その　の

		Graduate School of Hiroshima University							Leipzig University (Universität Leipzig)
		3 2							Ritterstraße 26 04109 Leipzig, Germany
		(1) (2) (3) (4) (5)							
		2030 SDGs SDGs NGO Employability							
	[Graduate School of Advanced Science and Engineering] [Joint International Master's Programme in Sustainable Development(Hiroshima University and Leipzig University)]	2	2 <449> 2		4 <898> 4	(Master of Science)	2 10 1	5 1	Faculty of Economics and Management Science Grimmaische Straße 12 04109 Leipzig, Germany < >

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M50 D17
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P20 M20) M80)
M14 M14 M19
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M24 D5 M28 D8)
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M22 D11 M30 D13
M23 D11 M10 D5

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M25 D12 M15 D7
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M28 D9 M30 D10
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M24 D8 M26 D9
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M43 D22 M28 D14
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M257 D85 M163 D50
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M449 D128

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	52	14	0	66	60	

	3 (3)	5 (5)	0 (0)	0 (0)	8 (8)	0 (0)	43 (43)		
	3 (3)	5 (5)	0 (0)	0 (0)	8 (8)	0 (0)	43 (43)		
	103 (103)	93 (93)	6 (6)	17 (17)	219 (219)	0 (0)	123 (123)		
	95 (95)	89 (89)	4 (4)	1 (1)	189 (189)	0 (0)	34 (34)		
	64 (64)	56 (56)	8 (8)	1 (1)	129 (129)	0 (0)	146 (146)		6
	66 (66)	56 (56)	4 (4)	0 (0)	126 (126)	0 (0)	40 (40)		
	6 (6)	10 (10)	2 (2)	0 (0)	18 (18)	0 (0)	120 (120)		
	14 (15)	1 (1)	1 (1)	0 (0)	16 (17)	0 (0)	85 (85)		
	6 (6)	4 (4)	0 (0)	0 (0)	10 (10)	0 (0)	46 (46)		8

121	109	5	79	314	0	104	
(121)	(109)	(5)	(79)	(314)	(0)	(104)	6
121	107	3	47	278	0	50	
(121)	(107)	(3)	(47)	(278)	(0)	(50)	
48	49	6	36	139	0	134	
(48)	(49)	(6)	(36)	(139)	(0)	(134)	
44	49	6	30	129	0	39	
(44)	(49)	(6)	(30)	(129)	(0)	(39)	
52	40	22	34	148	0	69	
(52)	(40)	(22)	(34)	(148)	(0)	(69)	
84	32	25	25	166	0	151	
(84)	(32)	(25)	(25)	(166)	(0)	(151)	
40	4	5	1	50	0	99	
(40)	(4)	(5)	(1)	(50)	(0)	(99)	
453	371	68	186	1078	0		
(454)	(371)	(68)	(186)	(1079)	(0)	( )	
453	372	68	186	1079	0		
(454)	(372)	(68)	(186)	(1080)	(0)	( )	

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523	938	1,461
1,119	211	1,330
1,119	211	1,330
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26	0	26
4	352	356
4	352	356
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1,672	1,501	3,173

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514,567	0	0	514,567

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20	18

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							1.05			
		4	120		500	( )	1.05	49		30 (10)
		4	40		80	( )	1.07	30		
							1.06			
		4	130	3 10	560	( )	1.06			30 (10)
							1.02			
	( )	4	157		634	( )	1.01	12		28 (20)
										30 (3)
	( )	4	82		340	( )	1.01	12		30 (6)
	( )	4	73		314	( )	1.03	12		30 (11)
	( )	4	81		338	( )	1.05	12		30 (7)
	( )	4	52		214	( ) ( )	1.03	12		30 (3)
							1.07			
		4	140	3 10	580	( )	1.06			
		4	30	3 10	160	( )	1.10			30 (10)
							1.07			
		4	150	3 5	615	( )	1.07			30 (5)
		4	45	3 5	220	( )	1.06			30 (15)
										30 (5)
							1.06			
		4	47	}	192	( )	1.03	24		
		4	66		268	( )	1.07	10		
		4	59	3	240	( )	1.06	24		
		4	34	10	140	( )	1.06			
		4	24		100	( )	1.06			
							1.00			6
							1.03			4
		6	120		720	( )	1.00	28		
			120							
		4	60		240	( )	1.03			
		4	30		120	( )	1.02			

		4	30		120	( )	1.02			
							1.00			6
							1.05			4
		6	53		318	( )	1.00	40		
					160	( )				
		4	20		80	( )	1.05	21		
		4	20		80	( )	1.06	21		
							1.03			6
							1.07			4
		6	38		228	( )	1.03	18		
		4	22		88	( )	1.07	18		
							1.03			
		4				( )		13		30
		4				( )		13		30
	( )	4				( )		13		30
	( )	4	150	3 5	300	( )	1.04	30		
	( )	4	90	3 3	180	( )	1.04	30		
	(	4	115	3 4	465	( )	1.02	13		30 (4)
	( )	4	90	3 3	180	( )	1.06	30		
							1.13			
		4	90	3 10	380	( )	1.13	54		
							1.06			
		4	80	3 5	160	( )	1.06	30		
										2
		2	50		110	( )	0.98	18		31 (10)
		3	17		57	( )	0.81	18		31 (3)
										2
		2	64		128	( )	0.95	13		
		3	32		96	( )	0.67	13		
		3				( ) ( ) ( )		12		28
		3				( ) ( ) ( )		12		28
		3				( ) ( )		12		28
		2	20		40	( )	1.00	28		2
		2	20		40	( ) ( ) ( )	1.72	28		2

		2	80		160	( )	1.23	28		2
						( )				
						( )				
		2	14		28	( )	1.21	28		2
						( )				
						( )				
		2	14		28	( )	1.21	12		2
						( )				
						( )				
		2	19		38	( )	1.12	12		2
						( )				
						( )				
		2	5		10	( )	0.80	28		2
						( )				
						( )				
		3	49		147	( )	1.36	28		2
						( )				
						( )				
										2
		2	24		48	( )	1.02	16		
						( )				
		3	5		15	( )	0.53	16		
						( )				
		2	28		56	( )	1.28	16		
						( )				
		3	8		24	( )	0.41	16		
						( )				
		2	28		56	( )	0.67	12		
		3	14		42	( )	0.45	12		
		2	22		44	( )	0.67	28		2
		3	11		33	( )	0.48	28		
		2	30		60	( )	1.08	28		2
		3	13		39	( )	0.63	28		
		2	23		46	( )	1.56	28		2
		3	11		33	( )	0.75	28		
		2				( )		28		31
		3				( )		28		
		2	10		20	( )	1.05	28		2
		3	5		15	( )	0.53	28		
		2				( )		11		31
		3				( )		11		
		2	25		50	( )	1.26	10		2
						( )				
						( )				
		3	12		36	( )	0.30	10		
						( )				
						( )				
		2				( )		10		31
						( )				
						( )				
		3				( )		10		
						( )				
						( )				
		2	15		30	( )	1.33	16		2
						( )				
						( )				

		3	7		21	( )	0.23	16		
						( )				
						( )				
		4				( )		24		31
						( )				
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						( )				
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		3				( )		24		
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		3				( )		24		
		2				( )		24		
	( )					( )				
		3				( )		24		
						( )				
		2				( )		24		
						( )				
						( )				
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						( )				
		3				( )		14		
						( )				
		2	28		56	( )	1.23	22		2
		3	9		27	( )	0.70	22		
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						( )				
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		2	26		52	( )	1.32	22		
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		3	7		21	( )	0.61	22		
		2				( )		18		31
						( )				
		3				( )		18		
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		2				( )		11		
						( )				

		3				( ) ( )		11		
		4				( ) ( ) ( ) ( )		14		24
		4				( ) ( ) ( ) ( )		14		
		2				( )		21		
		3				( )		23		
		2	43		86	( ) ( ) ( )	1.18	6		2
		3	22		66	( ) ( ) ( )	0.61	6		
		2	28		56	( ) ( )	1.42	7		
		3	14		42	( ) ( )	0.87	7		
		2	170		170	( ) ( ) ( ) ( )	0.90	31	1 4 4 1 3 1 1 7 1	
		3	70		70	( ) ( ) ( ) ( )	0.32	31		
		4	97		97	( ) ( ) ( ) ( )	1.02	31		
		2	76		76	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )	0.98	31		
		3	25		25	( ) ( ) ( ) ( ) ( ) ( ) ( )	0.56	31		
		3	20		60	( )	0.66	16		2

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(144,700) 7,971

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17 4
(2,492,191) 26

HiSIM
HiSIM(Hiroshima－university STARC
IGFET Model) CMC(Compact Modeling Council)
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3 CMC

1 3 1
17 7
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	1 4 1 30 9 (2,492,191) 1 1 1 30 10 (2,492,191) 1,001 〃 〃 100 1 2 3 30 10 (144,700) 3 10 23 31 2 (2,492,191) 3 10 32 31 2 (2,492,191) 1 2 2 16 9 (2,492,191) 136 (2 3 4 2) 1 1 1 26 4 (210,983 6,919) 54,375		

31

	120		480
	40		160
	3		
	130	10	540
( )	157		628
( )	82		328
( )	73		292
( )	81		324
( )	52		208
	3		
	140	10	580
	30	10	140
	3		
	150	5	610
	45	5	190
	47		188
	66		264
	59		236
	34		136
	24		96
	3		
		10	20
	105		630
	120		480
	53		318
	40		160
	38		228
	22		88
	3		
( )	150	5	610
( )	90	3	366
( )	115	4	468
( )	90	3	366
	3		
	90	10	380
	3		
	80	5	330
	3		
	2,323	80	9,844

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	120		480
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( )	81		324
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	140	10	580
	30	10	140
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	150	5	610
	45	5	190
	47		188
	66		264
	59		236
	34		136
	24		96
	3		
		10	20
	105		630
	120		480
	53		318
	40		160
	38		228
	22		88
	3		
( )	150	5	610
( )	90	3	366
( )	115	4	468
( )	90	3	366
	3		
	90	10	380
	3		
	80	5	330
	3		
	2,323	80	9,844

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50	100
17	51
64	128
32	96
20	40
20	40
80	160
14	28
14	28
19	38
5	10
49	147
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5	15
28	56
8	24
28	56
14	42
22	44
11	33
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12	36
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7	21
28	56
9	27
30	60
10	30
34	68
11	33
37	74
13	39
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9	27
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21	42
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31

	43	86
	22	66
	28	56
	14	42
	170	340
	70	210
	97	388
	76	152
	25	75
	20	60
	1,561	3,732

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			( )
	257	514	
	85	255	
	163	326	
	50	150	
	30	60	
	20	60	
	2	4	( )
			( )
	449	898	
	128	384	
	2	4	( )
	170	340	
	70	210	
	97	388	
	76	152	
	25	75	
	0	0	2 4
	1,624	3,820	

その　の

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・ライプツィヒ　サステイナビリティ

1

	Hiroshima		1 2			1		○															0	5
	Japanese Experience of Social Development-Economy, Infrastructure, and Peace		1 2			1		○			1					1							1	6
	Japanese Experience of Human Development-Culture, Education, and Health		1 2			1		○															0	6
			1 2			1		○															0	4
			1 2			1		○															0	2
			1 2			1		○															0	9
			1 2			2		○															0	1
			1 2			2		○															0	1
			1 2			2		○															0	1
	MOT		1 2			1		○															0	1
			1 2			1		○															0	1
	11				0	14	0				1	0	0	0	0	1	0	0	0	0	0	0	1	35
	MOT		1 2			1		○															0	1
			1 2			1		○															0	1
			1 2			1			○														0	1
			1 2			1		○															0	1
			1 2			1		○															0	1
			1 2			1		○															0	1
			1 2			1		○															0	1
	7				0	7	0				0	0	0	0	0	0	0	0	0	0	0	0	0	4
			1			2		○															0	1
			1			2		○															0	1
	Regional and Urban Engineering		1 2			2		○			1					1							1	
	Fundamentals of Survey Methodology		1 2			2		○															0	1
	Numerical Environmental Impact Assessment I		1 2			2		○				1				1							1	
	Geographic Information System Technology		1 2			2		○															0	1
	6				0	12	0				1	1	0	0	0	2	0	0	0	0	0	0	2	4
	Basics in Economic Sciences		1			5		○									3					3	3	
	Basics in Social Sciences – International Studies		1			5		○									1		1			2	2	
	Basics in Sustainable Development		1			5		○									3					3	3	1
	3				0	15	0				0	0	0	0	0	0	7	0	1	0	0	8	8	1

		Specialization	Environmental Management		1 2			2		○			1	4				5							5	2
			Development Technology		1 2			4		○			1	4				5							5	3
			Transportation Engineering		1 2			2		○															0	1
			Transportation Planning		1 2			2		○															0	1
			Tourism Policy		1 2			2		○			1					1							1	
			Risk Management Technology		1 2			2		○															0	1
			Sustainable Architecture A		1 2			2		○				1				1							1	
			Sustainable Architecture B		1 2			2		○				1				1							1	
			Energy Science and Technology		1 2			2		○				1				1							1	
			Numerical Environmental Impact Assessment II		1 2			2		○				1				1							1	
			Botany Resources for the Future		1 2			2		○				1				1							1	
			Environmental Monitoring		1 2			2		○				1				1							1	
			Biomass Energy Technology		1 2			2		○				1				1							1	
			Ecosystem Conservation and Management Science		1 2			2		○				1				1							1	
			Management and Conservation of Ecosystems		1 2			2		○				1				1							1	
					1			2			○		3	5				8							8	3
					1			2			○		3	5				8							8	3
			17				0	36	0				3	5	0	0	0	8	0	0	0	0	0	0	8	4
		Integration			2			2			○		3	5				8							8	3
					2			2			○		3	5				8							8	3
			Developing Designing Ability		1 2			2			○			1				1							1	1
					2			2			○														0	1
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					2			2			○														0	1
			International Environmental Cooperation Studies		2			2		○			1	4				5							5	6
					2			2			○		3	5				8							8	3
			8				0	16	0		-		3	5	0	0	0	8	0	0	0	0	0	0	8	7
		Specialization	Energy Engineering and Management		1			5		○									2					2	2	
			Water Resources Management		1			5		○											1			1	1	1
			Sustainable Energy Economics		1			5		○									1					1	1	
			Land Management		1			5		○											1			1	1	1
			Environmental and Biodiversity Economics		1			5		○									1					1	1	
			5				0	25	0				0	0	0	0	0	0	3	0	2	0	0	5	5	2
		Integration	Integration Module		2			7.5		○									1					1	1	
			Project Management and Communication Skills		2			2.5		○									1					1	1	1
			Material Flow Management		2			2.5		○									1					1	1	
			Sustainability Assessment of the Energiewende		2			2.5			○								1					1	1	
			Modelling in Resources Management		2			5		○									1					1	1	1
			Entrepreneurship Management		2			5			○								1		1			2	2	
			Economics and Natural Resource Use and Conservation		2			5		○									1					1	1	
			7				0	30	0				0	0	0	0	0	0	5	0	1	0	0	6	6	2
					1 2			15			○		3	5				8							8	3
			Master's Thesis		1 2			15			○								9	1	4			14	14	2
			2				0	30	0				3	5	0	0	0	8	9	1	4	0	0	14	22	5
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				Japanese Experience of Social Development-Economy, Infrastructure, and Peace		1 2			1		○			1					1							1	6
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				Regional and Urban Engineering		1 2			2		○			1					1							1	
				Fundamentals of Survey Methodology		1 2			2		○															0	1
				Numerical Environmental Impact Assessment I		1 2			2		○				1				1							1	
				Geographic Information System Technology		1 2			2		○															0	1
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			Development Technology		1 2			4		○			1	4				5							5	3
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			Tourism Policy		1 2			2		○			1					1							1	
			Risk Management Technology		1 2			2		○															0	1
			Sustainable Architecture A		1 2			2		○				1				1							1	
			Sustainable Architecture B		1 2			2		○				1				1							1	
			Energy Science and Technology		1 2			2		○				1				1							1	
			Numerical Environmental Impact Assessment II		1 2			2		○				1				1							1	
			Botany Resources for the Future		1 2			2		○				1				1							1	
			Environmental Monitoring		1 2			2		○				1				1							1	
			Biomass Energy Technology		1 2			2		○				1				1							1	
			Ecosystem Conservation and Management Science		1 2			2		○				1				1							1	
			Management and Conservation of Ecosystems		1 2			2		○				1				1							1	
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		Integration			2			2			○		3	5				8							8	3
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			8				0	16	0	-			3	5	0	0	0	8	0	0	0	0	0	0	8	7
					1 2			15			○		3	5				8							8	3
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	1		5		○								1		1			2	2	
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		0	15	0			0	0	0	0	0	0	7	0	1	0	0	8	8	1
	1		5		○								2					2	2	
	1		5		○										1			1	1	1
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	2		2.5		○								1					1	1	1
Material Flow Management	2		2.5		○								1					1	1	
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ˆ ♯ ⱬ ♠	┼		Hiroshima ∆ ▄ ▪ ▌	= ≠ ▌ ╓ ╓ = ▪ ≠ ▌ ▪ ∞ ▌ ₒ ╓ ╓ ╓ ┤ ▌ ₒ ꜛ שׁ ♯ ﬁ ╓ ┬ ╧ ╞ ∑ ˀ ╓ ▪ ≠ ▌ ₒ ʃ ▄ = ꜛ שׁ ♯ ﬁ ▪ ┬ ≠ ┼ ∏ ▄ ╧ ┤ ┼ ╓ █ ▪ ≠ ▌ ₒ ⌐ ∟ ┤ ╓ = ╓ ⅴ ˥ ﬁ ┤ ▌ ₒ ˥ ˀ ˀ ˀ ⌐ ≠ ├ ╓ ▪ ⅴ ˥ ﬁ = ┬ ┬ ╓ = ▌ ♂ ע ⱬ‴ ▪ ╧ ≠ ┼ ╓ █ ▪ ≠ ▌ ₒ ☺ ꜝ ⊦ ˆ ɨ 8 41 2 = ∂ √ ▌ ╓ ╓ ╓ █ 16 2 ₨ Hiroshima ₨ = ∂ √ ▌ ˀ ╓ 20 1 = ∂ √ ▌ ┬ ╓ ┬ 21 1 ╓ ╓ ┬ ╓ ╛ ╦ ╓ 43 2 ┬ ╓ █ ╓ = ʃ ▌ ╛	☺ ꜝ ⊦ ˆ ɨ
			Japanese Experience of Social Development- Economy, Infrastructure, and Peace	This course intends to discuss the issues of SDGs under the Guiding principles of Hiroshima University “Pursuit of Peace” and the long-term vision “Splendor Plan 2017”. The SDGs sets sustainability as a core of the global issues. Such a broad issue always involve many related issues. Resolution of one issue may produce another issue. It is important to consider cross-disciplinary approach and hisotorical aspect. Also inclusiveness is an important principle of SDGs, and thus all countries, developed and developing countries, should collaborate to tackle these. When considering these cross-disciplinary approach, historiy, and inclusiveness of development, Japanese experience of development provides an important case, becuase Japan, among non-European countries, is the first country which has become a member of OECD. Here, we can learn many points from the developing efforts whether they are success or failure. These efforts, including development assistance, are connected to Japanese society of today. On the other hand, Japan currently faces such new issues as rapid aging and depopulation. Thus this course discusses Japanese experience of social development from the above aspects. lesson1 Guidance of the course lesson2 JICA chugoku center lesson3 Yuichiro Yoshida “Japanese policy experience: Success and Failures” lesson4 Masaru Ichihashi “Industrial Policy and Economic growth” lesson5 Junyi Zhang “History of environmental policies in Japan”1 lesson6 Junyi Zhang “History of environmental policies in Japan”2 lesson7 Osamu Yoshida “Japanese ODA and its Asia Policy” lesson8 Mari Katayanagi “Reconstruction of Hiroshima from Peacebuilding Perspective” ┤ ╓ ₨ ┤ ┼ ᒻ ╓ ₨ ┬ ╓ ┬ ꜜ Ⱡ ɔ א Splendor Plan 2017 ▪ ˰ ˥ ɨ ┬ ≠ ├ SDGs = ᒻ ├ ≠ ▌ ₒ SDGs ╓ ┼ ╓ ┬ ≠ ├ ▪ ├ ▌ ₒ ⌐ ╓ ▀ ┼ ╓ = ╓ ≠ ╛ ▪ ╤ ▌ ╓ ╓ ╓ ▪ ∑ ∟ ≠ ∆ ╧ ≠ ▌ ┼ ₒ ╓ ∏ ┤ ▌ ₒ ʃ ▄ = SDGs ╓ ▪ ┼ ┬ ≠ ├ ∂ █ ▪ ╥ ≠ ╞ ├ ╓ ∏ ≠ ├ █ ▫ ┤ ∆ ┼ √ ▌ ˥ ┼ ▄ ┼ ₒ ∟ ▌ ▄ ╓ ◒‴ שׁ ˥ Ⱪ ┬ ▪ ╢ ▌ ˥ ╓ ┼ ▪ ≠ ├ ∂ █ ╓ ל ˥ שׁ ⱬˊ ╓ ┤ ╓ ╓ OECD ┤ ╧ ▌ ₒ = √ ╛ = ╛ ˥ ├ ╓ ╓ ⌐ ╓ = ▄ ≤ ╓ ▪	☺ ꜝ ⊦ ˆ ɨ

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			Japanese Experience of Human Development-Culture, Education, and Health	This course intends to discuss the issues of SDGs under the Guiding principles of Hiroshima University "Pursuit of Peace" and the long-term vision "Splendor Plan 2017". The SDGs sets sustainability as a core of the global issues. Such a broad issue always involve many related issues. Resolution of one issue may produce another issue. It is important to consider cross-disciplinary approach and hisotorical aspect. Also inclusiveness is an important principle of SDGs, and thus all countries, developed and developing countries, should collaborate to tackle these. When considering these cross-disciplinary approach, historiy, and inclusiveness of development, Japanese experience of development provides an important case, becuase Japan, among non-European countries, is the first country which has become a member of OECD. Here, we can learn many points from the developing efforts whether they are success or failure. These efforts, including development assistance, are connected to Japanese society of today. On the other hand, Japan currently faces such new issues as rapid aging and depopulation. Thus this course discusses Japanese experience of human development from the above aspects. lesson1 Guidance of the course lesson2 Maharajan Keshav Lall "Japanese experience of development in Agriculture and Remote area" lesson3 Koki Seki "Socio-cultural Aspect of Modernization of Japan: Focusing on the Transformation of Norm, Mentality, and Way ofLiving" lesson4 Kinya Shimizu "A History of Education in Japan" lesson5 Kinya Shimizu "Lesson Study in Japan: As a tool of PDSI in Japanese Education" lesson6 Junko Tanaka "International cooperation and research collaboration in the field of public health" lesson7 Michiko Moriyama "Healthcare system in Japan: its characteristics and history" lesson8 Discussion (┤╓ ₨ ┤ ┼ └╓ ₨┬ ╓ ┬ ̇ȴↄא Splendor Plan 2017 ▪ ‸ ˥ɫ┬≠├ SDGs =└ ├ ≠▌ｏSDGs ╓ ┼ ╓ ┬≠├ ▪ ├ ▌ｏ⌐╓▀ ┼ ╓ = ╓ ≠⌡ ▪ ╤ ▌ ╓ ╓ ╓ ▪ ∑ └≠∆╧≠▐ ┼ ｏ ╓ ∏ ┤ ▌ｏ∫▄= SDGs ╓ ▪ ┼ ┬≠├∂█ ▪ ╓≠╞├╓ ∏ ≠├ █ ▫┤ ∆┼√ ▌˥ ┼▄┼ ｏ └ ▌▄╓ ◓ ש˥Ⱪ ┬ ▪ ╣ ▌˥ ╓ ┼ ▪ ≠├∂█ ╓ ל˥שϚ ╓ ┤╓ ╓OECD ┤╧ ▌ｏ = √⌡ = ⌡˥├╓ ╓⌐╓ = ▄≤ ╓ ▪ └ ┬∏┤∑ ╓ ╓ =╧ ≠▌╧╓┤ ▌ｏ ┤ ╓ ┼ = ≠├ ▌ｏ ╓┬∂█ ┤╓ ╓ =∂√▌ ╓ = ≠├ ╧╓┤ ▌ｏ	☺ ! ┣̂ ɫ

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			ɧ ◕ ˆ ך ♯ v ˑ ╓	SDGs ╓ ▪ ≠ = ∂ ├ ɧ ◕ ך ♯ v ˑ ◕ א ♠ ת ך ŧ כ א ╓ ▪ ≠ ⌐ ▌▪ ≠ ▌ ♀ ת ▪ ≠ ▌ ∟ ┬ ╓ ∆ ┼ ▌ ▪ ≠ ▌ = ┬ ┐ ├ ┤ ▌ ₒ ∟ ╓ ┤ ╓ ɧ ◕ ך ♯ v ˑ ╓ ך ♠ ┬ ך Ɀ w ▪ = ≠ ◕ א ♠ ת ך ŧ כ א ╓ ⌡ ╥ ╓ ♯ v ! = └ ├ ▌ ▪ ≠ ▌ ∟ ┬ ▪ ┬ ≠ ▌ ₒ ☺ ! ⊦ 8 18 47 2)(ɧ ◕ ך ♯ v ˑ = ≠ ▌ = = ∂ √ ▌ ɧ ◕ ך ♯ v ˑ ╓ ך ♠ ┬ ך Ɀ w = └ ├ ╘ = ∂ √ ▌ = └ ├ ≠ ▌ ∟ ┬ ▪ ┬ ≠ ▌ ₒ 53 5 ♦ ך ! ┼ ┤ ∫ ▌▌ = ∂ ├ ┼ ▌ ╓ ▪ ≠ ▪ ≠ ▌ ש ₱ ▪ ┤ ∑ ▌ ♯ ﬂ ד ך ♯ כ א ♦ ך ! ▪ ₒ 19 53 1) W ˑ ☻ Ɀ ♯ כ א ┬ ♦ ך ! ╓ = ┘ ∑ ɧ ◕ ך ♯ v ˑ ◕ א ♠ ת ך ŧ כ א ╓ ┬ = └ ├ ≠ ▌ ₒ	☺ ! ⊦
	♀ ע ך ˑ W Ɥ ך v ם ♯		W ך Ɥ ך v ם ♯ ך	ICT ╓ ┬ ┬ ┴ = ┼ ┤ ┼ W ך Ɥ ∏ ∫ ▌ ∟ ▌▪ ≠ ⌡ ≠ ŧ ┴ ∫ ▌▌ ▀ = ┼ █ W ך Ɥ ╓ ╓ ▪ ┴ ┐ ⌡ ∏ ∆ ▄ ┬ ∫ ▌├ ▌ ₒ ┤ ╓ W ך Ɥ ▪ █ ┬ ≠ ├ ┬ ┐ ⌡ W ך Ɥ ╓ = └ ├ ≠ └ ∆ ╓ ▪ ≠ ├ W ך Ɥ ╓ █ = ≠ ├ ≠ ╞ ∑ ▪ ≠ ▌ ₒ ╢ ⌡ ₱ ♀ ד ך v ˑ ╓ ┬ ┐ ⌡ = └ ├ ┴ ▌▌ ₒ ☺ ! ⊦ 8 31 4 ┼ ▪ ╓ █ ∆ █ ┬ ≠ ├ ▪ ∟ ┬ ▪ ┬ ≠ ▌ ₒ = ╓ ȼ w R ▪ ├ W ך Ɥ ╓ █ ╤ w ♣ ם ! Ɀ ♠ ש Ɀ w ┼ ┴ = ▀ ▌ W ך Ɥ ╓ ┼ ┴ ╓ ╓ ▪ ₒ ∫ ▄ = ▪ ⌡ ╓ ▪ ▄ ∆ = ≠ ▌ ┴ ≠ ▌ ₒ 48 4 Ɀ ♣ W ך Ɥ ┬ ך ▌▌ ┼ W ך Ɥ ╓ = ≠ ▌ ▪ ≠ ▌ ∟ ┬ ▪ ┬ ≠ ▌ ₒ = ╓ Ɀ ♣ W ך Ɥ ╓ ╝ ╓ ┬ ╓ ▪ ≠ ⌐ ╓ ▪ ≠ ▌ ┬ = AI ╝ ╓ ┼ ┴ ┴ ≠ ▌ ₒ ╢ ⌡ W ˑ ך ם ך ⊦ א ♣ = ▀ ▌ ┼ ┴ ┴ ≠ ▌ ₒ ∫ ▄ = Ɀ ♣ W ך Ɥ ╓ █ = ≠ ▌ = └ ├ ┴ ▌▌ ₒ	☺ ! ⊦

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			♀ ע ר ☁ fi ≠ ƚ ˘ א w	└ ╓ ╓ ╓ ╓ ┤ ▌ o ♀ ע ר ☁ ▪ ≠ ▌ └ ┬ ┤ ┤ ╓ ╓ ┬ ♀ ע ר ☁ ∑ ▪ ┴ √ ▌ ∆ ▪ ▌ ┬ ≠ ▌ o ∆ ▄ ╝ ╓ w ם א ƚ # כ א = └ ├ ≠ ♩ fl ד ‥ ♥ ק # כ א ≠ ├ ∑ ├ ⌡ ╥ = ┼ ▪ ≠ ▌ └ ┬ ▪ ≠ o └ ▌ ▄ ╓ ▪ ≠ ▌ ⌡ ╥ ┤ ╓ ╓ = █ ╥ o ╓ ▪ ▌ o ♣ ת ק ˝ ק ♠ ▪ o ≡ ק █ ▌ ┬ ╓ = ▀ ק ├ ┤ ≠ ▌ ▪ = └ √ ▌ o	
			♀ ע ר ☁ fi ≠ ƚ ˘ א w	♩ fl ד ‥ ♥ ק # כ א ╓ ┤ ≠ ▌ ┤ ┼ ┤ ▌ o ┤ ╓ ┬ ≠ ├ ˈ = ▀ ▌ ♩ fl ד ‥ ♥ ק # כ א = └ ├ ≠ ▌ o ˈ = ▀ ▌ ♩ fl ד ‥ ♥ ק # כ א = ∂ ├ ┼ ┴ ╓ ┼ ▪ └ ⌡ ╥ ┤ ╓ ┬ ╓ ∆ ▄ ♩ fl ד ‥ ♥ ק # כ א = └ ├ ▪ ╥ ▪ ≠ ├ ǂ ♀ ת ▪ ∫ ≥ ▌ o ┼ ╓ = ▀ ▌ ♩ fl ד ‥ ♥ ק # כ א ╓ ˝ ˖ Ʀ א v ק # כ א ┼ ♩ fl ד ‥ ♥ ק # כ א ǂ ♀ ת ┤ ▌ ˈ ˗ # ר v ק # כ א ┤ ▌ o ╓ ╓ ╓ ┬ ∂ █ ┤ ▌ o 1. ♩ fl ד ‥ ♥ ק # כ א = ┬ ק ├ ╓ − √ ┤ ┼ ┘ │ ┼ ≤ ∑ ∏ ┤ ▌ └ ┬ ▪ ≠ ▌ o 2. = ≡ ⌡ ╓ ╓ ˝ ˖ Ʀ א v ק # כ א ▪ ≠ ▌ o 3. ǂ ♀ ת ╓ = └ ├ ≠ ▌ o 4. ˈ ˗ # ר v ק # כ א ǂ ♀ ת = └ ├ ≠ ♣ ת ק ˝ ┤ ╓ W ˎ ǂ ☻ Ʒ # כ א ▪ ≠ ▌ o	

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ˆ ♯ Ϛ ♠	♀ ע ר ☁ ᑊ W Ḩ ר V ם ♯		ǂ w ± ǂ fi ≠ Ł ˘ א w	╓ ᑊ ╓ ╓ = ▀ ˥ ├ ǂ w ± ǂ ∏ ≠ ├ ▌o ǂ w ± ǂ ╓ ╓ ᑊ ┼ = ▀ ▌ ± ╓ ┤ █ ∏ ┤ ┼ ┬ ╓ = ▪ ┤ ≠ ╓ ▪ ∫ ≥ ▌ ∟ ┬ = ┼ ▌o ≠ ⌡ ∏ ˥ ├ ┤ ≠ ≠ ⌡ ▪ ∩ ≠ ⌡ ╥ = ╓ ǂ w ± ǂ ▪ = ♩ א w ש ˥ ת ≠ ▌ ∟ ┬ ∏ ┬ ┼ ▌o ⌐ ∟ ┤ ┤ ╓ ┼ ǂ w ± ǂ fi ≠ Ł ˘ א w = ᴸ ├ ≠ ☁ ש ˥ Ҁ = ▀ ▌ ǂ w ± ǂ fi ≠ Ł ˘ א w ╓ ▪ ≠ ▌ ⌡ ╥ ╓ ▪ ≠ ▌o ╓ ╓ ╓ ┬ ∂ █ ┤ ▌o 1. ᑊ ǂ w ± ǂ ┬ ⌐ ╓ = ᴸ ├ █ ǂ w ± ǂ fi ≠ Ł ˘ א w ╓ ┼ = ᴸ ├ ≠ ▌o 2. ☁ ש ˥ Ҁ = ▀ ▌ ǂ w ± ǂ fi ≠ Ł ˘ א w ╓ ▪ ≠ ▌o 3. ≠ ☼ V ˑ ꞁ ┼ = ∑ ╣ ▌≤ = ₧ ∟ ∟ ₨ ╓ ▪ = ≠ ▌ = ᴸ ├ ≠ ▌o	
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			☁ א w ± ˥ ├ ˥ ♯ Ϛ	∆ ᴸ ├ ☁ א w ± ± ├ ˥ ♯ Ϛ ╓ ₧ ₨ ┬ ∫ ▌▌ ∟ ┬ ∏ — ˥ ⌡ o ≠ ∆ ≠ ☁ א w ± ± ├ ˥ ♯ Ϛ ╓ ≠ ├ ┼ ± ╓ ┤ ╓ ┼ ≠ ├ ┤ ∑ ▌ ┤ ▌o ┤ ╓ ╓ ┤ ∫ ▌ ᴸ ᴸ ▌ ☁ א w ± ± ├ ˥ ♯ Ϛ ╓ ╓ ▪ o ┤ ┼ ├ ± ▪ ∟ ┬ ╓ ᴸ ╓ ┬ ▪ ∫ ┼ ├ ± ∏ ▌ ▪ ≠ ▌ ∟ ┬ ╓ ♀ ע ר ☁ ╓ ∆ ■ ╣ ≠ ╣ ≠ = ┼ ▌o ┼ ┴ ▪ ├ ╓ ┬ ᵁ W ת ▪ ▫ — ┤ ☁ א w ± ± ├ ˥ ♯ Ϛ ▪ ┬ ≠ ├ ⌡ ■ ┴ ▫ ┼ ▪ √ ▌ ∆ ▪ ≠ ▌o	
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				╓ ♩ ☁ ┬ ± ├ ∑ ╓ ▪ = ≠ ▌ ∟ ┬ ▪ ┬ ≠ ▌o ╓ ▪ ╓ ┬ ╓ ∆ ■ ╓ ▪ ≠ ┼ ∏ ■ ╓ ▪ ╓ ≡ ╥ ☁ א w ± ± ├ ˥ ♯ Ϛ ┼ ┴ ╓ ▪ ≠ ▌o ┬ ≠ ├ ┼ ┴ ╓ ▪ █ ∞ ╓ ┤ ▌ ╓ ╓ ▪ ╓ ≡ ╥ ± ˥ w ╓ fi ˥ ♥ V ˑ א ♣ Ŀ ┼ ┴ ╓ ▪ ≠ ≠ ╓ ╓ ▪ o	
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ˆ ♯ Ʒ ♠		Numerical Environmental Impact Assessment I	ײ W ת ▪ ≠ ⌡ ╓ ┼ ┴ ╞ = ▀ ▌ ▪ = ▀ ▌ = ▀ ▌ ┼ ┴ ╓ ▪ ▌ ⌡ ╦ = ┼ = └ ├ o ┤ ╓ ▌ ╓ ┤ ▌ ┼ ┴ ╓ ▪ ≠ ײ W ת = ▀ ▌ ▪ o └ ▌ = ▀ ▌ = ▀ ▌ ▪ = √ ▌ ⌡ ╦ ╓ ▪ o	
		Geographic Information System Technology	◙ ≠ ת ♂ ˥ ┼ ┴ ┼ ┤ ┬ ┼ ▌ ╓ ▪ ≠ ▌ ⌡ ╦ ╓ = └ ├ ♯ ł ∨ ! GIS ▪ ≠ ⌡ ╓ = └ ├ ≠ ▌ ┬ ┬ ╧ = ┤ ╓ ▪ ≠ ▌ └ ┬ ▪ ≠ ├ GIS ▪ ├ ≠ ▌ ▪ ≠ ▌ o ┤ ╓ W ˥ Ⱨ ╓ ▪ ≠ ▌ └ ┬ GIS = ≠ ▌ ▪ ≠ ▌ └ ┬ GIS ▪ ⌡ ┼ ▪ └ ┬ ∏ ┤ ∑ ▌ └ ┬ GIS ▪ ⌡ W ˥ Ⱨ ╓ ײ W ˥ א ♣ = ≠ ▌ ▪ ≠ ▌ └ ┬ ▪ ≠ o	
ˆ ♯ Ʒ ♠	ם ◕ ╒ Ʒ ◂ ↑	Basics in Economic Sciences	= ≠ ▌ ╓ ┴ ‸ ת ╓ ▪ ≠ ▌ o └ ╓ ש ♣ ם ! ╓ ∆ └ ┤ ▌ ⌡ ╦ ┴ ‸ ת ∏ ˥ ├ ▌ └ ┬ ∏ = ┤ ▌ o ☺ ! ⊦ ł 45 8 Dornberger, Utz 15 Value Chain Management ╞ Internationalization of SMEs = ≠ ▌ 2 Gawel, Eric 15 Sustainable Economics = ≠ ▌ 6 Schnabl, Gunther 15 International Finance = ≠ ▌	☺ ! ⊦ ł
	ם ◕ ╒ Ʒ ◂ ↑	Basics in Social Sciences – International Studies	┤ ╓ ╓ ▪ ≠ ▌ o ╢ ≤ ╓ ♣ ש ˥ ˥ Ꞃ ˥ ♯ כ א ╓ = ≠ ├ = ∂ √ ▌ = ˥ ├ ≠ ▌ o = ╓ ┬ ╓ ┼ ▌ ∆ ▄ ┬ ▄ ▄ ▌▌ ▀ 3 └ ╓ ▪ ≠ ▌ o ≠ ┼ ⎮ ' ł w ˩ ש ⊦ ◚ ת ┤ ▌ o ∫ ▄ = └ ▌ ▄ ╓ ╓ ▪ ▌ BRICS ¡ ם ŧ ת ש ♯ ◚ ◕ א ℣ ◚ ¡ ˥ ☻ ╓ ─ ─ ┬ ◚ ¡ ˥ ☻ ▪ = ─ ─ ♣ ש ˥ ת ◚ ם ¡ ╓ ╓ ♥ ˥ ł ł Ⱨ W ◂ ╓ ∆ ▄ ≠ ▌ o ☺ ! ⊦ ł 45 9 Engel, Ulf 30 International Studies = ≠ ▌ ╞ 12 Rietdorf, Ute 15 Development Economics = ≠ ▌	☺ ! ⊦ ł 30 60
	ם ◕ ╒ Ʒ ◂ ↑	Basics in Sustainable Development	╓ ╓ ∂ ▀ ╞ ♣ ש ˥ ת ꜜ ŧ ≠ ł ▪ ┼ = ≠ ├ ∏ └ = └ ├ ≠ ▌ o = ײ W ת ‸ ˥ ł ◚ Ᵽ ł ˘ א W ╓ ╧ ≠ ▌ o ☺ ! ⊦ ł 45 1 Bruckner, Thomas 15 Integrated Assessment of global Climate Protection Strategies = ≠ ▌ ╞ 3 Holländer, Robert 8 Sustainability and Corporate Environmental Management = ≠ ▌ 17 Klauer, Bernd 7 Theories of Sustainability = ≠ ▌ 10 Nissen, Sylke 15 Urban Geography, Sociology and Governance = ≠ ▌	☺ ! ⊦ ł 60 30

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		Environmental Management	┤╓ ┬ ╝╓ ╓ ≢▌ ╝╓ ∏ ╥■▐├ ▐ ｏ ┤╓ ╓ ＝ ┼ ╓ ＝ ≢▌ ╓ ▪ ┬≠├ ╓ ▪ ＝ ≢▌ｏ ＝╓ ╓ ┬ ╓ ▪ ╢ ₧ ₨₧◙ ≠ ת ♂ ╕₨₧╕ ł ♠ ₨ ╘₧ ₨╓ 4 ＝ √├ ╓ ＝∂ √▌ ∆■ ┬ ≢▌⌡╥╓ ▪ ╘ ╓ ▪ ╢ ⌡ ╓ ╓ ＝└ ├ ┬ ＝ ▌ｏ ☺ ! ├˘ ł 15 4 1 a ｏ 4 1 ╓ ╓ a ｏ ╓	╓
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			┬ = ▪ ｏ 1 1 ꜗ ㅌ : ꜗ ꜗ ꜗ ◕ א ⁱ ם ▪ ≠ ▌⌡╦╓ ┼ ┬ ┼ ┴ = └ ├ ≠ ▌ｏ 52 1 └ ╓ ╓ = ∂ ├ ┼ ▪ ▌ ♯ ɨ v ! GIS ▪ ≠ ▌ｏ ⌐ ╓ = ∂ ├ ▪ ⌡╦╓ ʸ W ר א ♣ ┬ ≠ ├ ◙ ≠ ת ♂ ך ┬ ╓ ▪ █ ▌⌡ ʸ W ר א ♣ = └ ├ ≠ ▌ｏ 4 1 ◙ ≠ ת ♂ ך ┬ : ╓ ◙ ≠ ת ♂ ך ╢ ≤ ⌢ ㅌ ⌢ = ∂ √ ▌ ╓ ◙ ≠ ת ♂ ך = └ ├ ≠ ▌ｏ = ⌢ ㅌ ⌢ ┤ ╓ ◙ ≠ ˜ ש ㅌ ◘ ♠ w ▪ ≠ ┼ ∏ ▄ ┼ ◙ ≠ ת ♂ ך = └ ├ ≠ ▌ｏ = ♣ ת ך˜ = ▀ ┐ ├ IDEC ▪ Δ = ◙ ≠ ≠ ▌ Δ ▪ ≠ ▌ｏ 8 1 ♯ ɨ v ! ┬ ⌐ ╓ ʸ W ר א ♣ ╢ ≤ ┬ ⌐ ╓ ▪ ≠ ▌⌡╦ = ┼ ♯ ɨ v ! ╓ ┬ ⌐ ╓ = └ ├ ≠ ▌ｏ ⌐ ╓ ♯ ɨ v ! ʸ W ר א ♣ ╓ ┬ = ▪ ┤ ≠ ┼ ┴ ┬ ⌐ ╓ ʸ W ר א ♣ ▪ ｏ 7 1 ╓ ┬ = ≠ ▌ ┬ ⌐ ╓ ╓ ⌡╦╓ = └ ├ ▪ ｏ ╢ ⌡ ╓ ▪ ≠ ⌐ ╓ = └ ├ ｏ 39 1 ┬ = └ ├ ╓ = └ ├ ≠ ▌ｏ = ∏ ┤ ≠ ╝ ╓ ▪ ≠ ▌ ╓ ▪ ≠ ▌ ┬ ┬ ┴ = = ∏ ╓ = ┴ ╓ ▀ ┼ ▪ ┤ ≠ Δ = └ ├ ▪ ≠ ▌ｏ 40 1 = ≠ ⌡ ר ɨ ♠ ╓ ┤ ╓ = ≠ ⌡ ┬ ⌐ ≠ ├ ⌐ ▌▄ ╓ = └ ├ ≠ ▌ｏ ┤ ╓ └ Δ ╓ ╓ ▪ ≡ ├ = ∂ √ ▌ = ▌ ר ɨ ♠ ╓ ╓ ▪ ≠ ⌐ ╓ ▪ ┬ = ▌ｏ 6 TRAN DANG XUAN ꜗ 1 ꜗ 52 ꜗ 4 ꜗ 8 ꜗ 7 ꜗ 39 ꜗ 40 5 ♣ ת ך˜ ך ♠ ╓ = ≠ ▌ ▪ ┐ ⌡ ┤ ╓ ▪ ╢ ├ ╓ ┬ █ ╢ ┬ ╦ = √ ├ ♣ ת ך˜ ך ♠ 3 ▪ ｏ = ♣ ת ך˜ ╓ ┬ ≠ ├ ▪ ｏ	
		Transportation Engineering	◕ א ⁱ ם = ┬ ┼ ▌ = └ ├ ≠ ▌ｏ ┬ ≠ Ⱬ w ך ♠ ┬ ﬁ ≠ ㅌ ˘ א w ꜗ ꜗ ◙ ≠ ת ♂ ך ITS ה ⊦ ך ♫ ת W ♬ ◕ א ┬ ר ⌢ ⁱ ר ך ┼ ┴ = └ ├ ≠ ▌ｏ	
		Transportation Planning	┤ ∫ ▌▌ ╓ ʸ W ת ╓ ▪ ≠ ▌ｏ W ך Ҥ ▪ ├ ʸ W ת ˜ ש ♣ ם ! ▪ ≠ ▪ ≡ ├ ┬ ╓ ╓ ╓ = └ ├ ≠ ▌ｏ	

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			Tourism Policy	= ⁃ ₺ ⁃ ▪ ┬ ≠ ⌡ ┬ ╓ ˑ = └ ├ ≠ ┼ ▪ ≠ ▌ ⌡ ╥ ╓ = └ ├ ┬ ▪ ╥ ▪ ≡ ├ ≠ ▌ o ⁃ ₺ ⁃ ▪ ┬ ≠ ⌡ ╓ ˑ ▪ ▄ ╞ ≠ ├ ⌐ ▌▄ ▪ ≠ ▌ ⌡ ╥ ╓ = ≠ ▌ ┴ ' ˥ w ▪ ≠ ╓ ▪ fi ƚ Ӌ ˥ ≠ ▌ o	
			Risk Management Technology	╓ ╧ ┼ ♣ ש ˥ ת ר ƚ ♠ ╓ └ ┬ ∫ ▌▌ ╓ ▪ ┤ ╓ Π ┼ ▪ ⌡ ≠ ┬ ╓ ╓ ˥ ƚ ♠ = ≠ ▌ ┬ ˥ ⌡ ┼ ▪ = └ √ ├ ∂ ∟ ┬ Π ˥ ƚ ♠ ▪ fi ⸗ ₺ ˘ א w ≠ ▌ ┤ ┤ ▌ o ┤ ╓ (1) ˥ ƚ ♠ ▪ ╧ ⌡ ▄ ≠ ┼ ▪ = ≠ ▌ ∟ ┬ (2) ˥ ƚ ♠ ˥ ƚ ♠ ╓ ▪ ≠ ▌ ∟ ┬ (3) ╓ = ∂ √ ▌ ˥ ƚ ♠ fi ⸗ ₺ ˘ א w ╓ ┬ = └ ├ ≠ ▌ ∟ ┬ ▪ ≠ o	
			Sustainable Architecture A	╓ ⁃ ₺ ⁃ ╓ ◙ ⸗ ת ♂ ˥ ╓ ╓ 35-40% ┬ ▌ ├ ∂ █ ╧ ≠ ▌ ∟ ┬ Π ∫ ▌ ├ ▌ o = ˑ ┤ ╓ ╓ = ◙ ⸗ ת ♂ ˥ ╓ Π ≠ o ⁃ ₺ ⁃ ╓ ╓ Π = ▌ ╓ ┤ = ┤ ◙ ⸗ = ≠ ┼ Π ▄ Δ └ ┼ ▪ ≠ ▌ ╓ Π ╥ ▄ ▌ ├ ▌ o ∟ ≠ ⌡ Δ ▄ ┤ ╓ = ⁃ ₺ ⁃ ╓ ˑ = ∂ ├ ┼ ▪ ∫ ≥ ▌ ⌡ ╥ ╓ ⌐ ╓ = ┼ ╓ ▪ ┬ ≠ ▌ o	
			Sustainable Architecture B	┼ ▪ ┤ ╧ ╓ ╓ ╗ ┬ └ ╓ ⌐ ╓ ▪ = ≠ ⌐ ╓ ╓ ▪ ≠ ▌ ∟ ┬ ┤ ░ o ┤ ╓ ╓ ▌ ⌡ ╓ └ Δ ▪ ≠ = ⌐ ≠ ⌡ ▪ ∫ ≥ ▌ o ╓ ♣ ת ˥̈ ∩ ┬ = ▪ ˑ ∫ ≥ ╓ ▪ ▌ o ≠ ▌ ╓ Δ ▄ ╣ ┤ ≠ ▌ o	
			Energy Science and Technology	▪ ≠ ▌ ⌡ ╥ = ╓ ◙ ⸗ ת ♂ ˥ ┬ ┼ ╓ Δ ▄ ◙ ⸗ ת ♂ ˥ ╓ Π ┤ ≠ o ∟ ╓ ┤ ╓ ╓ ◙ ⸗ ת ♂ ˥ ▪ ≠ ▌ ⌡ ╥ = ◙ ⸗ ת ♂ ˥ ┬ ╓ ▪ ≠ ╣ ≠ o ⌐ ≠ ├ ┼ = ┘ ├ ◙ ⸗ ת ♂ ˥ ┬ ☼ ƚ ▪ ≠ ▌ ⌡ ╥ = ◙ ⸗ ת ♂ ˥ ╘ = └ ├ ≠ ≠ ╣ ≠ o	
			Numerical Environmental Impact Assessment II	ײ W ת ▪ ≠ ⌡ ╓ ┼ ┴ ╘ = ▀ ▌ ˑ = ▀ ▌ = ▀ ▌ ˑ ┼ ┴ ╓ ▪ ▌ ⌡ ╥ = ┼ = └ ├ o ┤ ╓ ײ W ת = ▀ ▌ = ▀ ▌ ♯ fl ד ┴ ˥ ♯ כ א ײ W ת ▪ ⌡ ◙ ⸗ ת ♂ ˥ ╓ ┼ ┴ ╓ ▪ o ∟ ▌ = ▀ █ = ▀ ▌ ˑ ▪ = √ ▌ ∟ ┬ Π ┤ ∑ ▌ o Numerical Environmental Impact Assessment I ▪ ≠ ▌ ∟ ┬	
			Botany Resources for the Future	= ≠ ▌ ┼ ▪ ≠ ▌ ∟ ┬ ▪ ┬ ≠ ▌ o ┤ ╓ = ╓ ╘ ≠ ▌ ╓ ╘ ╓ = └ ├ ≠ ▌ o ╓ ┬ ≠ ▌ ╓ ˘ ☻ ├ Ł ' ╓ ╓ ╠ Δ ┼ ▪ ≠ ▌ ⌡ ╥ = ƚ w ┴ ƚ ╘ = ▪ └ = ≠ ▌ ╘ ╓ ▪ ≠ ▌ ∟ ┬ ▪ ≠ o ╣ ⌡ fi ˥ ☻ ˥ ▪ ├ ƚ w ┴ ƚ = ≠ ▌ ▪ ≠ ▌ ╓ ╓ ╧ o	
			Environmental Monitoring	┤ ╓ Π ≠ ▌ = └ ├ ▪ ╥ ╓ ▪ ≠ ▌ o ∫ ▄ = Π ╘ ╓ = ╡ ≠ ╘ = ▪ ≠ ▌ ⌡ ╥ ◕ ☺ א ♠ ש fi w ♣ ם ⁱ ˎ ˥ ICP-MS ┼ ┴ ▪ ⌡ ▪ ≠ ▌ ∟ ┬ ▪ ≠ o	

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		Biomass Energy Technology	[illegible]	
		Ecosystem Conservation and Management Science	[illegible]	
		Management and Conservation of Ecosystems	[illegible]	

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			ⁱ ˑ ٦ ת ש ٦ ♠	ⁱ ˑ ٦ ת ש ٦ ♠ ┬ ╓ ╓ ⁱ ˑ ٦ ת ש ┤ ʃ ▌▌ ┤ ▌。 ╓ ╓ ╓ ╧ ┬ = ∏ ≠ ⌡ ⁱ ˑ ٦ ת ש ٦ ♠ (╓ ♫ ◗ א ┼ ┴) = ┘ ∑ ▌▌。	
			♣ ש ٦ ˆ ת ◗ א Ḩ ٦ א ♯ Ⱬ Ⱬ˜	╓ ┼ ┴ ╜ ╓ ◗ א Ḩ ٦ א ♯ Ⱬ ˜ ▪ ≡ ├ ╓ ▪ ╘ ≠ ▌ ╓ = ≠ └ └ ┼ ╓ ┬ ♀ ע ר ◚ ☺˜ ♯ כ א ╓ ▪ ▌ ┤ ▌。	
			Developing Designing Ability	◗ א Ḩ ٦ א ♯ Ⱬ˜ ╓ ┤ ╓ ▪ = ┘ √ ▄ ╓ ▪ = ˑ ≠ ▌ ⌡ ╦ = W ˑ ‸ ٦ W ╓ ▪ ≠ ▌。 ʃ ▌▌ ╓ (1) = ┼ ▌ ⌡ ╦ ╓ ˩ א ! ν א ♯ ٦ ▪ ≠ W ˑ ‸ ٦ W ▪ ≠ ▌ └ ┬。 (2) W ˑ ‸ ٦ W ▪ ≡ ├ ≠ ┼ │ ╓ ▪ ≠ ╓ ▪ ≠ ≠ ▌ ▪ ≠ ├ ≠ ▌ └ ┬ ▪ = └ √ ▌ └ ┬。 (3) W ˑ ‸ ٦ W ▪ ≡ ├ ┼ ∆ ▄ W ˑ ‸ ٦ W ╓ ▪ ≠ = ∆ └ = ▪ ┤ ∑ ▌ ▪ = └ √ ▌ └ ┬。 ☺ ! ├ˆ ɫ 15 9 2 W ˑ ‸ ٦ W ╓ = └ ├ ▪ 。 8 1 W ˑ ‸ ٦ W = └ ├ ▪ 。 9 ˑ 8 12 W ˑ ‸ ٦ W ╓ W ˑ ‸ ٦ W W ˑ ‸ ٦ W W ˑ ‸ ٦ W ▐ ▐ ▪ 。	☺ ! ├ˆ ɫ ˑ 6 24
			˜ ש ŧ ◘ ♠ W	= ≠ ▌ ʃ ╢ ≈ ╢ ┼ ╓ = └ ├ ╓ ▪ ≠ ╓ ╓ ▪ ≠ ├ ≠ ▌ ┬ ┬ ╧ = ╓ = └ ├ ≠ ▌ ▪ ▌。 ▄ ╓ ▪ ╓ = ▌ ɫ ♀ ת ▪ ≠ ▌ ┬ ┬ ╧ = ╓ ╓ = └ ├ ╧ ▪ ≠ ∏ ┤ ∑ ▌ ▪ = └ √ ▌ └ ┬ ▪ ┬ ≠ ▌。	
			A	˜ ש ŧ ◘ ♠ W ˠ ├ Ḩ ٦ א ♣ ┼ ┴ ╓ ODA Official Development Assistance ╓ ┼ ɫ ♀ ٦ ! ▪ ▐ ∞ ˜ ש ŧ ◘ ♠ W ╓ ┼ DAC 5 ▪ ≠ ⌡ ▪ 。 = ╓˜ ש ŧ ◘ ♠ W ˑ ♫ ◗ ♠ ת ˑ ﬁ ≠ ŧ ˘ א W PCM Project cycle management) = ≠ ▌ ٦ ♠ ♯ כ Ⱬ˜ = ≠ ˜ ש ŧ ◘ ♠ W ╓ ˠ ├ Ḩ ٦ א ♣ ┬ ▪ ≠ ˜ ש ŧ ◘ ♠ W ╓ ▪ 。 ╓ ╓ ┬ ∂ ▌。 1 PCM ٦ ♠ ♯ כ Ⱬ˜ ▪ ≡ ├ PDM(Project Design Matrix) ╓ ▪ ≠ ▌ 2 ˜ ש ŧ ◘ ♠ W ╓ ˠ ├ Ḩ ٦ א ♣ ┬ ╓ ⌡ ╦ ╓ ◚ ٦ א ש ˑˆ ٦ ד ٦ ˑ ﬁ ≠ ŧ ˘ א W ┬ DAC 5 ╓ ▪ 3 ╓ ˠ ├ Ḩ ٦ א ♣ ┬ ▪ ≠ ▌	
			B	NGO ╜ ╓ ▪ ≠ ⌡ ╦ ╓ ♀ ע ר ◚ = └ ├ ┼ ▪ ├ ▄ ╓ ♀ ע ר ◚ ▪ ≠ ▌ └ ┬ = ╓ ╓ ♫ ◗ W ▪ ٦ ⌡ ˜ ש ŧ ◘ ♠ W˜ ש ' ٦ ♬ ת ╓ ∑ ┼ ┴ ┼ ▪ ≠ ▌ ⌡ ╦ ╓ ɫ ♀ ת ▪ = └ √ ▌ └ ┬ ▪ ┬ ≠ ▌。	
			International Environmental Cooperation Studies	╓ (i) ┬ ╓ ⌡ ╦ ╓ ▪ ≠ ▌ └ ┬ (ii) ╓ ▪ ≠ ▌ └ ┬ ▪ = ≠ ▌。 (i) ╓ ▪ = ▌ ├ ┬ ╓ ▪ ┤ ∑ ▌ (ii) ┬ ╓ ╓ ∆ ▄ ♣ ש ٦ˆ ת ┼ ╓ ⌡ ╦ ╓ ┬	☺ ! ├ˆ ɫ

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				= ≢▌ ┼ ▪ ┤∑▌ (iii) ▪ ≠ ⌐▌▪ ≢▌⌡╥╓ ┼ ⁱ ┴˥ ! ˥♠▪W♬◕א┤∑▌ ▪ ≢▌ o ☺ ! ⊦ˆ ƚ 15 9 3 ☼◕ɧאƚ ♯ƚv ! ITS = ┘ =└ ├ ≢▌ o 40 1 ┬ ˥ƚ♠fi ⸗ ɫ˘ א w =└ ├ ≢▌ o 4 1 ◓ɫ◓╓ =∂√▌ =└ ├ ≢▌ o 1 1 ◓ɫ◓╓⌡╥╓ ┼ ┬ ᵕ ⁺ ˥v ˑ ┴‸ ת =└ ├ ≢▌ o 12 MAHARJAN KESHAV LALL 1 ┬ =└ ├ ≢▌ o 14 1 ┬ =└ ├ ≢▌ o 15 1 ┬ =└ ├ ≢▌ o 8 2 ┬ ◙⸗ת♂˥┬ =└ ├ ≢▌ o 22 1 ╓ =└ ├ ≢▌ o 7 2 ┬ =└ ├ ≢▌ o 6 TRAN DANG XUAN 1 ╓ =∂√▌ ▪ ⌡ˆ ◕☺ ╓ =└ ├ ≢▌ o	
		C	■╓ v˥fi = ≢▌ ▪┴⁺ ˥˥≠ ╣┬╥▌ ▪ o ┼ ╓ ▪ ≠├ ╓╣┬╥ ˑ ■╓ ╓ ˑ ╓╣┬╥ ˑ ▪ ≢▌┬┬╧= ╓ = ≠├ = ≠ ≢▌ ▪ =└√∫≥▌ o 4 ┼ ◓ɫ◓▪ ┼ ⁱ ˑ˥תש┬≠├ ╓ ╓⌡╥╓ ˑ ╓ ◙⸗ת♂˥ ╓ =└ ├╓ ▪ o 1 ᵕ ⁺ ˥v ˑ┬ ╓ ∆■ ╓ ˑ ╝╓ ┬ ˥⌡ ˑ ╓ ┼ =└ ├╓ ▪ o 2 ┼┴╓ ∆■ ˑ ╓ ╓ ┼ =└ ├╓ ▪ o 3 ˆ ◕☺fi ƚ ˑ = ≢▌ ▪ o	

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				5 = ≠ ▌ W ˥ Ḩ = ≠ ▌ ▪ o 6 TRAN DANG XUAN ( ) ╘ ╓ ƚ w ┸ ƚ = ≠ ▌ ╓ ╘ ┬ ╓ ▌⌡ ╓ ╓ = └ ├ ╓ ▪ o 7 ╓ ┬ ∆ ┼ ╓ ▪ ≠ ┼ ┴ = ∂ √ ▌ ╓ = └ ├ ╓ ▪ o 8 ∏ = ╧ ⌡ ▄ ≠ ꞌꞌ W ˥ א ♣ = ▀ ▌ ◙ ≠ ת ♂ ˥ ╓ ╓ = └ ├ ╓ ▪ o 9 ╓ ╘ ╓ ╓ ▪ ┬ ≠ = ≠ ⌡ ┼ = └ ├ ╓ ▪ o 39 = ∂ √ ▌ ∏ ╓ = ┤ ≠ ╓ ▪ ≠ ⌡ ╓ = ≠ ▌ ┼ = └ ├ ╓ ▪ o 40 ┼ ♯ ƚ v ! ╓ ▪ = ˥ ƚ ♠ ▪ = ╓ ╓ = └ ├ ╓ ▪ o	
		◘ ◕ ꟷ ʐ ◦ ↑	Energy Engineering and Management	╧ ┼ ◙ ≠ ת ♂ ˥ e ש P ƚ e ╘ e ≠ ʐ w ˥ ♠ ╓ ▪ ≠ ▌ o ◙ ≠ ת ♂ ˥ ╓ − √ ┤ ╓ ┼ ♩ ƚ w ╓ = └ ├ ╧ ≠ ▌ o ∫ ▄ = e ◙ ≠ ת ♂ ˥ ╓ ╓ ╓ ⌡ ╦ ╓ ╧ ┼ ▪ ≠ e ╓ e ƚ ' ʐ w ╘ ◘ א ƚ ╓ ┬ ▌⌡ ◙ ≠ ת ♂ ˥ = └ ├ ≠ ▌ o ☺ ! ├ ƚ 45 1 Bruckner, Thomas 30 Energy Management = ≠ ▌ ╘ 7 Thrän, Daniela 15 Energy Engineering = ≠ ▌	☺ ! ├ ƚ 60 30
		◘ ◕ ꟷ ʐ ◦ ↑	Water Resources Management	╓ ▪ ├ ▪ ≡ ▌ o ┬ ┼ ▌ ╓ ╓ ∏ ┴ ╓ ▀ ┼ ▪ ˥ ⌐ ╓ ∏ ╧ ⌡ ▄ ≠ ▪ ┤ ∑ ▌ ∆ ┬ ┤ ▌ o ┼ ╓ ╓ ש P ƚ ╓ ┼ ╓ ╓ = ∂ ├ ▄ ▌▌ ╓ ▪ o ▫ − ▪ = ≠ ▌ o ╓ P fl ├ ˥ ┤ ≠ ▌ o ☺ ! ├ ƚ 45 17 Klauer, Bernd 15 Economic Aspects of Water Resources Management = ≠ ▌ 15 Geyler, Stefan 30 Water Resources Management = ≠ ▌ ╘	☺ ! ├ ƚ 60 30
		◘ ◕ ꟷ ʐ	Sustainable Energy Economics	₧ ◙ ≠ ת ♂ ˥ ₨ ╓ ┤ ╓ ◙ ≠ ת ♂ ˥ ╓ ▪ = ◙ ≠ ת ♂ ˥ ╓ ∆ ▄ ≡ ▌ o 2 └ ╓ ₧ ◙ ≠ ת ♂ ˥ ♯ ƚ v ! ꞌꞌ W ˥ א ♣ ₨ ╓ ┤ ╓ ┼ ◙ ≠ ת ♂ ˥ ♯ ƚ v ! ꞌꞌ W ת ◙ ≠ ת ♂ ˥ ש ˥ Ķ ┼ ☺ : ┴ ˥ ♯ ɔ א Ł ˥ ♫ ˥ Ķ = ┘ ├ ◙ ≠ ת ♂ ˥	60 30

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		ם ◕ ⁼ ʐ ‸ ↑	Land Management	╓ ╓ ∏ = ≢▌ ▪ =└√▌∟┬┤ ▌ₒ ˧ ╓ =∂√▌ ם א ∜ ǂ ♥ ꞁ⁼ ╓ ˧ ┼ =└ ├╓ ┬ ˧ ל ꞁ ש ʐ ╓ =∂√▌ ┬ = ≢▌ ˧ Ʞ ꞁ ꜝ ┤╓ ┬ ╓ ☺ ꜝ ⊦ ǂ 45 16 Fischer, Jens-Uwe 15 Integrated Brownfield Re-Use Strategies, Policies and Tools = ≢▌ 13 Meyer, Burghard 30 Land Management in the European Context ╘ Landscape Management = ≢▌	☺ ꜝ ⊦ ǂ 75 15
		ם ◕ ⁼ ʐ ‸ ↑	Environmental and Biodiversity Economics	= ≢▌ ╓ ∂▀╘ =∂√▌ ╓ ∂▀╘ ╓ ┤╓ ╓ ∂▀╘ ╓ = √⌡ ╓	30 30 30
		ם ◕ ⁼ ʐ ‸ ↑	Integration Module	╓ W ꜝ ʐ ♠ = ≠⌡ ┼ ♥ ꞁ ǂ ǂ Ḩ W ‸ = ≢▌ ▪ ≢▌ₒ ╓ W ꜝ ʐ ♠ ╓ ≢▌ₒ⌐╓ ▪ ≡├ ╓ ǂ ♀ ת ▪ ┬ ∫≥▌∟┬▪ ₒ╢⌡ ╓ ♣ ת ꞁ⁼ ┤╓ ▪ ≡├ ▪ ≠ ╓ ▪ ╤▌ₒ	
		ם ◕ ⁼ ʐ ‸ ↑	Project Management and Communication Skills	Ʞ ꞁ ꜝ ר ꞁ ħ ꞁ ♯ ʐ⁼ ╓ ╓⌡╤╓ ∂▀╘ ⁼ ש Ƚ ם ♠ W ╓⌡╤╓ ┼ ˗⁼ ש ꞁ Ʞ ╓ ▪ ┬≢▌ₒ ╓ ┼ = √⌡ ┼ fi ⸗ Ƚ ˘ א W ▪ ╘ ┼ ▪ ┤∑▌▀ =┼▌ₒ ☺ ꜝ ⊦ ǂ 15 4 Pahl, Burkhard 8 Project Management = ≢▌ 19 Saupe, Gerit 7 Conflict Management = ≢▌	☺ ꜝ ⊦ ǂ
		ם ◕ ⁼ ʐ ‸ ↑	Material Flow Management	┤╓ ┼ fi v ר ˗ ת ꞁ ש ꞁ = ▐▐ ╓ =└ ├ ˧ ┼ ╝╓ ▪ ≡▌ₒ = ם ◕ ꞁ ˧ ♫ ◕ ♠ ת ˧ ˗ Ᵽ ǂ ˘ א W LCA = ≢▌ₒ∟╓ ˗ Ᵽ ǂ ˘ א W ╓ ⁼ ש Ᵽ ǂ ♫ ꞁ ǂ Δ ▀ ≡▌ ╓ =∂√▌ ╓ ╓ ┬ ▀▐├ ▌ₒ ┤╓ ┼ ISO = ꞁ├ LCA ╓ ╓ ▪ ≠ = ╓ ⸮ W ת ╝ ▪ ≢▌ ▪ ≢▌ₒ	

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	[illegible]	Sustainability Assessment of the Energiewende	[illegible]	
	[illegible]	Modelling in Resources Management	[illegible] [illegible] 45 1 Bruckner, Thomas 30 Energy System and Agent Based Modelling [illegible] 18 Drechsler, Martin 15 Ecological-Economic Modelling for Biodiversity Conservation [illegible]	[illegible]
	[illegible]	Entrepreneurship Management	[illegible] 4 [illegible]	45 45
	[illegible]	Economics and Natural Resource Use and Conservation	[illegible]	30 30 30
[illegible]			[illegible] 4 [illegible] 1 [illegible] 2 [illegible] 3 [illegible]	

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	◘ ◕ ╤ Ꝣ ▪ ↑	Master’s Thesis	▪ ≠ ▪ o 1 Bruckner, Thomas ◙ ≠ ת ♂ ˥ ♯ ǂ v ǃ ꞈ W ˥ א ♣ = ≠ ▌ ╓ ▪ ▪ o 8 Dornberger, Utz ◕ᐧ ‸ ˥ ♯ ɔ א ﬁ ≠ ⱡ ˘ א w = ≠ ▌ ╓ ▪ ▪ o 9 Engel, Ulf ▬ ⁱ ˥ ☻ ╓ ┬ ▬ ⁱ ˥ ☻ = ∂ √ ▌ ┼ = ≠ ▌ ╓ ▪ ▪ o 16 Fischer, Jens-Uwe = ≠ ▌ ╓ ▪ ▪ o 2 Gawel, Eric ≠ = ≠ ▌ ╓ ▪ ▪ o 17 Klauer, Bernd = ≠ ▌ ╓ ▪ ▪ o 11 Lehmann, Paul ◙ ≠ ת ♂ ˥ ◙ ≠ ת ♂ ˥ ╓ = ≠ ▌ ╓ ▪ ▪ o 10 Nissen, Sylke EU = ≠ ▌ ╓ ▪ ▪ o 4 Pahl, Burkhard = ≠ ▌ ╓ ▪ ▪	

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			Hiroshima	8 41 2 16 2 Hiroshima 20 1 21 1 43 2	
			Japanese Experience of Social Development- Economy, Infrastructure, and Peace	This course intends to discuss the issues of SDGs under the Guiding principles of Hiroshima University “Pursuit of Peace” and the long-term vision “Splendor Plan 2017”. The SDGs sets sustainability as a core of the global issues. Such a broad issue always involve many related issues. Resolution of one issue may produce another issue. It is important to consider cross-disciplinary approach and hisotorical aspect. Also inclusiveness is an important principle of SDGs, and thus all countries, developed and developing countries, should collaborate to tackle these. When considering these cross-disciplinary approach, historiy, and inclusiveness of development, Japanese experience of development provides an important case, becuase Japan, among non-European countries, is the first country which has become a member of OECD. Here, we can learn many points from the developing efforts whether they are success or failure. These efforts, including development assistance, are connected to Japanese society of today. On the other hand, Japan currently faces such new issues as rapid aging and depopulation. Thus this course discusses Japanese experience of social development from the above aspects. lesson1 Guidance of the course lesson2 JICA chugoku center lesson3 Yuichiro Yoshida “Japanese policy experience: Success and Failures” lesson4 Masaru Ichihashi “Industrial Policy and Economic growth” lesson5 Junyi Zhang “History of environmental policies in Japan”1 lesson6 Junyi Zhang “History of environmental policies in Japan”2 lesson7 Osamu Yoshida “Japanese ODA and its Asia Policy” lesson8 Mari Katayanagi “Reconstruction of Hiroshima from Peacebuilding Perspective” Splendor Plan 2017 SDGs SDGs SDGs OECD	

				8 1 2 10 1 13 1 14 1 15 1 17 1 ODA 60 1 JICA	
			Japanese Experience of Human Development-Culture, Education, and Health	This course intends to discuss the issues of SDGs under the Guiding principles of Hiroshima University “Pursuit of Peace” and the long-term vision “Splendor Plan 2017”. The SDGs sets sustainability as a core of the global issues. Such a broad issue always involve many related issues. Resolution of one issue may produce another issue. It is important to consider cross-disciplinary approach and hisotorical aspect. Also inclusiveness is an important principle of SDGs, and thus all countries, developed and developing countries, should collaborate to tackle these. When considering these cross-disciplinary approach, historiy, and inclusiveness of development, Japanese experience of development provides an important case, becuase Japan, among non-European countries, is the first country which has become a member of OECD. Here, we can learn many points from the developing efforts whether they are success or failure. These efforts, including development assistance, are connected to Japanese society of today. On the other hand, Japan currently faces such new issues as rapid aging and depopulation. Thus this course discusses Japanese experience of human development from the above aspects. lesson1 Guidance of the course lesson2 Maharajan Keshav Lall “Japanese experience of development in Agriculture and Remote area” lesson3 Koki Seki “Socio-cultural Aspect of Modernization of Japan: Focusing on the Transformation of Norm, Mentality, and Way ofLiving” lesson4 Kinya Shimizu “A History of Education in Japan” lesson5 Kinya Shimizu “Lesson Study in Japan: As a tool of PDSI in Japanese Education” lesson6 Junko Tanaka “International cooperation and research collaboration in the field of public health” lesson7 Michiko Moriyama "Healthcare system in Japan: its characteristics and history" lesson8 Discussion (Splendor Plan 2017 SDGs SDGs SDGs OECD	

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				SDGs 8 18 47 2)(53 5 19 53 1)	
				ICT 8 31 4 R 48 4 AI	

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			Numerical Environmental Impact Assessment I		
			Geographic Information System Technology	GIS GIS GIS GIS GIS	
			Environmental Management	4 15 4 1 1 1 6 TRAN DANG XUAN 1 7 1 8 5 , 9 3 9 8 1 40 1 6 TRAN DANG XUAN 9 1 4 8 7 40 1	

Development
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			Transportation Engineering	ITS	
			Transportation Planning		
			Tourism Policy		
			Risk Management Technology	(1) (2) (3)	
			Sustainable Architecture A	35-40%	
			Sustainable Architecture B		
			Energy Science and Technology		
			Numerical Environmental Impact Assessment II	Numerical Environmental Impact Assessment I	

			Botany Resources for the Future		
			Environmental Monitoring	ICP-MS	
			Biomass Energy Technology		
			Ecosystem Conservation and Management Science		
			Management and Conservation of Ecosystems		
			A	4 1 2 3 5 6 TRAN DANG XUAN ( )	

				7 8 9 39 40	
			B	4 1 2 3 5 6 TRAN DANG XUAN ( ) 7 8	

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			Developing Designing Ability	(1) (2) (3) 15 9 2 8 1 9 8 12	6 24
			A	ODA Official Development Assistance DAC 5	

				PCM Project cycle management) 1 PCM PDM(Project Design Matrix) 2 DAC 5 3	
			B	NGO	
			International Environmental Cooperation Studies	(i) (ii) (i) (ii) (iii) 15 9 3 ITS 40 1 4 1 1 1 12 MAHARJAN KESHAV LALL 1 14 1 15 1 8 2 22 1 7 2 6 TRAN DANG XUAN 1	

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		Basics in Economic Sciences	45 8 Dornberger, Utz 15 Value Chain Management Internationalization of SMEs 2 Gawel, Eric 15 Sustainable Economics 6 Schnabl, Gunther 15 International Finance	
		Basics in Social Sciences – International Studies	3 BRICS – – – – 45 9 Engel, Ulf 30 International Studies 12 Rietdorf, Ute 15 Development Economics	30 60
		Basics in Sustainable Development	45 1 Bruckner, Thomas 15 Integrated Assessment of global Climate Protection Strategies 3 Holländer, Robert 8 Sustainability and Corporate Environmental Management 17 Klauer, Bernd 7 Theories of Sustainability 10 Nissen, Sylke 15 Urban Geography, Sociology and Governance	60 30

			Energy Engineering and Management	45 1 Bruckner, Thomas 30 Energy Management 7 Thrän, Daniela 15 Energy Engineering	60 30
			Water Resources Management	45 17 Klauer, Bernd 15 Economic Aspects of Water Resources Management 15 Geyler, Stefan 30 Water Resources Management	60 30
			Sustainable Energy Economics	2 GAMS Python	60 30
			Land Management	45 16 Fischer, Jens-Uwe 15 Integrated Brownfield Re-Use Strategies, Policies and Tools 13 Meyer, Burghard 30 Land Management in the European Context Landscape Management	75 15
			Environmental and Biodiversity Economics		30 30 30

			Integration Module		
			Project Management and Communication Skills	15 4 Pahl, Burkhard 8 Project Management 19 Saupe, Gerit 7 Conflict Management	
			Material Flow Management	LCA ISO LCA	
			Sustainability Assessment of the Energiewende		
			Modelling in Resources Management	45 1 Bruckner, Thomas 30 Energy System and Agent Based Modelling 18 Drechsler, Martin 15 Ecological-Economic Modelling for Biodiversity Conservation	

		Entrepreneurship Management	4	45 45
		Economics and Natural Resource Use and Conservation		30 30 30

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m¹11 Le hmann,nPauln

m¹17 Klauer,Berndv

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			14 Berribes-Flemmig, Claudia Nelly 15 Geyler, Stefan 13 Meyer, Burghard 12 Rietdorf, Ute	