

# World Air Conditioner Demand by Region

April 2016

**JRAIA** 一般社団法人  
**日本冷凍空調工業会**

The Japan Refrigeration and Air Conditioning Industry Association

## World Air Conditioner Demand by Region

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The Japan Refrigeration and Air Conditioning Industry Association

The Japan Refrigeration and Air Conditioning Industry Association (JRAIA) has just summarized the estimated results of 2015 air conditioner (AC) demand in the main countries around the world. These estimates are performed by the JRAIA's Air Conditioning Global Committee every year and were collected this time for AC demand in the main countries during the past six years from 2010 to 2015.

Note: The AC demand summarized in this document stands for the total AC demand for houses, buildings, and other structures comprising demand of "Room Air Conditioners (RAC)," including window type and small-sized split type ACs as well as "Packaged Air Conditioners (PAC)." Breakdown for RAC demand is given only from 2013 to 2015.

### 1. Overview

#### 1) Overall AC Demand

The 2015 world AC demand is estimated to reach 92.46 million units with a 3.9% decrease compared with the previous year. When dividing the 2015 AC demand into the main markets of Japan, China, Asian countries other than Japan and China, Europe, North America, and other countries, the largest market is China, whose demand reached 32.33 million units with a 7.5% decrease. Chinese demand occupies 34.9% of the total world demand. The second largest market is Asia, excluding Japan and China, whose demand reached 15.15 million units with a 4.2% increase. The third largest market is North America, whose demand reached 14.35 million units with a 0.8% decrease.

Japan reached 8.90 million units with a 4.7% decrease, followed by Latin America with 7.32 million units and a 10.9% decrease, and Europe with 5.41 million units and a 3.7% decrease.

#### 2) "Room Air Conditioners (RAC)"

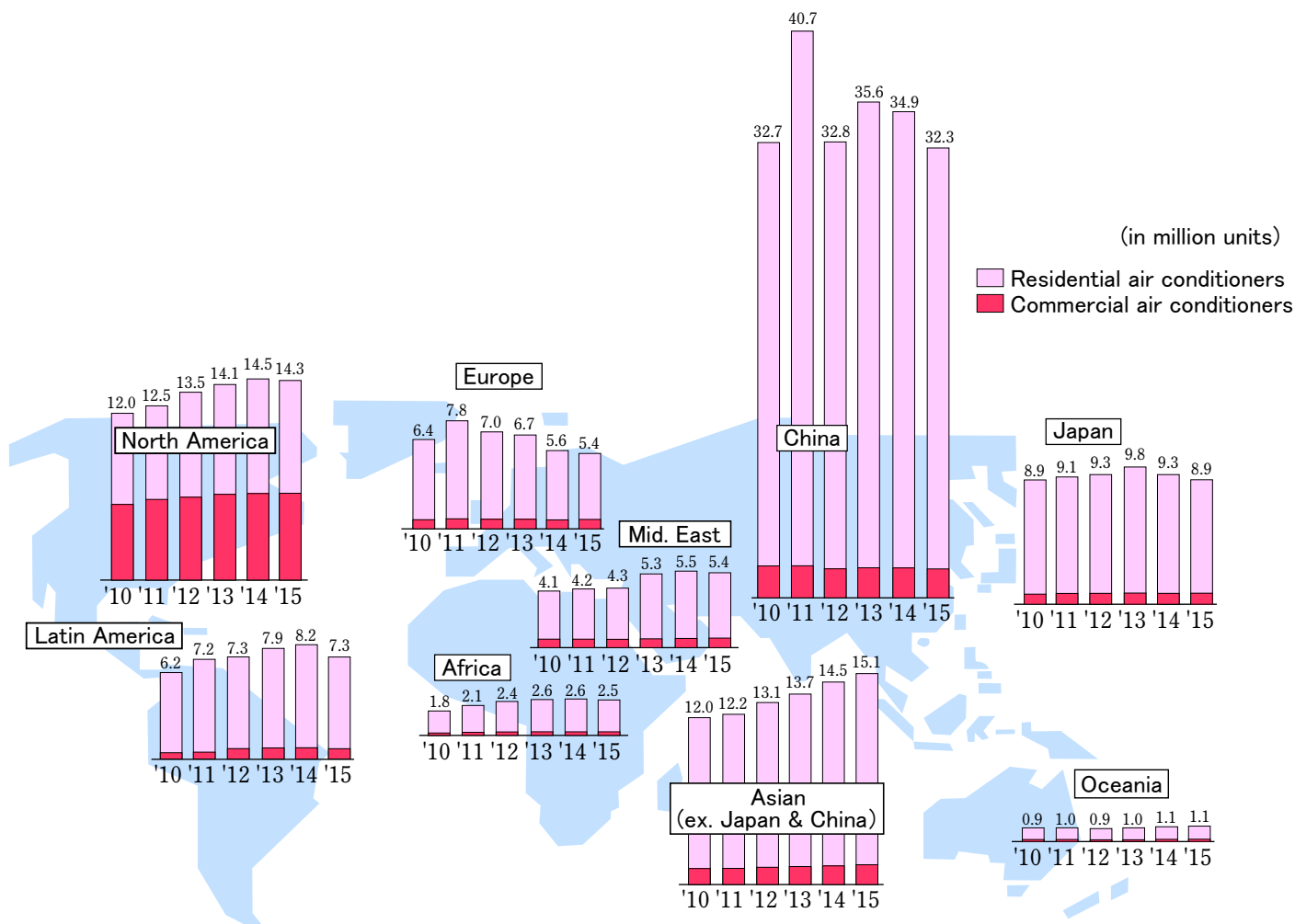
The 2015 world RAC demand is estimated to reach 79.39 million units with a 4.5% decrease compared with the previous year. The largest market is China, whose demand reached 30.25 million units with a 7.7% decrease. The second largest market is Asia, excluding Japan and China, whose demand reached 13.72 million units with a 4.0% increase. The third largest market is North America, whose demand reached 8.11 million units with a 1.6% decrease.

Japan reached 8.10 million units with a 4.7% decrease, followed by Latin America with 6.58 million units and a 10.9% decrease, and Europe with 4.73 million units and a 4.9% decrease.

### 3) “Packaged Air Conditioners (PAC)”

The 2015 world PAC demand is estimated to reach 13.07 million units with a 0.02% decrease compared with the previous year. The largest market is North America, whose demand reached 6.24 million units with a 0.3% increase. The second largest market is China, whose demand reached 2.08 million units with a 3.4% decrease. The third largest market is Asia, excluding the countries of Japan and China, whose demand reached 1.42 million units with a 5.9% increase. Japan reached 0.80 million units with a 4.9% decrease, followed by Europe with 0.68 million units and a 5.4% increase, and the Middle East with 0.69 million units and a 4.1% increase.

Note: The graph shows RAC and PAC demand by region from 2010 to 2015.



2. Target and Method to Survey

1) Scope and Division of Products

The targeted ACs are used for houses, buildings, and other structures, and completed units including heat pump types for both cooling and heating. Portable type ACs and fan coil units used for hydronic system are excluded.

RAC demand consists of window type and small-sized split type ACs as well as residential-use multi systems.

PAC demand consists of commercial-use medium/large-sized split type ACs, remote condenser type ACs, single packaged ACs, and VRF systems, including unitary type ACs and unitary type heat pumps that are mainstream in North America.

2) Method to Survey

The JRAIA has collected and compiled the JRAIA market demand survey format reported by the member companies of the JRAIA's Air Conditioning Global Committee, and projected the estimated demand in each major market.

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- \* "Asia in total": AC demand in Asia, excluding countries of Japan and China.
  - \* Period: from January to December in the calendar year
  - \* The AC demand in 2014 has been revised and adjusted as necessary.
  - \* From 2012 onward, estimated demand of VRF systems has been listed to be included in PAC demand.
- The VRF demand in each country is shown only if country demand exceeds 3,000 units. The same is listed in Japan for the fiscal year from April to March.

## (1) Overall AC demand

(in thousands)

	2010	2011	2012	2013	2014	2015
<b>World total</b>	<b>85,002</b>	<b>96,791</b>	<b>90,514</b>	<b>96,691</b>	<b>96,240</b>	<b>92,461</b>
Japan	8,931	9,057	9,271	9,817	9,336	8,899
Overseas	76,071	87,734	81,243	86,874	86,904	83,562
China	32,719	40,729	32,764	35,632	34,938	32,328
Asian countries	12,005	12,217	13,065	13,672	14,538	15,146
India	3,506	3,547	3,500	3,633	3,862	4,063
Indonesia	1,532	1,638	2,030	2,246	2,286	2,202
Vietnam	702	659	917	998	1,229	1,607
Thailand	1,034	933	1,112	1,163	1,315	1,388
South Korea	1,177	1,227	1,190	1,236	1,236	1,253
Taiwan	878	922	987	952	1,014	1,014
Malaysia	829	816	871	902	898	878
Philippines	502	561	611	664	687	717
Pakistan	677	724	623	613	672	675
Hong Kong incl. Macao	575	551	538	539	538	531
Bangladesh	131	147	164	156	170	183
Myanmar	61	70	80	123	180	181
Singapore	158	162	163	163	162	158
Cambodia	65	69	77	81	85	90
Sri Lanka	55	68	79	80	81	84
Others	123	123	123	123	123	123
the Middle East	4,054	4,246	4,279	5,300	5,501	5,384
Saudi Arabia	1,417	1,581	1,666	2,226	2,238	2,164
UAE	577	497	493	713	737	763
Iran	497	462	447	452	562	589
Israel	317	524	516	495	495	517
Oman	246	248	217	297	321	320
Qatar	177	189	179	275	284	286
Kuwait	125	144	147	214	217	225
Iraq	276	274	296	315	320	193
Bahrain	77	77	82	82	78	77
Lebanon	76	69	68	69	77	76
Others	269	181	168	162	173	174
Europe	6,400	7,760	6,961	6,739	5,619	5,411
Russia	1,442	2,625	2,000	1,891	1,442	926
Italy	1,037	1,035	919	958	772	870
Turkey	717	977	1,107	1,027	776	787
Spain	731	643	516	510	477	644
France	419	400	355	362	348	408
Greece	279	240	278	229	180	186
Ukraine	380	415	366	339	233	184
UK	150	161	154	153	167	169
Germany	113	126	127	129	128	138
Romania	81	92	106	101	87	93
Bulgaria	86	104	113	95	88	92
Poland	74	73	70	69	77	82
Portugal	132	110	69	66	65	67
Norway	73	72	66	61	56	57
Sweden	65	66	55	53	57	55
Netherlands	53	53	48	49	51	51
Others	568	568	612	647	615	602
North America	11,989	12,525	13,505	14,060	14,461	14,348
USA	11,608	12,126	13,097	13,662	14,061	13,916
Canada	381	399	408	398	400	431
Latin America	6,203	7,157	7,333	7,943	8,202	7,324
Brazil	3,448	3,492	3,514	4,212	4,451	3,729
Argentina	1,092	1,331	1,352	1,302	1,299	1,195
Mexico	662	889	1,021	1,034	1,073	1,037
Venezuela	163	401	413	371	330	322
Colombia	114	167	176	187	210	235
Panama		159	169	170	161	161
Cuba	93	89	98	106	116	116
Peru		128	111	117	115	115
Puerto Rico	177	150	129	133	134	103
Ecuador	96	113	100	102	103	103
Chile	178	121	128	86	71	71
Jamaica					53	53
Others	180	117	122	123	86	83
Africa	1,757	2,130	2,417	2,555	2,595	2,526
Egypt	541	747	803	765	781	782
Nigeria	349	412	488	566	603	549
South Africa	220	203	215	221	232	225
Algeria	144	172	176	206	205	194
Libya	149	180	174	189	159	159
Morocco		122	131	132	135	135
Ghana			95	97	97	97
Tunisia					54	54
Others	354	294	335	379	329	329
Oceania	944	970	919	973	1,050	1,096
Australia	835	861	817	869	946	985
New Zealand	102	102	95	97	97	105
Others	7	7	7	7	7	6

## (2) Room Air Conditioners (RAC)

(in thousands)

	2010	2011	2012	2013	2014	2015
<b>World total</b>	<b>73,420</b>	<b>84,565</b>	<b>78,026</b>	<b>83,756</b>	<b>83,165</b>	<b>79,389</b>
Japan	8,242	8,279	8,487	9,013	8,500	8,104
Overseas	65,178	76,286	69,539	74,743	74,665	71,285
China	30,424	38,425	30,677	33,472	32,786	30,248
Asian countries	10,856	11,056	11,823	12,379	13,196	13,724
India	3,363	3,383	3,333	3,446	3,674	3,847
Indonesia	1,493	1,588	1,941	2,153	2,198	2,109
Vietnam	670	632	877	956	1,178	1,546
Thailand	957	855	1,028	1,072	1,203	1,268
South Korea	566	635	622	668	668	667
Taiwan	856	900	939	901	960	959
Malaysia	751	749	793	821	811	789
Philippines	467	515	563	608	628	651
Pakistan	654	697	593	583	640	644
Hong Kong incl. Macao	541	517	506	506	505	499
Bangladesh	116	135	150	142	152	164
Myanmar	56	65	74	117	174	174
Singapore	137	141	141	140	135	130
Cambodia	64	67	75	78	81	85
Sri Lanka	50	62	73	73	74	77
Others	115	115	115	115	115	115
the Middle East	3,474	3,639	3,681	4,667	4,843	4,699
Saudi Arabia	1,287	1,439	1,522	2,051	2,063	1,980
UAE	428	341	342	570	577	594
Iran	449	425	405	415	519	535
Israel	235	422	418	398	398	418
Oman	209	209	184	261	282	280
Qatar	147	158	148	241	252	250
Kuwait	90	102	103	163	166	173
Iraq	258	253	274	286	290	174
Bahrain	64	65	70	70	66	65
Lebanon	69	62	61	62	70	69
Others	238	163	154	150	160	161
Europe	5,741	7,037	6,269	6,048	4,974	4,731
Russia	1,381	2,523	1,884	1,771	1,349	861
Italy	983	977	872	915	731	821
Turkey	679	916	1,025	944	700	708
Spain	609	521	424	413	377	511
France	316	305	269	279	275	324
Greece	260	225	266	219	170	177
Ukraine	365	403	353	325	225	178
UK	70	76	73	73	84	80
Germany	75	83	84	84	85	92
Romania	76	87	101	96	80	85
Bulgaria	83	101	111	93	86	90
Poland	57	59	57	56	63	66
Portugal	118	97	60	59	58	60
Norway	70	69	63	59	54	55
Sweden	61	62	52	50	54	52
Netherlands	38	37	33	34	35	36
Others	500	496	542	578	548	535
North America	6,550	6,726	7,545	7,894	8,237	8,107
USA	6,419	6,580	7,400	7,754	8,092	7,958
Canada	131	146	145	140	145	149
Latin America	5,750	6,661	6,584	7,145	7,393	6,583
Brazil	3,195	3,243	3,147	3,809	4,028	3,349
Argentina	1,073	1,302	1,295	1,248	1,261	1,166
Mexico	597	809	850	847	882	847
Venezuela	151	377	388	349	311	303
Colombia	107	156	160	170	190	212
Panama		143	150	151	141	141
Cuba	92	88	96	104	114	114
Peru		111	94	99	97	97
Puerto Rico	136	106	83	83	82	64
Ecuador	94	108	95	97	98	98
Chile	166	113	117	78	66	66
Jamaica					43	43
Others	139	105	109	110	80	83
Africa	1,585	1,910	2,168	2,294	2,337	2,267
Egypt	489	675	733	696	717	718
Nigeria	324	386	458	533	567	517
South Africa	153	149	153	158	173	163
Algeria	141	160	165	192	191	180
Libya	147	177	171	186	156	156
Morocco		111	119	120	122	122
Ghana			82	84	84	84
Tunisia					44	44
Others	331	252	287	325	283	283
Oceania	798	832	792	844	899	926
Australia	708	741	706	756	811	830
New Zealand	84	85	80	82	82	90
Others	6	6	6	6	6	6

### (3) Breakdown for RAC demand

	2013年		2014年		2015年	
	Window-Type	Split-Type	Window-Type	Split-Type	Window-Type	Split-Type
<b>World total</b>	<b>14,193</b>	<b>69,563</b>	<b>14,384</b>	<b>68,781</b>	<b>13,879</b>	<b>65,510</b>
Japan		9,013		8,500		8,104
Overseas	14,193	60,550	14,384	60,281	13,879	57,406
China	348	33,124	325	32,461	303	29,945
Asian countries	1,897	10,482	1,846	11,350	1,840	11,884
India	747	2,699	703	2,971	705	3,142
Indonesia	14	2,139	9	2,189	9	2,100
Vietnam	3	953	2	1,176	2	1,544
Thailand	5	1,067	3	1,200	3	1,265
South Korea	12	656	12	656	11	656
Taiwan	215	686	216	744	205	754
Malaysia	4	817	5	806	5	784
Philippines	405	203	418	210	425	226
Pakistan	50	533	40	600	38	606
Hong Kong incl. Macao	318	188	312	193	312	187
Bangladesh	29	113	31	121	30	134
Myanmar	4	113	4	170	4	170
Singapore	5	135	5	130	5	125
Cambodia	1	77	1	80	1	84
Sri Lanka	25	48	25	49	25	52
Others	60	55	60	55	60	55
the Middle East	2,480	2,187	2,494	2,349	2,360	2,339
Saudi Arabia	1,385	666	1,385	678	1,300	680
UAE	330	240	320	257	320	274
Iran	218	197	196	323	192	343
Israel	10	388	10	388	10	408
Oman	154	107	164	118	158	122
Qatar	160	81	170	82	156	94
Kuwait	90	73	92	74	92	81
Iraq	63	223	83	207	59	115
Bahrain	31	39	31	35	30	35
Lebanon	1	61	1	69	1	68
Others	38	112	42	118	42	119
Europe	104	5,944	90	4,884	76	4,655
Russia	33	1,738	29	1,320	19	842
Italy	6	909	5	726	6	815
Turkey	0	944	0	700	0	708
Spain	9	404	6	371	5	506
France	5	274	4	271	4	320
Greece	0	219	0	170	0	177
Ukraine	7	318	4	221	4	174
UK	1	72	1	83	1	79
Germany	4	80	4	81	4	88
Romania	1	95	1	79	1	84
Bulgaria	1	92	1	85	1	89
Poland	1	55	1	62	1	65
Portugal	0	59	0	58	0	60
Norway	0	59	0	54	0	55
Sweden	0	50	0	54	0	52
Netherlands	0	34	0	35	0	36
Others	36	542	34	514	30	505
North America	7,372	522	7,647	590	7,400	707
USA	7,303	451	7,578	514	7,335	623
Canada	69	71	69	76	65	84
Latin America	1,568	5,577	1,564	5,829	1,483	5,100
Brazil	781	3,028	758	3,270	685	2,664
Argentina	124	1,124	118	1,143	116	1,050
Mexico	261	586	271	611	281	566
Venezuela	92	257	83	228	74	229
Colombia	46	124	48	142	48	164
Panama	24	127	30	111	30	111
Cuba	91	13	100	14	100	14
Peru	25	74	24	73	24	73
Puerto Rico	41	42	40	42	33	31
Ecuador	23	74	23	75	23	75
Chile	24	54	24	42	24	42
Jamaica			23	20	23	20
Others	36	74	22	58	22	61
Africa	351	1,943	347	1,990	352	1,915
Egypt	75	621	76	641	80	638
Nigeria	83	450	92	475	92	425
South Africa	25	133	25	148	26	137
Algeria	37	155	34	157	34	146
Libya	15	171	13	143	13	143
Morocco	3	117	3	119	3	119
Ghana	1	83	1	83	1	83
Tunisia			1	43	1	43
Others	112	213	102	181	102	181
Oceania	73	771	71	828	65	861
Australia	69	687	68	743	62	768
New Zealand	3	79	2	80	2	88
Others	1	5	1	5	1	5

#### (4) Packaged Air Conditioners (PAC)

(in thousands)

	2010	2011	2012	2012(VRF)	2013	2013(VRF)	2014	2014(VRF)	2015	2015(VRF)
<b>World total</b>	11,582	12,226	12,488	994	12,935	1,104	13,075	1,180	13,072	1,156
Japan	689	778	784	125	804	126	836	134	795	129
Overseas	10,893	11,448	11,704	869	12,131	978	12,239	1,046	12,277	1,027
China	2,295	2,304	2,087	500	2,160	597	2,152	653	2,080	611
Asian countries	1,149	1,161	1,242	174	1,293	171	1,342	181	1,422	195
India	143	164	167	26	187	22	188	25	216	30
Indonesia	39	50	89	6	93	7	88	9	93	7
Vietnam	32	27	40	5	42	6	51	8	61	10
Thailand	77	78	84	4	91	5	112	5	120	6
South Korea	611	592	568	101	568	100	568	100	586	103
Taiwan	22	22	48	8	51	8	54	9	55	10
Malaysia	78	67	78	5	81	5	87	5	89	6
Philippines	35	46	48	3	56	4	59	4	66	6
Pakistan	23	27	30		30		32		31	
Hong Kong incl. Macao	34	34	32	3	33	4	33	5	32	5
Bangladesh	15	12	14		14		18		19	
Myanmar	5	5	6		6		6		7	
Singapore	21	21	22	8	23	7	27	7	28	8
Cambodia	1	2	2		3		4		5	
Sri Lanka	5	6	6		7		7		7	
Others	8	8	8		8		8		8	
the Middle East	580	607	598	13	633	14	658	20	685	22
Saudi Arabia	130	142	144	3	175		175	3	184	3
UAE	149	156	151	3	143	3	160	4	169	5
Iran	48	37	42		37		43		54	3
Israel	82	102	98		97		97	4	99	4
Oman	37	39	33		36		39		40	
Qatar	30	31	31		34		32		36	
Kuwait	35	42	44		51		51		52	
Iraq	18	21	22		29		30		19	
Bahrain	13	12	12		12		12		12	
Lebanon	7	7	7		7		7		7	
Others	31	18	14		12		13		13	
Europe	659	723	692	124	691	128	645	123	680	126
Russia	61	102	116	12	120	13	93	11	65	7
Italy	54	58	47	13	43	12	41	12	49	14
Turkey	38	61	82	22	83	24	76	28	79	29
Spain	122	122	92	8	97	7	100	7	133	8
France	103	95	86	15	83	15	73	15	84	17
Greece	19	15	12		10		10		9	
Ukraine	15	12	13		14		8		6	
UK	80	85	81	15	80	15	83	17	89	18
Germany	38	43	43	10	45	10	43	11	46	11
Romania	5	5	5		5		7		8	
Bulgaria	3	3	2		2		2		2	
Poland	17	14	13		13	4	14	3	16	4
Portugal	14	13	9		7		7		7	
Norway	3	3	3		2		2		2	
Sweden	4	4	3		3		3		3	
Netherlands	15	16	15		15		16		15	
Others	68	72	70	18	69	18	67	11	67	11
North America	5,439	5,799	5,960	26	6,166	31	6,224	30	6,241	34
USA	5,189	5,546	5,697	22	5,908	27	5,969	27	5,958	30
Canada	250	253	263	3	258	4	255	3	282	3
Latin America	453	496	749	17	798	21	809	22	741	22
Brazil	253	249	367	8	403	12	423	13	380	12
Argentina	19	29	57		54		38		29	
Mexico	65	80	171	3	187	3	191	3	190	4
Venezuela	12	24	25		22		19		19	
Colombia	7	11	16		17		20		23	
Panama		16	19		19		20		20	
Cuba	1	1	2		2		2		2	
Peru		17	17		18		18		18	
Puerto Rico	41	44	46		50		52		39	
Ecuador	2	5	5		5		5		5	
Chile	12	8	11		8		5		5	
Jamaica							10		10	
Others	41	12	13		13		6		0	
Africa	172	220	249	5	261	5	258	5	259	5
Egypt	52	72	70		69		64		64	
Nigeria	25	26	30		33		36		32	
South Africa	67	54	62	3	63	3	59	3	62	3
Algeria	3	12	11		14		14		14	
Libya	2	3	3		3		3		3	
Morocco		11	12		12		13		13	
Ghana			13		13		13		13	
Tunisia							10		10	
Others	23	42	48		54		46		46	
Oceania	146	138	127	11	129	11	151	12	170	12
Australia	127	120	111	10	113	10	135	11	155	11
New Zealand	18	17	15		15		15		15	
Others	1	1	1		1		1		0	



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