

## LAMPIRAN

Lampiran 1. Data Analisis Pembangunan Perikanan di Provinsi Riau

No	Kab/Kota	PB	RTB	PT	LPU	GP	TPI	PPI	BBI	PBI
1	Rohil	764.71	1,537.00	47,343.70	106.00	123.43	0.00	38.00	0.00	3,596,100.00
2	Bengkalis	1,190.00	1,021.00	2,345.50	6,111.00	210.00	0.00	3.00	5.00	2,272,610.00
3	Dumai	174.12	314.00	928.30	0.00	234.20	0.00	2.00	7.00	5,693,800.00
4	Siak	854.14	1,354.00	1,566.10	0.00	63.45	0.00	3.00	6.00	3,793,670.00
5	Inhil	1,253.80	426.00	44,113.70	0.00	339.50	6.00	5.00	2.00	5,486,820.00
6	Pelalawan	6,055.50	3,114.00	6,476.30	36.97	182.00	0.00	1.00	11.00	7,046,380.00
7	Rohul	3,085.56	2,619.00	1,157.90	5,343.39	0.00	0.00	0.00	21.00	6,218,130.00
8	Kampar	49,359.00	8,391.00	1,859.90	39,950.57	0.00	0.00	0.00	103.00	143,844,820.00
9	Inhu	317.51	1,364.00	2,392.30	35,064.00	0.00	0.00	0.00	5.00	1,402,060.00
10	Kuansing	4,587.78	1,293.00	89.00	22,882.43	0.00	0.00	0.00	29.00	8,097,040.00
11	Pekanbaru	1,857.27	929.00	100.20	776.15	0.00	0.00	0.00	82.00	110,469,030.00
12	Kep. Meranti	26.62	92.00	2,026.70	220.00	0.00	0.00	1.00	0.00	0.00

Sumber : Data dan Informasi Dinas Perikanan dan Kelautan Provinsi Riau Tahun 2013

Keterangan :

PT = 'Produksi Perikanan Tangkap (Ton)'

TPI = 'Tempat Pelelangan Ikan (unit)'

RTB = 'Jumlah Rumahtangga Budidaya (KK)'

BBI = 'Balai benih induk (unit)'

PB = 'Produksi Perikanan Budidaya (Ton)'

PBI = 'Produksi Benih ikan (ekor)'

PPI = 'Pelabuhan Pelelangan Ikan (unit)'

GP = 'Panjang garis pantai (km)'

Lampiran 2. Program Pendugaan Parameter.

```
/* Data dibuat deprogram MS. Excell dan  
selanjutnya diimpor dari program SAS/ETS */
```

```
OPTIONS NODATE NONUMBER;  
PROC IMPORT OUT= WORK.ANALISIS  
    DATAFILE="D:\ANALISIS FAKTOR PERIKANAN\Data  
perikanan.xls"  
    DBMS=EXCEL2000 REPLACE;  
    SHEET="DATA_RUN$";  
    GETNAMES=YES;  
DATA GABUNG;  
SET ANALISIS;
```

```
/*Proses Pembuatan Nama Peubah Baru*/  
PPR          = PB+PT;
```

```
/*Pembuatan Nama Pada Peubah*/  
LABEL PT ='Produksi Perikanan Tangkap (Ton)'  
RTB  ='Jumlah Rumahtangga Budidaya (KK)'  
PB   ='Produksi Perikanan Budidaya (Ton)'  
LPU  ='Luas Perairan Umum'  
PPI  ='Pelabuhan Pelelangan Ikan'  
TPI  ='Tempat Pelelangan Ikan'  
BBI  ='Balai benih induk'  
PBI  ='Produksi Benih ikan (ekor)'  
GP   ='Panjang garis pantai (km)';
```

```
ODS HTML FILE='LUAR.HTML';  
RUN;
```

```
PROC SYSLIN 2SLS DATA=GABUNG OUTEST=HASIL SIMPLE;  
ENDOGENOUS    PB PT;  
INSTRUMENTS   RTB BBI PBI LPU GP TPI PPI;
```

```
/*Model Ekonometrika*/
```

```
PROD_BUDIDAYA : MODEL PB = RTB PBI LPU/DW;  
PROD_TANGKAP : MODEL PT = LPU GP PPI TPI/DW;
```

```
/*Persamaan Identitas*/  
IDENTITY PPR = PPR+0;
```

```
RUN;
```

Lampiran 3. Hasil Pendugaan Parameter

*The SAS System*  
*The SYSLIN Procedure*

*Descriptive Statistics*

Variables	Sum	Mean	Uncorrected SS	Variance	Std Deviation
Intercept	12.0000	1.0000	12.0000	0	0
TPI	6.0011	0.5001	36.0000	2.9999	1.7320
RTB	22454.0	1871.2	96887086	4988355	2233.5
PBI	2.9792E8	24826705	3.315E16	2.341E15	48382203
LPU	110491	9207.5	3.4157E9	2.1803E8	14765.9
GP	1152.6	96.0484	266595	14171.9	119.0
PPI	53.0005	4.4167	1493.0	114.4	10.6980
PB	69526.0	5793.8	2.5114E9	1.9169E8	13845.3
PT	110400	9200.0	4.2529E9	2.9429E8	17154.9
PPR	179926	14993.8	7.2279E9	4.1183E8	20293.6

*The SAS System*  
*The SYSLIN Procedure*  
*Two-Stage Least Squares Estimation*

Model	PROD_BUD
<b>Dependent Variable</b>	PB
<b>Label</b>	Produksi Perikanan Budidaya (Ton)

*Analysis of Variance*

Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	3	1.9725E9	6.5749E8	38.64	<.0001
Error	8	1.3614E8	17017569		
Corrected Total	11	2.1086E9			

Root MSE	4125.23560	R-Square	0.93544
Dependent Mean	5793.83422	Adj R-Sq	0.91122
Coeff Var	71.20044		

*Parameter Estimates*

Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
Intercept	1	-5164.79	1594.087	-3.24	0.0119	Intercept
RTB	1	4.542540	0.891074	5.10	0.0009	Jumlah Rumahtangga Budidaya (KK)
PBI	1	0.000064	0.000036	1.81	0.1079	Produksi Benih ikan (ekor)
LPU	1	0.093780	0.108035	0.87	0.4107	Luas Perairan Umum

Durbin-Watson	2.700021
Number of Observations	12
First-Order Autocorrelation	-0.43912

**The SAS System**  
**The SYSLIN Procedure**  
**Two-Stage Least Squares Estimation**

Model	PROD_TAN
Dependent Variable	PT
Label	Produksi Perikanan Tangkap (Ton)

Analysis of Variance					
Source	DF	Sum of Squares	Mean Square	F Value	Pr > F
Model	4	3.1974E9	7.9936E8	140.80	<.0001
Error	7	39742042	5677435		
Corrected Total	11	3.2372E9			

Root MSE	2382.73679	R-Square	0.98772
Dependent Mean	9199.96673	Adj R-Sq	0.98071
Coeff Var	25.89941		

Parameter Estimates						
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t	Variable Label
Intercept	1	316.4231	1315.649	0.24	0.8168	Intercept
LPU	1	0.036346	0.057269	0.63	0.0545	Luas Perairan Umum
GP	1	-0.39398	9.039942	-0.04	0.9665	Panjang garis pantai (km)
PPI	1	1231.295	70.41423	17.49	<.0001	Pelabuhan Penadaratan Ikan (unit)
TPI	1	6295.759	553.9511	11.37	<.0001	Tempat Pelelangan Ikan (unit)

Durbin-Watson	1.51028
Number of Observations	12
First-Order Autocorrelation	0.241075

#### Lampiran 4. Program Simulasi Model

```
OPTIONS NODATE NONUMBER;
PROC IMPORT OUT= WORK.ANALISIS
    DATAFILE="D:\ ANALISIS FAKTOR PERIKANAN\Data
perikanan.xls"
    DBMS=EXCEL2000 REPLACE;
    SHEET="DATA_RUN$";
    GETNAMES=YES;

DATA GABUNG;
SET ANALISIS;

/*Proses Pembuatan Nama Peubah Baru*/
PPR = PB+PT;

/*Pembuatan Nama Pada Peubah*/
LABEL PT ='Produksi Perikanan Tangkap (Ton)'
RTB  ='Jumlah Rumahtangga Budidaya (KK)'
PB   ='Produksi Perikanan Budidaya (Ton)'
LPU  ='Luas Perairan Umum'
LPT  ='Lag produksi Perikanan Tambak (Ton)'
LRBT ='Lag jumlah rumahtangga budidaya (KK)'
PPI  ='Pelabuhan Penadaratan Ikan (unit)'
TPI  ='Tempat Pelelangan Ikan (unit)'
BBI  ='Balai benih induk (unit)'
PBI  ='Produksi Benih ikan (ekor)'
GP   ='Panjang garis pantai (km)';

ODS HTML FILE='LUAR.HTML';
RUN;

PROC SIMNLIN STATS SIMULATE OUTPREDICT THEIL OUT=HASIL;
ENDOGENOUS      PB PT;
INSTRUMENTS     TPI RTB PBI LPU GP PPI;

PARM a0 -5164.79 a1 4.542540 a2 0.000064 a3 0.093780
b0 316.4231 b1 0.036346 b2 -0.39398 b3 1231.295 b4 6295.759;

PB      = a0 + a1*RTB + a2*PBI + a3*LPU;
PT      = b0 + b1*LPU + b2*GP + b3*PPI + b4*TPI;

IDENTITY PPR = PPR+0;

RANGE NO=1.00 to 12.00;
RUN;
```

Lampiran 5. Hasil Validasi Model

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*The SAS System*

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*The SIMNLIN Procedure*

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Model Summary	
Model Variables	2
Endogenous	2
Parameters	9
Range Variable	No
Equations	2
Number of Statements	2

---

Model	<b>PB PT</b>				
Variables					
Parameter	a0(-5164.79)	a1(4.54254)	a2(0.000064)	a3(0.09378)	b0(316.4231)
s(Value)	b1(0.036346)	b2(-0.39398)	b3(1231.295)	b4(6295.759)	
Equations	<b>PB PT</b>				

---

*The SAS System*

---

*The SIMNLIN Procedure*

---

*Simultaneous Simulation*

---

Data Set Options	
DATA=	GABUNG
OUT=	HASIL

---

Solution Summary	
Variables Solved	2
Solution Range	No
First	1.0000
Last	12.0000
Solution Method	NEWTON
CONVERGE=	1E-8
Maximum CC	1.54E-16
Maximum Iterations	1
Total Iterations	12
Average Iterations	1

---

Observations	
Processed	
Read	12
Solved	12

---

Variables Solved For	<b>PB PT</b>
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*The SAS System  
The SIMNLIN Procedure  
Simultaneous Simulation*

Solution Range No = 1 To 12

Descriptive Statistics							
Variable	N	N	Actual		Predicted		Label
			Mean	Std Dev	Mean	Std Dev	
PB	12	12	5793.8	13845.3	5787.5	13380.9	Produksi Perikanan Budidaya (Ton)
PT	12	12	9200.0	17154.9	9200.0	17049.2	Produksi Perikanan Tangkap (Ton)

Variable	N	Statistics of fit						
		Mean Error	Mean % Error	Mean Abs Error	Mean A % Error	RMS Error	RMS % Error	R-Square
PB	1	-6.3823	-1533.4	3010.5	1856.	3368.	5202.7	0.9354
	2				5	3		
PT	1	0.00007	138.4	1214.8	171.0	1819.	359.9	0.9877
	2	3				8		

Theil Forecast Error Statistics										
Variable	N	MSE	Corr (R)	MSE Decomposition Proportions					Inequality Coef	
				Bias (UM)	Reg (UR)	Dist (UD)	Var (US)	Covar (UC)	U1	U
PB	1	1134522	0.9	0.00	0.00	1.00	0.02	0.98	0.232	0.118
	2	8	7						8	1
PT	1	3311837	0.9	0.00	0.00	1.00	0.00	1.00	0.096	0.048
	2		9						7	4

Theil Relative Change Forecast Error Statistics										
Variable	Relative Change			MSE Decomposition Proportions					Inequality Coef	
	N	MSE	Corr (R)	Bias (UM)	Reg (UR)	Dist (UD)	Var (US)	Covar (UC)	U1	U
PB	1	6.345	0.9	0.13	0.07	0.80	0.01	0.86	0.398	0.202
	1	6	1						5	4
PT	1	3.399	0.9	0.00	0.11	0.89	0.18	0.82	0.183	0.094
	1	5	8						4	8

