.95322	12.78744	0.783569	10.11291	10.1125	37.13958	62.08858	84.97974	98.4692
20	19.248159	100	0	61.0657	37.51118	88.20441	88.20441	61.15062	36.18296	12.86693	0.771581	10.14239	10.14291	37.12329	61.79262	84.84298	98.46416
21	25.765566	100	0	61.49636	37.34186	88.39744	88.39725	61.58301	35.80288	12.76957	0.78871	10.07516	10.07071	36.91407	62.29782	85.21458	98.46611
22	25.310364	100	0	61.42249	37.333	88.56107	88.56152	61.51067	35.76236	12.81139	0.785604	10.01141	10.01171	36.9075	62.35489	85.05704	98.47734
23	22.158743	100	0	61.27406	37.39854	88.25642	88.25464	61.36008	36.02581	12.84057	0.779726	10.11354	10.11343	36.98819	62.01929	84.95235	98.46043
24	24.331331	100	0	61.33769	37.326	88.49445	88.49417	61.42282	35.68754	12.80125	0.773836	10.02577	10.02666	36.91798	62.35649	85.12286	98.48997
25	24.945446	100	0	61.44637	37.37728	88.38105	88.38158	61.53272	35.85333	12.77707	0.786649	10.08514	10.08746	36.95616	62.23665	85.18435	98.46593
26	9.9296999	0	-0.03865	50	-50	32.36314	32.36283	49.82749	45.91128	27.63025	1.433645	-29.9672	-29.9675	-48.2936	-41.5349	-24.8242	0.341489
27	9.7698689	0	0.010722	50	-50	32.28428	32.28401	49.82602	45.80823	27.64514	1.484672	-29.804	-29.8028	-48.2837	-41.6348	-24.8142	0.375244
28	5.9608488	0	0.025863	50	-50	32.24585	32.24582	49.8227	46.04188	27.76648	1.496669	-29.9338	-29.9353	-48.2784	-41.8656	-25.0799	0.391159
29	11.29513	0	-0.04387	50	-50	32.35095	32.35175	49.83026	45.79943	27.53034	1.428124	-29.9242	-29.9228	-48.3018	-41.5345	-24.8634	0.325947
30	8.4212465	0	-0.02005	50	-50	32.32494	32.32515	49.82488	45.98087	27.67826	1.45971	-30.006	-30.0069	-48.2774	-41.6765	-24.9286	0.353473

Gambar 24. Hasil analisis Monte Carlo dimensi teknologi penangkapan

Microsoft Excel - ANALISIS RALED Kelembagaan

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	A	B	C	D	E	F	G	H	I	J	K	L
	Attributes > PEL V	Abbreviation	Kelembagaan	Rencana Pengelolaan Perikanan	Jumlah Peraturan Pengelolaan Perikanan	Partisipasi stakeholder dalam penyusunan RPP	Konflik Kebijakan Pengelolaan perikanan	Kepatuhan terhadap peraturan formal dalam pengelolaan perikanan	Lembaga pelaksana pengelola perikanan	Ketersediaan sarana dan SDM dalam Pengaturan peraturan perikanan	Keberadaan otoritas tunggal dalam pengelolaan perikanan	
1												
2	Kelembagaan			2	1	1	3	2	3	2	3	
3												
4	Reference PEL											
5	GOOD - best attribute values			3	3	3	3	3	3	3	3	3
6	BAD - worst attribute values			1	1	1	1	1	1	1	1	1
7	UP - half good, half bad			3	3	3	3	3	3	3	3	3
8	DOWN - opposite to UP			1	1	1	1	1	1	1	1	1
9	Anchor PEL			3	3	3	3	3	3	3	3	1
10				3	3	3	3	3	3	3	1	1
11				3	3	3	3	3	3	1	1	1
12				3	3	3	3	3	1	1	1	1
13				3	3	3	1	1	1	1	1	1
14				3	3	1	1	1	1	1	1	1
15				3	1	1	1	1	1	1	1	1
16				1	1	1	1	1	1	1	1	1
17				1	1	1	1	1	1	1	1	3
18				1	1	1	1	1	1	3	3	3
19				1	1	1	1	1	3	3	3	3
20				1	1	1	1	3	3	3	3	3
21				1	1	1	3	3	3	3	3	3
22				1	1	3	3	3	3	3	3	3
23				1	3	3	3	3	3	3	3	3
24				3	3	3	3	3	3	3	3	3
25												

Gambar 25. Worksheet setelah nilai median dimasukkan ke dalam baris dimensi kelembagaan dari sel D2 sampai dengan K2.

Microsoft Excel - ANALISIS RALED Kelembagaan

File Edit View Insert Format Tools Data Window Help

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	A	B	C	D	E	F	G	H	I
1		2D MDS Results			Rotated			& Flipped & Scaled	
2	Kelembagaan	0.6064816	0.106329		0.141879	-0.599162877		54.9074	-20.26214
3	GOOD	0.5823917	-1.372551		1.490982	0.007128696		100	0
4	BAD	-0.599394	1.376		-1.500866	0.007128961		0	-0.204089
5	UP	-1.393966	-0.579101		-0.01861	1.509355426		49.543167	50
6	DOWN	1.3651649	0.57907		0.007263	-1.482883811		50.407932	-50
7	ANCHORS:	0.0398043	-1.440406		1.338995	0.53239572		94.919975	17.35021
8		-0.534833	-1.31202		0.994067	1.009591341		83.391045	33.29799
9		-1.034345	-1.020998		0.529402	1.353529096		67.860016	44.79232
10		-1.386197	-0.583159		-0.011813	1.503820539		49.770336	49.81503
11		-1.481613	-0.057969		-0.531985	1.384026408		32.384037	45.81153
12		-1.346148	0.496227		-0.987605	1.040668964		17.155338	34.3366
13		-1.040873	0.977746		-1.309382	0.570018291		6.4001827	18.60755
14		-0.62356	1.338219		-1.475703	0.044253483		0.8410459	1.036604
15		-0.095427	1.406185		-1.329529	-0.467778474		5.7268071	-16.0754
16		0.4708572	1.298601		-1.00701	-0.945517361		16.506731	-32.04133
17		0.9557787	1.005242		-0.545961	-1.27512753		31.916885	-43.05683
18		1.3167428	0.574401		-0.007575	-1.436555266		49.911991	-48.45171
19		1.3842012	0.044918		0.505497	-1.289381027		67.060997	-43.53318
20		1.2729473	-0.505183		0.966918	-0.969883502		82.483604	-32.85564
21		0.9831917	-0.991063		1.298833	-0.511766911		93.577591	-17.54548
22		0.5587959	-1.340487		1.452205	0.016140329		98.703911	0.097068
23									
24									
25									
26									
27	Stress =	0.1366		Iteration	Stress	Delta			
28	Squared Correlation (RSQ) =	0.9479		1	0.22403	9E+20			
29	Number of iterations =	2		2	0.223857	0.000172988			
30	Memory needed (words) =	4838							
31	Return value (error if > 0)	0							
32	Rotation angle (degrees) =	-66.7339							
33									

Gambar 26. Hasil analisis *RAPFISH* dimensi kelembagaan

Microsoft Excel - ANALISIS RALED Kelembagaan

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Type a question for help

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	50.97335	100	0	39.78874	59.57227	91.66633	76.98853	59.33843	39.95072	22.3983	8.065871	0.461947	0.486777	7.164078	21.44509	39.25206	58.43541	75.61567	90.24826	98.43015	98.44376
2	55.00649	100	0	39.436	60.20594	92.25674	78.0176	60.18227	39.63776	20.25012	5.296739	5.30109	0.486695	6.813259	20.69523	38.63775	58.95163	77.89417	93.56968	93.57021	98.43634
3	57.10923	100	0	39.16339	60.49709	92.99433	79.30246	61.00771	39.30896	19.30805	19.30717	6.590674	0.546441	6.044712	19.27087	37.7291	59.33178	79.0541	79.05493	92.52954	98.57425
4	41.5089	100	0	39.37314	59.92534	93.19537	79.79757	61.48617	39.5806	39.57802	21.00858	7.240777	0.735986	5.913615	19.00986	37.65408	59.17143	59.16833	77.9388	92.39671	98.52785
5	49.07649	100	0	60.16712	39.39069	93.44508	78.87856	60.25116	60.25134	39.06318	20.21975	7.446864	0.810687	5.592147	19.77544	38.6532	38.73114	59.57792	78.6301	92.13625	98.52675
6	42.26982	100	0	59.33325	40.05527	93.66151	79.95187	79.94893	59.46265	39.1399	20.95938	8.071485	1.043755	5.911979	19.47955	19.47442	40.14179	60.31573	78.55804	92.03381	98.90095
7	49.36056	100	0	59.76731	39.63227	95.04255	95.03978	80.0181	60.01692	40.42515	22.67956	9.09925	1.023215	4.315747	4.181899	19.69912	39.59526	58.98444	76.78933	90.9613	98.79843
8	50.53431	100	0	58.76083	41.18618	99.75974	91.59473	77.22287	58.98163	40.53405	22.97961	9.123702	0.758063	0.845891	8.325428	22.66519	40.63081	58.88971	76.50917	90.7606	98.72181
9																					
10																					
11	-9.4724	0	-0.10028543	50	-50	19.93451	37.44558	47.65059	49.91252	40.87732	22.61875	1.29575	1.28074	-18.5996	-36.4081	-45.9968	-48.6325	-38.5302	-21.1958	0.097671	0.088623
12	1.734201	0	-0.04888858	50	-50	20.17339	37.17758	47.28663	49.87067	40.28206	23.0108	23.00735	0.606396	-19.4698	-36.4661	-45.88	-48.7536	-38.7246	-22.1863	-22.1867	0.578278
13	-0.45254	0	-0.02712508	50	-50	19.13434	35.84463	46.52236	49.77893	41.44524	41.44611	22.55985	0.802739	-18.1006	-34.8242	-44.9616	-48.5503	-39.7317	-39.7323	-21.3478	0.75296
14	-9.27382	0	-0.28273797	50	-50	17.52536	34.24786	45.74794	49.95761	49.96032	38.18247	20.72711	1.147467	-16.5514	-33.3781	-44.2259	-48.4957	-48.4923	-37.2376	-19.7346	0.091622
15	-7.75927	0	-0.13361536	50	-50	18.96883	37.70062	49.90967	49.90991	46.99043	35.73438	19.81843	1.35191	-17.4927	-36.499	-48.3671	-48.2576	-44.462	-34.0983	-18.5225	0.223743
16	-0.35701	0	-0.12487897	50	-50	20.86807	40.60765	40.60499	49.75261	47.23864	36.69075	20.9529	1.487602	-19.3653	-39.1936	-39.1983	-48.3881	-44.8967	-35.121	-19.8257	-0.13854
17	-9.7521	0	-0.09192928	50	-50	21.05014	21.0478	39.02719	49.7966	48.41332	38.32264	22.10767	1.435959	-19.8439	-19.969	-37.5599	-48.5703	-46.205	-37.0824	-21.3957	-0.37994
18	-16.0432	0	-0.23649889	50	-50	-0.27083	21.56683	39.65826	49.79471	48.61557	38.43342	21.71708	1.292457	1.34973	-20.2142	-37.7623	-48.2744	-46.061	-36.8404	-20.5807	-0.05491
19																					
20																					
21	1.2942	6.489327																			
22	5.3274	6.489327																			
23	7.4301	2.983072																			
24	8.1702	8.223528																			
25	0.6026	6.036787																			
26	7.4093	2.784489																			
27	0.3186	1.269948																			
28	0.8552	6.132317																			

Gambar 27. Hasil analisis faktor pengungkit dimensi kelembagaan

Microsoft Excel - ANALISIS RALED Kelembagaan

File Edit View Insert Format Tools Data Window Help

Type a question for help

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	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	58.8174	100	0	39.9452	59.7748	92.1617	77.4261	59.504	40.1179	22.3944	8.08054	0.53317	0.56982	8.02454	21.8438	39.4888	58.801	76.1457	90.6335	98.5395	98.5394
2	61.3088	100	0	39.6708	60.436	92.6173	78.2987	60.3323	39.9044	20.4381	5.47069	5.48001	0.51175	7.79102	21.3207	39.1279	59.2824	78.2621	93.8485	93.8468	98.5023
3	62.7227	100	0	39.4565	60.7373	93.3642	79.6117	61.2134	39.6367	19.5206	19.5205	6.76435	0.56643	7.13642	20.0234	38.1944	59.688	79.4514	79.4518	92.8118	98.6368
4	47.5819	100	0	39.3858	60.6167	94.076	80.441	61.7237	39.6229	39.624	21.0069	7.30114	0.78979	6.53226	19.3806	38.0591	59.8983	59.8992	78.5762	92.6441	98.5745
5	56.688	100	0	60.4363	39.6831	94.054	79.4653	60.5269	60.527	38.9005	20.3082	7.60184	0.84111	6.55839	20.2006	39.0679	39.0664	60.1684	79.1867	92.3929	98.6038
6	48.2174	100	0	59.65	40.3006	94.4619	80.5214	80.5208	59.8025	39.1766	21.1171	8.25228	1.10347	6.46184	19.7656	19.7653	40.4915	60.9777	79.0839	92.277	98.9606
7	53.9635	100	0	59.8019	40.171	95.5242	95.5276	80.0781	60.0687	40.2697	22.6746	9.16315	1.05499	5.25125	5.25193	20.4102	40.2416	59.7458	77.5661	91.356	98.8828
8	50.5343	100	0	58.7608	41.1862	99.7597	91.5947	77.2229	58.9816	40.534	22.9796	9.1237	0.75806	0.84589	8.32543	22.6652	40.6308	58.8897	76.5092	90.7606	98.7218
9																					
10																					
11	-25.7852	0	-0.3489314	50	-50	20.5433	37.4967	47.8902	49.9097	41.3849	22.7949	0.99503	0.96778	-19.034	-36.1729	-45.9856	-48.59	-38.6641	-21.1678	-0.15784	-0.15777
12	-13.8487	0	-0.1072935	50	-50	20.4514	37.2045	47.4679	49.8601	40.6569	22.9005	22.8923	0.52184	-19.3782	-36.1334	-45.8035	-48.7735	-38.9082	-21.9952	-21.9937	0.57047
13	-15.3864	0	-0.078061	50	-50	19.4375	35.892	46.7062	49.7735	41.7505	41.7507	22.4833	0.73343	-18.1142	-34.5711	-44.9464	-48.5654	-39.8948	-39.8951	-21.1277	0.73187
14	-22.6665	0	-0.5121689	50	-50	17.9829	34.3566	46.0057	49.9554	49.9543	37.8705	20.213	0.92968	-16.8224	-33.2644	-44.2729	-48.5333	-48.5344	-37.0373	-19.5256	-0.17144
15	-24.3174	0	-0.2455067	50	-50	19.3475	37.5528	49.901	49.9011	47.3049	35.6957	19.4568	1.21601	-17.8799	-36.3064	-48.349	-48.352	-44.6579	-34.0227	-18.2803	0.05298
16	-16.8074	0	-0.1934303	50	-50	21.1631	40.6863	40.6857	49.7332	47.5955	36.76	20.7681	1.43903	-19.4379	-39.137	-39.1372	-48.4248	-45.1602	-35.1348	-19.6012	-0.22061
17	-27.4176	0	-0.2859032	50	-50	21.434	21.4371	39.5566	49.7734	48.707	38.1505	21.5282	1.21094	-20.5379	-20.537	-37.818	-48.6236	-46.2356	-36.8308	-20.8676	-0.54179
18	-16.0432	0	-0.2364989	50	-50	-0.27083	21.5668	39.6583	49.7947	48.6156	38.4334	21.7171	1.29246	1.34973	-20.2142	-37.7623	-48.2744	-46.061	-36.8404	-20.5807	-0.05491
19																					
20																					
21	3.9100	20.2621																			
22	6.4014	20.2621																			
23	7.8154	5.52304																			
24	7.3255	6.41341																			
25	1.7807	4.87572																			
26	6.6900	2.40435																			
27	0.9438	4.05527																			
28	4.3731	3.45474																			
29																					

Gambar 28. Hasil analisis *Monte Carlo* dimensi kelembagaan

Lampiran 4. Kuesioner Proses Hirarki Analitik (PHA)

IDENTITAS RESPONDEN

Nama :
Pekerjaan :
Pendidikan Terakhir :
Umur : Tahun
Jenis Kelamin :

PETUNJUK PENGISIAN

Berilah tanda lingkaran (O) pada kolom skala Faktor (A) atau pada kolom skala Faktor (B) yang sesuai dengan pendapat anda.

Definisi Kode :

- 1: kedua Faktor sama penting (*equal importance*)
 - 2: Jika ragu-ragu antara skala 1 dan 3
 - 3: Faktor (A) sedikit lebih penting (*moderate importance*) dibanding dengan Faktor (B)
 - 4: Jika ragu-ragu antara skala 3 dan 5
 - 5: Faktor (A) lebih penting (*strong importance*) dibanding dengan Faktor (B)
 - 6: Jika ragu-ragu antara skala 5 dan 7
 - 7: Faktor (A) sangat lebih penting (*very strong importance*) dibanding dengan Faktor (B)
 - 8: Jika ragu-ragu antara skala 7 dan 9
 - 9: Faktor (A) mutlak lebih penting (*extreme importance*) dibanding dengan Faktor (B)
-

DAFTAR PERTANYAAN

PENDAPAT RESPONDEN

Kriteria A	STRATEGI PENGELOLAAN PERIKANAN TUNA MADIDIHANG																Kriteria B	
Biologi	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Teknologi Penangkapan
Biologi	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Kelembagaan
Teknologi Penangkapan	9	8	7	6	5	4	3	2	1	2	3	4	5	6	7	8	9	Kelembagaan

Lampiran 5. Foto kegiatan lapangan

1. Kegiatan wawancara di Desa Tutulo Kecamatan Botumoito Kabupaten Boalemo.



Gambar 1. Wawancara peneliti dengan staf Dinas Kelautan dan Perikanan Kabupaten Boalemo



Gambar 2. Wawancara peneliti dengan tokoh nelayan



Gambar 3. Wawancara dengan tokoh nelayan



Gambar 4. Wawancara peneliti dengan penampung tuna madidihang

2. Perahu nelayan *handline* tuna Kabupaten Boalemo



Gambar 5. Perahu nelayan tuna madidihang