

ROUNDTABLE MEETING
ON SUSTAINABLE PALM OIL

RSPO
Roundtable on Sustainable Palm Oil

IMPACT OF RSPO CERTIFICATION TO
ECONOMY, ENVIRONMENT AND SOCIAL OF
OIL PALM PLANTATION WITH TANJUNG
SEHATI SMALLHOLDER
JAMBI, SUMATERA, INDONESIA



SUSTAINABILITY
WHAT'S NEXT?

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BACKGROUND



- Tanjung Sehati Is Independent Smallholder Group
- Transmigration Programme (General transmigration program) Since 1983:
 - The Transmigrant lands consist of ;
 - ✓ LU I (1 ha) ,
 - ✓ LU II (2 ha)
 - ✓ Settlement (0,25 ha)
- 2009: SETARA has been doing empowerment to Independent smallholder group at Mekar Jaya Village

Problem Formulation

Since 2009: Background

- Perception and insight,
- Implementation of oil palm plantation
- Changing and developing in Gapoktan Tanjung Sehati
- Smallholder certification



The study has been focused by arranging questions as follows:

- 1) How is the process of Certification carried out?
- 2) What is the impact of Certification implementation of Tanjung Sehati Smallholder on social, economic and environment condition.

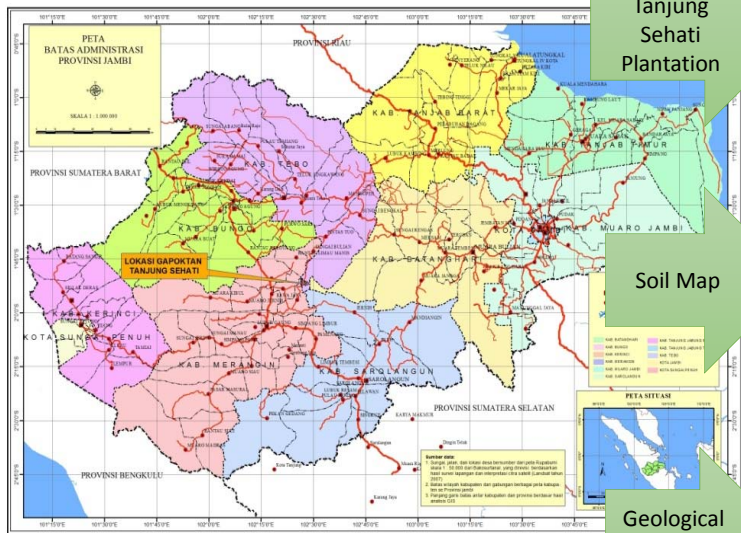
Research Objectives

1. To study the process of Certification implementation at Tanjung Sehati Smallholder
2. To analyze the certification impact on social-economic and environment condition of Tanjung Sehati Smallholder





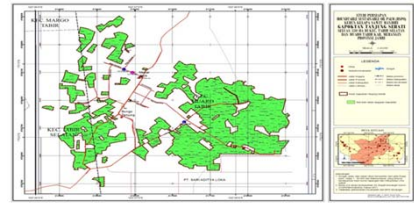
★ GAPOKTAN TANJUNG SEHATI LOCATION



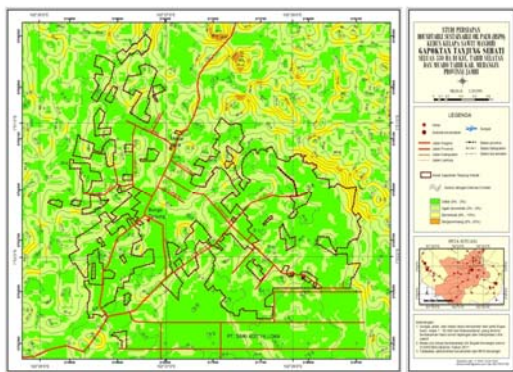
Tanjung Sehati Plantation

Soil Map

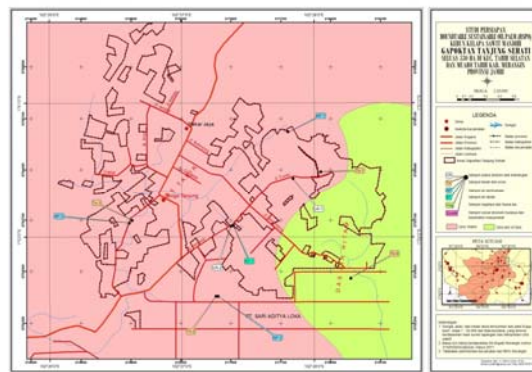
Geological Map



TOPOGRAPIC MAP



WATERSHED AND SAMPLING LOCATION MAP



List of Sampling Locations

No	Code	Decimal degree		Degree minute second		UTM Zone 48S		Note
		x	y	Longitude	Latitude	x	y	
1	AP-1	102,46348	-1,85358	102°27'48,51" BT	1°51'12,89" LS	217.802	9.794.921	Surface water sampling was taken from drainage oil palm path just before entering farmer group location area
2	AP-2	102,45466	-1,87401	102°27'16,77" BT	1°52'26,44" LS	216.824	9.792.659	Surface water sampling was taken from drainage oil palm path just after farmer group location area
3	AP-3	102,44347	-1,86496	102°26'36,48" BT	1°51'53,85" LS	215.577	9.793.659	Surface water sampling was taken from farmer palm oil area
4	AT-1	102,45660	-1,86527	102°27'23,74" BT	1°51'54,97" LS	217.038	9.793.626	Surface water sampling was taken from household well
5	TN-0	102,47137	-1,87182	102°28'16,94" BT	1°52'18,54" LS	218.685	9.792.904	Soil sampling was taken from dry land out side the smallholder area (controle)
6	TN-1	102,46762	-1,85854	102°28'03,44" BT	1°51'30,74" LS	218.265	9.794.373	Soil sampling was taken from low land in side the small holder area (alluvial)
7	TN-2	102,45439	-1,87402	102°27'15,81" BT	1°52'26,46" LS	216.794	9.792.658	Soil sampling was taken from dry land in side the small holder area (inceptisols)
8	TN-3	102,44383	-1,86462	102°26'37,77" BT	1°51'52,63" LS	215.617	9.793.696	Soil sampling was taken from dry land in side the small holder area (ultisols)
9	UA-1	102,46411	-1,85934	102°27'50,79" BT	1°51'33,64" LS	217.874	9.794.283	Ambient air sampling was taken in side the small holder area
10	UA-2	102,45629	-1,86536	102°27'22,64" BT	1°51'55,28" LS	217.004	9.793.617	Ambient air sampling was taken from farm housing area

SAMPLING METHOD

	Sido Mulyo	Sido Makmur	Mandiri Jaya	Sumber Hasil	Sido Maju	Kemang Jaya
Member of Group	58	32	33	25	38	28
Number of respondent	19	10	11	9	12	9

Total of population is 214 house-hold

SLOVIN METHODE

$$n = \frac{N}{1 + N \cdot e^2} \quad n = \frac{214}{1 + 214 * 0,1^2} = 68,15 \cong 69 \cong 70$$

n = Sample Number
 N = Population
 E = Deviation (error; E = 10%)

70 household

ANALYSIS METHOD

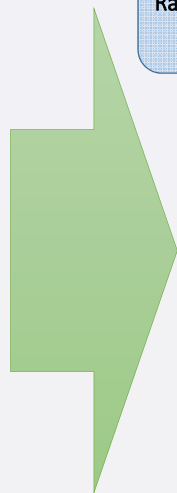
- Description
- Tabulation and scoring, with Statistic Non Parametric “ Sign Test”

$$\chi^2 = \frac{(|n_1 - n_2| - 1)^2}{n_1 + n_2}$$

- Laboratory Analysis (air, water, and soil quality , and aquatic biota)

CONCEPTION & MEASUREMENT

Score1, (Very low)
Score 2, (Low)
Score 3, (Medium)
Score 4, (Good)
Score 5, (Very good)



Social:
21 x 5 = 105 Category
Range = 28 High/T = 79 - 105
 Medium/S = 50 - 78
 Low/R = ≤ 50

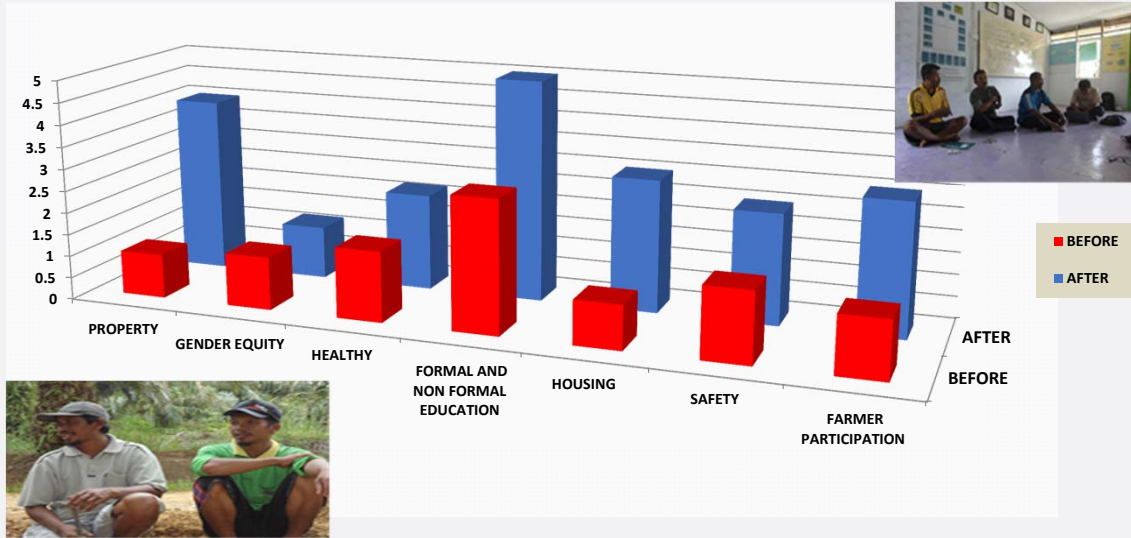
Environment:
25 x 5 = 125 Category
Range = 17 High/T = 92 - 125
 Medium/S = 58 - 91
 Low/R = ≤ 57

Economic:
10 x 5 = 50 Category
Range = 15 High/T = 36 - 50
 Medium/S = 21 - 35
 Low/R = ≤ 20

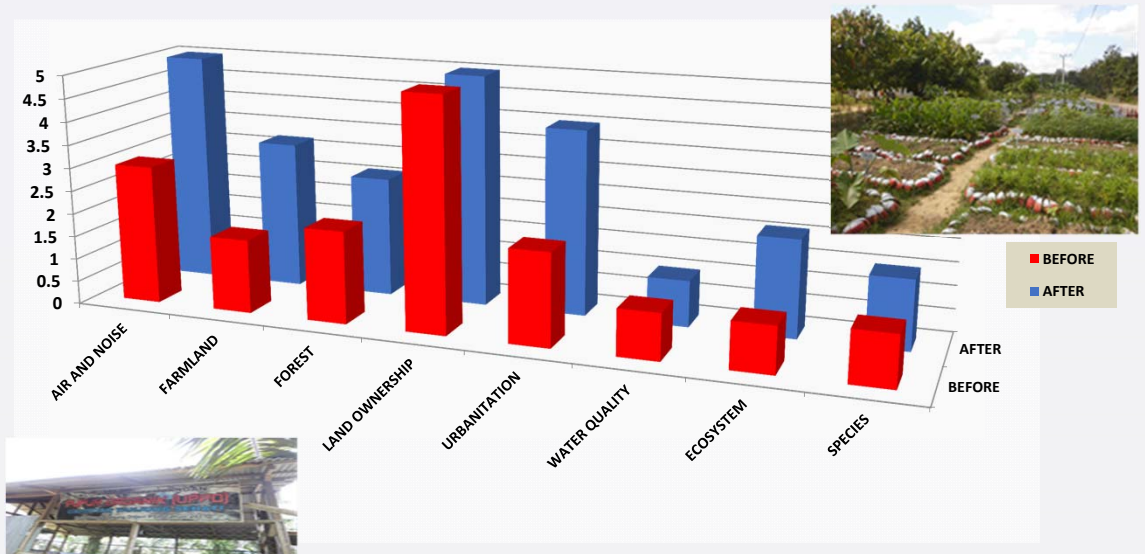
Institutional:
3 x 5 = 15 Category
Range = 4 High/T = 12 - 15
 Medium/S = 8 - 11
 Low/R = ≤ 7



SOCIAL



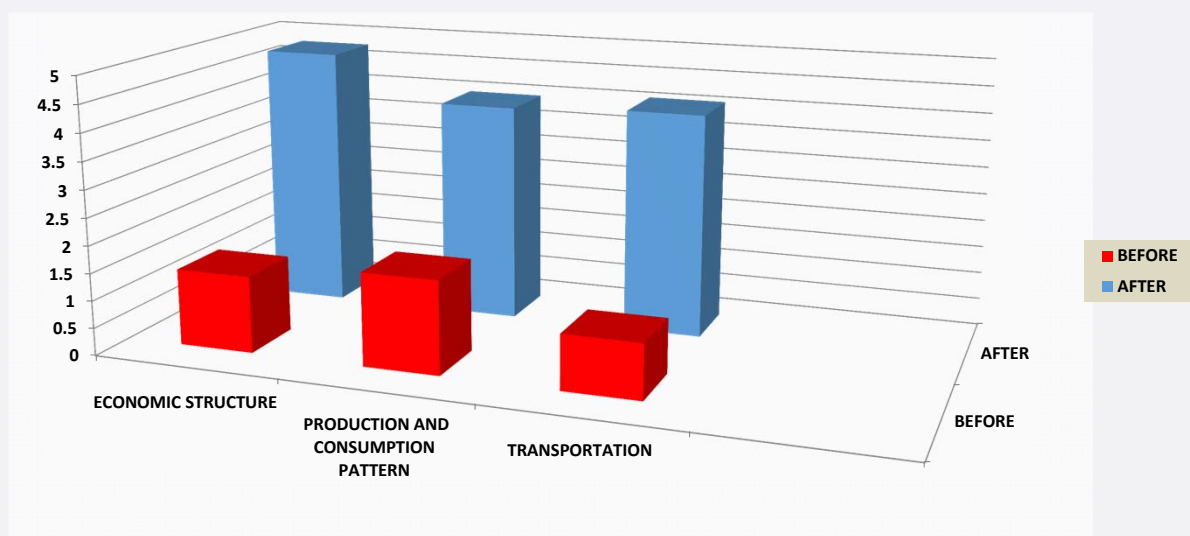
ENVIRONMENT



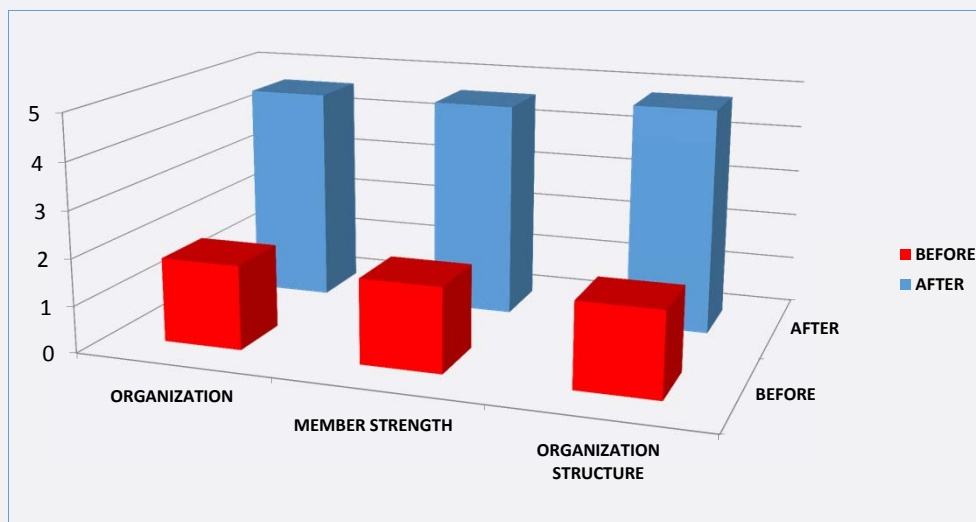
Land Quality Smallholder Tanjung Sehati and Village Control

No.	Parameter	Satuan	Hasil						
			TG0	TG 1	TG 2	TG 3	TK 1	TK 2	
1	pH								
	- H2O	-	4,6	4,8	4,7	4,6	4,5	4,8	
	- KCl	-	3,8	3,7	3,7	3,6	3,7	4,1	
2	C. Organik	%	1,63	2,21	1,81	1,76	0,98	1,13	
3	N. Total	%	0,16	0,24	0,15	0,16	0,11	0,12	
4	Rasio C/N		10,2	9,2	12,1	11	8,9	9,4	
5	P tersedia	ppm	4,6	4,1	3,8	3,5	2,3	1,8	
6	Basa dapat ditukar (Ekstrak NH4Asetat 1,0 N pH 7)								
	- Ca	me/100 gr	2,15	2,89	2,51	2,89	4,21	3,16	
	- Mg	me/100 gr	1,03	1,92	1,43	1,32	1,78	1,43	
	- K	me/100 gr	0,19	0,24	0,21	0,19	0,46	0,41	
	- Na	me/100 gr	0,11	0,09	0,09	0,08	0,2	0,16	
	Total	me/100 gr	3,48	5,14	4,24	4,48	6,65	5,16	
	KTK	me/100 gr	12,2	16,5	14,2	14,6	18,6	16,2	
	KB	%	28,6	31,1	29,8	30,7	35,7	31,8	
	7	Kemasaman							
		- Al – Tukar	me/100 gr	2,13	1,94	1,77	2,41	1,92	2,68
- H – Tukar		me/100 gr	1,82	0,96	1,14	1,35	1,06	1,47	
8	Tekstur		Liat	Liat	Liat	Liat	Liat	Liat	
	Pasir Kasar	%	1,6	1,6	0,9	2,3	0,6	1,1	
	Pasir Sangat Halus	%	4,8	2,6	2,4	2,7	1,2	2,6	
	Debu	%	29,5	23,3	32,9	29,6	26,9	41,6	
	Liat	%	64,1	72,6	63,8	65,4	71,3	54,7	
9	Permeabilitas	cm/jam	1,28	0,98	1,35	2,04	1,39	2,36	
10	BV	g/cm3	1,32	1,14	1,28	1,3	1,15	1,35	

ECONOMIC



INSTUTIONAL



THE RECAPITULATION OF IMPACT ANALYSIS

Social	+	-	=
Tabel $X^2_{.05} = 3.841$	$> \text{Table } X^2_{.05}$	$< \text{Table } X^2_{.05}$	$= \text{Table } X^2_{.05}$
Property	68.01429		
Gender equity			~
Healthy	67.01449		
Education Formal & Non Formal	68.01429		
Housing	68.01429		
Safety	55.01754		
Participation of Farmers	67.01449		

Environment	+	-	=
Air and noise	68.01429		
Farm land	68.01429		
forest	68.01429		
Land owner ship			~
Urbanization	68.01429		
Water quality			~
Ecosystem	63.01538		
Species	50.76563		

Economic	+	-	=
Economic Structure	68.01429		
Consumption Patterns Of Production	68.01429		
Transportation	68.01429		

Institutional	+	-	=
Organization	67.01449		
Strength Member	68.01429		
Organization Structure	68.01429		

CONCLUSION AND RECOMENDATION

CONCLUSION

- 1). Two Important determinants in certification proses:
 - Farmer group motivation to be independent farmer
 - There should be a powerful partner in helping farmer to be independent farmer and receive RSPO Certificate
- 2). There is a positive impact of RSPO certificate on social aspect which consist of: property equality, environment health, formal and non formal education, housing, safety, and farmer participation; economy aspect which consist of economic structure, production and consumption pattern, and transportation; and institutional aspect which consist of organization, member strength and organization structure; environment aspect which consist of air and noise, land, forest, ecosystem and species.
- 3) Some aspect that has not shown a significant impact were gender, water quality, and land ownership.
- 4) The other aspect that potentially negative to the farmer group was the audit cost which is too expensive for the farmer.

RECOMMENDATION

1. It is important to include gender consideration in RSPO aspect
2. It is necessary to prepare some fund in audit cost.
3. It needs to prepare adequate fund to support small holder in RSPO certification proses in empowerment scheme



Thank You
Terima kasih