BAB V
PENUTUP

5.1 Kesimpulan

Berdasarkan hasil analisis yang sudah diperoleh tentang pengaruh tingkat kemiskinan, kepadatan penduduk, dan penanaman modal asing terhadap kualitas lingkungan hidup di Pulau Jawa tahun 2010-2021, maka diperoleh hasil bahwa kemiskinan berpengaruh negative terhadap indeks kualitas air.

5.2 Saran

Pemerintah wajib mengadakan, memantau, dan menjaga kualitas air. Kualitas air merupakan suatu hal yang penting bagi manusia dan mahluk hidup karena dengan bagusnya kualitas air maka kondisi dan kondisi kehidupan, kualitas kesehatan, dan kesejahteraan masyarakat bermutu. Baik nya infrastruktur pengairan juga membantu proses pertumbuhan ekonomi.

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Lampiran I: DATA

DAERAH	Tahun	IKLH (Y)	IKA	IKTL	IKU	Ln PMA (MILY	Tingkat Kemiskinan	Kepadatan Pendud
DKI Jakarta	2010	41.81	20	7.72	97.72	8.43	4.04	14,518
	2011	41.31	35.65	32.06	47.21	9.13	3.64	14,687
	2012	36.8	41.05	32.06	44.31	9.05	3.7	14,852
	2013	31.97	34.71	31.99	41.51	8.66	3.72	15,015
	2014	36.88	34	31.99	46.28	9.79	4.09	15,173
	2015	43.79	30.51	31.99	78.78	9.65	3.93	15,328
	2016	38.69	22.31	31.99	56.4	9.41	3.75	15,478
	2017	35.78	35	22.86	53.56	10.76	3.77	15,663
	2018	45.21	31.43	24.14	66.57	10.80	3.57	15,804
	2019	42.85	41.94	24.66	67.97	11.07	3.47	15,900
	2020	52.98	42.73	24.86	66.69	10.67	4.53	15,907
	2021	54.43	44.19	26.25	66.52	10.91	4.72	15,978
BANTEN	2010	48.98	6.67	42.88	97.39	8.67	7.02	1,106
	2011	48.98	51.04	37.92	74.05	8.37	6.26	1,133
	2012	46.77	53.5	37.16	53.13	8.54	5.71	1,159
	2013	46.33	47.1	37.16	57.79	8.30	5.89	1,185
	2014	43.67	42.86	37.16	53.15	9.00	5.51	1,211
	2015	55.36	51.75	37.44	50.65	9.28	5.9	1,237
	2016	60	70	37.34	58.8	9.43	5.42	1,263
	2017	51.58	47.67	40.11	75.36	9.63	5.45	1,288
	2018	57	41.25	38.28	71.63	9.83	5.24	1,313
	2019	51.09	43.11	39.16	74.98	9.94	5.09	1,338
	2020	59.36	50.56	37.98	72.83	10.35	5.92	1,232
	2021	64.14	54.95	39.21	74.14	10.17	6.66	1,248
JAWA BARAT	2010	53.44	23.08	38.74	98.52	9.67	10.93	1,222
	2011	50.9	46.27	38.24	71.03	9.32	10.57	1,242
	2012	48.18	43.75	38.96	65.53	2.43	9.88	1,262
	2013	47.61	41.8	38.98	65.56	9.11	9.61	1,282
	2014	45.06	39	38.98	59.24	9.84	9.18	1,301
	2015	63.49	55.25	39.36	74.63	10.18	9.53	1,320
	2016	51.87	41.33	38.25	78.6	10.32	8.95	1,339
	2017	50.26	41.43	38.39	77.85	10.56	8.71	1,358
	2018	56.98	38.73	38.51	72.8	10.65	7.45	1,376
	2019	51.64	45.59	38.7	75.1	10.81	6.91	1,394
	2020	59.4	41.5	42.77	78.46	10.85	7.88	1,365
	2021	62.68	43.09	40.78	79.34	11.00	8.4	1,379
JAWA TENGAH	2010	50.48	16.9	36.16	98.38	6.68	16.11	989
	2011	49.82	48.23	48.27	81.93	7.91	16.21	998
	2012	60.96	52.4	51.37	79.27	8.67	14.98	1,006
	2013	58.03	45.47	51.33	79.43	9.44	14.44	1,014
	2014	60.63	51.03	51.33	82.64	9.52	13.58	1,022
	2015	60.78	50.91	61.55	81.32	9.64	13.58	1,030
	2016	58.75	46.15	48.54	77.3	10.09	13.27	1,037
	2017	58.15	60	43.47	83.91	2.99	13.01	1,044
	2018	68.27	53.75	50.12	82.97	10.22	11.32	1,060
	2019	60.97	51.64	50.08	84.81	9.83	10.8	1,058
	2020	67.62	55.21	41.03	84.73	10.33	11.41	1,113
	2021	66.27	47.94	41.51	84.6	10.35	11.79	1,120
D.I. YOGYAKARTA	2010	71.91	78.76	38.12	98.85	2.30	15.63	1,107
	2011	68.89	42.03	34.15	78.51	0.47	16.14	1,120
	2012	53.25	49.04	33.07	83.65	5.81	15.88	1,134
	2013	52.01	42.57	33.08	86.04	5.65	15.03	1,147
	2014	49.53	39	33.08	82.01	6.56	14.55	1,161
	2015	50.99	33.07	33.08	90.58	5.89	14.91	1,174
	2016	51.37	60.22	32.74	87.6	6.85	13.34	1,188
	2017	49.8	35.95	35.6	88.08	5.69	13.02	1,201
	2018	62.98	50.63	33.03	84.25	8.72	12.13	1,194
	2019	49.24	35.37	32.69	85.19	8.75	11.7	1,227
	2020	66.65	50	32.4	89.55	7.89	12.28	1,171
	2021	65.66	45.73	29.66	88.59	7.92	12.8	1,185
JAWA TIMUR	2010	49.49	0	50.56	97.9	9.00	14.87	786
	2011	54.49	57.94	51.72	73.84	9.18	13.85	792
	2012	58.96	57.09	49.54	68.88	9.98	13.08	797
	2013	56.47	49.1	49.47	72.45	10.46	12.73	803
	2014	56.48	49.11	49.47	73.2	3.64	12.28	808
	2015	62.67	50.33	37.49	89.21	10.48	12.34	813
	2016	58.98	49.07	49.45	83.2	10.74	12.05	817
	2017	57.46	49.17	50.7	85.49	10.72	11.77	822
	2018	67.08	50	50.52	81.8	10.41	10.98	826
	2019	60.25	50.79	50.23	83.06	10.72	10.37	831
	2020	67.07	53.85	47.42	84.06	10.93	11.09	851
	2021	68.29	53.57	47.36	83.2	10.87	11.4	855

Lampiran II: Hasil Output Eviews

1. *Common Effect Model*

Dependent Variable: IKLH
Method: Panel Least Squares
Date: 12/16/23 Time: 14:53
Sample: 2010 2021
Periods included: 12
Cross-sections included: 6
Total panel (balanced) observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41.96940	5.827568	7.201872	0.0000
PMA	0.809481	0.399540	2.026033	0.0467
TINGKATMISKIN	0.784814	0.294257	2.667103	0.0096
KEPADATANPDDK	-0.000720	0.000202	-3.571541	0.0007

R-squared	0.454444	Mean dependent var	54.27736
Adjusted R-squared	0.430376	S.D. dependent var	8.937772
S.E. of regression	6.745646	Akaike info criterion	6.709624
Sum squared resid	3094.254	Schwarz criterion	6.836106
Log likelihood	-237.5465	Hannan-Quinn criter.	6.759977
F-statistic	18.88119	Durbin-Watson stat	1.035204
Prob(F-statistic)	0.000000		

2. *Fixed Effect Model*

Dependent Variable: IKLH
Method: Panel Least Squares
Date: 12/16/23 Time: 14:53
Sample: 2010 2021
Periods included: 12
Cross-sections included: 6
Total panel (balanced) observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	36.95938	15.29786	2.415983	0.0186
PMA	0.105966	0.478608	0.221405	0.8255
TINGKATMISKIN	-1.136211	0.701950	-1.618650	0.1105
KEPADATANPDDK	0.007860	0.003800	2.068694	0.0427

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.559734	Mean dependent var	54.27736
Adjusted R-squared	0.503828	S.D. dependent var	8.937772
S.E. of regression	6.295723	Akaike info criterion	6.634087
Sum squared resid	2497.076	Schwarz criterion	6.918670
Log likelihood	-229.8271	Hannan-Quinn criter.	6.747380
F-statistic	10.01193	Durbin-Watson stat	1.331561
Prob(F-statistic)	0.000000		

3. *Random Effect Model*

Dependent Variable: IKLH
Method: Panel EGLS (Cross-section random effects)
Date: 12/16/23 Time: 14:54
Sample: 2010 2021
Periods included: 12
Cross-sections included: 6
Total panel (balanced) observations: 72
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41.96940	5.438879	7.716553	0.0000
PMA	0.809481	0.372891	2.170823	0.0334
TINGKATMISKIN	0.784814	0.274631	2.857707	0.0057
KEPADATANPDDK	-0.000720	0.000188	-3.826781	0.0003

Effects Specification	S.D.	Rho
Cross-section random	0.000000	0.0000
Idiosyncratic random	6.295723	1.0000

Weighted Statistics

R-squared	0.454444	Mean dependent var	54.27736
Adjusted R-squared	0.430376	S.D. dependent var	8.937772
S.E. of regression	6.745646	Sum squared resid	3094.254
F-statistic	18.88119	Durbin-Watson stat	1.035204
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.454444	Mean dependent var	54.27736
Sum squared resid	3094.254	Durbin-Watson stat	1.035204

4. Uji Chow

Redundant Fixed Effects Tests
Equation: Untitled
Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	3.013301	(5,63)	0.0168
Cross-section Chi-square	15.438698	5	0.0086

Cross-section fixed effects test equation:
Dependent Variable: IKLH
Method: Panel Least Squares
Date: 12/16/23 Time: 14:59
Sample: 2010 2021
Periods included: 12
Cross-sections included: 6
Total panel (balanced) observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41.96940	5.827568	7.201872	0.0000
PMA	0.809481	0.399540	2.026033	0.0467
TINGKATMISKIN	0.784814	0.294257	2.667103	0.0096
KEPADATANPDDK	-0.000720	0.000202	-3.571541	0.0007

R-squared	0.454444	Mean dependent var	54.27736
Adjusted R-squared	0.430376	S.D. dependent var	8.937772
S.E. of regression	6.745646	Akaike info criterion	6.709624
Sum squared resid	3094.254	Schwarz criterion	6.836106
Log likelihood	-237.5465	Hannan-Quinn criter.	6.759977
F-statistic	18.88119	Durbin-Watson stat	1.035204
Prob(F-statistic)	0.000000		

5. Uji Hausman

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	13.533925	3	0.0036

** WARNING: estimated cross-section random effects variance is zero.

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
PMA	0.105966	0.809481	0.090017	0.0190
TINGKATMISKIN	-1.136211	0.784814	0.417312	0.0029
KEPADATANPDDK	0.007860	-0.000720	0.000014	0.0238

Cross-section random effects test equation:
Dependent Variable: IKLH
Method: Panel Least Squares
Date: 12/16/23 Time: 14:54
Sample: 2010 2021
Periods included: 12
Cross-sections included: 6
Total panel (balanced) observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	36.95938	15.29786	2.415983	0.0186
PMA	0.105966	0.478608	0.221405	0.8255
TINGKATMISKIN	-1.136211	0.701950	-1.618650	0.1105
KEPADATANPDDK	0.007860	0.003800	2.068694	0.0427

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.559734	Mean dependent var	54.27736
Adjusted R-squared	0.503828	S.D. dependent var	8.937772
S.E. of regression	6.295723	Akaike info criterion	6.634087
Sum squared resid	2497.076	Schwarz criterion	6.918670
Log likelihood	-229.8271	Hannan-Quinn criter.	6.747380
F-statistic	10.01193	Durbin-Watson stat	1.331561
Prob(F-statistic)	0.000000		

6. Uji *Lagrange Multiplier*

Lagrange Multiplier Tests for Random Effects
Null hypotheses: No effects
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives

	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	1.173957 (0.2786)	26.71071 (0.0000)	27.88466 (0.0000)
Honda	-1.083493 (0.8607)	5.168240 (0.0000)	2.888352 (0.0019)
King-Wu	-1.083493 (0.8607)	5.168240 (0.0000)	1.990749 (0.0233)
Standardized Honda	-0.276117 (0.6088)	5.422145 (0.0000)	0.543259 (0.2935)
Standardized King-Wu	-0.276117 (0.6088)	5.422145 (0.0000)	-0.246772 (0.5975)
Gourieroux, et al.	--	--	26.71071 (0.0000)

7. Uji Multikolinieritas

	PMA	TINGKATM...	KEPADAT...
PMA	1.000000	-0.446353	0.199145
TING...	-0.446353	1.000000	-0.662231
KEPA...	0.199145	-0.662231	1.000000

8. Uji Heteroskedastisitas

Dependent Variable: RESABS
Method: Panel Least Squares
Date: 12/17/23 Time: 13:57
Sample: 2010 2021
Periods included: 12
Cross-sections included: 6
Total panel (balanced) observations: 72

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.048995	7.607624	-0.006440	0.9949
PMA	-0.214666	0.238012	-0.901913	0.3705
TINGKATMISKIN	0.151919	0.349080	0.435199	0.6649
KEPADATANPDDK	0.001526	0.001890	0.807731	0.4223

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.235691	Mean dependent var	4.843522
Adjusted R-squared	0.138636	S.D. dependent var	3.373420
S.E. of regression	3.130862	Akaike info criterion	5.236962
Sum squared resid	617.5446	Schwarz criterion	5.521546
Log likelihood	-179.5306	Hannan-Quinn criter.	5.350256
F-statistic	2.428422	Durbin-Watson stat	1.619016
Prob(F-statistic)	0.023497		