

MINGGU IV

Thursday, March 15, 2018

MATA KULIAH PILIHAN

MANAJEMEN JASA LANSKAP

ARL 333 : 2 (2-0) 2



DEPARTEMEN ARSITEKTUR LANSKAP
FAKULTAS PERTANIAN
INSTITUT PERTANIAN BOGOR
15 March 2018

STAF PENGAJAR

DOSEN:

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15 March 2018

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.

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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	Presentasi	- SWI
XVI	UAS		

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

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MG IV

JASA LANSKAP: MANAJEMEN SUMBER DAYA AIR DAN UDARA



15 March 2018

CP MINGGU IV

Mahasiswa
mampu mengelola manajemen sumber daya air

dan

mampu mengelola sumber daya udara

sebagai Jasa Lanskap

15 March 2018

JASA LANSKAP

- Jasa Lingkungan (*Environmental Services*)
- Jasa Ekosistem (*Ecosystem Services*)
- Jasa Lanskap (*Landscape Services*)

15 March 2018

SUMBER DAYA AIR

15 March 2018

Water Resources Management

CASE STUDY: WATER QUALITY

Water quality was measured through 11 parameters.

Those are (1) Dissolved Oxygen: **DO**, (2) Biological Oxygen Demand: **BOD**, (3) Chemical Oxygen Demand: **COD**, (4) Ammonium: **NH₄**, (5) Nitrate: **NO₃**, (6) Nitrite: **NO₂**, (7) Phosphate: **PO₄**, (8) Acidity: **pH**, (9) Alkalinity: **OH⁻**, (10) Bacteria *Escherichia coli*, and (11) General Bacteria - others than *E. coli*.

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Water Resources Management

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Water Resources Management

Water Quality Samples Locations

Water Samples:

- 4 watersheds
- 6 villages in each watershed
- 4 locations in each village
- 3 repetitions in a location

Total:
4 x 6 x 4 x 3 = 288 samples

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Water Resources Management

11 Parameters:

- DO
- COD
- BOD
- Nitrite
- Nitrate
- Ammonium
- Phosphate
- Alkalinity
- Acidity
- Escherichia coli*
- General Bacteria

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Water Resources Management

WQI formula proposed by Rodriguez de Bascaroan (Pesce & Wunderlin, 2000)

$$WQI = k \frac{\sum_{i=1}^n C_i P_i}{\sum_{i=1}^n P_i}$$

Parameters	Pi	Normalization Factor (Ci)										
		100	90	80	70	60	50	40	30	20	10	0
DO	4.0	>7.5	>7	>6.5	>6	>5	>4	>3.5	>3	>2	2.1	<1
COD	3.0	<5	<10	<20	<30	<40	<50	<60	<80	<100	150	>150
BOD	3.0	<0.5	<2	<3	<4	<5	<6	<8	<10	<12	15	>15
NO ₃ -N	2.0	<0.005	<0.008	<0.01	<0.04	<0.075	<0.1	<0.15	<0.2	<0.25	0.5	>0.5
NO ₂ -N	2.1	<0.5	<2	<4	<6	<8	<10	<15	<20	<40	50	>50
NH ₄ -N	3.0	<0.01	<0.05	0.1	<0.2	<0.3	<0.4	<0.5	<0.75	<1	1.15	>1.15
PO ₄	1.1	<0.025	<0.05	<0.1	<0.2	<0.3	<0.5	<0.75	<1	<1.5	2	>2
Alkalinity	1.7	<20	<40	<60	<80	<100	<120	<140	<160	<180	200	>200
pH	1.9	7	6.9-7.5	6.7-7.8	6.5-8.3	6.2-8.7	5.8-9.0	5.5-9.5	5.0-10.0	4.5-10.5	4.0-11.5	<4.0>11.5
Escherichia coli	3.0	<50	<50	<1000	<2000	<3000	<4000	<5000	<7000	<10000	14000	>14000
Fecal Coliform	3.6	<50	<50	<1000	<2000	<3000	<4000	<5000	<7000	<10000	14000	>14000

*All values are in mg/l, except for pH (pH unit) and bacteria (MPN/100ml).

Water Resources Management

RESULTS

Classification of WQI in stream level and water sample location. All WQI values are situated at "good" and "medium" levels. The different letter show the mean difference is significant at the 0.05 level.

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Water Resources Management

WQ Sample Location

Among four locations, the highest to the lowest WQI values are springs, ponds, paddy fields and rivers, respectively.

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RESILIENT CITIES

15 March 2018

SUMBER DAYA UDARA

15 March 2018

sustainable communities online

for a more sustainable future

Home About Community Events Publications Living Communities About Us

Home > Events and Road Shows > Summit Series (2018)

American Forests' CITYgreen

CITYgreen is a 2017 initiative that helps people understand the value of trees in their local communities. It is a free, web-based tool that provides information on the program for best practices in forestry, parks and urban environmental education that support the benefits of trees.

http://www.americanforests.org/programs/citygreen

Tree: Identification | Distribution | Environmental | Artistic | Landmark | Tree

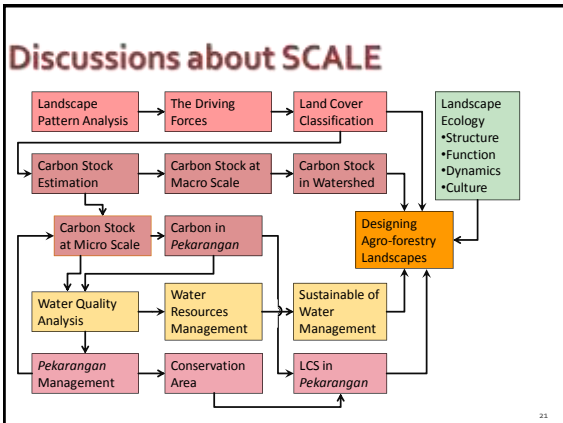
More from this category:

- Neighborhood Greenways Project
- Local Greenways
- Citygreen
- Summit Series (2017)
- National Community Forestry Center (NCFC)
- Forest Stewardship Council

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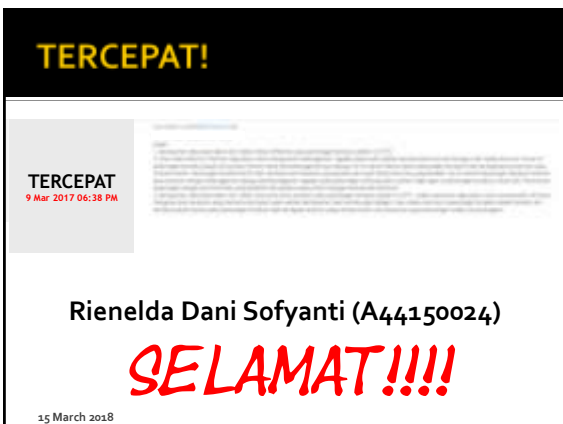
MANAJEMEN JASA LANSKAP
EVALUASI TUGAS ANALISIS
ARL 333 : 2 (2-0) 2

Hitung nilai Indeks Shanon Wiener pada pekarangan berikut ini.

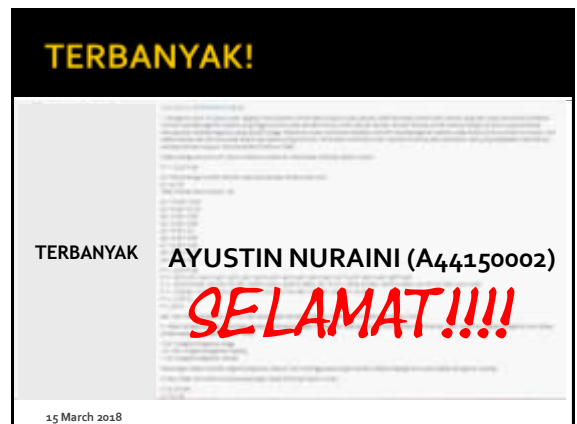
No.	Nama Spesies	Family	Jumlah	pi	ln pi	pi ln pi	pi ²
1.	<i>Gnetum gnemon</i>	Gnetaceae	3				
2.	<i>Cyperus rotundus</i>	Cyperaceae	5				
3.	<i>Nephelium lappaceum</i>	Rubiaceae	1				
4.	<i>Artocarpus integra</i>	Moraceae	1				
5.	<i>Averrhoa carambola</i>	Oxalidaceae	4				
5.	<i>Averrhoa bilimbi</i>	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 $H' = 2,02$ dan $C = 0,15$

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TERBAIK!

TERBAIK
BENAR
SISTEMATIS
BAIK ADANYA

SELAMAT!!!!

Kadek Aditya P P (A44150031)

15 March 2018

LANDSCAPE INFRASTRUCTURE

ASLAVIDEO
Video by the American Society of Landscape Architects

15 March 2018

TERIMA KASIH

Atas perhatian dan kerjasamanya dalam tatap muka kali ini

**SAMPAI JUMPA
PADA KULIAH MINGGU DEPAN**

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