Region	Year	Energy Matrix (Mtoe)										
		Fossil-based				Non-fossil based						(0/)
		Coal	Oil	Gas		Biomass	Hydro	Nuclear	Others		Total	Change (%)
World	1990	2220.5	3232.7	1663.6	81.2%	902.4	184.1	525.5	36.6	18.8%	8765.4	
		25.3%	36.9%	19%		10.3%	2.1%	6%	0.4%			50 4
	2017	3789.9	4449.5	3106.8	81.2%	1329.1	351	687.5	256.8	18.8%	13970.6	59.4
		27.1%	31.9%	22.2%		9.5%	2.5%	4.9%	1.9%			
Asia Pacific	1990	824.1	652.7	134.4	72.9%	475.5	34.9	76.7	11.1	27.1%	2209.3	
		37.3%	29.5%	6.1%		21.5%	1.6%	3.5%	0.5%			163.3
	2017	2806	1459.6	630.2	84.2%	519.5	144.4	130.3	126	15.8%	5816	105.5
		48.3%	25.1%	10.8%		8.9%	2.5%	2.2%	2.2%			
China	1990	530.5	118.8	12.8	75.8%	200.4	10.9	-	0.033	24.2%	873.5	
		60.7%	13.6%	1.5%		22.9%	1.3%					250.8
	2017	1953.3	568.1	195.2	88.6%	113.8	99.5	64.6	70.0	11.4%	3064.6	250.0
		63.7%	18.5%	6.4%		3.7%	3.3%	2.1%	2.3%			
India	1990	92.7	61.1	10.6	53.8%	133.5	6.2	1.6	0.01	46.2%	305.6	
		30.3%	20%	3.5%		43.7%	2.0%	0.5%				188.6
	2017	390.9	223.3	51	75.4%	187.1	12.2	10	7.5	24.6%	882.1	
		44.3%	25.3%	5.8%		21.2%	1.4%	1.1%	0.9%			
Malaysia	1990	1.4	11.5	6.8	92.5%	1.2	0.3	-	-	7.5%	21.2	
		6.4%	54.1%	32%		5.9%	1.6%					300.0
	2017	20.7	29	32.2	96.6%	0.6	2.3	-	0.028	3.4%	84.9	
		24.4%	34.2%	38%		0.7%	2.7%					
Central &	1990	17	157.1	49.2	65.6%	83	31.2	2.48	0.7	34.4%	340.7	
South America		5%	46.1%	14.5%		24.4%	9.2%	0.7%	0.1%			90.7
	2017	32.3	264.6	142.4	67.6%	134.2	60.9	5.7	9.7	32.4%	649.9	90.7
		5%	40.7%	21.9%		20.6%	9.4%	0.9%	1.5%			

Table S1 Er	nerov matrices c	of Global South	regions and	selected co	untries in	1990 and 2017	
Table SL El	nergy manices c	of Global South	regions and	selected co	Junuies in	1990 and 2017	

Brazil	1990	9.7	58.9	3.3	52.1%	47.8	17.8	0.6	-	47.9%	138	
		7%	42.7%	2.4%		34.6%	12.9%	0.4%				100
	2017	16.8	110.7	32.5	55.8%	86.5	31.9	4.1	4.5	44.2%	287	108
		5.9%	38.6%	11.3%		30.1%	11.1%	1.4%	1.6%			
Mexico	1990	4.1	80.8	23.1	87.3%	8.6	2	0.8	4.4	12.7%	123.8	
		3.3%	65.3%	18.7%		6.9%	1.6%	0.6%	3.6%			47.0
	2017	12	82.2	68.7	89%	9.3	2.8	3.6	4.4	11%	183.1	47.9
		6.6%	44.9%	37.5%		5.1%	1.5%	2%	2.4%			
Africa	1990	74.2	85.2	29.5	49%	189.4	4.8	2.2	0.3	51%	385.6	
		19.2%	22.1%	7.7%		49.1%	1.3%	0.6%				110.4
	2017	109.6	191.3	122.6	52.2%	367.5	10.5	3.7	6.1	47.8%	811.3	110.4
		13.5%	23.6%	15.1%		45.3%	1.3%	0.5%	0.7%			
South Africa	1990	66.5	9.1	1.5	85.9%	10.4	0.1	2.2	-	14.1%	89.8	
		74.1%	10.1%	1.7%		11.6%	0.1%	2.4%				47.8
	2017	98.2	18.8	4.3	91.3%	6.7	0.1	3.7	1	8.7%	132.8	
		74%	14.1%	3.2%		5.1%	0.1%	2.8%	0.7%			
Ethiopia	1990	-	0.8	-	4.6%	16.9	0.09	-	-	95.4%	17.8	
			4.6%			94.9%	0.5%					105.0
	2017	0.36	3.7	-	9.5%	37.2	1.1	-	-	90.5%	42.4	137.9
		0.8%	8.7%			87.9%	2.6%					
Middle East	1990	-	137.3	71.6	99.5%	-	1.03	-	0.058	0.5%	209.9	
			65.4%	34.1%			0.5%					
	2017	3.8	322.6	418.2	99.3%	0.92	1.52	1.96	0.56	0.7%	749.6	257.1
		0.5%	43%	55.8%		0.1%	0.2%	0.3%	0.1%			