

MINGGU V

Friday, March 17, 2017

MATA KULIAH PILIHAN

MANAJEMEN JASA LANSKAP

ARL 333 : 2 (2-0) 2



DEPARTEMEN ARSITEKTUR LANSKAP
FAKULTAS PERTANIAN
INSTITUT PERTANIAN BOGOR
17 March 2017

STAF PENGAJAR

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23 March 2017



VIRTUAL SYMPOSIUM 21-22 MARCH 2017

COOL INSIGHTS FOR A HOT WORLD:
Trees and Forests Recycle Water and Modify Climate

Please join leading scientists with the CGIAR Research Program on Forests, Trees and Agroforestry (FTA) for a virtual symposium.

Cool insights for a hot world: Trees and forests recycle water and modify climate

21 March 2017, 2.30-6.00pm Jakarta time (GMT+7)

Center for International Forestry Research (CIFOR)
Jalan CIFOR,
Situ Gede,
Bogor Barat 16115
Indonesia

If you wish to attend, please RSVP by 18 May, 2017 to Media Iry Wutandari at m.wutandari@cgiar.org. Please note that space is limited – a first come, first served policy will apply.

Alternatively, you can join the event online. The symposium will be broadcast as an online webinar, connecting to a parallel session hosted by the World Agroforestry Centre at their headquarters in Nairobi, Kenya.

For more information, please visit the [event page](#) and read the [publication](#).

23 March 2017

MANAJEMEN JASA LANSKAP

EVALUASI TUGAS ANALISIS

ARL 333 : 2 (2-0) 2

Hitung nilai Indeks Shanon Wiener pada pekarangan berikut ini.

No.	Nama Spesies	Family	Jumlah	pi	ln pi	pi ln pi
1.	<i>Gnetum gnemon</i>	Gnetaceae	3			
2.	<i>Cyperus rotundus</i>	Cyperaceae	5			
3.	<i>Nephelium lappaceum</i>	Rubiaceae	1			
4.	<i>Artocarpus integra</i>	Moraceae	1			
5.	<i>Averrhoa carambola</i>	Oxalidaceae	4			
6.	<i>Averrhoa bilimbi</i>	Oxalidaceae	2			
7.	<i>Leucaena leucocephala</i>	Fabaceae	2			
8.	<i>Mimosa pudica</i>	Fabaceae	5			
9.	<i>Syzygium aqueum</i>	Myrtaceae	1			
Total Individu			24			

Jawabannya H' = 2,02355

23 March 2017

TERCEPAT!

Submitted on 2017/03/09 at 6:38 pm

Nilai Indeks Shannon Wiener pada pekarangan tersebut adalah 2 oleh karena itu keragaman pekarangan tersebut termasuk sedang

TERCEPAT
9 Mar 2017 06:38 PM

Zipora Kristiani (A44140060)

SELAMAT!!!!

23 March 2017

TERBANYAK!

Submitted on 2017/03/09 at 7:23 pm

mohon maaf pak tidak sengaja terkirim hingga beberapa kali.

Submitted on 2017/03/09 at 7:19 pm

Nilai Indeks Shannon Wiener pada pekarangan tersebut adalah:
 $H' = -\sum p_i \ln p_i = 2,02355 + 2,02$
Sehingga keragamannya termasuk ke dalam kategori sedang.

TERBANYAK

Evi Silviana Heryanti (A44140002)

SELAMAT!!!!

5 POSTINGAN

Submitted on 2017/03/09 at 7:16 pm

Nilai Indeks Shannon Wiener pada pekarangan tersebut adalah:
 $H' = -\sum p_i \ln p_i = 2,02355 + 2,02$
Sehingga keragamannya termasuk ke dalam kategori sedang.

23 March 2017

TERBAIK!

TERBAIK
BENAR
SISTEMATIS
BAIK ADANYA

SELAMAT!!!!

Tsara Nuha Apsari (A44140022)

23 March 2017

MATERI PERKULIAHAN
MG I ~ UTS

MG TOPIK	URAIAN	TUGAS	DOSEN
I	PENDAHULUAN Ruang Lingkup dan Definisi	Kontrak Perkuliahan; Ruang Lingkup dan Definisi Jasa Lanskap	Tugas Resensi KAS
II	MANAJEMEN JASA LANSKAP Management Plan & Jenis-jenis Jasa Lanskap	Jasa Ekosistem; Jasa Lingkungan; Jasa Lanskap	Tugas Resensi KAS
III	JASA LANSKAP: Keragaman Vegetasi dan Karbon Tersimpan	Horizontal dan Vertical Diversity Index Aboveground dan Belowground	Tugas Analisis KAS
IV	JASA LANSKAP: Manajemen Sumber Daya Air dan Udara	Kuantitas dan kualitas air Kuantitas dan kualitas udara	- KAS
V	JASA LANSKAP: Keindahan dan Kenyamanan Lanskap	Keindahan <i>terrestrial</i> dan <i>spatial</i> Nilai Kenyamanan Lanskap	Tugas Analisis KAS
VI	JASA LANSKAP: Lanskap Sejarah dan Budaya	Nilai Manfaat Lanskap Sejarah dan Budaya	Tugas Analisis KAS
VII	JASA LANSKAP: Agrowisata dan Agroforestri	Potensi Agrowisata dan Agroforestri	- KAS
VIII UTS			

*) Pokok/Sub-pokok bahasan dapat berubah, disesuaikan dengan kasus yang sedang hangat didiskusikan.

23 March 2017

MATERI PERKULIAHAN
MG IX - UAS

MG TOPIK	URAIAN	TUGAS	DOSEN
IX	Coupling Landscape Ecology with Natural Landscape Management	Penjelasan tentang perubahan paradigma dan pendekatan dalam pengelolaan lanskap alami	- SWI
X	Landscape Structure and Multi-scale Management	Konsep dan studi kasus	Tugas makalah SWI
XI	Landscape Function and Cross-Boundary Management	Konsep dan studi kasus	Tugas makalah SWI
XII	Landscape Change and Adaptive Management	Konsep dan studi kasus	Tugas makalah SWI
XIII	Landscape Integrity and Integrated Management	Konsep dan studi kasus	Tugas makalah SWI
XIV	Review	Presentasi	- SWI
XV	Review	Presentas	- SWI
XVI UAS			

*) Pokok/Sub-pokok bahasan dapat berubah, disesuaikan dengan kasus yang sedang hangat didiskusikan.

23 March 2017

MG IV
JASA LANSKAP:
KEINDAHAN DAN
KENYAMANAN LANSKAP

23 March 2017

CP MINGGU V

Mahasiswa mampu menilai, mengukur dan mengevaluasi Keindahan Lanskap dan Kenyamanan Lanskap sebagai Jasa Lanskap

23 March 2017

JASA KEINDAHAN
LANSKAP

23 March 2017



BRI - Beautification Rate Index

- Testing 8 (eight)** variation criteria, i.e.:

1. Slope Variation	5. Naturalness
2. Relief Degree	6. Land Use Compatibility
3. Relief Contrast	7. Vegetation Strata Contrast
4. Land Use Concave	8. Internal Variation of Landscape Cohesiveness
- Weighting** being conducted spatially through satellite image for valuing landscape aesthetical quality.
- Validating being tested through **Planner Preferences** level (n > 60; photos > 30) by using **Scenic Beautification Estimation (SBE)** method.

BRI - Beautification Rate Index

- Slope Variation**
- Relief Degree**
- Relief Contrast**
- Land Use Concave**

BRI - Beautification Rate Index

- Naturalness**
- Land Use Compatibility**
- Vegetation Strata Contrast**
- Internal Variation of Landscape Cohesiveness**

SCENIC BEAUTY ESTIMATION (SBE)

PHOTO 01 Source: Daniel and Boster (1976)

Rating	f	cf	cp	z	
1	0	60	1.00	-	
2	0	60	1.00	2.39	
3	0	60	1.00	2.39	
4	3	60	1.00	2.39	
5	14	57	0.95	1.64	
6	17	43	0.72	0.57	
7	12	26	0.43	-0.17	
8	12	14	0.23	-0.73	
9	2	2	0.03	-1.83	
10	0	0	0.00	-2.39	
				Σz	4.27
				z	0.47
				SBE	47.26

N = 60
Estimation on 36 photos

If cp = 1.00 or cp = 0.00
cp = 1-1/(2N) or cp = 1/(2N)

SBE = 0.47 - z smallest (0.00) x 1.00
= 47.26

The SBE value being correlated to BRI and ARI value from Satellite Image

BRI - Beautification Rate Index

Table of Beautification Variation Criteria

No	Variation Criteria	Level	Weighted
1	Slope Variation (X1)	Slope > 45%	4
		Slope 25-45%	3
		Slope 8-25%	2
		Slope 0-8%	1
2	Relief Degree (X2)	Difference Contour 3	4
		Difference Contour 2	3
		Difference Contour 1	2
		Flat (without difference contour)	1
3	Relief Contrast (X3)	Type of aspect ≥ 5	4
		Type of aspect 4	3
		Type of aspect 3	2
		Type of aspect 2	1
4	Land Use Concave (X4)	Contour Line < 45°	4
		Contour Line 45°	3
		Contour Line 90°	2
		Contour Line 180°	1

BRI - Beautification Rate Index

Continue table BRI...

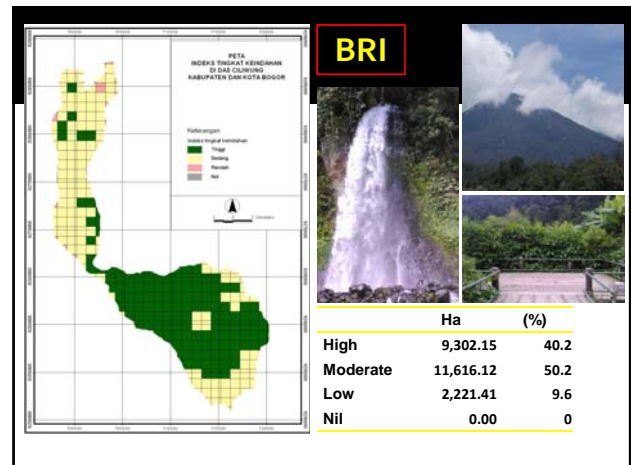
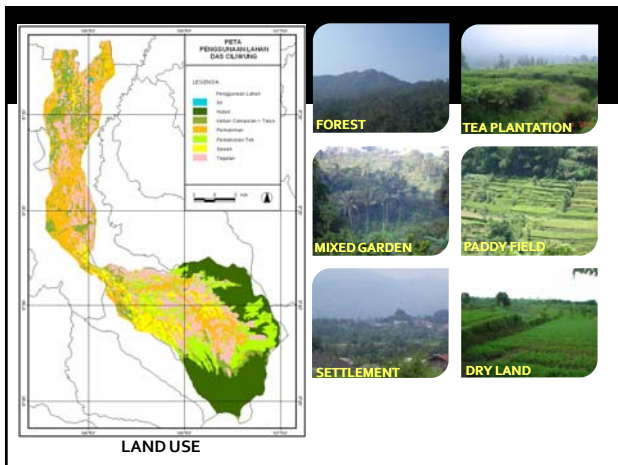
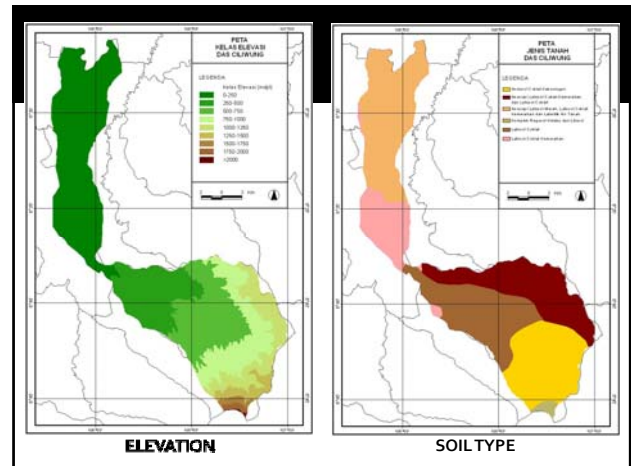
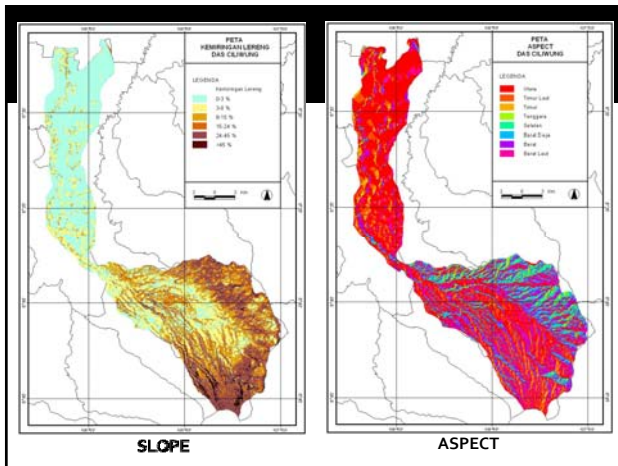
No	Variation Criteria	Level	Weighted
5	Naturalness (X5)	Vegetation Cover > 75%	4
		Vegetation Cover 50 – 75%	3
		Vegetation Cover 25 – 50%	2
		Vegetation Cover < 25 %	1
6	Land Use Compatibility (X6)	Difference Land Use \geq 4	4
		Difference Land Use 3	3
		Difference Land Use 2	2
		Same Land Use (=1)	1
7	Vegetation Strata Contrast (X7)	Type of Vegetation Strata \geq 4	4
		Type of Vegetation Strata 3	3
		Type of Vegetation Strata 2	2
		Type of Vegetation Strata 1 / without Vegetation	1
8	Internal Variation Of Landscape Cohesiveness (X8)	Organic Mosaic Pattern	4
		Mixed Mosaic Pattern	3
		Geometric Mosaic Pattern	2
		Without Mosaic Pattern	1

Source: Brown & Itami (1982) and Munandar (1990)

RESULTS

GENERAL CONDITION

Condition	Upper	Middle
Slope	Steep	Hilly
Aspect	Various	Dominant to North
Elevation	> 300 m asl	< 300 m asl
Soil Type	5 types	2 types
Land Use	Various	Dominant Settlements



CORRELATION ANALYSIS BRI AND SBE

Correlation Analysis between *Scenic Beauty Estimation (SBE)* and *BRI*:

$$SBE = -16.24 + 21.35BRI$$

Analysis of SBE value and each criteria variation: Slope Variation (X₁), Relief Degree (X₂), Relief Contrast (X₃), Land Use Concave (X₄), Naturalness (X₅), Land Use Compatibility (X₆), Vegetation Strata Contrast (X₇), and Internal Variation of Landscape Cohesiveness (X₈).

$$SBE = -29.18 + 1.08X_1 + 1.61X_2 + 5.82X_3 + 0.37X_4 + 4.22X_5 + 2.55X_6 + 0.37X_7 + 1.63X_8$$

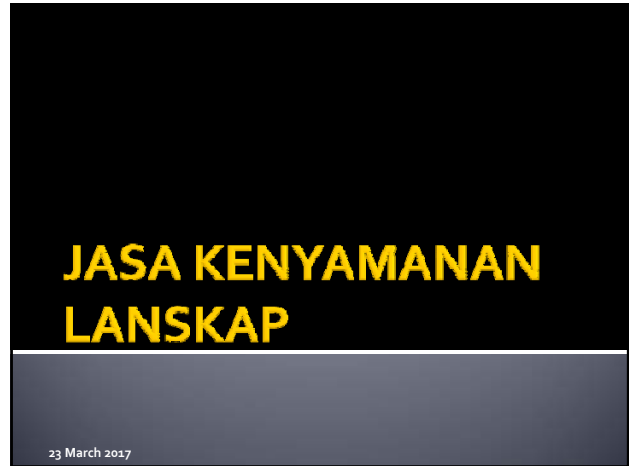
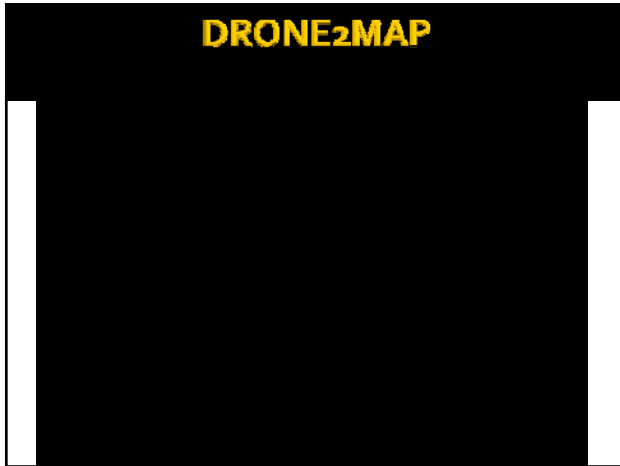
CORRELATION BETWEEN INTERNAL VARIATION AND SBE

Stepwise Regression Analysis between Internal Variation (X₁ to X₈) and SBE value which show the significant correlation

$$SBE = -6.32 + 12.74X_5 + 11.58X_6$$

This regression shows that two variation criteria are **Naturalness (X₅)** and **Land Use Compatibility (X₆)** which has positive impact to SBE

CORRELATION ANALYSIS BRI AND ARI

$$ITN = 1.34 + 0.61 ITI$$


ARI – Amenity Rate Index

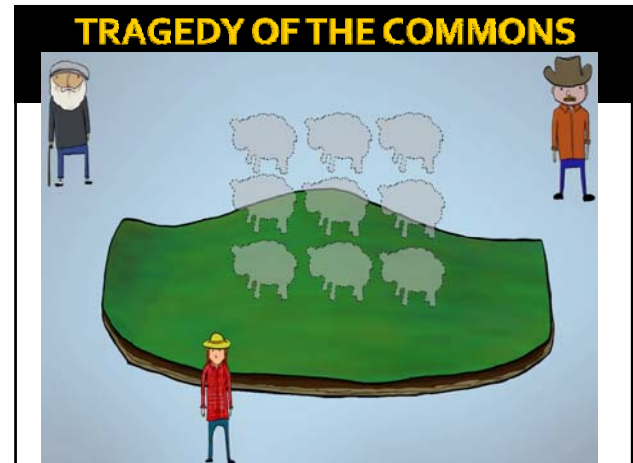
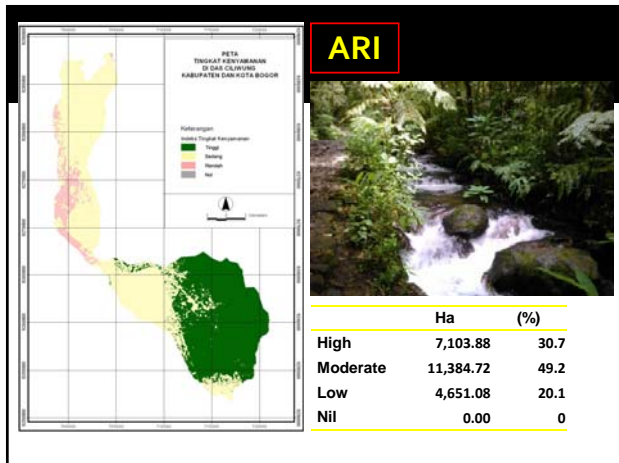
Table of Amenity Landscape Criteria

No	Amenity Factor	Level	Weighted
1	Air Temperature (AT)	Air Temperature 20-22 ° C	4
		Air Temperature 22-24 ° C	3
		Air Temperature 24-26 ° C	2
		Air Temperature 26-28 ° C	1
2	Relative Humidity (RH)	Relative Humidity 85-90%	4
		Relative Humidity 80-85%	3
		Relative Humidity 75-80%	2
		Relative Humidity 70-75%	1
3	Water Source Distance (WD)	Water Distance < 1 km	4
		Water Distance 1 - 2 km	3
		Water Distance 2 - 5 km	2
		Water Distance > 5 km	1

ARI – Amenity Rate Index

No	Amenity Factor	Level	Weighted
4	Land Cover (LC)	Forest	4
		Mixed Garden / Dry Land	3
		Paddy Field / Wet Land	2
		Settlement / Built-up Area	1
5	Slope (SL)	Slope 0-8%	4
		Slope 8-25%	3
		Slope 25-45%	2
		Slope > 45%	1
6	Elevation (EL)	Elevation 750 - 1250 m asl	4
		Elevation 250 - 750 m asl	3
		Elevation > 1250 m asl	2
		Elevation < 250 m asl	1

Source: Freitas (2002), Schiller (2001) and Sakaida (2001)



TUGAS ANALISIS

Hitunglah Nilai SBE dari 1 foto berikut

Resp	SKOR	Resp	SKOR	Resp	SKOR
1	6	11	8	21	7
2	7	12	9	22	8
3	6	13	8	23	6
4	6	14	8	24	5
5	8	15	7	25	7
6	7	16	7	26	8
7	8	17	7	27	6
8	9	18	6	28	7
9	7	19	8	29	9
10	9	20	10	30	6

23 March 2017

TERIMA KASIH

Atas perhatian dan kerjasamanya dalam tatap muka kali ini

**SAMPAI JUMPA
PADA KULIAH MINGGU DEPAN**

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23 March 2017