

**Production of biofuels and wastes**

Terajoules

**Table Notes**

The conversion of fuelwood (solid volume, 9.135 TJ/m<sup>3</sup>) is based on an average 20-30% moisture content of wood from an unspecified species.

The methodology used for estimating fuel bagasse production for certain countries is derived from the work done by the Economic Commission for Latin America and the Caribbean (ECLAC). Although several different methodologies have been devised, the one selected assumes a yield of 3.26 tons of fuel bagasse at 50% humidity per ton of cane sugar produced. This methodology was used for instances where bagasse production data were derived from

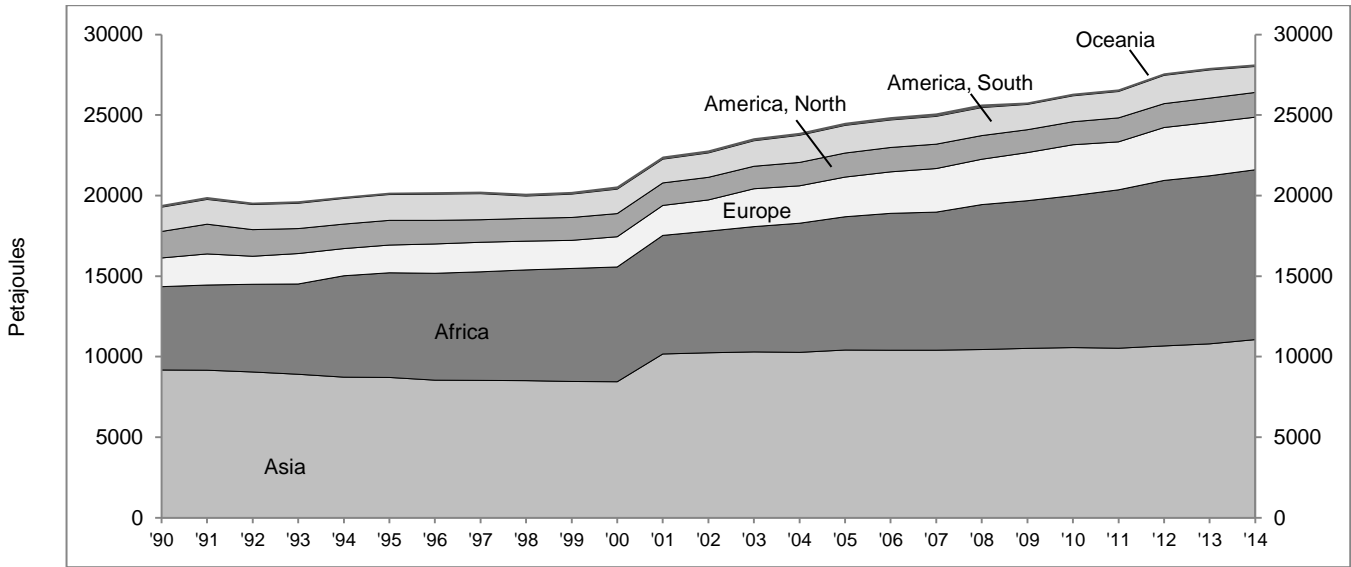
sugar production figures extracted from the Sugar Yearbook of the International Sugar Organization (London).

Biogasoline includes Other liquid biofuels.

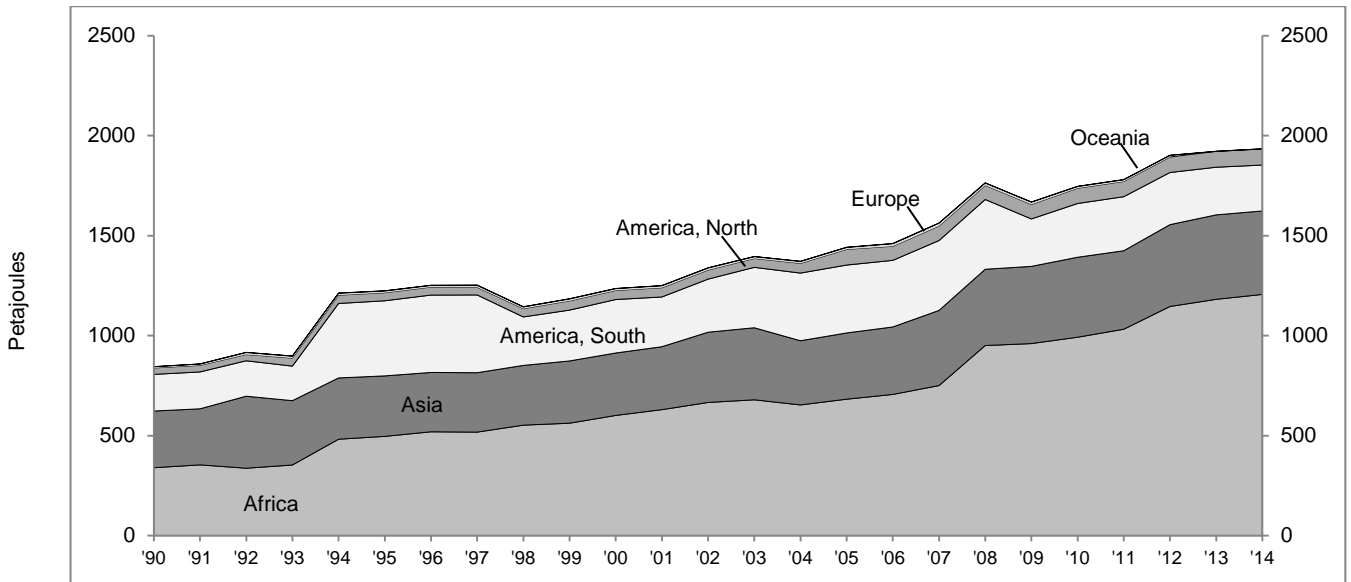
The total column excludes charcoal as it is the only secondary energy product in the table.

Please refer to the Definitions Section on pages ix to xv for the appropriate product description/classification.

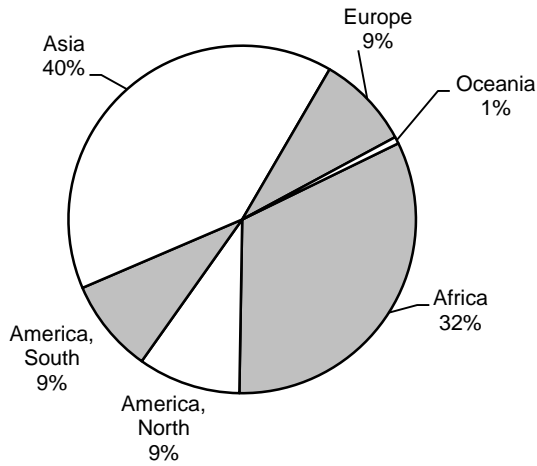
**Figure 29: Production of fuelwood by region, 1990-2014**



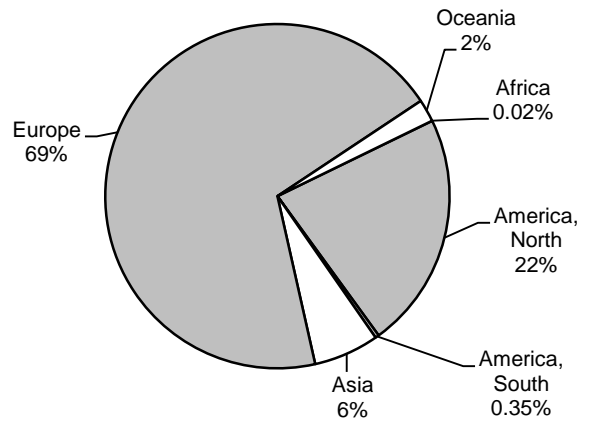
**Figure 30: Production of charcoal by region, 1990-2014**



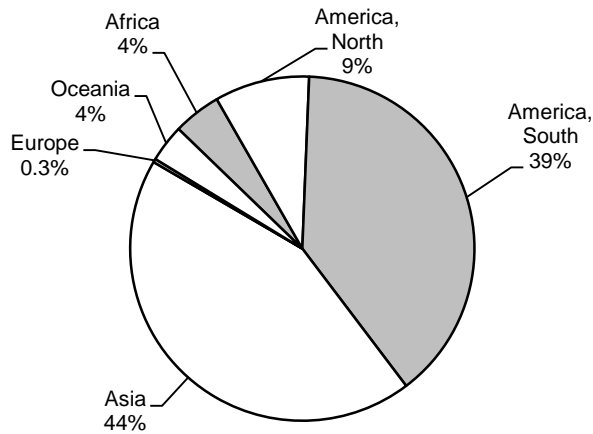
**Figure 31: Production of total solid biofuels by region, 2014**



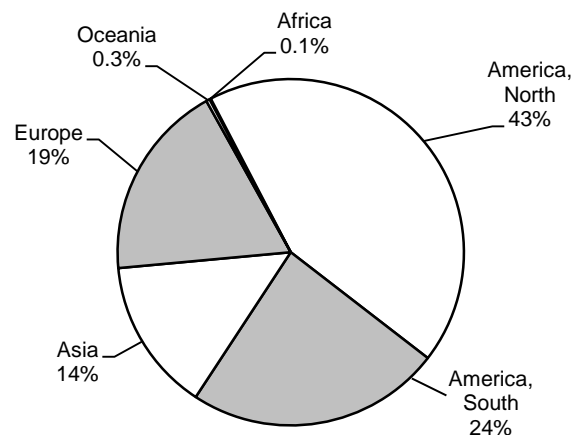
**Figure 32: Production of biogases by region, 2014**



**Figure 33: Production of bagasse by region, 2014**



**Figure 34: Production of liquids biofuels by region, 2014**



**Figure 35: Production of energy from wastes by region, 2014**

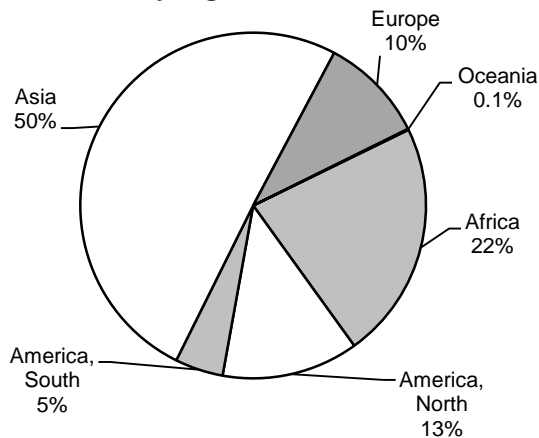


Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
World	2011	26,593,984	957,307	9,284,522	3,311,085	1,638,656	1,780,435
	2012	27,593,627	977,792	9,417,034	3,521,582	1,541,452	1,902,002
	2013	27,929,406	1,054,880	9,682,747	3,726,762	1,709,822	1,930,985
	2014	28,148,008	1,076,776	9,904,781	3,789,362	1,851,589	1,947,654
Africa	2011	9,832,865	147,435	2,875,341	191,548	4,000	1,032,220
	2012	10,273,596	150,944	2,937,537	174,661	3,950	1,145,989
	2013	10,433,662	154,551	3,008,932	192,502	4,000	1,181,616
	2014	10,545,164	158,206	3,086,034	187,247	4,000	1,206,222
Algeria	2011	674	..	..	..	..	..
	2012	652	..	..	..	..	..
	2013	918	..	..	..	..	..
	2014	251	..	..	..	..	..
Angola	2011	171,352	..	111,378	..	..	36,020
	2012	174,762	..	113,594	..	..	33,040
	2013	178,186	..	115,819	..	..	33,689
	2014	181,598	..	118,037	..	..	34,338
Benin	2011	88,096	..	386	226	..	7,434
	2012	90,537	..	397	226	..	7,641
	2013	92,987	..	408	226	..	7,847
	2014	95,473	..	419	252	..	8,054
Botswana	2011	6,270	..	..	..	..	2,146
	2012	6,299	..	..	..	..	2,164
	2013	6,328	..	..	..	..	2,181
	2014	6,328	..	..	..	..	2,181
Burkina Faso	2011	118,417	..	..	934	..	17,777
	2012	120,080	..	..	934	..	18,275
	2013	121,779	..	..	1,035	..	18,786
	2014	121,779	..	..	633	..	18,786
Burundi	2011	85,842	..	..	521	..	1,770
	2012	52,462	..	..	583	..	1,770
	2013	54,874	..	..	650	..	7,936
	2014	54,801	..	..	542	..	7,788
Cabo Verde	2011	1,439	..	..	..	..	21
	2012	1,473	..	..	..	..	24
	2013	1,508	..	..	..	..	26
	2014	1,501	..	..	..	..	19
Cameroon	2011	183,993	..	6,187	..	..	6,461
	2012	188,698	..	6,344	..	..	6,638
	2013	193,507	..	6,505	..	..	6,785
	2014	198,403	..	6,670	..	..	6,962
Central African Rep.	2011	18,270	..	..	..	..	5,774
	2012	18,270	..	..	..	..	5,880
	2013	18,270	..	..	..	..	5,988
	2014	18,270	..	..	..	..	6,097
Chad	2011	65,626	..	..	747	..	12,181
	2012	66,686	..	..	806	..	12,493
	2013	67,769	..	..	770	..	12,812
	2014	68,869	..	..	829	..	13,142
Comoros	2011	2,491	..	..	..	..	1,204
	2012	2,556	..	..	..	..	1,236
	2013	2,621	..	..	..	..	1,271
	2014	2,689	..	..	..	..	1,307
Congo	2011	37,561	..	18,780	..	..	6,166
	2012	39,381	..	19,691	..	..	5,782
	2013	40,389	..	20,187	..	..	5,900
	2014	41,393	..	20,697	..	..	6,077

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
775,563	2,442,373	1,780,526	804,403	640,510	48,228,928
799,187	2,565,761	1,795,523	888,619	733,154	49,833,732
815,199	2,732,544	1,929,788	970,380	841,672	51,393,201
820,461	2,851,887	2,029,816	1,084,151	911,884	52,468,715
20,850	..	2,975	..	80	13,075,093
20,850	..	3,028	..	121	13,564,688
20,850	..	3,109	..	428	13,818,033
20,805	..	4,368	..	159	14,005,983
..	..	..	..	..	674
..	..	..	..	..	652
..	..	..	..	..	918
..	..	..	..	..	251
..	..	..	..	..	282,730
..	..	..	..	..	288,356
..	..	..	..	..	294,005
..	..	..	..	..	299,635
..	..	..	..	..	88,708
..	..	..	..	..	91,160
..	..	..	..	..	93,621
..	..	..	..	..	96,144
..	..	..	..	..	6,270
..	..	..	..	..	6,299
..	..	..	..	..	6,328
..	..	..	..	..	6,328
..	..	..	..	..	119,351
..	..	..	..	..	121,014
..	..	..	..	..	122,813
..	..	..	..	..	122,412
..	..	..	..	..	86,362
..	..	..	..	..	53,046
..	..	..	..	..	55,524
..	..	..	..	..	55,343
..	..	..	..	..	1,439
..	..	..	..	..	1,473
..	..	..	..	..	1,508
..	..	..	..	..	1,501
..	..	..	..	..	190,180
..	..	..	..	..	195,042
..	..	..	..	..	200,012
..	..	..	..	..	205,073
..	..	..	..	..	18,270
..	..	..	..	..	18,270
..	..	..	..	..	18,270
..	..	..	..	..	18,270
..	..	..	..	..	66,373
..	..	..	..	..	67,491
..	..	..	..	..	68,539
..	..	..	..	..	69,697
..	..	..	..	..	2,491
..	..	..	..	..	2,556
..	..	..	..	..	2,621
..	..	..	..	..	2,689
..	..	..	..	..	56,341
..	..	..	..	..	59,072
..	..	..	..	..	60,576
..	..	..	..	..	62,090

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Côte d'Ivoire	2011	380,476	..	1,364	..	..	37,377
	2012	392,717	..	1,412	..	..	38,586
	2013	411,252	..	1,450	..	..	41,359
	2014	421,878	..	1,489	..	..	42,392
Dem. Rep. of the Congo	2011	806,022	..	16,426	..	..	22,214
	2012	1,023,871	..	10,467	..	..	104,725
	2013	1,060,330	..	10,804	..	..	108,472
	2014	1,096,788	..	5,824	..	..	112,189
Djibouti	2011	3,303	..	..	..	..	1,437
	2012	3,355	..	..	..	..	1,460
	2013	3,408	..	..	..	..	1,484
	2014	3,461	..	..	..	..	1,509
Egypt	2011	160,370	..	34,235	23,386	..	40,480
	2012	160,781	..	35,000	23,386	..	40,849
	2013	161,199	..	35,798	25,023	..	41,223
	2014	161,625	..	36,601	23,160	..	41,595
Equatorial Guinea	2011	4,083	..	..	..	..	266
	2012	4,083	..	..	..	..	280
	2013	4,083	..	..	..	..	289
	2014	4,083	..	..	..	..	295
Eritrea	2011	20,980	2,466	1,395	..	..	4,071
	2012	21,427	2,519	1,425	..	..	4,160
	2013	21,896	2,574	1,456	..	..	4,248
	2014	22,382	2,631	1,488	..	..	4,337
Ethiopia	2011	937,337	134,928	132,256	8,108	..	112,885
	2012	949,733	138,376	135,636	6,950	..	115,678
	2013	962,335	141,839	139,031	9,267	..	118,540
	2014	975,143	145,441	142,561	9,946	..	121,472
Gabon	2011	47,528	..	2,879	612	..	608
	2012	48,691	..	2,949	579	..	620
	2013	49,854	..	3,019	612	..	631
	2014	*49,786	..	3,048	598	..	643
Gambia	2011	6,422	..	..	..	..	1,779
	2012	6,513	..	..	..	..	1,817
	2013	6,595	..	..	..	..	1,856
	2014	6,687	..	..	..	..	1,894
Ghana	2011	127,881	..	..	..	..	36,391
	2012	143,472	..	..	..	..	43,493
	2013	148,795	..	..	..	..	46,540
	2014	151,939	..	..	..	..	50,744
Guinea	2011	109,713	..	..	453	..	10,502
	2012	110,196	..	..	453	..	10,733
	2013	110,689	..	..	453	..	10,969
	2014	111,209	..	..	453	..	11,209
Guinea-Bissau	2011	24,092	..	..	..	..	1,935
	2012	24,438	..	..	..	..	1,981
	2013	24,788	..	..	..	..	2,027
	2014	25,141	..	..	..	..	2,075
Kenya	2011	*555,572	..	27,622	14,765	..	178,283
	2012	*578,693	..	28,378	14,057	..	183,699
	2013	*600,973	..	22,353	15,057	..	188,664
	2014	593,629	..	23,393	14,640	..	188,422
Lesotho	2011	19,181	*8,140	*1,325	..	..	2,903
	2012	19,253	*8,160	*1,330	..	..	2,956
	2013	19,326	*8,180	*1,335	..	..	3,009
	2014	19,398	*8,190	*1,340	..	..	3,065

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	381,840
..	..	..	..	..	394,129
..	..	..	..	..	412,702
..	..	..	..	..	423,367
..	..	..	..	..	822,448
..	..	..	..	..	1,034,338
..	..	..	..	..	1,071,134
..	..	..	..	..	1,102,612
..	..	..	..	..	3,303
..	..	..	..	..	3,355
..	..	..	..	..	3,408
..	..	..	..	..	3,461
..	..	..	..	..	217,992
..	..	..	..	..	219,168
..	..	..	..	..	222,020
..	..	..	..	..	221,386
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	4,083
..	..	..	..	..	24,841
..	..	..	..	..	25,371
..	..	..	..	..	25,926
..	..	..	..	..	26,501
..	..	161	..	..	1,212,790
..	..	134	..	..	1,230,829
..	..	161	..	..	1,252,632
..	..	188	..	..	1,273,279
..	..	..	..	..	51,019
..	..	..	..	..	52,219
..	..	..	..	..	53,485
..	..	..	..	..	*53,432
..	..	..	..	..	6,422
..	..	..	..	..	6,513
..	..	..	..	..	6,595
..	..	..	..	..	6,687
..	..	..	..	..	127,881
..	..	..	..	..	143,472
..	..	..	..	..	148,795
..	..	..	..	..	151,939
..	..	..	..	..	110,166
..	..	..	..	..	110,649
..	..	..	..	..	111,142
..	..	..	..	..	111,663
..	..	..	..	..	24,092
..	..	..	..	..	24,438
..	..	..	..	..	24,788
..	..	..	..	..	25,141
..	..	..	..	..	*597,959
..	..	..	..	..	*621,128
..	..	..	..	..	*638,383
..	..	..	..	..	631,662
..	..	..	..	..	28,646
..	..	..	..	..	28,743
..	..	..	..	..	28,841
..	..	..	..	..	28,928

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Liberia	2011	66,265	..	..	..	..	7,177
	2012	68,588	..	..	..	..	7,445
	2013	70,992	..	..	..	..	7,722
	2014	73,480	..	..	..	..	8,010
Libya	2011	6,523	..	..	..	..	..
	2012	6,466	..	..	..	..	..
	2013	6,395	..	..	..	..	..
	2014	6,333	..	..	..	..	..
Madagascar	2011	119,669	..	..	1,636	..	35,252
	2012	119,166	..	..	1,762	..	34,989
	2013	121,733	..	..	1,938	..	46,021
	2014	124,318	..	..	1,440	..	46,021
Malawi	2011	49,928	..	..	7,678	..	14,804
	2012	50,500	..	..	8,056	..	15,167
	2013	51,094	..	..	7,761	..	15,538
	2014	51,705	..	..	7,976	..	15,919
Mali	2011	49,192	..	..	805	..	4,160
	2012	49,740	..	..	805	..	4,160
	2013	48,637	..	..	805	..	5,065
	2014	50,860	..	..	1,259	..	5,045
Mauritania	2011	17,148	..	..	..	..	5,623
	2012	17,532	..	..	..	..	5,773
	2013	17,925	..	..	..	..	5,927
	2014	18,325	..	..	..	..	6,086
Mauritius	2011	183	..	..	10,525	..	18
	2012	183	..	..	9,969	..	18
	2013	174	..	..	9,738	..	18
	2014	164	..	..	9,336	..	18
Mayotte	2011	242	..	..	..	..	..
	2012	242	..	..	..	..	..
	2013	242	..	..	..	..	..
	2014	*242	..	..	..	..	..
Morocco	2011	61,769	..	..	1,690	..	3,180
	2012	61,579	..	..	809	..	3,221
	2013	61,390	..	..	1,367	..	3,263
	2014	61,202	..	..	670	..	3,304
Mozambique	2011	325,576	..	17,096	9,807	..	13,688
	2012	333,814	..	17,529	9,985	..	20,503
	2013	342,172	..	17,968	9,645	..	20,414
	2014	357,972	..	18,798	10,572	..	21,093
Namibia	2011	11,317	..	1,383	..	..	4,189
	2012	11,580	..	1,415	..	..	4,248
	2013	11,858	..	1,449	..	..	3,983
	2014	12,458	..	1,449	..	..	4,278
Niger	2011	52,805	432	335	..	..	1,236
	2012	56,570	434	442	..	..	1,325
	2013	58,776	500	378	..	..	1,376
	2014	*60,071	*500	*405	..	..	*1,420
Nigeria	2011	2,184,881	..	2,094,664	755	..	102,749
	2012	2,369,125	..	2,151,823	273	..	118,148
	2013	2,336,770	..	2,210,364	273	..	110,419
	2014	2,278,015	..	2,269,954	158	..	113,398
Réunion	2011	925	..	..	4,082	..	435
	2012	923	..	..	4,095	..	435
	2013	922	..	..	3,920	..	434
	2014	921	..	..	4,145	..	434



Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	66,265
..	..	..	..	..	68,588
..	..	..	..	..	70,992
..	..	..	..	..	73,480
..	..	..	..	..	6,523
..	..	..	..	..	6,466
..	..	..	..	..	6,395
..	..	..	..	..	6,333
..	..	..	..	..	121,305
..	..	..	..	..	120,928
..	..	..	..	..	123,671
..	..	..	..	..	125,758
*20,850	..	..	..	..	78,456
*20,850	..	..	..	..	79,406
*20,850	..	..	..	..	79,705
*20,805	..	..	..	..	80,486
..	..	..	..	..	49,997
..	..	..	..	..	50,545
..	..	..	..	..	49,443
..	..	..	..	..	52,119
..	..	..	..	..	17,148
..	..	..	..	..	17,532
..	..	..	..	..	17,925
..	..	..	..	..	18,325
..	..	..	..	..	10,708
..	..	..	..	..	10,152
..	..	..	..	240	10,151
..	..	..	..	..	9,500
..	..	..	..	..	242
..	..	..	..	..	242
..	..	..	..	..	242
..	..	..	..	..	*242
..	..	..	..	..	63,459
..	..	..	..	..	62,388
..	..	..	..	..	62,757
..	..	..	..	..	61,872
..	..	..	..	..	352,479
..	..	..	..	..	361,328
..	..	..	..	..	369,785
..	..	..	..	..	387,342
..	..	..	..	..	12,700
..	..	..	..	..	12,995
..	..	..	..	..	13,307
..	..	..	..	..	13,907
..	..	..	..	..	53,572
..	..	..	..	..	57,446
..	..	..	..	..	59,654
..	..	..	..	..	*60,976
..	..	..	..	..	4,280,300
..	..	..	..	..	4,521,221
..	..	..	..	..	4,547,407
..	..	..	..	..	4,548,127
..	..	..	..	80	5,086
..	..	..	..	121	5,140
..	..	..	..	188	5,030
..	..	..	..	159	5,225

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Rwanda	2011	*77,355	..	..	226	..	*16,449
	2012	*79,803	..	..	226	..	*16,968
	2013	*82,368	..	..	151	..	*17,865
	2014	*83,129	..	..	252	..	*17,995
Sao Tome and Principe	2011	987	..	..	..	..	266
	2012	996	..	..	..	..	268
	2013	1,005	..	..	..	..	271
	2014	1,005	..	..	..	..	271
Senegal	2011	83,078	..	1,195	2,863	..	16,550
	2012	85,358	..	611	3,072	..	16,992
	2013	69,442	..	1,021	2,055	..	14,219
	2014	71,649	..	1,069	2,152	..	14,662
Seychelles	2011	29	..	..	..	..	..
	2012	29	..	..	..	..	..
	2013	29	..	..	..	..	..
	2014	29	..	..	..	..	..
Sierra Leone	2011	51,330	..	..	201	..	11,564
	2012	51,704	..	..	201	..	11,830
	2013	52,097	..	..	201	..	12,125
	2014	52,471	..	..	286	..	12,420
Somalia	2011	127,494	..	..	579	..	35,022
	2012	127,494	..	..	579	..	35,022
	2013	127,495	..	..	579	..	35,022
	2014	128,241	..	..	579	..	33,515
South Africa	2011	548,742	..	82,828	46,130	..	20,877
	2012	557,140	..	84,096	49,497	..	20,945
	2013	565,815	..	85,405	59,279	..	21,013
	2014	574,809	..	86,763	53,287	..	21,081
South Sudan	2011	..	..	..	..	..	..
	2012	8,064	..	..	..	..	325
	2013	7,826	..	..	..	..	325
	2014	8,138	..	..	..	..	325
St. Helena and Depend.	2011	5	..	..	..	..	..
	2012	5	..	..	..	..	..
	2013	6	..	..	..	..	..
	2014	*5	..	..	..	..	..
Sudan	2011	..	..	..	..	..	..
	2012	339,332	..	39,640	..	..	44,929
	2013	346,699	..	40,634	..	..	45,725
	2014	354,540	..	41,639	..	..	47,082
Sudan (former)	2011	421,711	..	46,833	18,101	..	56,552
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..
Swaziland	2011	9,847	..	..	15,630	*4,000	1,292
	2012	9,987	..	..	15,390	*3,950	1,325
	2013	10,131	..	..	17,290	*4,000	1,361
	2014	10,277	..	..	17,336	*4,000	1,397
Togo	2011	100,480	..	955	..	..	18,231
	2012	103,262	..	1,225	..	..	18,733
	2013	106,063	..	1,258	..	..	19,234
	2014	108,910	..	1,292	..	..	19,765
Tunisia	2011	33,907	1,469	3,963	..	..	5,753
	2012	34,058	1,455	4,075	..	..	5,871
	2013	34,214	1,458	4,088	..	..	6,018
	2014	34,384	1,444	4,074	..	..	6,136

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	*77,581
..	..	..	..	..	*80,029
..	..	..	..	..	*82,520
..	..	..	..	..	*83,380
..	..	..	..	..	987
..	..	..	..	..	996
..	..	..	..	..	1,005
..	..	..	..	..	1,005
..	..	..	..	..	87,136
..	..	..	..	..	89,041
..	..	..	..	..	72,518
..	..	..	..	..	74,870
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	29
..	..	..	..	..	51,530
..	..	..	..	..	51,905
..	..	..	..	..	52,298
..	..	..	..	..	52,757
..	..	..	..	..	128,074
..	..	..	..	..	128,074
..	..	..	..	..	128,074
..	..	..	..	..	128,820
..	..	*2,814	..	..	680,514
..	..	*2,894	..	..	693,628
..	..	*2,948	..	..	713,447
..	..	*3,028	..	..	717,887
..	..	..	..	..	..
..	..	..	..	..	8,064
..	..	..	..	..	7,826
..	..	..	..	..	8,138
..	..	..	..	..	5
..	..	..	..	..	5
..	..	..	..	..	6
..	..	..	..	..	*5
..	..	..	..	..	..
..	..	..	..	..	378,972
..	..	..	..	..	387,333
..	..	..	..	..	396,179
..	..	..	..	..	486,645
..	..	..	..	..	..
..	..	..	..	..	..
..	..	..	..	..	29,476
..	..	..	..	..	29,327
..	..	..	..	..	31,421
..	..	..	..	..	31,613
..	..	..	..	..	101,435
..	..	..	..	..	104,487
..	..	..	..	..	107,321
..	..	..	..	..	110,202
..	..	..	..	..	39,338
..	..	..	..	..	39,588
..	..	..	..	..	39,759
..	..	..	..	..	39,902

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Uganda	2011	380,016	..	..	*10,270	..	27,478
	2012	380,016	..	..	*11,506	..	27,478
	2013	380,016	..	..	*14,278	..	29,500
	2014	382,360	..	..	*17,375	..	30,604
United Rep. of Tanzania	2011	645,439	..	122,578	7,151	..	51,537
	2012	665,915	..	126,790	8,056	..	53,130
	2013	708,344	..	130,691	7,739	..	54,752
	2014	742,758	..	137,635	7,297	..	57,142
Zambia	2011	248,383	..	42,407	..	..	29,795
	2012	256,417	..	43,779	..	..	30,503
	2013	264,870	..	45,222	..	..	31,211
	2014	273,675	..	46,218	..	..	31,949
Zimbabwe	2011	174,648	..	106,871	3,665	..	266
	2012	178,927	..	109,489	2,405	..	266
	2013	183,503	..	112,289	2,390	..	266
	2014	188,213	..	115,171	2,074	..	266
<b>America, North</b>	<b>2011</b>	<b>1,488,073</b>	<b>669,197</b>	<b>663,052</b>	<b>264,173</b>	<b>904,054</b>	<b>76,281</b>
	<b>2012</b>	<b>1,481,716</b>	<b>685,025</b>	<b>599,747</b>	<b>303,586</b>	<b>818,798</b>	<b>77,113</b>
	<b>2013</b>	<b>1,507,365</b>	<b>755,800</b>	<b>707,195</b>	<b>317,643</b>	<b>952,267</b>	<b>79,328</b>
	<b>2014</b>	<b>1,536,668</b>	<b>769,128</b>	<b>735,033</b>	<b>336,118</b>	<b>1,004,349</b>	<b>80,770</b>
Anguilla	2011	*2	..	..	..	..	..
	2012	*2	..	..	..	..	..
	2013	*2	..	..	..	..	..
	2014	*2	..	..	..	..	..
Aruba	2011	17	..	..	..	..	5
	2012	17	..	..	..	..	5
	2013	17	..	..	..	..	5
	2014	18	..	..	..	..	6
Bahamas	2011	303	..	..	..	..	32
	2012	304	..	..	..	..	32
	2013	305	..	..	..	..	33
	2014	31	..	..	..	..	33
Barbados	2011	45	..	..	857	..	9
	2012	45	..	..	769	..	9
	2013	45	..	..	575	..	9
	2014	45	..	..	518	..	9
Belize	2011	1,151	..	..	2,803	..	21
	2012	1,151	..	..	3,158	..	22
	2013	1,151	..	..	3,073	..	22
	2014	1,151	..	..	2,973	..	22
Bermuda	2011	..	..	..	..	..	..
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..
British Virgin Islands	2011	13	..	..	..	..	2
	2012	13	..	..	..	..	2
	2013	13	..	..	..	..	2
	2014	14	..	..	..	..	2
Canada	2011	355,957	..	..	..	170,418	..
	2012	352,340	..	..	..	175,026	..
	2013	360,069	..	..	..	191,861	..
	2014	379,138	..	..	..	182,966	..
Costa Rica	2011	17,163	..	4,965	8,613	..	32
	2012	12,350	..	4,966	9,285	..	36
	2013	12,213	..	4,966	11,061	..	30
	2014	12,082	..	4,793	10,676	..	59

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	390,286
..	..	..	..	..	391,522
..	..	..	..	..	394,294
..	..	..	..	..	399,735
..	..	..	..	..	775,168
..	..	..	..	..	800,761
..	..	..	..	..	846,774
..	..	..	..	..	887,690
..	..	..	..	..	290,790
..	..	..	..	..	300,196
..	..	..	..	..	310,092
..	..	..	..	..	319,893
..	..	..	..	..	285,184
..	..	..	..	..	290,821
..	..	..	..	..	298,182
..	..	1,152	..	..	306,610
<b>89,517</b>	<b>305,060</b>	<b>1,118,637</b>	<b>106,941</b>	<b>141,503</b>	<b>5,750,206</b>
<b>89,331</b>	<b>305,729</b>	<b>1,093,625</b>	<b>130,456</b>	<b>154,237</b>	<b>5,662,249</b>
<b>66,915</b>	<b>304,888</b>	<b>1,098,228</b>	<b>170,605</b>	<b>178,575</b>	<b>6,059,481</b>
<b>64,987</b>	<b>303,446</b>	<b>1,180,986</b>	<b>161,184</b>	<b>202,439</b>	<b>6,294,337</b>
..	..	..	..	..	*2
..	..	..	..	..	*2
..	..	..	..	..	*2
..	..	..	..	..	*2
..	..	..	..	..	17
..	..	..	..	..	17
..	..	..	..	..	17
..	..	..	..	..	18
..	..	..	..	..	303
..	..	..	..	..	304
..	..	..	..	..	305
..	..	..	..	..	31
..	..	..	..	..	902
..	..	..	..	..	814
..	..	..	..	..	620
..	..	..	..	..	562
..	..	..	..	..	3,954
..	..	..	..	..	4,309
..	..	..	..	..	4,224
..	..	..	..	..	4,124
..	*560	..	..	..	*560
..	*565	..	..	..	*565
..	*565	..	..	..	*565
..	*605	..	..	..	*605
..	..	..	..	..	13
..	..	..	..	..	13
..	..	..	..	..	13
..	..	..	..	..	14
5,080	5,264	35,108	3,938	15,923	591,688
5,252	5,815	36,475	3,754	14,969	593,630
5,429	7,147	36,073	4,048	16,664	621,291
5,606	7,147	37,413	9,826	16,977	639,072
..	..	525	..	..	31,266
..	..	670	..	..	27,271
..	..	742	..	4	28,986
..	..	..	..	4	27,555

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					Charcoal
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	
Cuba	2011	11,921	..	13	30,502	..	1,564
	2012	11,062	..	88	30,580	..	974
	2013	12,641	..	*88	28,085	..	3,339
	2014	10,931	..	*88	35,554	..	3,685
Dominica	2011	69	..	..	..	..	7
	2012	69	..	..	..	..	7
	2013	69	..	..	..	..	7
	2014	69	..	..	..	..	7
Dominican Republic	2011	9,842	..	..	11,600	..	1,421
	2012	9,743	..	..	12,771	..	1,435
	2013	9,773	..	..	11,981	..	1,471
	2014	9,963	..	..	12,519	..	1,532
El Salvador	2011	21,450	..	..	10,226	..	236
	2012	16,618	..	..	12,347	..	236
	2013	15,712	..	..	7,495	..	236
	2014	16,109	..	..	7,640	..	1,092
Greenland	2011	..	..	..	..	..	..
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..
Grenada	2011	240	..	..	22	..	57
	2012	235	..	..	22	..	58
	2013	229	..	..	22	..	57
	2014	248	..	..	20	..	60
Guadeloupe	2011	137	..	..	*1,197	..	62
	2012	137	..	..	*1,236	..	62
	2013	137	..	..	*1,236	..	62
	2014	137	..	..	*1,236	..	62
Guatemala	2011	180,951	..	..	72,189	..	1,918
	2012	183,663	..	..	75,799	..	1,977
	2013	183,663	..	..	80,657	..	2,036
	2014	199,158	..	..	80,657	..	2,095
Haiti	2011	133,606	..	..	970	..	35,430
	2012	137,987	..	..	967	..	36,787
	2013	138,054	..	..	963	..	38,173
	2014	134,364	..	..	931	..	38,232
Honduras	2011	79,543	..	..	11,138	..	538
	2012	81,085	..	..	11,502	..	620
	2013	82,677	..	..	11,864	..	620
	2014	83,904	..	..	10,692	..	620
Jamaica	2011	2,773	..	..	3,409	..	1,133
	2012	2,773	..	..	3,357	..	1,133
	2013	2,773	..	..	3,687	..	1,133
	2014	2,773	..	..	3,926	..	1,133
Martinique	2011	91	..	..	*175	..	53
	2012	91	..	..	*175	..	53
	2013	91	..	..	*175	..	53
	2014	91	..	..	*175	..	53
Mexico	2011	253,496	..	41,671	31,790	..	2,508
	2012	252,826	..	40,993	41,468	..	2,360
	2013	255,520	..	61,991	53,758	..	2,419
	2014	254,274	..	37,708	71,125	..	2,419
Neth. Antilles (former)	2011	*31	..	..	..	..	*8
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	399	..	..	42,835
..	..	375	..	..	42,104
..	..	374	..	..	41,188
..	..	372	..	..	46,945
..	..	..	..	..	69
..	..	..	..	..	69
..	..	..	..	..	69
..	..	..	..	..	69
..	..	..	..	..	21,442
..	..	..	..	..	22,514
..	..	..	..	..	21,754
..	..	..	..	..	22,482
..	..	..	..	..	31,676
..	..	..	..	..	28,965
..	..	..	..	526	23,733
..	..	..	..	409	24,158
..	91	..	..	..	91
..	103	..	..	..	103
..	117	..	..	..	117
..	92	..	..	..	92
..	..	..	..	..	262
..	..	..	..	..	257
..	..	..	..	..	251
..	..	..	..	..	268
..	..	..	..	..	*1,334
..	..	..	..	..	*1,373
..	..	..	..	..	*1,373
..	..	..	..	..	*1,373
..	..	..	..	..	253,140
..	..	..	..	..	259,462
..	..	..	..	..	264,320
..	..	..	..	..	279,815
..	..	..	..	..	134,576
..	..	..	..	..	138,954
..	..	..	..	..	139,017
..	..	..	..	..	135,295
..	..	..	..	..	90,681
..	..	..	..	..	92,587
..	..	..	..	..	94,541
..	..	..	..	..	94,596
..	..	..	..	..	6,183
..	..	..	..	..	6,130
..	..	..	..	..	6,460
..	..	..	..	..	6,699
..	*432	..	..	..	*698
..	*432	..	..	..	*698
..	*432	..	..	..	*698
..	*432	..	..	..	*698
914	..	..	..	1,471	329,342
8,922	..	..	..	1,822	346,031
1,690	..	..	..	1,970	374,929
861	..	..	..	1,939	365,907
..	..	..	..	..	*31
..	..	..	..	..	..
..	..	..	..	..	..
..	..	..	..	..	..

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Nicaragua	2011	42,087	..	2,196	9,523	..	502
	2012	42,078	..	2,755	11,670	..	531
	2013	41,933	..	3,531	15,269	..	531
	2014	41,935	..	4,775	15,695	..	561
Panama	2011	7,327	..	..	4,433	..	41
	2012	7,282	..	..	4,666	..	41
	2013	7,236	..	..	5,395	..	38
	2014	7,191	..	..	4,901	..	38
St. Lucia	2011	90	..	..	..	..	10
	2012	90	..	..	..	..	10
	2013	90	..	..	..	..	10
	2014	90	..	..	..	..	10
St. Vincent-Grenadines	2011	68	..	..	..	..	11
	2012	68	..	..	..	..	11
	2013	67	..	..	..	..	11
	2014	67	..	..	..	..	11
Trinidad and Tobago	2011	297	..	..	..	..	59
	2012	294	..	..	..	..	59
	2013	291	..	..	..	..	59
	2014	289	..	..	..	..	59
Turks and Caicos Islands	2011	9	..	..	..	..	4
	2012	9	..	..	..	..	4
	2013	10	..	..	..	..	4
	2014	10	..	..	..	..	4
United States	2011	369,392	*669,197	*614,207	64,727	*733,636	30,621
	2012	369,383	*685,025	*550,945	83,816	*643,772	30,651
	2013	382,583	*755,800	*636,619	82,348	*760,406	28,969
	2014	382,583	*769,128	*687,669	76,881	*821,383	28,969
<b>America, South</b>	<b>2011</b>	<b>1,634,474</b>	<b>..</b>	<b>610,399</b>	<b>1,331,916</b>	<b>35,246</b>	<b>270,308</b>
	<b>2012</b>	<b>1,752,930</b>	<b>..</b>	<b>640,842</b>	<b>1,387,015</b>	<b>34,508</b>	<b>260,872</b>
	<b>2013</b>	<b>1,749,411</b>	<b>..</b>	<b>646,244</b>	<b>1,467,322</b>	<b>34,293</b>	<b>238,307</b>
	<b>2014</b>	<b>1,608,323</b>	<b>..</b>	<b>659,838</b>	<b>1,473,087</b>	<b>112,779</b>	<b>229,498</b>
Argentina	2011	26,987	..	27,586	40,303	..	11,210
	2012	28,230	..	29,978	40,220	..	11,977
	2013	29,917	..	16,915	47,313	..	10,679
	2014	48,190	..	17,083	48,345	..	11,092
Bolivia (Plur. State of)	2011	21,630	..	4,262	7,980	..	1,062
	2012	21,798	..	4,431	11,001	..	1,062
	2013	21,970	..	4,606	10,195	..	1,062
	2014	22,145	..	4,815	11,832	..	1,062
Brazil	2011	1,049,520	..	511,647	1,134,709	..	225,262
	2012	1,039,325	..	534,041	1,189,968	..	217,917
	2013	987,722	..	554,035	1,259,722	..	195,143
	2014	1,005,206	..	574,738	1,244,602	..	191,957
Chile	2011	247,124	..	..	..	0	7,316
	2012	392,646	..	..	..	0	7,287
	2013	428,535	..	..	..	0	7,287
	2014	240,937	..	..	..	65,771	2,124
Colombia	2011	61,771	..	10,158	80,835	10,158	9,352
	2012	59,414	..	11,023	75,870	10,157	7,139
	2013	57,706	..	10,796	78,565	7,630	8,142
	2014	67,046	..	..	94,375	12,095	7,552
Ecuador	2011	10,676	..	..	19,552	..	..
	2012	10,171	..	..	21,457	..	..
	2013	9,784	..	..	20,435	..	..
	2014	9,804	..	..	22,765	..	..



Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	53,806
..	..	..	..	..	56,503
..	..	..	..	..	60,733
..	..	..	..	..	62,405
..	..	..	..	..	11,760
..	..	..	..	..	11,948
..	..	..	..	..	12,630
..	..	..	..	..	12,092
..	..	..	..	..	90
..	..	..	..	..	90
..	..	..	..	..	90
..	..	..	..	..	90
..	..	..	..	..	68
..	..	..	..	..	68
..	..	..	..	..	67
..	..	..	..	..	67
..	..	..	..	..	297
..	..	..	..	..	294
..	..	..	..	..	291
..	..	..	..	..	289
..	..	..	..	..	9
..	..	..	..	..	9
..	..	..	..	..	10
..	..	..	..	..	10
83,523	298,713	1,082,605	103,003	124,109	4,143,111
75,157	298,814	1,056,105	126,702	137,446	4,027,165
59,796	296,627	1,061,039	166,557	159,411	4,361,186
58,520	295,170	1,143,201	151,358	183,110	4,569,004
..	..	<b>485,085</b>	<b>115,866</b>	<b>418</b>	<b>4,213,403</b>
..	..	<b>498,090</b>	<b>118,588</b>	<b>1,150</b>	<b>4,433,122</b>
..	..	<b>588,714</b>	<b>93,848</b>	<b>1,394</b>	<b>4,581,226</b>
..	..	<b>606,121</b>	<b>134,404</b>	<b>3,160</b>	<b>4,597,712</b>
..	..	3,779	96,600	..	195,255
..	..	5,628	97,704	..	201,760
..	..	10,023	73,526	..	177,695
..	..	10,559	113,123	..	237,300
..	..	..	..	..	33,872
..	..	..	..	..	37,230
..	..	..	..	..	36,772
..	..	..	..	..	38,792
..	..	469,590	..	..	3,165,465
..	..	478,916	..	..	3,242,250
..	..	564,837	..	..	3,366,315
..	..	588,126	..	..	3,412,672
..	..	..	..	418	247,542
..	..	..	..	273	392,919
..	..	..	..	559	429,094
..	..	..	..	2,324	309,032
..	..	7,141	18,202	..	188,265
..	..	7,818	19,633	..	183,915
..	..	*7,818	19,151	..	181,665
..	..	456	19,713	..	193,685
..	..	134	..	..	30,362
..	..	161	..	..	31,789
..	..	188	..	..	30,407
..	..	*188	..	..	32,756

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Falkland Is. (Malvinas)	2011	6	..	..	..	..	3
	2012	7	..	..	..	..	3
	2013	7	..	..	..	..	3
	2014	7	..	..	..	..	3
French Guiana	2011	1,211	..	..	..	..	222
	2012	1,255	..	..	..	..	232
	2013	1,198	..	..	..	..	242
	2014	1,244	..	..	..	..	242
Guyana	2011	1,329	..	..	8,320	..	49
	2012	1,213	..	..	6,960	..	48
	2013	1,096	..	..	6,014	..	46
	2014	1,277	..	..	5,540	..	50
Paraguay	2011	99,660	..	23,362	3,617	..	13,561
	2012	96,611	..	23,412	3,605	..	12,966
	2013	90,272	..	23,627	5,236	..	13,610
	2014	92,418	..	24,319	5,035	..	13,381
Peru	2011	73,103	..	8,585	22,688	..	2,036
	2012	61,904	..	8,285	23,908	..	2,006
	2013	80,895	..	8,242	25,105	..	*1,859
	2014	81,302	..	7,701	26,479	..	1,829
Suriname	2011	963	..	*603	151	..	..
	2012	1,028	..	*784	0	..	..
	2013	1,066	..	*816	0	..	..
	2014	1,028	..	*823	0	..	..
Uruguay	2011	27,072	..	5,833	797	25,088	..
	2012	26,530	..	10,258	1,062	24,351	..
	2013	27,038	..	8,316	1,421	26,663	..
	2014	26,080	..	11,207	1,149	34,913	..
Venezuela (Bolivar. Rep.)	2011	13,420	..	18,363	12,965	..	236
	2012	12,798	..	18,629	12,965	..	236
	2013	12,205	..	18,892	13,317	..	236
	2014	11,639	..	19,153	12,965	..	207
<b>Asia</b>	<b>2011</b>	<b>10,526,092</b>	<b>133,278</b>	<b>4,810,354</b>	<b>1,385,666</b>	<b>180,164</b>	<b>392,320</b>
	<b>2012</b>	<b>10,668,688</b>	<b>134,640</b>	<b>4,924,073</b>	<b>1,516,603</b>	<b>184,005</b>	<b>409,071</b>
	<b>2013</b>	<b>10,796,862</b>	<b>135,138</b>	<b>5,011,815</b>	<b>1,597,315</b>	<b>203,345</b>	<b>422,244</b>
	<b>2014</b>	<b>11,059,953</b>	<b>138,352</b>	<b>5,126,548</b>	<b>1,648,156</b>	<b>211,714</b>	<b>417,339</b>
Afghanistan	2011	15,121	..	..	..	..	3,412
	2012	15,474	..	..	..	..	3,510
	2013	15,765	..	..	..	..	3,610
	2014	16,063	..	..	..	..	3,714
Armenia	2011	18,946	..	..	..	..	..
	2012	18,946	..	..	..	..	..
	2013	14,123	..	..	..	..	..
	2014	14,123	..	..	..	..	..
Azerbaijan	2011	3,672	..	..	..	..	..
	2012	3,700	..	..	..	..	..
	2013	3,855	..	..	..	..	148
	2014	3,289	..	..	..	..	177
Bahrain	2011	61	..	..	..	..	32
	2012	62	..	..	..	..	32
	2013	63	..	..	..	..	33
	2014	63	..	..	..	..	33
Bangladesh	2011	247,812	112,856	214,806	2,769	..	9,638
	2012	246,378	114,209	217,382	2,392	..	9,708
	2013	244,961	115,612	220,052	2,769	..	9,779
	2014	243,561	118,558	225,660	2,769	..	3,629

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	6
..	..	..	..	..	7
..	..	..	..	..	7
..	..	..	..	..	7
..	..	..	..	..	1,211
..	..	..	..	..	1,255
..	..	..	..	..	1,198
..	..	..	..	..	1,244
..	..	..	..	..	9,649
..	..	..	..	..	8,173
..	..	..	..	..	7,110
..	..	..	..	..	6,817
..	..	3,107	..	..	129,747
..	..	3,265	..	..	126,894
..	..	3,853	..	..	122,987
..	..	4,279	..	..	126,051
..	..	992	478	0	105,846
..	..	1,876	589	877	97,439
..	..	1,394	37	835	116,507
..	..	1,608	110	836	118,037
..	..	..	..	..	1,717
..	..	..	..	..	1,812
..	..	..	..	..	1,881
..	..	..	..	..	1,850
..	..	343	585	..	59,717
..	..	426	662	..	63,289
..	..	603	1,133	..	65,174
..	..	906	1,457	..	75,712
..	..	..	..	..	44,748
..	..	..	..	..	44,392
..	..	..	..	..	44,414
..	..	..	..	..	43,757
<b>322,634</b>	<b>1,408,815</b>	<b>80,441</b>	<b>222,005</b>	<b>40,718</b>	<b>19,110,167</b>
<b>340,192</b>	<b>1,509,751</b>	<b>94,337</b>	<b>259,877</b>	<b>43,809</b>	<b>19,675,975</b>
<b>385,308</b>	<b>1,644,213</b>	<b>112,720</b>	<b>300,355</b>	<b>54,812</b>	<b>20,241,883</b>
<b>381,303</b>	<b>1,743,860</b>	<b>124,174</b>	<b>320,892</b>	<b>55,930</b>	<b>20,810,881</b>
..	..	..	..	..	15,121
..	..	..	..	..	15,474
..	..	..	..	..	15,765
..	..	..	..	..	16,063
..	..	..	..	..	18,946
..	..	..	..	..	18,946
..	..	..	..	..	14,123
..	..	..	..	..	14,123
..	..	..	..	..	3,672
..	..	..	..	..	3,700
..	2,104	..	..	..	5,959
..	2,628	..	..	..	5,917
..	..	..	..	..	61
..	..	..	..	..	62
..	..	..	..	..	63
..	..	..	..	..	63
..	..	..	..	..	578,244
..	..	..	..	..	580,361
..	..	..	..	..	583,394
..	..	..	..	..	590,548

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Bhutan	2011	44,734	..	..	..	..	826
	2012	45,218	..	..	..	..	826
	2013	45,712	..	..	..	..	826
	2014	46,214	..	..	..	..	826
Brunei Darussalam	2011	107	..	..	..	..	9
	2012	107	..	..	..	..	9
	2013	107	..	..	..	..	9
	2014	107	..	..	..	..	9
Cambodia	2011	158,385	..	288	..	..	25,134
	2012	162,658	..	288	..	..	25,577
	2013	167,311	..	158	..	..	26,049
	2014	171,447	..	201	..	..	26,403
China	2011	1,693,905	..	..	262,953	..	50,607
	2012	1,663,483	..	..	299,316	..	50,328
	2013	1,633,621	..	..	330,599	..	50,050
	2014	1,604,309	..	..	315,409	..	49,773
China, Macao SAR	2011	..	..	..	..	..	..
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..
Cyprus	2011	181	..	30	..	..	30
	2012	208	..	28	..	..	30
	2013	181	..	28	..	..	30
	2014	105	..	250	..	..	30
Georgia	2011	13,188	..	..	..	..	..
	2012	12,840	..	..	..	..	..
	2013	23,231	..	..	..	..	..
	2014	22,607	..	1	..	..	..
India	2011	3,826,013	..	3,540,340	706,534	..	84,960
	2012	3,874,672	..	3,614,237	734,928	..	84,960
	2013	3,923,089	..	3,682,785	*749,044	..	92,601
	2014	4,005,976	..	3,771,228	*749,044	..	94,017
Indonesia	2011	1,783,344	..	464,165	56,094	..	19,854
	2012	1,768,546	..	469,995	64,848	..	19,913
	2013	1,795,239	..	475,710	64,269	..	17,671
	2014	1,884,621	..	481,657	65,411	..	21,624
Iran (Islamic Rep. of)	2011	45,675	1,175	7,500	..	..	24
	2012	73,994	1,175	7,500	..	..	32
	2013	73,994	1,175	7,500	..	..	35
	2014	*73,994	*1,175	8,400	..	..	30
Iraq	2011	1,710	..	..	..	..	443
	2012	1,758	..	..	..	..	443
	2013	1,807	..	..	..	..	738
	2014	1,856	..	..	..	..	738
Israel	2011	*594	..	..	..	..	..
	2012	*183	..	..	..	..	..
	2013	*183	..	..	..	..	..
	2014	*183	..	..	..	..	..
Japan	2011	39,282	..	116,418	1,537	172,134	354
	2012	39,054	..	123,311	1,614	165,523	354
	2013	42,856	..	129,642	1,591	181,750	354
	2014	44,525	..	128,546	1,637	185,782	354
Jordan	2011	2,832	..	..	..	..	1,215
	2012	2,905	..	..	..	..	1,248
	2013	2,978	..	..	..	..	1,281
	2014	3,051	..	..	..	..	1,315

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	44,734
..	..	..	..	..	45,218
..	..	..	..	..	45,712
..	..	..	..	..	46,214
..	..	..	..	..	107
..	..	..	..	..	107
..	..	..	..	..	107
..	..	..	..	..	107
..	..	..	..	..	158,673
..	..	..	..	..	162,946
..	..	..	..	..	167,469
..	..	..	..	..	171,648
188,599	1,254,137	65,446	179,735	..	3,644,774
198,687	1,355,330	74,555	204,750	..	3,796,122
220,786	1,484,547	84,294	231,494	..	3,985,341
233,878	1,572,324	87,920	241,445	..	4,055,285
..	*1,541	..	..	..	*1,541
..	*1,627	..	..	..	*1,627
..	*1,842	..	..	..	*1,842
..	*2,058	..	..	..	*2,058
4	..	..	221	448	884
0	..	..	258	476	970
0	..	..	74	466	749
273	13	..	0	475	1,116
..	..	..	..	3	13,191
..	..	..	..	3	12,843
..	..	..	..	0	23,231
..	..	..	..	0	22,608
..	..	..	..	..	8,072,887
..	..	..	..	..	8,223,837
..	..	..	..	..	8,354,918
..	..	..	..	..	8,526,248
..	..	..	..	..	2,303,603
..	..	..	..	..	2,303,389
..	..	..	..	..	2,335,218
..	..	..	..	..	2,431,689
..	..	..	..	127	54,477
..	..	..	..	127	82,796
..	..	..	..	127	82,796
..	..	..	..	553	*84,122
..	..	..	..	..	1,710
..	..	..	..	..	1,758
..	..	..	..	..	1,807
..	..	..	..	..	1,856
..	..	..	..	391	*985
..	..	..	..	777	960
..	..	..	..	442	625
..	..	..	..	638	821
48,436	32,192	..	..	..	409,999
51,858	28,672	..	..	..	410,032
67,381	31,368	..	..	..	454,588
67,303	40,954	..	..	..	468,747
..	..	..	..	96	2,928
..	..	..	..	72	2,977
..	..	..	..	72	3,050
..	..	..	..	72	3,123

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Kazakhstan	2011	3,243	..	47	..	..	14
	2012	2,441	..	49	..	..	14
	2013	2,762	..	..	..	..	14
	2014	920	..	..	..	..	14
Korea, Dem.Ppl's.Rep.	2011	45,202	..	..	..	..	4,661
	2012	45,444	..	..	..	..	4,691
	2013	45,686	..	..	..	..	4,750
	2014	45,928	..	..	..	..	4,779
Korea, Republic of	2011	7,050	..	10,196	..	..	..
	2012	21,178	..	718	..	9,560	..
	2013	28,710	..	1,573	..	9,598	..
	2014	74,353	..	..	..	13,494	..
Kuwait	2011	171	..	..	..	..	84
	2012	173	..	..	..	..	85
	2013	176	..	..	..	..	86
	2014	176	..	..	..	..	87
Kyrgyzstan	2011	158	..	..	..	..	..
	2012	160	..	..	..	..	..
	2013	140	..	..	..	..	..
	2014	130	..	..	..	..	..
Lao People's Dem. Rep.	2011	54,215	..	..	..	..	636
	2012	54,101	..	..	..	..	649
	2013	53,988	..	..	..	..	662
	2014	53,891	..	..	..	..	675
Lebanon	2011	5,006	..	..	..	..	325
	2012	4,997	..	..	..	..	325
	2013	4,988	..	..	..	..	325
	2014	4,988	..	..	..	..	295
Malaysia	2011	25,213	..	15,048	579	..	853
	2012	24,768	..	11,405	579	..	856
	2013	24,339	..	15,955	226	..	858
	2014	24,339	..	9,346	226	..	858
Maldives	2011	142	..	..	..	..	23
	2012	144	..	..	..	..	24
	2013	145	..	..	..	..	24
	2014	147	..	..	..	..	25
Mongolia	2011	*6,997	..	..	..	..	..
	2012	*5,481	..	..	..	..	..
	2013	*5,481	..	..	..	..	..
	2014	*5,481	..	..	..	..	..
Myanmar	2011	421,626	..	25,890	*2,386	..	797
	2012	425,015	..	26,098	*2,355	..	826
	2013	428,574	..	26,317	*2,355	..	826
	2014	432,238	..	26,542	*2,355	..	826
Nepal	2011	262,680	18,757	15,458	12,979	..	2,331
	2012	299,482	18,757	14,811	14,779	..	2,390
	2013	341,392	17,836	*14,811	16,873	..	2,419
	2014	381,166	18,087	14,811	17,082	..	2,419
Oman	2011	367	..	..	..	..	177
	2012	378	..	..	..	..	182
	2013	390	..	..	..	..	199
	2014	402	..	..	..	..	194
Other Asia	2011	12,898	..	..	..	..	..
	2012	10,274	..	..	..	..	..
	2013	8,839	..	..	..	..	..
	2014	10,383	..	..	..	..	..

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	3,290
..	..	..	..	..	2,490
..	..	..	..	..	2,762
..	..	..	..	..	920
..	..	..	..	..	45,202
..	..	..	..	..	45,444
..	..	..	..	..	45,686
..	..	..	..	..	45,928
84,096	39,262	..	11,408	9,019	161,031
88,080	37,499	..	12,218	9,358	178,611
95,926	36,341	..	12,806	9,917	194,871
78,446	36,953	4,822	13,174	9,330	230,573
..	..	..	..	..	171
..	..	..	..	..	173
..	..	..	..	..	176
..	..	..	..	..	176
..	..	..	..	..	158
..	..	..	..	..	160
..	..	..	..	..	140
..	..	..	..	..	130
..	..	..	..	..	54,215
..	..	..	..	..	54,101
..	..	..	..	..	53,988
..	..	..	..	..	53,891
..	..	..	..	..	5,006
..	..	..	..	..	4,997
..	..	..	..	..	4,988
..	..	..	..	..	4,988
..	..	..	6,366	..	47,206
..	..	..	9,163	..	45,915
..	..	..	17,370	..	57,890
..	..	..	22,522	..	56,433
..	..	..	..	..	142
..	..	..	..	..	144
..	..	..	..	..	145
..	..	..	..	..	147
..	..	..	..	..	*6,997
..	..	..	..	..	*5,481
..	..	..	..	..	*5,481
..	..	..	..	..	*5,481
..	..	..	..	..	449,902
..	..	..	..	..	453,468
..	..	..	..	..	457,246
..	..	..	..	..	461,135
..	..	..	..	2,765	312,639
..	..	..	..	4,296	352,125
..	..	..	..	6,711	397,623
..	..	..	..	6,711	437,857
..	..	..	..	..	367
..	..	..	..	..	378
..	..	..	..	..	390
..	..	..	..	..	402
..	55,114	3,823	..	323	72,158
..	55,210	4,372	..	283	70,139
..	55,412	4,750	..	254	69,255
..	55,156	3,091	..	224	68,854

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Pakistan	2011	270,944	..	*160,697	108,951	..	2,187
	2012	270,944	..	*163,428	118,920	..	2,243
	2013	270,944	..	*165,000	130,959	..	2,300
	2014	269,784	..	*168,500	155,724	..	2,358
Philippines	2011	115,808	490	24,038	17,015	..	35,371
	2012	172,840	499	38,488	18,372	..	49,666
	2013	176,505	515	39,763	19,004	..	52,259
	2014	178,497	532	40,313	19,243	..	54,705
Qatar	2011	46	..	..	..	..	22
	2012	46	..	..	..	..	23
	2013	47	..	..	..	..	23
	2014	47	..	..	..	..	23
Singapore	2011	294	..	..	..	..	156
	2012	290	..	..	..	..	153
	2013	285	..	..	..	..	150
	2014	280	..	..	..	..	*148
Sri Lanka	2011	162,788	..	..	842	..	..
	2012	159,638	..	..	1,004	..	..
	2013	156,526	..	..	1,475	..	..
	2014	159,976	..	..	1,148	..	..
State of Palestine	2011	3,089	..	627	..	..	..
	2012	2,762	..	702	..	..	..
	2013	3,013	..	436	..	..	..
	2014	3,332	..	726	..	..	..
Syrian Arab Republic	2011	271	..	..	..	..	30
	2012	275	..	..	..	..	30
	2013	280	..	..	..	..	30
	2014	285	..	..	..	..	30
Tajikistan	2011	822	..	..	..	..	..
	2012	822	..	..	..	..	..
	2013	822	..	..	..	..	..
	2014	822	..	..	..	..	..
Thailand	2011	501,003	..	169,115	186,482	8,030	128,650
	2012	503,666	..	188,938	221,809	8,922	130,243
	2013	518,371	..	187,957	238,965	11,997	134,166
	2014	537,420	..	208,908	278,054	12,438	127,027
Timor-Leste	2011	1,052	..	..	..	..	..
	2012	1,009	..	..	..	..	..
	2013	1,009	..	..	..	..	..
	2014	1,009	..	..	..	..	..
Turkey	2011	102,418	..	45,692	..	..	..
	2012	98,396	..	46,696	..	..	..
	2013	93,848	..	44,128	..	..	..
	2014	90,519	..	41,459	..	..	..
Turkmenistan	2011	91	..	..	..	..	..
	2012	91	..	..	..	..	..
	2013	*91	..	..	..	..	..
	2014	*91	..	..	..	..	..
Uzbekistan	2011	210	..	..	..	..	..
	2012	238	..	..	..	..	..
	2013	238	..	..	..	..	..
	2014	238	..	..	..	..	..
Viet Nam	2011	622,311	..	..	26,545	..	17,376
	2012	628,921	..	..	35,687	..	17,553
	2013	635,552	..	..	39,186	..	17,730
	2014	642,253	..	..	40,053	..	17,936



Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	540,592
..	..	..	..	..	553,292
..	..	..	..	..	566,903
..	..	..	..	..	594,008
..	1,095	105	4,035	..	162,585
..	926	1,286	4,453	..	236,862
..	1,499	2,316	4,939	..	244,542
..	1,639	4,355	5,295	..	249,874
..	..	..	..	..	46
..	..	..	..	..	46
..	..	..	..	..	47
..	..	..	..	..	47
..	25,263	..	..	..	25,557
..	26,008	..	..	..	26,298
..	26,917	..	..	..	27,202
..	27,063	..	..	..	27,344
..	..	..	..	..	163,629
..	..	..	..	..	160,642
..	..	..	..	..	158,001
..	..	..	..	..	161,123
..	..	..	..	..	3,716
..	..	..	..	..	3,463
..	..	..	..	..	3,448
..	..	..	..	..	4,058
..	..	..	..	..	271
..	..	..	..	..	275
..	..	..	..	..	280
..	..	..	..	..	285
..	..	..	..	..	822
..	..	..	..	..	822
..	..	..	..	..	822
..	..	..	..	..	822
..	211	10,854	19,798	24,509	920,002
..	4,479	13,909	28,373	23,030	993,126
..	4,183	20,395	32,862	28,312	1,043,042
..	5,071	22,512	37,131	28,186	1,129,720
..	..	..	..	..	1,052
..	..	..	..	..	1,009
..	..	..	..	..	1,009
..	..	..	..	..	1,009
1,499	..	214	442	3,037	153,302
1,567	..	214	662	5,387	152,923
1,215	..	965	810	8,511	149,476
1,403	..	1,474	1,325	9,741	145,921
..	..	..	..	..	91
..	..	..	..	..	91
..	..	..	..	..	*91
..	..	..	..	..	*91
..	..	..	..	..	210
..	..	..	..	..	238
..	..	..	..	..	238
..	..	..	..	..	238
..	..	..	..	..	648,856
..	..	..	..	..	664,608
..	..	..	..	..	674,738
..	..	..	..	..	682,306

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Yemen	2011	4,413	..	..	..	..	2,095
	2012	4,531	..	..	..	..	2,154
	2013	4,649	..	..	..	..	2,213
	2014	4,768	..	..	..	..	2,272
Europe	2011	<b>2,979,537</b>	<b>7,398</b>	<b>317,062</b>	<b>13,478</b>	<b>492,743</b>	<b>8,948</b>
	2012	<b>3,286,216</b>	<b>7,183</b>	<b>306,457</b>	<b>13,218</b>	<b>478,454</b>	<b>8,596</b>
	2013	<b>3,312,759</b>	<b>9,391</b>	<b>299,798</b>	<b>13,645</b>	<b>494,971</b>	<b>9,116</b>
	2014	<b>3,264,644</b>	<b>11,090</b>	<b>288,419</b>	<b>12,591</b>	<b>496,756</b>	<b>13,445</b>
Albania	2011	8,706	..	..	..	..	..
	2012	8,642	..	..	..	..	..
	2013	8,433	..	..	..	..	..
	2014	8,161	..	..	..	..	..
Andorra	2011	..	..	..	..	..	..
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..
Austria	2011	149,023	..	9,592	..	27,320	30
	2012	159,802	..	9,742	..	27,689	30
	2013	157,289	..	8,326	..	30,088	30
	2014	144,124	..	8,806	..	30,329	30
Belarus	2011	60,145	..	3,240	..	..	118
	2012	61,644	..	3,256	..	..	118
	2013	59,946	..	3,071	..	..	118
	2014	55,795	..	3,790	..	..	89
Belgium	2011	35,654	..	18,483	..	1,470	..
	2012	51,678	263	5,838	..	1,400	..
	2013	53,947	133	3,150	..	1,735	..
	2014	38,570	97	5,826	..	1,733	..
Bosnia and Herzegovina	2011	6,614	..	..	..	..	561
	2012	6,458	..	..	..	..	561
	2013	*6,458	..	..	..	..	679
	2014	72,578	..	..	..	..	2,596
Bulgaria	2011	37,269	..	234	..	5,653	472
	2012	41,388	..	772	..	4,265	118
	2013	40,906	..	850	..	5,235	148
	2014	40,501	..	0	..	4,987	177
Croatia	2011	58,983	..	34	..	..	118
	2012	60,238	..	21	..	..	148
	2013	61,312	..	12	..	..	177
	2014	57,543	..	12	..	..	236
Czechia	2011	69,603	..	5,076	..	12,395	..
	2012	72,181	..	5,208	..	12,749	..
	2013	77,009	..	7,015	..	*11,961	..
	2014	*77,291	..	6,717	..	*12,331	..
Denmark	2011	42,104	..	21,004	..	..	..
	2012	40,830	..	19,241	..	..	..
	2013	38,795	..	21,125	..	..	..
	2014	35,481	..	19,134	..	..	..
Estonia	2011	29,553	..	8,701	..	1,059	..
	2012	32,115	..	9,220	..	1,056	..
	2013	35,807	..	7,471	..	1,408	..
	2014	38,208	..	7,398	..	1,374	..
Finland	2011	183,839	292	737	..	135,109	..
	2012	194,673	271	702	..	135,768	..
	2013	196,762	256	535	..	140,701	..
	2014	194,944	197	680	..	141,905	..

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	4,413
..	..	..	..	..	4,531
..	..	..	..	..	4,649
..	..	..	..	..	4,768
<b>338,369</b>	<b>728,497</b>	<b>87,063</b>	<b>356,316</b>	<b>441,381</b>	<b>5,761,845</b>
<b>344,785</b>	<b>750,282</b>	<b>100,331</b>	<b>376,828</b>	<b>516,080</b>	<b>6,179,833</b>
<b>338,104</b>	<b>783,442</b>	<b>120,342</b>	<b>402,518</b>	<b>589,584</b>	<b>6,364,555</b>
<b>349,068</b>	<b>804,581</b>	<b>108,188</b>	<b>463,698</b>	<b>630,928</b>	<b>6,429,964</b>
..	..	..	..	..	8,706
..	..	..	..	..	8,642
..	..	..	..	..	8,433
..	..	..	..	..	8,161
..	*211	..	..	..	*211
..	*211	..	..	..	*211
..	*232	..	..	..	*232
..	*241	..	..	..	*241
22,405	15,468	2,173	8,795	7,087	241,863
19,728	15,554	2,975	7,654	8,640	251,784
18,048	15,722	2,680	6,514	8,233	246,900
18,773	18,090	5,575	9,642	12,235	247,574
1,288	..	..	1,141	128	65,942
1,135	..	..	1,214	182	67,431
1,037	..	..	957	381	65,392
1,156	..	..	1,030	373	62,144
13,505	38,110	6,534	10,414	5,372	129,542
14,575	29,194	7,252	10,893	6,601	127,694
13,794	28,700	7,171	10,746	7,913	127,288
13,526	28,860	6,942	13,763	8,639	117,957
..	..	..	..	..	6,614
..	..	..	..	..	6,458
..	..	..	..	..	*6,458
..	..	..	..	..	72,578
345	414	0	589	139	44,643
276	871	0	294	5	47,871
322	644	322	1,582	93	49,954
951	272	563	2,208	435	49,917
179	..	..	294	290	59,780
341	..	..	1,435	479	62,514
366	..	..	1,214	693	63,597
425	..	..	1,288	1,096	60,364
6,961	5,574	1,447	7,728	10,460	119,244
7,073	5,840	2,734	6,366	15,698	127,849
6,721	5,786	2,787	6,698	23,910	141,887
8,170	5,755	2,787	8,059	25,457	*146,567
..	38,427	575	2,907	4,107	109,125
..	37,344	685	..	4,399	102,499
..	37,466	603	..	4,604	102,593
..	37,898	521	..	5,143	98,177
..	..	..	..	137	39,450
..	..	..	..	122	42,513
..	4,411	..	..	302	49,399
..	2,851	..	..	403	50,234
1,805	10,088	597	7,176	2,221	341,864
2,741	13,039	786	9,090	2,425	359,495
2,120	15,933	1,384	11,261	3,725	372,677
2,219	17,949	1,413	12,586	4,173	376,066

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
France	2011	299,575	87	8,058	73	54,070	*1,475
	2012	346,541	97	10,980	0	33,188	*1,328
	2013	386,587	97	13,223	0	34,821	1,328
	2014	334,586	82	10,415	0	34,821	*1,180
Germany	2011	411,791	..	..	..	33,230	59
	2012	425,016	..	..	..	32,642	59
	2013	417,169	..	5,614	..	33,674	59
	2014	436,947	..	5,905	..	35,478	59
Greece	2011	28,014	..	11,330	..	..	59
	2012	32,894	..	8,985	..	..	30
	2013	28,171	..	5,985	..	..	59
	2014	29,663	..	6,633	..	..	30
Hungary	2011	46,022	..	13,525	..	299	0
	2012	44,060	106	13,525	..	290	0
	2013	45,497	230	13,796	..	82	0
	2014	45,842	87	12,474	..	330	0
Iceland	2011	..	..	..	..	..	..
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..
Ireland	2011	6,241	1,397	..	..	..	..
	2012	6,851	623	..	..	..	..
	2013	7,046	628	..	..	..	..
	2014	7,386	1,423	..	..	..	..
Isle of Man	2011	..	..	..	..	..	..
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..
Italy	2011	190,913	..	9,087	..	..	295
	2012	294,361	..	9,136	..	..	295
	2013	303,913	..	7,918	..	..	295
	2014	264,871	..	8,921	..	..	295
Jersey	2011	..	..	..	..	..	..
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..
Latvia	2011	86,207	..	43	..	..	295
	2012	89,779	..	38	..	..	325
	2013	81,950	..	58	..	..	295
	2014	94,319	..	99	..	..	384
Liechtenstein	2011	*199	..	..	..	..	..
	2012	*203	..	..	..	..	..
	2013	172	..	..	..	..	..
	2014	*166	..	..	..	..	..
Lithuania	2011	40,955	..	212	..	..	30
	2012	41,291	..	242	..	..	30
	2013	43,355	..	238	..	..	30
	2014	46,749	..	457	..	..	30
Luxembourg	2011	1,533	..	275	..	..	..
	2012	1,561	..	269	..	..	..
	2013	1,752	..	265	..	..	..
	2014	2,513	..	243	..	..	..
Malta	2011	..	..	..	..	..	..
	2012	..	..	..	..	..	..
	2013	..	..	..	..	..	..
	2014	..	..	..	..	..	..

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	94,960	17,902	67,786	14,878	557,389
..	104,926	17,554	81,438	16,511	611,235
2,149	98,982	21,065	80,187	18,279	655,390
3,058	97,804	20,636	86,848	18,442	606,692
61,520	201,342	23,390	113,418	216,897	1,061,588
59,464	217,346	25,109	100,611	268,856	1,129,045
49,437	245,060	21,481	107,125	287,845	1,167,405
52,968	254,310	23,878	123,354	311,259	1,244,099
1,175	..	..	3,974	3,048	47,541
625	..	..	5,042	3,710	51,256
883	..	..	5,594	3,704	44,337
868	..	..	5,741	3,640	46,545
2,187	3,484	643	5,851	2,540	74,551
1,804	3,766	6,432	5,299	2,212	77,494
1,680	3,475	7,584	5,152	3,215	80,711
2,250	3,533	7,906	4,894	3,181	80,497
..	0	..	..	48	48
..	0	..	..	73	73
..	0	..	..	71	71
..	0	..	..	101	101
..	1,039	..	994	2,411	12,082
13	3,680	..	994	2,341	14,502
4	4,455	..	920	2,018	15,071
..	4,799	..	994	2,187	16,789
..	*429	..	..	..	*429
..	*436	..	..	..	*436
..	*440	..	..	..	*440
..	*440	..	..	..	*440
12,232	70,588	3,298	21,749	46,218	354,085
13,626	67,560	3,686	10,562	49,352	448,282
12,994	69,302	4,485	16,891	76,013	491,516
12,532	71,882	3,178	21,344	82,105	464,833
..	679	..	..	..	679
..	*686	..	..	..	*686
..	*950	..	..	..	*950
..	*700	..	..	..	*700
84	69	54	2,208	920	89,585
84	51	54	3,312	2,175	95,492
84	85	80	2,429	2,695	87,381
168	171	0	2,760	3,136	100,653
..	315	..	..	..	513
..	328	..	..	..	531
..	356	..	..	..	529
..	378	..	..	..	544
..	..	482	2,944	463	45,056
..	..	563	3,938	484	46,517
155	943	616	4,306	649	50,262
258	970	268	4,416	876	53,994
576	1,225	..	..	511	4,120
603	1,203	..	..	658	4,294
641	1,185	..	..	653	4,496
640	1,146	..	..	701	5,243
..	..	..	37	59	96
..	..	..	37	93	130
..	..	..	37	59	96
..	..	..	37	65	102

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Montenegro	2011	7,637	..	..	..	..	*15
	2012	7,701	..	..	..	..	*15
	2013	7,281	..	..	..	..	*15
	2014	7,281	..	..	..	..	*20
Netherlands	2011	30,730	..	10,947	..	..	177
	2012	34,388	..	11,448	..	..	177
	2013	34,153	..	12,466	..	..	177
	2014	40,875	..	13,139	..	..	..
Norway	2011	49,408	..	..	..	..	..
	2012	48,183	..	..	..	..	..
	2013	44,138	..	..	..	..	..
	2014	35,191	..	..	..	..	..
Poland	2011	192,687	..	73,201	..	..	..
	2012	201,106	..	91,456	..	..	..
	2013	211,876	..	74,367	..	..	..
	2014	201,369	..	57,354	..	..	..
Portugal	2011	41,217	..	41,472	..	36,761	614
	2012	44,191	..	23,808	..	38,563	561
	2013	43,687	..	27,424	..	41,266	590
	2014	44,604	..	26,779	..	40,995	590
Republic of Moldova	2011	7,829	..	858	..	..	0
	2012	9,007	..	455	..	..	0
	2013	10,231	..	490	..	..	30
	2014	12,953	..	888	..	..	30
Romania	2011	145,527	..	..	..	..	472
	2012	158,895	..	..	..	..	528
	2013	153,097	..	..	..	..	628
	2014	152,640	..	..	..	..	487
Russian Federation	2011	126,651	..	..	..	..	1,505
	2012	144,541	..	..	..	..	1,564
	2013	126,851	..	..	..	..	1,510
	2014	115,921	..	..	..	..	1,552
Serbia	2011	44,354	..	..	..	..	236
	2012	44,187	..	..	..	..	266
	2013	46,823	..	..	..	..	325
	2014	46,518	..	..	..	..	354
Slovakia	2011	14,255	..	3,842	..	14,714	118
	2012	17,202	..	861	..	15,465	118
	2013	15,140	..	1,425	..	15,615	0
	2014	15,618	..	1,737	..	14,443	0
Slovenia	2011	25,422	..	328	..	..	..
	2012	24,799	..	290	..	..	..
	2013	26,033	..	269	..	..	..
	2014	23,178	..	263	..	..	..
Spain	2011	144,456	365	31,642	13,405	17,358	1,062
	2012	146,908	549	32,756	13,218	19,890	1,062
	2013	148,981	567	34,189	13,645	20,532	1,062
	2014	156,406	560	26,234	12,591	20,275	1,062
Sweden	2011	220,726	..	..	..	*153,305	..
	2012	244,757	153	..	..	155,489	..
	2013	227,662	149	..	..	157,853	..
	2014	215,728	110	..	..	157,755	..
Switzerland	2011	34,960	..	..	..	..	..
	2012	39,500	..	..	..	..	..
	2013	42,460	..	..	..	..	..
	2014	37,020	..	..	..	..	..

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	7,637
..	..	..	..	..	7,701
..	..	..	..	..	7,281
..	..	..	..	..	7,281
..	67,939	110	18,069	11,968	139,762
..	63,855	0	43,314	12,165	165,170
..	60,809	11,095	50,600	12,777	181,900
..	61,576	..	63,296	13,094	191,980
115	14,328	0	3,349	1,235	68,435
295	15,062	0	2,613	1,187	67,340
112	16,907	192	1,214	1,105	63,668
103	18,586	110	0	969	54,959
12,992	6,793	3,699	13,358	5,732	308,462
13,250	5,672	4,636	22,264	7,033	345,417
14,761	5,612	5,119	23,626	7,593	342,953
16,993	6,099	3,832	27,195	8,671	321,514
2,101	8,245	137	13,469	1,883	145,285
2,424	7,197	137	11,187	2,383	129,890
1,963	8,097	301	11,003	2,763	136,505
2,680	6,845	466	11,923	3,432	137,724
180	..	0	..	0	8,867
374	..	27	..	0	9,864
130	..	274	..	36	11,161
207	..	0	..	178	14,226
1,200	0	1,447	3,938	547	152,659
1,131	4	1,769	3,717	1,143	166,659
1,695	14	1,099	5,042	822	161,768
2,738	189	322	4,048	810	160,747
170,277	..	..	..	..	296,928
177,809	..	..	..	..	322,350
177,615	..	..	..	..	304,466
179,858	..	..	..	..	295,779
288	..	..	..	..	44,642
50	..	..	..	39	44,276
38	..	..	..	184	47,045
34	..	..	..	215	46,767
750	1,416	2,814	4,600	1,918	44,309
1,175	1,407	2,734	4,048	2,594	45,486
5,165	1,099	2,787	3,864	2,300	47,395
5,072	1,720	2,841	3,717	4,025	49,173
1,228	..	..	0	1,506	28,484
1,333	..	..	37	1,597	28,056
1,453	..	..	74	1,454	29,283
1,809	..	..	..	1,290	26,540
..	16,332	9,862	24,987	11,520	269,928
..	14,710	8,120	18,253	12,177	266,581
..	16,724	9,702	26,496	20,072	290,908
..	17,098	10,291	44,602	14,791	302,848
1,583	49,786	11,281	9,568	4,993	451,242
1,283	53,698	11,809	13,763	5,303	486,255
1,580	57,233	8,366	8,979	6,070	467,892
1,360	59,853	5,671	4,379	6,422	451,278
10,080	45,410	0	221	3,421	94,092
10,260	46,060	0	258	3,745	99,823
10,500	44,220	0	184	4,087	101,451
11,830	45,050	..	184	4,354	98,438

Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
T.F.Yug.Rep. Macedonia	2011	7,786	..	..	..	..	..
	2012	7,445	..	..	..	..	..
	2013	6,606	..	93	..	..	..
	2014	6,502	..	108	..	..	..
Ukraine	2011	54,381	..	..	..	..	1,239
	2012	52,234	..	..	..	..	1,269
	2013	58,254	..	..	..	..	1,564
	2014	71,938	..	..	..	..	4,248
United Kingdom	2011	38,570	5,257	45,141	..	..	..
	2012	48,966	5,121	48,208	..	..	..
	2013	57,209	7,331	50,423	..	..	..
	2014	54,665	8,534	64,407	..	..	..
<b>Oceania</b>	<b>2011</b>	<b>132,943</b>	<b>..</b>	<b>8,315</b>	<b>124,304</b>	<b>22,449</b>	<b>358</b>
	<b>2012</b>	<b>130,481</b>	<b>..</b>	<b>8,379</b>	<b>126,500</b>	<b>21,737</b>	<b>360</b>
	<b>2013</b>	<b>129,346</b>	<b>..</b>	<b>8,765</b>	<b>138,335</b>	<b>20,946</b>	<b>374</b>
	<b>2014</b>	<b>133,256</b>	<b>..</b>	<b>8,910</b>	<b>132,164</b>	<b>21,991</b>	<b>380</b>
Australia	2011	31,848	..	380	118,678	22,449	..
	2012	29,677	..	417	121,740	21,737	..
	2013	30,797	..	708	132,171	20,946	..
	2014	34,467	..	828	125,219	21,991	..
Fiji	2011	338	..	..	4,629	..	71
	2012	338	..	..	3,762	..	71
	2013	338	..	..	5,297	..	71
	2014	338	..	..	6,001	..	71
French Polynesia	2011	41	..	..	..	..	15
	2012	41	..	..	..	..	15
	2013	41	..	..	..	..	15
	2014	42	..	..	..	..	15
Kiribati	2011	27	..	..	..	..	10
	2012	28	..	..	..	..	11
	2013	28	..	..	..	..	11
	2014	29	..	..	..	..	11
Micronesia (Fed. States of)	2011	23	..	..	..	..	10
	2012	23	..	..	..	..	10
	2013	23	..	..	..	..	11
	2014	23	..	..	..	..	11
New Zealand	2011	47,450	..	..	..	..	..
	2012	47,149	..	..	..	..	..
	2013	44,884	..	..	..	..	..
	2014	45,113	..	..	..	..	..
Niue	2011	1	..	..	..	..	0
	2012	1	..	..	..	..	0
	2013	1	..	..	..	..	0
	2014	1	..	..	..	..	0
Papua New Guinea	2011	50,544	..	*5,263	934	..	177
	2012	50,544	..	*5,263	934	..	177
	2013	50,544	..	*5,263	803	..	188
	2014	50,544	..	*5,263	880	..	192
Samoa	2011	639	..	*652	*63	..	14
	2012	639	..	*679	*64	..	14
	2013	639	..	*774	*64	..	14
	2014	*639	..	*796	*64	..	15
Solomon Islands	2011	1,182	..	*2,020	..	..	38
	2012	1,191	..	*2,020	..	..	39
	2013	1,200	..	*2,020	..	..	40
	2014	1,209	..	*2,023	..	..	41



Table 12

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	166	7,952
..	..	..	..	33	7,478
..	..	..	..	0	6,699
..	..	..	..	128	6,739
..	..	..	..	..	54,381
..	..	..	..	..	52,234
..	..	..	..	..	58,254
..	..	..	..	..	71,938
13,313	35,827	616	6,587	78,724	224,036
13,313	40,582	3,270	9,163	81,698	250,321
12,657	38,600	11,149	9,826	85,266	272,460
8,422	39,516	10,988	5,262	89,030	280,824
<b>4,193</b>	..	<b>6,325</b>	<b>3,275</b>	<b>16,410</b>	<b>318,214</b>
<b>4,029</b>	..	<b>6,112</b>	<b>2,870</b>	<b>17,757</b>	<b>317,864</b>
<b>4,022</b>	..	<b>6,675</b>	<b>3,054</b>	<b>16,879</b>	<b>328,023</b>
<b>4,298</b>	..	<b>5,978</b>	<b>3,974</b>	<b>19,268</b>	<b>329,839</b>
4,193	..	6,191	3,202	13,438	200,378
4,029	..	5,950	2,834	14,851	201,234
4,022	..	6,486	3,054	13,992	212,176
4,298	..	5,816	3,938	16,366	212,922
..	..	..	..	..	4,967
..	..	..	..	..	4,100
..	..	..	..	..	5,635
..	..	..	..	..	6,339
..	..	..	..	..	41
..	..	..	..	..	41
..	..	..	..	..	41
..	..	..	..	..	42
..	..	..	..	..	27
..	..	..	..	..	28
..	..	..	..	..	28
..	..	..	..	..	29
..	..	..	..	..	23
..	..	..	..	..	23
..	..	..	..	..	23
..	..	..	..	..	23
..	..	107	74	2,972	50,603
..	..	107	37	2,906	50,199
..	..	107	0	2,887	47,878
..	..	80	37	2,902	48,132
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	..	1
..	..	..	..	..	56,741
..	..	..	..	..	56,741
..	..	..	..	..	56,610
..	..	..	..	..	56,687
..	..	..	..	..	*1,354
..	..	..	..	..	*1,382
..	..	..	..	..	*1,477
..	..	..	..	..	*1,499
..	..	..	..	..	*3,202
..	..	..	..	..	*3,211
..	..	..	..	..	*3,220
..	..	..	..	..	*3,232

**Table 12****Production of biofuels and wastes**

Terajoules (TJ)

Country or area	Year	Solid biofuels					
		Fuelwood	Animal waste	Vegetal waste	Bagasse	Black liquor	Charcoal
Tonga	2011	19	..	..	..	..	7
	2012	19	..	..	..	..	7
	2013	19	..	..	..	..	7
	2014	19	..	..	..	..	7
Vanuatu	2011	831	..	..	..	..	16
	2012	831	..	..	..	..	16
	2013	831	..	..	..	..	17
	2014	831	..	..	..	..	17

## Production of biofuels and wastes

Terajoules (TJ)

Non-biomass wastes		Liquid biofuels		Biogases	Total
Industrial waste	Municipal waste	Biogasoline	Biodiesel		
..	..	..	..	..	19
..	..	..	..	..	19
..	..	..	..	..	19
..	..	..	..	..	19
..	..		*27	..	859
..	..		*55	..	886
..	..		*82	..	913
..	..		*82	..	913